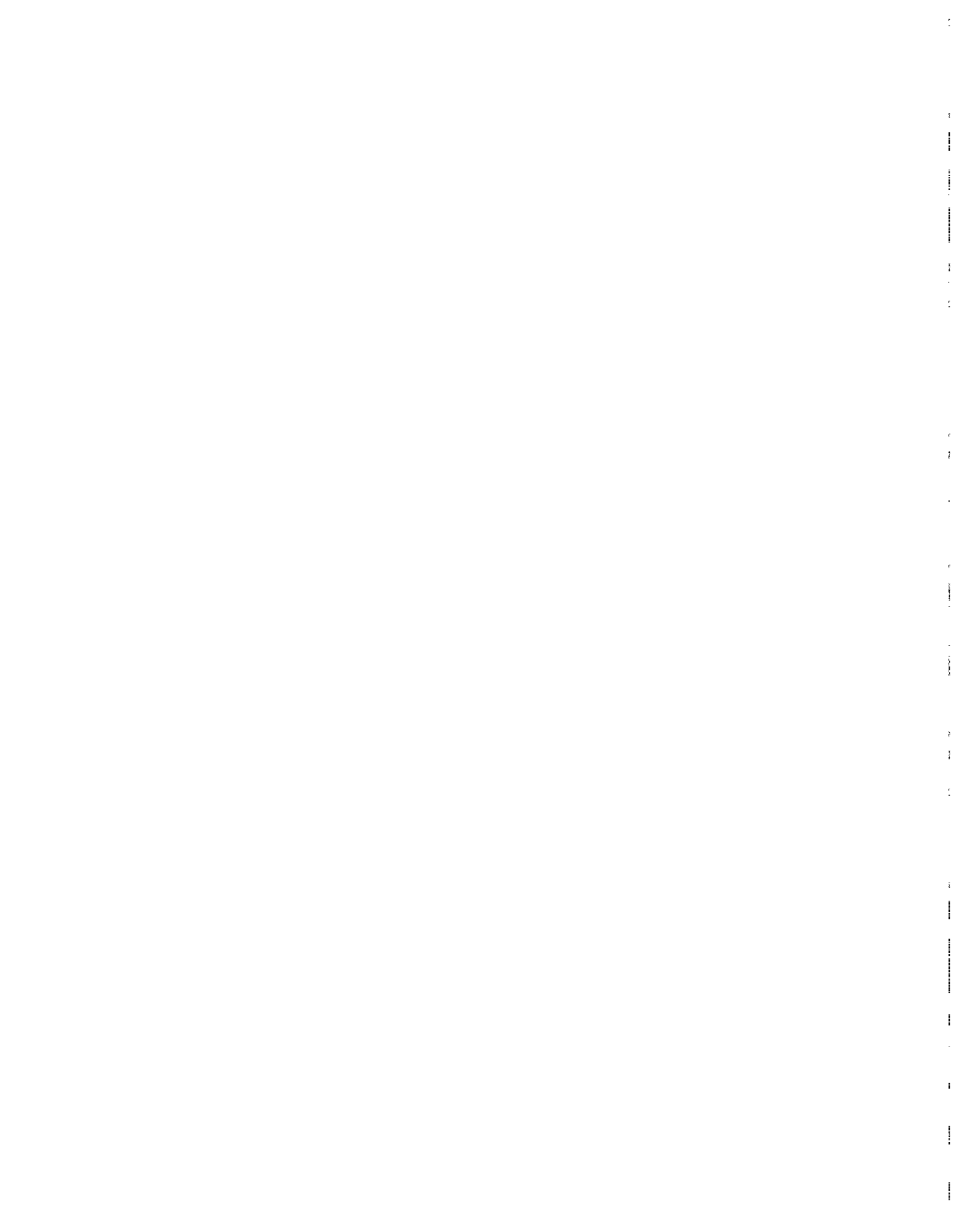April 1994

HUD INFORMATION RESOURCES

Strategic Focus and Improved Management Controls Needed

GAO United States
General Accounting Office
Washington, D.C. 20548

Accounting and Information
Management Division

B-254783

April 14, 1994

The Honorable Henry Cisneros
The Secretary of Housing
   and Urban Development

Dear Mr. Secretary:

This report presents the results of our evaluation of the Department's information resources management program. This work was conducted under our legislative authority to evaluate federal agencies and programs.

This report contains recommendations to you in chapter 5. As you know, 31 U.S.C. 720 requires the head of a federal agency to submit a written statement of actions taken on our recommendations to the Senate Committee on Governmental Affairs and the House Committee on Government Operations not later than 60 days after the date of this letter. A written statement must also be submitted to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of this letter. We would appreciate receiving copies of these statements.

We are providing copies of this report to interested Members of Congress, executive branch agencies, and the public. We will also make copies available to others upon request.

Please call me at (202) 512-6253 if you or your staff have any questions concerning the report. Other major contributors to this report are listed in appendix II.

Sincerely yours,

Joel C. Willemssen
Director, Information Resources
   Management/Resources, Community,
   and Economic Development

Executive Summary

Purpose

The Department of Housing and Urban Development (HUD) relies on information systems to help it administer federal housing programs, enforce fair housing, and improve the nation's communities. As part of the effort to update its 1984 general management review of HUD, GAO assessed the effectiveness of HUD's information resources management (IRM) program and its actions to address information systems weaknesses.

To do this, GAO focused on determining whether the Department's (1) IRM planning and data management support critical departmentwide missions and strategic objectives; (2) computer security program protects sensitive systems and critical operations; and (3) efforts to integrate and strengthen financial management systems are effectively planned and managed.

Background

HUD relies on information systems to administer insured loans, guarantees, and other programs valued at over $1 trillion; housing subsidy programs that serve millions of families; and community development grants to virtually every state and city in the country. The Office of Information Policies and Systems (IPS), under the Assistant Secretary for Administration, manages HUD's IRM resources.

In 1984 GAO reported that HUD suffered from fundamental management weaknesses and lacked effective processes to plan and control its financial and IRM resources. In 1989 HUD's highly publicized scandals were attributed, in large part, to inadequacies in departmental information and financial management systems; inadequacies that prevented HUD from effectively overseeing and managing its programs and resources.

Results in Brief

HUD continues to be plagued by poorly integrated, ineffective, and generally unreliable information systems that do not satisfy management needs or provide adequate control. HUD is taking action to correct these IRM problems. However, it will take a number of years to fully resolve them.

This situation exists because historically HUD's IRM resources have not been planned and managed to meet the Department's missions and strategic objectives. As a result, HUD's IRM plans are not based on strategic business plans that identify what senior executives expect to accomplish and what strategies, processes, resources, and information are needed to achieve departmental missions and objectives. HUD also lacks a departmentwide information architecture that provides a standard

framework to govern the management and use of information and IRM resources, and a data management program to ensure that departmentwide systems provide program managers with the information they need to effectively accomplish their missions.

In addition, HUD has not established adequate security controls for its computer systems that process sensitive and privacy data, and has not provided for the recovery and continued processing of critical systems in the event of a major disruption or disaster. These computer security weaknesses pose serious risks to the integrity of computer systems, the sensitive data they contain, and the critical operations they support. Finally, HUD's effort to develop and implement integrated financial systems has been impeded by ineffective planning and management oversight.

The Secretary's commitment to strategic planning and HUD's early steps to address strategic planning represent the first substantive actions since GAO reported on the absence of strategic IRM planning a decade ago. Senior HUD officials have also initiated actions and plans to address the Department's data management, computer security, and financial systems integration weaknesses. Full implementation of these actions and plans can help resolve HUD's long-standing IRM problems.

Principal Findings

Inadequate Focus on Strategic Business Objectives and Departmentwide Data Management

Although an IRM plan for the Department has been prepared, it is not based on a strategic business plan because HUD does not have a business planning process to establish strategic objectives and determine the resources and information needed to achieve them. Instead, IRM plans are prepared by IPS staff, based on input from program managers and staff. Consequently, the Department's IRM resources are not focused on achieving strategic mission objectives and HUD continues to experience information shortfalls and inadequate information systems. For example, in December 1992, the Secretary reported substantial deficiencies in 98 information systems, including 15 that do not adequately support mission requirements. Also, without strategic business and IRM planning, HUD does not have a sound basis for developing a departmentwide information architecture—a standard framework for guiding the management and use of data and IRM resources to accomplish HUD missions and objectives.

In addition, despite stressing the need to use common, integrated data to support its many operations, HUD has not fully instituted a departmentwide data management program to achieve this goal. For example, critical data management standards such as common data elements and data definitions were not established for HUD's first two integrated financial systems projects—the Control Files Subsystem/Tenant Rental Assistance Certification System (CFS/TRACS) and the Core Accounting System. As a result, progress was slowed on both these high priority integration projects and additional resources were required to correct data problems in the development of CFS/TRACS.

Inadequate Protection of Sensitive and Critical Systems

HUD has not taken the required steps to ensure proper security over sensitive computer systems and data. Despite requirements established by the Computer Security Act, the Office of Management and Budget, and its own policy, HUD has not

- identified all of its computer systems that process sensitive or privacy data or prepared up-to-date and accurate security plans for these systems;
- established effective controls to prevent unauthorized individuals from accessing data contained in the Department's most sensitive computer systems;
- ensured that required background investigations have been completed on the hundreds of HUD and contractor personnel who operate, manage, maintain, or use the computer systems; or
- performed adequate computer security monitoring and training to ensure that sensitive computer data are properly controlled and safeguarded.

In addition, HUD has not fully developed and tested contingency plans for (1) any of the 39 information systems it has determined to be critical to its missions, or (2) the three computer installations GAO visited, the nationwide telecommunications network, local area networks, or microcomputers that are used to process or handle critical information. As a result, HUD faces unnecessarily high risks that its missions will be seriously impaired should a disaster or major disruption occur.

Despite this, HUD has not reported the lack of contingency plans as a material internal control weakness under the Federal Managers' Financial Integrity Act. The IPS Director agrees that these computer security and contingency planning problems are serious and he is taking actions to strengthen computer security controls and develop contingency plans.

Ineffective Management and Oversight of the Financial Systems Integration Effort	Although there is a pressing need to correct long-standing financial systems weaknesses, HUD until recently has not provided effective oversight of its high-priority effort to integrate financial management systems. For example, a lack of effective planning and coordination for two system projects led to duplication of functions between the systems. In addition, individual integration projects have not been well managed. For instance, software has been deployed before adequate testing; in one case this introduced a large number of errors into a pilot region's database. In addition, HUD has not developed a plan to guide the transition from its many stand-alone financial systems to the new, fully integrated systems environment.

These problems resulted from inadequate project management and oversight. Specifically, HUD management did not

- obtain agreement on direction, goals, standards, and strategies before implementing the integration effort;
- clearly define project responsibilities; and
- establish a mechanism to ensure sufficient coordination between projects. |

Recommendations	GAO recommends that the Secretary

- develop strategic business and IRM planning processes that are clearly linked to each other; develop an information architecture to govern the development, deployment, and use of IRM resources; and establish a data management program to support integrated or departmentwide systems;
- establish effective security controls to protect all sensitive computer systems and eliminate current weaknesses, develop and test contingency plans for all critical systems, and report the lack of contingency plans as a material internal control weakness under the Federal Managers' Financial Integrity Act; and
- establish and maintain clear lines of authority over the financial management systems integration effort, a detailed plan to transition from the existing systems environment, and a monitoring mechanism so significant problems can be brought to the attention of senior managers. |

Agency Comments	In commenting on a draft of this report, senior Department officials, including the Assistant Secretary for Administration and Chief Financial Officer, said they agreed with the need to correct IRM deficiencies and identified actions underway or planned to address GAO's

recommendations. They said, however, they were concerned that the draft report did not fully recognize and give credit to HUD for the actions it has underway.

With respect to strategic planning, they agreed that HUD's IRM planning has been hindered by the lack of strategic business planning. The officials said the Secretary is committed to developing a strategic business plan. HUD also issued departmentwide data administration standards and financial systems integration standards in November 1993, acquired computer software to develop a data dictionary, and initiated a reorganization to elevate attention to data administration.

The officials also agreed that HUD needs to do more to comply with federal computer security requirements and noted several actions being taken to better ensure the protection of sensitive data and systems. HUD has asked its offices to prepare updated security plans for their sensitive computer systems, expects to have security software for mainframe computers replaced during the spring of 1994 and expects to have completed and tested contingency plans in place by August 1994. In addition, HUD is seeking contractor assistance to strengthen security monitoring and is considering ways to improve the background investigation process.

Finally, the officials agreed that the Department had not effectively managed its financial systems integration effort. They said HUD has taken action to obtain agreement on the effort's direction and goals, define responsibilities, and establish an oversight and coordination mechanism. The officials questioned the need for a high-level transition plan, stating that HUD plans to have each project team include a transition plan as part of its detailed project work plan.

GAO believes that HUD's efforts to embark upon strategic business and IRM planning and establish departmentwide data management and financial systems integration standards are significant and represent initial progress toward strengthening its IRM program. HUD's actions to strengthen computer security and develop contingency plans are encouraging and are needed to bring the Department into compliance with federal and departmental computer security requirements. HUD must successfully complete these actions, however, to reduce the risks to its sensitive and critical systems and data.

GAO also agrees that HUD has clarified responsibilities and strengthened oversight and accountability of the financial systems integration effort.

The sustained oversight by and commitment of senior management must continue throughout the integration effort to ensure that the Department's goals are met. In addition, to ensure the success of large-scale modernizations, such as HUD's financial systems integration effort, we believe that a detailed plan is needed to manage the transition activities of concurrent systems development and implementation efforts.

Contents

Abbreviations

AIMD	Accounting and Information Management Division
ADP	automated data processing
CFO	Chief Financial Officer
CFS/TRACS	Control Files Subsystem/Tenant Rental Assistance Certification System
FHA	Federal Housing Administration
FMFIA	Federal Managers' Financial Integrity Act
GAO	General Accounting Office
HECM	Housing Equity Conversion Mortgage System
HUD	Housing and Urban Development
IPS	Information Policies and Systems
IRM	information resources management
ISP	information strategy planning
JFMIP	Joint Financial Management Improvement Program
MNS	Multifamily National System
OMB	Office of Management and Budget
SAMS	Single Family Accounting Management System
SGL	Standard General Ledger

Introduction

HUD delivers a wide array of programs and services to millions of Americans. The Department underwrites mortgage insurance for single-family and multi-family homes and home improvements. It also provides loans, grants, subsidies, and other types of assistance to public and Indian housing authorities and state and local governments for housing and community development, and carries out initiatives to ensure compliance with the nation's fair housing regulations.

HUD has broad financial management responsibilities that are associated with these programs—$379 billion in insurance-in-force and about $14 billion in property and other assets related to the Federal Housing Administration (FHA) fund; $422 billion in the Government National Mortgage Association's mortgage-backed securities; $731 billion in potential risk exposure at the Federal National Mortgage Association and Federal Home Loan Mortgage Corporation; $100 billion in long-term housing subsidy commitments; and billions in outstanding grant commitments. HUD carries out its broad responsibilities using about 13,500 staff in 16 main offices at headquarters, 10 regional offices, and 71 field offices. The Department's fiscal year 1993 budget was $25.2 billion.

Like many federal agencies, HUD relies on information and IRM resources to help carry out its missions. HUD manages these resources centrally through the Assistant Secretary for Administration, who is the designated Senior IRM Official. All operational responsibilities for IRM have been delegated to the Office of Information Policies and Systems (IPS). The IPS Director has primary responsibility for HUD's IRM policy, oversight, planning, and operations. IPS has several offices, such as the Data Administration Branch, which assists with technical issues related to data administration, and the Automated Data Processing (ADP) Security Office, which is responsible for the general oversight of HUD's computer security program.

The Department uses a three-tiered systems architecture. This architecture includes (1) microcomputers that serve as multifunctional workstations in offices, (2) local area networks that link office workstations, and (3) mainframe computer systems. Headquarters and field office workstations are linked to mainframe computer installations and other offices through HUD's national telecommunications network. The Department's information technology budget for fiscal year 1993 was $119.7 million.

Long-standing Information Systems Problems and Actions to Improve

A decade ago, we reported that HUD lacked adequate information and financial management systems necessary to ensure accountability for, and control over, departmental programs.[1] In 1989 HUD's highly publicized scandals were attributed, in large part, to fundamental deficiencies in the Department's information and financial systems. In particular, HUD's systems lacked credibility, were not responsive to management needs, and did not provide adequate control. As we describe later in this report, HUD's long-standing information and financial management systems problems remain unresolved.

To address fundamental deficiencies in the Department's information and financial systems, the Secretary initiated a number of actions following the HUD scandals. For instance, after a Chief Financial Officer (CFO) was appointed to oversee the Department's financial affairs, HUD adopted the Financial Management Systems Strategic Integration Plan and began implementing it throughout the Department in November 1991. This high-priority, $100 million plan focused on replacing about 100 different automated systems with 9 fully integrated systems over a 7-year period.

Two of these integrated systems projects were underway at the time of our review, the Control Files Subsystem/Tenant Rental Assistance Certification System (CFS/TRACS) and the Core Accounting System. The Secretary directed the development of CFS/TRACS in March 1991 to correct long-standing problems in the Section 8 subsidy payment process.[2] These problems had led to millions of dollars in incorrect or misdirected subsidy payments, and prevented the Department from accurately determining program funding needs.

The Core Accounting System, now designated the Agency Accounting System, was being developed to eliminate problems with inconsistent accounting systems and data and serve as the central accounting system for all program areas. The system was expected to provide the capability for capturing, recording, controlling, and summarizing the financial results of operations for all program areas and provide the framework for sharing standard accounting information throughout the Department. HUD also began planning a third integration project, the Mortgage Insurance System,

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[1] Increasing the Department of Housing and Urban Development's Effectiveness Through Improved Management, Vol. I, (GAO/RCED-84-9, Jan. 10, 1984).

[2] The Section 8 Lower Income Rental Assistance Program was established under legal authority of Section 8 of the U.S. Housing Act of 1937 (42 U.S.C. 1437f) to assist low and very-low income families obtain decent, safe, and sanitary rental housing.

to improve the Department's capabilities in planning, administering, and evaluating mortgage insurance operations and activities.

Generally, the goals and objectives of the integration plan are to strengthen financial management controls, correct material weaknesses, and improve the management of financial information.[3] HUD believes the integrated systems will allow the Department to perform business functions in an effective manner while maintaining appropriate financial controls.

In August 1993, the Deputy Secretary announced some steps to strengthen management oversight, better support program office requirements, and clarify responsibilities for financial systems projects. In addition to these efforts, HUD took other actions to strengthen its IRM program. These actions include the following:

- Establishing an IRM Planning Board to ensure direct participation by senior HUD executives in establishing departmental policies and priorities, and in the allocation and oversight of IRM resources. The Assistant Secretary for Administration chairs the Board, which is composed of Assistant Secretaries who lead the primary headquarters organizations. The Board is supported by an IRM working group of senior-level staff who are designated by Board members. The working group is the primary vehicle for overseeing the Department's IRM resources budget and setting priorities for systems projects.
- Selecting a common computer hardware platform and programming language and establishing a nationwide telecommunications network. HUD's purpose was to provide a flexible and integrated approach to providing computing and telecommunications capabilities and facilitate the financial management systems integration effort. Computer workstation users have the capability to communicate with any computer mainframe or workstation on HUD's telecommunications network.
- Developing a systems development methodology that is supposed to be used departmentwide. The methodology is consistent with federal guidelines and industry practices and offers a structured approach for solving problems and selecting and using the appropriate methods, tools, and techniques.

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[3]Office of Management and Budget (OMB) Circular No. A-127, Financial Management Systems, July 23, 1993, requires agencies to establish and maintain a single, integrated financial management system. HUD's financial systems integration effort was intended to bring the Department into compliance with this requirement.

Objectives, Scope, and Methodology

We reviewed HUD's IRM program and its actions to address information systems weaknesses by determining whether the Department's (1) IRM planning and data management support critical departmentwide missions and objectives; (2) computer security program protects sensitive systems and critical operations; and (3) efforts to integrate and strengthen its financial management systems are effectively planned and managed.

To determine whether strategic IRM planning supports HUD missions and objectives, we reviewed federal laws, regulations, and guidance as well as HUD policies and procedures on IRM planning. We interviewed members of the IRM working group as well as planning officials in headquarters and field offices to ascertain how the planning process operates and their involvement and responsibilities in the process. We also reviewed two of HUD's 5-year information resources management plans and supporting documentation as well as program area management plans to determine whether IRM planning and departmentwide strategic mission planning are linked and focused on meeting strategic mission objectives and satisfying managers' key information needs. In addition, we interviewed program managers to discuss recent efforts underway to conduct information strategy planning (ISP).[4]

To determine whether departmental data management supports HUD's missions and objectives, we reviewed HUD's system development and data management policies. We also interviewed IPS senior managers and officials responsible for data administration to determine whether HUD had established a (1) departmentwide information architecture for governing the management and use of IRM resources, and (2) data management program to ensure that departmentwide systems provide program managers with the information they need to accomplish their missions efficiently and effectively. In addition, we reviewed consultant studies and interviewed program and field staff to identify and discuss problems with obtaining, managing, and sharing computer data.

To assess the adequacy of HUD's computer security program and its compliance with federal requirements, we examined HUD's plans, policies, and procedures for protecting sensitive and critical computer systems, data, and operations. We interviewed program managers and staff in HUD headquarters and staff in one regional and two field offices to discuss the adequacy of departmental computer security controls, monitoring, and

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[4]An ISP is a study to determine the strategic opportunities, goals, critical success factors, and information needs of a specific business function or entire organization or business enterprise. It includes determining how new technology might be used to better meet goals and improve business processes.

training. To review the effectiveness of security controls over computer systems, we interviewed HUD officials responsible for departmental computer security and computer operations, and examined HUD Inspector General reports as well as consultant studies documenting security reviews and risk assessments. We inspected three contractor-operated computer installations where sensitive systems that are critical to HUD's missions are processed, and interviewed contractor officials and personnel at the installations to discuss security and contingency issues. We also inspected HUD's contractor-operated backup data center and interviewed HUD and contractor officials to discuss emergency response, backup, and recovery capabilities for the Department's mainframe systems and data transmissions.

To determine whether the Department's effort to integrate and strengthen its financial management systems has been effectively planned and managed, we concentrated on overall project planning, management, and oversight. We reviewed HUD's Financial Management Systems Strategic Integration Plan as well as planning and system development documentation for two projects that were underway. We interviewed project managers at HUD headquarters and interviewed contractors' staff and field staff on HUD's implementation and coordination of the integration effort and obtained their views on overall project management, planning, and oversight. We also reviewed internal management reports, consultant studies, individual project status reports, and external assessments of HUD's overall integration effort.

We performed our audit from December 1992 through November 1993, in accordance with generally accepted government auditing standards. Our work was done primarily at HUD headquarters in Washington, D.C. We also performed work at HUD's regional office in Philadelphia, Pennsylvania, and subordinate field offices in Philadelphia and Baltimore, Maryland; HUD's primary computer installation in Lanham, Maryland, which hosts most of its important mainframe information systems; computer installations in Silver Spring and Rockville, Maryland, which host several of HUD's important mainframe information systems; and HUD's backup computer installation in Reston, Virginia. We selected the Philadelphia regional office because it has a medium-size work load and officials stated that it is a fairly typical regional operation.

We obtained comments on a draft of this report from HUD officials, including the Assistant Secretary for Administration and the Chief

Financial Officer. These comments have been incorporated in the report where appropriate and are discussed in chapter 6.

Strategic IRM Focus and Data Management Are Not Adequate to Meet Department Missions

HUD continues to be plagued by information shortfalls and inadequate information systems because its IRM resources are not planned and managed to meet its missions and strategic objectives. Contrary to federal guidance, HUD's IRM plan is not based on a business plan that focuses on the agency's strategic objectives and the approaches needed to achieve the missions, goals, and objectives. The IPS Director agreed that HUD's planning process has not been sufficient to develop a strategic IRM plan. The lack of strategic business and IRM planning has also prevented HUD from being able to develop a departmentwide information architecture that would provide a standard framework to manage and use data and IRM resources. Consequently, many of HUD's information systems do not adequately support users and mission needs, a problem we first reported 10 years ago.

In addition, HUD has not established departmentwide data standards and a data dictionary or fully instituted a data management program. This has contributed to inconsistent and incomplete data in some information systems and hindered HUD's efforts to develop integrated financial systems. Without a data management program, HUD cannot provide the guidance and direction needed to manage and share information and provide program managers with the information they need to effectively accomplish their missions.

HUD's IPS Director agreed that IRM planning has been hindered by the lack of strategic business planning and said the Secretary has begun efforts to improve business planning. In addition, the IPS Director noted that HUD finalized departmentwide data administration standards (policies and guidelines for developing data standards) and financial systems integration standards in November 1993 and is also planning to establish a data management program and data administration capability and develop a data dictionary.

IRM Plans Not Based on Strategic Mission Objectives

Federal law and regulations require agencies to implement a strategic IRM planning process that identifies the information and resources needed to accomplish their missions efficiently and effectively.[1] IRM planning should be based on a strategic business plan that defines what senior executives expect to accomplish and what strategies, processes, resources, and information are needed to achieve the Department's missions and strategic

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[1] The Paperwork Reduction Act (44 U.S.C. Chapter 35) and OMB Circular No. A-130, Management of Federal Information Resources, June 25, 1993.

objectives.[2] Both plans are to be based on top-down processes driven by an agency's leadership and missions. Together, the strategic business plan and supporting strategic IRM plan provide the basis for developing a departmentwide information architecture to guide and control an agency's investments in IRM resources.

HUD's IRM planning is not based on a strategic business plan because HUD does not have a strategic business planning process. Instead, IRM plans are prepared by IPS staff, based on their understanding of input from program managers and the IRM working group. These IRM plans are then forwarded to the IRM Planning Board and Deputy Secretary for approval. Members of the Board's working group stated that although the Board approves the plans, neither the Board nor its working group have significant involvement in developing the final IRM plans. The IPS Director agreed that this process has not been sufficient to develop a strategic IRM plan, but said it is the best he can do because HUD does not have a strategic business planning process. The Director stated that the current Secretary and Deputy Secretary recognize this problem and have been looking into ways to resolve it.

The IPS Director and program officials agreed that IRM planning is hindered by the lack of a business plan, which articulates the Department's critical missions and strategic objectives. The Assistant Secretary for Administration, the designated senior IRM official, expressed similar concerns in a December 1992 report,[3] stating that HUD did not have a departmental planning process and that planning was decentralized and often performed on an ad-hoc basis with the budget driving HUD's management agenda, instead of the management agenda driving the budget.

Lack of Strategic Focus Adversely Affects HUD Operations

The effects of inadequate strategic IRM planning have been evident for many years. Ten years ago, we reported that due to ineffective long-range IRM planning, HUD's information systems did not give managers and staff the basic information they needed to manage and control departmental programs and financial resources.[4] In a 1992 study, we reported that because of systems deficiencies program officials were unable to provide

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[2]Strategic Information Resources Management Handbook, U.S. General Services Administration, October 1987.

[3]Program Challenges for the Future As Articulated by Principal Staff, U.S. Department of Housing and Urban Development, Office of Management and Planning, December 1992.

[4]GAO/RCED-84-9, Jan. 10, 1984.

the oversight needed to protect HUD programs from fraud, waste, and abuse.[5]

The Department has also noted these problems. In HUD's December 1992 Federal Managers' Financial Integrity Act (FMFIA) report, the Secretary disclosed that the Department had 98 information systems that did not comply with federal requirements because of substantial system deficiencies (see app. I). This list included 15 systems that did not meet mission requirements. HUD's Inspector General has also reported strategic IRM planning deficiencies. As recently as May 4, 1993, the Deputy Inspector General stated that HUD continues to struggle with inadequate information systems because of poor long-range planning.[6] The Deputy further stated that HUD's programs are still at considerable risk of abuse and loss because of systemic weaknesses in departmental information systems, weaknesses that preclude HUD from effectively controlling and managing its wide array of large, complex programs.

The lack of strategic IRM planning has also impeded HUD's attempts to integrate its financial management systems. According to HUD program managers, the Department failed to effectively identify all of its business functions in planning HUD's multiyear financial management systems integration. This resulted in significant project delays, higher costs, and diminished manager and staff support for the financial systems integration.

Concern over the viability of the integration effort was so high that the new Secretary announced steps to redirect and strengthen the overall financial management systems integration approach. These steps include establishing a committee of senior-level executives—the Systems Integration Steering Committee—to meet biweekly to oversee and monitor individual financial systems integration projects and make associated funding decisions. Also, Assistant Secretaries were made accountable for integration projects in their program areas.

Departmentwide Information Architecture Not Developed

The lack of strategic business and IRM planning has prevented HUD from developing a departmentwide information architecture. An information architecture defines the information that is needed to achieve mission

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[5]HUD Reforms: Progress Made Since the HUD Scandals but Much Work Remains (GAO/RCED-92-46, Jan. 31, 1992).

[6]Statement of HUD Deputy Inspector General before the Committee on Banking, Housing, and Urban Affairs, U.S. Senate, on May 4, 1993.

objectives and how the information systems will work together to satisfy those objectives.[7] The architecture provides a standard framework to govern the collection, development, deployment, management, and use of data and IRM resources to accomplish missions and objectives. While the IPS Director acknowledged that HUD needs an information architecture, he pointed out that a useful architecture could not be developed until HUD establishes a business planning process and links it to strategic IRM planning.

Even though HUD lacks strategic plans and an information architecture to guide its IRM investments, it has been updating its computer hardware and moving forward to integrate its many stand-alone financial management systems and improve support to various programs. In doing so, HUD faces increased risks that investments made on these projects will not support the Department's needs or be fully consistent with future strategies for achieving its missions and objectives.

Recent Commitment to Planning

The new Secretary recognizes that HUD needs to embark upon business planning. According to the IPS Director, the Secretary has begun efforts to determine what HUD should do, such as conducting business process reengineering as part of the effort to reinvent HUD. The Director said that these business planning efforts are focused on certain areas of high interest.

Also, HUD's program areas are developing ISPs to identify information needs and perhaps reengineer their business processes. Information strategy plans incorporate information engineering techniques to develop integrated information systems based on the sharing of common data and procedures.[8] Although these initiatives are encouraging, they are being carried out independent of each other.

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[7]An information architecture is a description of all functional activities to be performed to achieve a desired mission, the automated systems elements needed to perform the functions, and the designation of performance levels of those systems elements. An architecture also includes information on the technologies, interfaces, and locations of functions, and is considered an evolving description of an approach to achieving desired missions.

[8]Information engineering is a systematic process in which information systems are developed that precisely support the business of an organization or enterprise.

Data Management Program Not Fully Instituted

HUD has stressed the need to use common, integrated data and information to better support its financial and program operations; however, it has not taken the steps necessary to ensure effective data management. This has adversely affected the quality of data in the Department's information systems and hindered the development of HUD's integrated financial management systems. In particular, HUD has not established common data elements and defined data characteristics, nomenclature, and standards for accuracy and timeliness. Nor has HUD established a data dictionary to communicate data definitions and locations.[9]

Programs and Information Systems Initiatives Hindered by Ineffective Data Management

The lack of common data standards and a data dictionary has contributed to inconsistent, incomplete, and untimely data in essential program information systems such as the Federal Housing Administration's (FHA) multifamily insurance systems. According to an internal assessment, HUD lacks the information it needs to monitor the multifamily insurance program, a program that includes about 15,000 multifamily projects and more than $47 billion in insurance obligations.[10] In this regard, several Housing managers told us information systems used to monitor multifamily programs suffer from inconsistent, incomplete, and untimely data. They said that poor data quality, in combination with other problems, has made these systems practically useless. In addition, a recent consultant study of insurance risks cited FHA's new Multifamily National System (MNS) as offering little useful information for estimating HUD's potential liability to cover mortgage defaults.[11] This assessment shows that MNS did not meet HUD's expectation of providing the necessary data to support better program accountability and risk management by using data from several multifamily systems. As a result of this study, HUD management increased its reserves for FHA multifamily mortgage losses by about $6.4 billion.

HUD's effort to develop integrated financial systems over the past couple of years has also been adversely affected by ineffective data management. A primary objective of HUD's financial systems integration is to improve data integrity and sharing through the use of common data and systems.

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[9]A data dictionary or data repository is a tool to help organizations control their data assets by providing a central catalog of data.

[10]HUD's December 1992 Report on Compliance with the Federal Managers' Financial Integrity Act identified deficiencies in the FHA multifamily insurance systems as a material control weakness.

[11]U.S. Department of Housing and Urban Development Assessment of the Financial Condition of the Insured Multifamily Portfolio and an Estimation of the Required Loss Reserves, Coopers & Lybrand, Apr. 29, 1993.

However, without standards to ensure data quality and a data dictionary to convey to all users a common understanding of the data and associated standards, HUD lacks the basic management tools necessary for achieving this objective. As a result, progress has been slowed on HUD's first two and highest priority integration projects. In particular,

- HUD did not establish definitions and standards for the Control Files Subsystem/Tenant Rental Assistance Certification System (CFS/TRACS) prior to collecting and entering data on 60,000 contracts nationwide. Consequently, housing managers told us that field staff and contractors made their own assumptions about what data to enter. As a result, there were unacceptable variations in data consistency and completeness. Due to the extent of these problems, the planned completion of the project has been delayed by more than a year while HUD reconciles data discrepancies. Also, additional staff were needed to correct these problems, further straining resources and diverting staff from managing programs.
- HUD did not establish a uniform account coding structure for the Core Accounting System because the program areas were not able to agree on standards for the system and its data. The Core Accounting project manager agreed that without these standards HUD is unable to (1) provide the means to define and share common financial and accounting data departmentwide and (2) develop the integrated accounting system it needs to comply with federal requirements for integrated financial systems.

Data Administration Has Not Been Emphasized

HUD has not established data standards or developed an agencywide data dictionary because it has not made data administration a departmentwide priority. Although HUD has a data administration branch in IPS, this branch has focused on narrow technical issues, rather than on administering and promoting a data management program for the Department. The Branch Chief agreed that HUD does not have a departmentwide program to institute data management policies and standards, promote sharing across program boundaries, or resolve conflicts that may arise over data ownership and how it should be maintained and used to ensure data integrity and availability.

Plans and Recent Actions to Strengthen Data Management and Develop Standards

The IPS Director stated that data administration has not been adequately employed and that these capabilities are necessary to develop departmentwide systems and help program areas develop systems to support headquarters and field operations. The Director further stated that

he plans to establish a data administration function to carry out a departmentwide data management program.

In addition to his plan to establish a data management program and data administration capability, the IPS Director stated that HUD developed draft data administration standards in July 1993 to promote the importance of data as a departmentwide resource and to maximize its value, quality, and usability throughout the Department. These standards were finalized in November 1993 and were incorporated into HUD's financial systems integration standards policy. The data administration standards describe HUD's policies and guidelines for establishing common data and data standards.

After we completed our audit work, HUD acquired computer software in December 1993 to enable it to develop a departmentwide data dictionary. Developing a data dictionary should help HUD understand what data it has and in which systems the data are located. According to the Data Administration Branch Chief, it will take at least 5 years to develop a data dictionary for existing systems. This is because most of HUD's information systems are poorly documented and analysts will have to review each software program, update the documentation, establish data standards, identify data used, and enter required information into the data dictionary. The IPS Director told us he is committed to making improvements to data management and that developing a data dictionary will take some time, but it is an essential task that HUD must begin. He added that HUD will not have to wait until the data dictionary is fully developed to begin benefitting from having information about the data it has and where the data are located.

Computer Security Weaknesses Pose Risks to Sensitive Data and Critical Computer Operations

The Computer Security Act of 1987 (P.L. 100-235) requires federal agencies with computer systems that process sensitive information to identify and develop security plans for these systems and to provide periodic computer security training to personnel managing, using, and operating these systems.[1] Federal policies further require agencies to provide the security controls necessary to protect sensitive computer systems from unauthorized use and establish contingency plans to ensure that computer support of critical agency operations can be continued should a disaster or major service interruption occur.[2]

However, HUD has not fully complied with these federal requirements, even though its security policy contains provisions for their implementation,[3] because computer security has not been a departmental priority. In particular, HUD has not (1) identified all of its sensitive computer systems or prepared up-to-date and accurate security plans to protect them; (2) fully established fundamental controls to restrict access to and use of the Department's most sensitive computer data; (3) ensured that computer security is properly monitored and staff are adequately trained; and (4) established contingency plans to mitigate the damaging consequences caused by the unexpected loss of computer systems and data that support critical HUD operations. Consequently, HUD has security weaknesses that pose risks to the integrity of its computer systems and the sensitive data they contain and the Department cannot ensure the recovery and continued processing of essential computer operations should a major service disruption or disaster occur.

The IPS Director said he is aware of computer security weaknesses at the Department and that most of these problems exist because offices have not recognized the importance of computer security or placed sufficient emphasis on maintaining an adequate level of computer security. The Director agreed that these computer security problems are serious and said he has actions underway to strengthen computer security controls and develop contingency plans. These actions are encouraging, however, it is too early to tell whether they will resolve all the computer security problems we identified.

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[1] The Computer Security Act defines sensitive information as any information that if lost, misused, or accessed or modified without proper authorization could adversely affect either the national interest or conduct of federal programs, or the privacy to which individuals are entitled under the Privacy Act (5 U.S.C. 552 (a)).

[2] OMB Circular No. A-130, App. III, Management of Federal Information Resources (June 25, 1993).

[3] U.S. Department of Housing and Urban Development Handbook, Departmental Staff ADP Security Program (Sept. 1991).

Sensitive Systems Not Identified and Security Plans Are Deficient

The Computer Security Act requires agencies to identify all computer systems that contain sensitive information, prepare security plans for each system identified, and revise the plans annually as necessary. The act defines a computer system as

"any equipment or interconnected system or subsystems of equipment that is used in the automatic acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information...."

In June 1993 the Department reported that it had 39 sensitive computer systems. However, we found that HUD's list of sensitive systems did not include all microcomputer-based systems that are regularly used by field staff to access, store, manipulate, display, transmit, receive, and manage various sensitive and privacy data. For example, one office we visited regularly uses a locally-developed microcomputer system to track administrative, financial, and staff activities. The data contained in this system are obtained from one of HUD's sensitive mainframe information systems. HUD's list also did not include the Home Equity Conversion Mortgage (HECM) System. HECM is a contractor-operated system that contains individuals' social security numbers, financial data, and loan payment information—data that are subject to the Privacy Act.

HUD did prepare security plans for the 39 systems it identified as being sensitive. However, our analysis of these plans shows that 22 do not accurately describe the systems or the actions needed to correct the security weaknesses because the plans have not been maintained as required by federal law and guidelines and HUD's own policy. For example:

- Five security plans do not accurately reflect system upgrades, modifications, or hardware and software changes that have occurred over the last 30 months. Recent changes include the migration of many sensitive systems to new mainframe computers, the relocation of the Department's principal data center, and the upgrade of its nationwide telecommunications network.
- Eleven security plans do not describe planned actions that are needed to resolve security deficiencies reported in risk assessment studies by consultants.
- Six security plans had both of the problems described above.

We also found other inaccuracies. For example, the plan for the Single Family Accounting Management System (SAMS) inaccurately reported that planning is in place to provide for continuity of data processing support

should a disaster or major disruption cause the loss of computer operations.[4] Program and contractor officials involved with system operations told us that there are no contingency plans for SAMS or the contractor-owned computer installation where it is processed. A program official responsible for SAMS security added that the security plan is currently under revision.

The Director of HUD's ADP Security Office stated that in February 1993 HUD's program and administrative offices were asked to update all of their computer security plans. The Director told us that as of August 23, 1993, only three plans had been submitted to the security office. One of these plans was for an operational system. However, it lacked important information. For example, the plan did not (1) discuss actions that need to be taken to resolve known security deficiencies, (2) provide detailed descriptions of the system implementation and operational controls in place, and (3) show evidence of being reviewed for adequacy or approved by HUD's security office. After we concluded our audit work, the Assistant Secretary for Administration transmitted to all program Assistant Secretaries in December 1993, instructions and requirements for updating the plans, to focus a higher level of attention on the need for updating computer security plans.

Sensitive Computer Systems Are Not Adequately Protected

OMB Circular A-130 and departmental security policy require HUD to implement and maintain computer security measures necessary to ensure the integrity and confidentiality of sensitive computer data. However, HUD has not provided an adequate level of security over its computer systems. We reviewed three contractor-operated computer installations (including HUD's principal data center) and HUD's contractor-operated back up data center. Our review disclosed several computer security weaknesses, including the following:

- HUD's mainframes, which host most of the sensitive systems, lack sufficient controls to protect them from being accessed by unauthorized individuals. Because security software has not been fully implemented, it does not prevent unauthorized individuals from accessing sensitive systems and data. HUD security officials told us they are aware of the problems. The Director stated that security software to control access to the Hitachi mainframe computer was replaced on November 6, 1993. He

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[4]SAMS is a critical system that provides HUD managers and staff with information that is essential to ensure the timely receipt of and accounting for proceeds from the sale or rental of single family properties and prevent erroneous or fraudulent payments to repair contractors, brokers, and other vendors. HUD owns about 32,000 single family properties valued at more than $3 billion.

expects to correct deficiencies on the other mainframe computer systems during the spring of 1994.

- Auxiliary computer system consoles in HUD's principal data center have floppy disk-drives that, if used, could lead to the inadvertent introduction of computer viruses in HUD's mainframe computer systems.[5]
- A maintenance vendor was allowed direct access from a remote site to one of HUD's mainframe computers. Contractor officials responsible for the center stated that they did not know the extent to which the maintenance vendor had access to sensitive HUD applications and data. The IPS Deputy Director stated that this access was terminated after we brought it to his attention. He added that the access would not be reinstated until appropriate controls are put into place.
- Protection and storage of magnetic tapes containing sensitive and privacy information are often inadequate. Doors to tape storage areas in data centers were left open, allowing uncontrolled access and the potential for individuals to remove sensitive tapes from the premises without proper authorization.
- Computer rooms or adjacent rooms in data centers are used to store paper, thus increasing the risk of fire and damage to computer systems.

Several HUD internal reviews, Inspector General reports, and consultant studies have pointed out similar computer security problems. For example, in the December 1992 Report on Compliance with the Federal Managers' Financial Integrity Act, HUD identified deficiencies in controls to limit access to sensitive systems, and track and monitor transactions on sensitive systems as a material internal control weakness. More recently, the Inspector General reported that HUD did not provide adequate safeguards to protect against unauthorized access to sensitive computer data.[6] The report stated that access to sensitive information systems is not properly limited to those with a need-to-know, that passwords are not controlled and kept confidential, and that audit trails do not properly document system transactions. In addition, in March 1993, a consultant reported that eight computer systems that process sensitive and privacy data lacked initial, current, or any certification that the systems' safeguards conform to policies and are effective.[7] The Director of HUD's Security Office was unable to identify the total number of sensitive

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[5]A system console is an electronic device that operators use to enter commands and communicate with the mainframe computers.

[6]U.S. Department of Housing and Urban Development Audit of Fiscal Year 1992 Financial Statements, Office of Inspector General (June 30, 1993).

[7]Department of Housing and Urban Development Risk Assessment Report (Final), Booz-Allen and Hamilton, Inc. (Mar. 12, 1993).

systems that lack certification because the office does not monitor compliance with this federal and departmental computer security requirement.

Individuals Allowed Access to Sensitive Data Without Proper Background Investigations

The seriousness of these computer security weaknesses is heightened because required background investigations have not been completed for hundreds of HUD and contractor personnel involved with the operation, management, maintenance, or use of sensitive computer systems. According to OMB Circular A-130 and HUD policy, background investigations are required for all departmental and contractor employees with access to sensitive data or systems. HUD Inspector General security staff, responsible for arranging the requested investigations, stated that investigations were sometimes not performed because program office security administrators failed to ensure that required investigations were requested. These staff said they had on-hand 388 requests for background investigations that had not been started at the beginning of October 1993.

In other cases, investigations of contractor personnel, who routinely access data contained in four sensitive housing systems, were not performed because it was not required in the contracts' provisions. Housing Office contracting technical representatives told us that, contrary to departmental policy, contractor employees who lack background investigations are allowed access to sensitive computer systems and data. As of early November 1993, the Branch Chief stated that the contracts were going to be renegotiated. Although the Branch Chief told us that provisions to require background investigations will be included in any new contract proposals, we were unable to review the new contract proposals because they had not yet been prepared.

Computer Security Monitoring Is Inadequate

Departmental policy gives the ADP Security Office within IPS responsibility for the general oversight of HUD's computer security program. According to the policy, the ADP Security Office, program staff (designated as system owners), and other IPS staff share responsibility for evaluating computer security threats, establishing appropriate safeguards, and ensuring that departmental computer security requirements are followed.

However, the problems we found show that HUD does not adequately monitor or enforce its computer security requirements. HUD does not systematically monitor security at any of the contractor-operated computer installations we visited. In fact, HUD has relied on contractors to

independently initialize, set, and maintain security software parameters for
the Department's sensitive computer systems at these installations.
Consequently, HUD cannot ensure that these systems, and the sensitive and
privacy data they contain, are sufficiently protected from unauthorized
access, loss, or misuse.

We also found that computer security is not adequately monitored and
enforced at field offices. For example, the individuals responsible for
computer security at two field offices we visited told us that they do not
routinely monitor computer security because it is not a high priority and
they have too many other duties. Although HUD's ADP Security Office has
conducted a few field office inspections in the past, it has not ensured that
identified weaknesses are corrected. For example, weaknesses in physical
security, contingency planning, and training that were identified at several
field offices about a year ago have still not been corrected.

The IPS Deputy Director stated that some computer security monitoring is
performed at HUD's principal data center, although it may not always be
documented. He cited a recent unannounced visit by his staff to observe
the test of the backup generator at the facility. During our visit to the
facility in May 1993, however, the IPS Director for Computer Management
agreed that HUD computer security monitoring is not systematic and the
ADP Security Office Director added that it had been about 18 months since
the last full security inspection of the principal data center.

Security Training Not Sufficient

The Computer Security Act requires that federal agencies provide periodic
training in computer security awareness and accepted computer security
practices to all employees who are involved with the management, use, or
operation of sensitive systems. HUD provides initial training to new
employees and attempts to promote departmentwide security awareness
by periodically issuing memoranda and making available security-related
training materials, such as videos and personal computer based courses.
The ADP Security Office Director said he would like to make more training
available, but that there are no funds to do so.

Despite these training and awareness activities, we found that agency
personnel are not fully aware of their computer security responsibilities.
For example, some headquarters and field staff at the offices we visited,
who regularly use computers to process and store sensitive and privacy
data, told us they were not fully aware of HUD's computer security policies

and requirements for protecting sensitive computer information. They attributed this to the lack of training.

In addition, Housing Office contracting technical representatives, responsible for briefing computer contractors on HUD's computer security policies, told us they were unaware of this requirement. After this requirement was pointed out to them, the contracting technical representatives told us they could not meet it because they lacked the necessary knowledge and experience to conduct the security briefings. A March 1993 consultant report also disclosed that the Department has not been providing necessary computer security training for its employees.[8]

Recovery of Systems Supporting Critical Operations Is Not Ensured

Disruptions of critical computer operations could adversely affect HUD's ability to service mortgages, subsidize rents, provide grants, and monitor thousands of Public Housing Authorities and other agencies who deliver HUD's programs and services. To ensure that critical operations can continue in emergencies, OMB Circular A-130 requires federal agencies to develop, maintain, and test plans that provide for the continuity of operations for all information technology installations supporting essential agency functions.

Because it cannot afford serious disruptions in the operation of its critical computer systems, HUD also requires the development and periodic testing of contingency plans that provide for backup, continuity of operations, and recovery from events that may interrupt normal operations. Under HUD's policy, contingency plans are required for (1) each computer installation that hosts a critical information system and (2) each critical information system.[9]

Despite these requirements, HUD has not developed and tested contingency plans for its nationwide telecommunications network, local area networks, and microcomputers that carry or process critical information throughout the Department, or any of the 39 information systems HUD designated as critical to its missions. In addition, contingency planning for the three contractor-operated computer installations that host 27 of HUD's 39 critical information systems is inadequate. There is no contingency plan

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[8]Department of Housing and Urban Development Risk Assessment Report (Final), Booz-Allen and Hamilton Inc., Mar. 12, 1993.

[9]HUD designates information systems as being critical if they are essential to perform its missions (e.g., many of HUD's critical systems must be restored and fully operational within 24 hours, regardless of why service is disrupted).

for one installation and, according to contractor officials, the plan for another does not specifically provide for the recovery of HUD's critical systems. In the third case, HUD is developing a contingency plan for its principal computer installation; however, it has not finalized and fully tested the plan.

Because of the lack of contingency plans, HUD faces unnecessarily high risks that its missions will be seriously impaired should a major service disruption or disaster occur. Despite the serious threat to HUD's ability to fulfill its missions, the Department has not reported this as a material internal control weakness under the Federal Managers' Financial Integrity Act.[10]

According to the IPS Director, HUD's computer security and contingency planning problems are serious and need to be corrected. The Director attributed most of these problems to HUD program managers' and staffs' failure to maintain security over systems and data because they do not recognize the importance of doing so. On October 1, 1993, HUD entered into a contract with the General Services Administration to acquire backup support for the Hitachi mainframe computer, located at the principal computer installation.[11] The IPS Deputy Director said the draft contingency plan for the computer installation will be revised to include both the Unisys and Hitachi mainframe computers and the sensitive systems they host.

In November 1993, the ADP Security Office Director stated that HUD expects to test a backup capability for the Hitachi mainframe computer in April 1994. The Director also stated that they expect to have the revised contingency plan for the principal computer installation drafted by that time. While this is encouraging, these steps to correct problems at the principal computer installation have not yet been implemented. In addition, we told HUD officials that it was unclear how HUD plans to address the lack of contingency plans for critical systems that are operated at other computer installations or for the nationwide telecommunications network, local area networks, and microcomputers that carry or process critical information.

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[10]Under the Federal Managers' Financial Integrity Act of 1982 (31 U.S.C. 3512), agencies must establish internal controls to reasonably ensure that agency assets are effectively controlled and accounted for. Agencies must also annually report weaknesses in these controls and the status of any corrective actions. Policies implementing the act further require agencies to incorporate security controls that address the use of their automated information systems.

[11]HUD had no backup capability for the Hitachi mainframe computer, which hosts seven critical systems at the principal computer installation.

Management and Oversight of HUD's Financial Systems Integration Effort Are Ineffective

Our reports, as well as reports by the Inspector General and others, have shown that inadequate information systems have kept HUD from properly managing its financial resources. After the scandals in 1989, HUD reported that it was unable to comply with the Federal Managers' Financial Integrity Act and other federal requirements because the Department lacked an efficient, effective, and integrated financial management system that could be relied upon to provide timely, accurate, and relevant financial information and reports to management. To address this weakness, HUD began a $100 million financial management systems integration effort in 1991 to develop a common accounting and financial management system and replace about 100 systems with 9 fully integrated financial systems.

In carrying out the financial systems integration, however, HUD did not adequately oversee the planning and development of individual financial systems or develop a detailed plan to effectively guide the Department's transition from its existing operations to the planned integrated systems environment. Consequently, the integration effort was hampered by numerous problems, costly delays, and diminished manager and staff support. These problems prompted the new Secretary to take action to strengthen senior management's oversight, revise HUD's integration strategy to more accurately take into account HUD's program operations and business processes, and make other improvements to address the project management and oversight problems we identified.

Financial Integration Hampered by Ineffective Project Management

The ultimate success of the integration depends upon the participation of HUD's program, field, and administrative offices. Toward this end, HUD initially established a management structure to provide oversight of the integration. This structure consisted of (1) a Steering Committee of senior management officials to provide high-level oversight; (2) the CFO's office, which was responsible for overall project management; and (3) project oversight committees and teams, which were led by experienced executives and composed of staff from affected HUD programs, IPS systems development staff, and contractor personnel.

Despite these measures, HUD's first two projects, CFS/TRACS and the Core Accounting System, suffered delays and rising project costs because of numerous problems. For example:

- HUD collected data and developed software for the CFS/TRACS system prior to identifying all of the system's functional requirements. One of the

results was that HUD had to relocate system data from a local area network environment to a mainframe computer to meet data processing and reporting requirements that were not initially identified. This required HUD to make substantial software revisions to accommodate the relocation.

- Ineffective project planning drove up CFS/TRACS costs and drained staff resources. Because it underestimated the staff-intensive nature of collecting and entering data for the system, HUD was forced to shift over 500 staff years away from other programs to carry out this work. According to HUD's records, a year after initiating work on the system the cost of establishing the CFS/TRACS database exceeded the original $18 million estimate by about $2 million. Furthermore, work on collecting and verifying system data is still ongoing and the scheduled date for completing this work has slipped more than a year.

- A version of the CFS/TRACS software was installed and operated in the field before it was adequately tested. In one case, the untested software introduced a large number of errors in a pilot region's database. Although they had not prepared an estimate, regional officials told us they would have to continue to redirect staff resources from other programs to correct the errors.

- HUD purchased commercially available software for the Core Accounting System, despite the lack of consensus on the role of the system. Should system requirements change extensively, this software may no longer be able to satisfy all requirements. Therefore, the Department risks having to alter its technical approach or purchase additional software to meet its requirements.

Our review found that inadequate project management and oversight contributed to these problems. First, HUD management did not require offices and staff to agree on project direction, goals, standards, and strategies prior to project implementation. For example, the Core Accounting System project manager stated that after more than a year of work on the project, various offices had not reached agreement on the system's role as the central accounting system. Moreover, program officials working on HUD's third integration project, the Mortgage Insurance System, told us that poor planning and subsequent concerns over the viability of the system as it was designed brought work on the project to a halt. Consequently, the entire project is being replanned to better reflect the business needs of HUD's housing programs. ISPs for the multifamily and single family program areas are scheduled to be underway by April 1994.

Second, responsibility for the projects was not clearly defined. For example, accountability for the CFS/TRACS project was not clear, with the Deputy Assistant Secretary for Public and Indian Housing serving as the Chairman of the project oversight committee, the CFO and comptrollers in program offices setting policies and developing plans, the Administration Office supervising contractors who were developing the system, the IPS Director managing day-to-day activities, and regional managers continuing the effort to verify and establish the database. Therefore, disagreements among key players as to their roles, the project's priority, and the purpose of the system took long periods to resolve or were left unresolved.

Third, HUD did not have a mechanism in place to ensure that the daily operations of the individual integration projects were sufficiently coordinated to achieve HUD's systems integration objectives. Because of this, CFS/TRACS and the Core Accounting System were planned and developed with insufficient coordination between the projects. As a result, the systems were inadvertently designed with duplicate functions related to monitoring Section 8 budget execution because the project teams were not aware of each others' plans and system designs.

Transition to the Integrated Systems Not Planned

HUD has a complex organizational structure, in which its major program offices operate independently of each other. To successfully achieve systems integration, offices need to carefully assess and plan for the impending organizational, procedural, and other changes that will result from the transition to integrated systems and the resources necessary to carry out all required tasks. This planning involves defining new organizational roles, responsibilities, and interrelationships for program areas using the integrated systems; centralizing financial systems policies and standards; developing new operational procedures; ensuring systems and information security in the integrated environment; and facilitating communication and coordination of the overall integration effort.

However, HUD has not developed a transition plan for the financial systems integration and therefore lacks a complete organizational perspective for this effort and a clear, documented strategy for guiding the transition. Both the Deputy CFO for Finance and the IPS Director agree that careful transition planning is needed.

Actions Taken to Revise HUD's Financial Systems Integration Effort and Strengthen Project Management

On May 4, 1993, the Secretary reported to Congress that HUD had made little progress since it began integrating its financial management systems in 1991. He also stated that he had begun taking steps to redirect and strengthen the management of HUD's financial systems integration. In this regard, the Secretary formed a Systems Integration Steering Committee, chaired by the Deputy Secretary and composed of the program Assistant Secretaries, the Assistant Secretary for Administration, the CFO, and the Inspector General, to review HUD's strategy for achieving its integration goals and strengthen management oversight of the integration effort.

According to the Deputy CFO for Finance, the Steering Committee fundamentally changed HUD's financial systems integration strategy. Under the new strategy, which is articulated in the September 1993 revision of HUD's Financial Systems Integration Plan, program offices are no longer required to make their program operations fit into nine common, integrated financial systems. Instead, offices are encouraged to develop systems that are consistent with their management priorities and business needs. Systems to be developed must follow the financial systems integration standards and be integrated or interfaced with the Core Accounting System (now designated the Agency Accounting System). We agree that the revised strategy is a more reasonable approach in that it emphasizes meeting the program operational needs while providing for integrating and sharing financial data with the Agency Accounting System.

According to HUD's revised integration plan, the Steering Committee has primary responsibility for management oversight of the integration effort. The committee, which meets on a bi-weekly basis, provides policy direction for all systems integration activities, approves systems integration projects and oversees their implementation, and monitors the allocation of budget resources. In addition, the Steering Committee is supported by a Systems Integration Working Group, composed of senior HUD staff and chaired by HUD's CFO. Both the working group and the CFO assist the committee in carrying out project oversight and monitoring responsibilities.

The Deputy CFO for Finance stated that he believes HUD is addressing the management and oversight weaknesses we identified. Through the establishment of the Steering Committee and its related actions, he believes HUD has the top-level management involvement it needs to implement the integration plan and achieve the Department's integration goals. He noted that because of this involvement, there is agreement among HUD senior managers on the direction, scope, and overall objectives

of the integration effort. HUD's actions to reach agreement on these matters are an important step toward addressing and resolving the management and oversight problems we found.

In November 1993, the Steering Committee issued financial systems integration standards. These standards set forth guidelines for improving information and transaction processing support to the program, administrative, and financial functions in the Department and providing more accurate financial and analytical reports to executive-level management. According to the standards, program managers are required to prepare ISPs before initiating any major system development effort, to define their business environment and needs, and follow the Department's system development methodology. As a first step toward implementing the financial systems integration standards, HUD is developing an agencywide account coding structure consistent with the Standard General Ledger, which will provide for the tracking of specific program financial data.

The Steering Committee also clarified roles and responsibilities for all financial systems integration projects. Program assistant secretaries, who are served by systems, have been designated the primary owners of information system projects and are directly responsible for the success of the projects.

Conclusions and Recommendations

Conclusions

The lack of strategic IRM planning, coupled with HUD's long-standing information problems and inadequate information systems, continue to impair the Department's ability to significantly improve its use of IRM resources to satisfy mission needs. The absence of a strategic information systems architecture poses increased risks that HUD's investments in information technology will not be consistent with strategies for achieving its missions and objectives. Ineffective data management continues to adversely affect the usefulness and reliability of data in the Department's information systems and hinders the development of integrated financial systems.

Sensitive computer data and essential computer operations are also at risk because HUD has not taken the steps necessary to safeguard these systems against unauthorized access and ensure that computer support for critical mission activities can be continued should disasters or major service disruptions occur. In addition, inadequate oversight of the planning and development of integrated financial systems has impeded the Department's progress toward correcting long-standing financial management system weaknesses.

Collectively, these problems threaten HUD's ability to provide information and effectively use IRM resources to fully support its future directions, missions, priorities, and programmatic needs. Senior HUD officials have initiated actions and plans to address the Department's strategic planning, data management, computer security, and financial systems integration weaknesses. While HUD's actions are encouraging, the efforts have only recently begun and do not address all of the IRM problems we identified. Correcting these problems will require the sustained commitment of the Department's leadership and managers.

Recommendations

In order to make HUD's IRM program more responsive to its missions, we recommend that the Secretary of Housing and Urban Development:

- Establish strategic business and IRM planning processes and develop and maintain up-to-date plans that are clearly linked to each other. The plans should articulate senior executives' vision of the Department's missions, objectives, and priorities, and define the strategies and program and IRM resources needed to properly support the missions and achieve the strategic objectives. The Secretary should consider using the existing IRM Planning Board, to develop the Department's strategic plans. In any event, direct and substantive involvement of the Secretary, Deputy Secretary, and

senior executives is essential to define the business vision and strategic objectives.

- Direct IPS to develop a strategic information architecture that is based on the strategic business and IRM plans to govern the development, deployment, and use of IRM resources.

- Establish a data management program to support integrated and departmentwide systems, and ensure that the organization responsible for this program has sufficient authority to coordinate the development of standards for common data, establish a data dictionary that provides definitions and locations of data, and ensure compliance with departmentwide data standards.

- Eliminate weaknesses in computer security controls over automated systems and installations that store, process, transmit, or use sensitive or privacy data. This will require establishing effective mechanisms to ensure that both HUD and contractor (1) computer operations conform with federal and departmental requirements; (2) staffs receive background investigations that are commensurate with their access to sensitive systems; and (3) staffs receive sufficient training so they are aware of and can fulfill their computer security responsibilities.

- Develop and test contingency plans to provide for the backup, recovery, and continuity of operations of all systems and computer installations that support critical Department functions. Also, until these plans are fully developed and tested, report the lack of contingency plans as a material internal control weakness under the Federal Managers' Financial Integrity Act.

- Establish and maintain, as part of the implementation of HUD's revised Financial Systems Integration Plan, (1) clear lines of authority over the entire effort and individual systems projects; (2) standards for the common data that will be used; (3) a data dictionary for the integrated financial systems; (4) a detailed plan to transition from existing systems to the integrated systems that will be developed; and (5) an effective monitoring mechanism to ensure that significant problems, with any project or the integration effort as a whole, are brought to the attention of senior managers and are corrected in a timely manner.

Agency Comments and Our Evaluation

Senior Department officials, including the Assistant Secretary for Administration and CFO, provided oral comments on a draft of this report. The officials agreed that IRM improvements are needed, and identified specific actions, either underway or planned, to address our recommendations. They said HUD's new management team recognizes the need to correct the deficiencies we pointed out, adding that our draft report was very useful in influencing senior-level deliberations on the need for strategic planning. They said, however, that they were concerned the draft report did not fully recognize and give credit for the actions HUD has underway.

Actions to Implement Strategic Business and IRM Planning

Senior-level HUD officials agreed that HUD's IRM planning has been hindered by the lack of a strategic business plan. They said historically there has not been a strategic business planning process for HUD and that major improvements are needed to accurately reflect business planning at the highest levels. In this regard, they stated that the Secretary is committed to developing a strategic business plan that focuses on HUD's long-term objectives and the approaches needed to achieve the Department's missions, goals, and objectives. The officials said the strategic business plan will be used to support the development of a departmentwide information architecture. They added that the new management team has completed a document, "Program and Management Plan, Creating Communities of Opportunity," that describes the Department's priorities and will be the basis for a business-driven planning process in the future.

The officials also said a document was recently drafted that describes a revised IRM planning process that will be used as the framework for supporting the Department's future strategic planning methodology. The IPS Director stated that this draft document represents HUD's initial efforts to develop an information planning process that can also respond to the related annual planning calls of the Department.

In prior discussions with officials, we pointed out that since the ISP efforts were not linked to strategic business and IRM planning processes, it was unclear how they would be factored into HUD's business and IRM objectives and strategies. In this regard, the IPS Director said the proposed planning process is a step forward because it will establish linkages between program areas' ISPs and HUD's strategic IRM planning process. We note, however, that these actions do not address how the Department will link program areas' ISP efforts to its intended strategic business planning process. We believe the establishment of linkages between the planning

processes are necessary to have concerted plans and actions to achieve the Department's strategic missions and business objectives. Without such linkages, there is a risk that programs' business and information strategies will not be closely aligned with the strategic objectives of the Department.

We believe that the Secretary's commitment to strategic planning and HUD's early steps represent the first substantive actions since we reported on the absence of strategic IRM planning 10 years ago. While HUD has not defined or established its strategic business and IRM planning processes, its commitment to do so is encouraging.

Actions to Implement a Data Management Program

Department officials said they have made progress toward improving data management. They cited the departmentwide data administration standards and standards for HUD's financial systems integration efforts that were finalized in November 1993 as important steps toward developing common data. The officials also said HUD acquired computer software in December 1993 that will enable it to develop a data dictionary. In addition, they noted that HUD has initiated a reorganization to elevate attention to data administration and combine information planning and data administration activities within a single unit.

We believe that HUD's actions to establish departmentwide data administration and financial systems integration standards are encouraging. These new standards documents set forth a policy framework that will allow HUD to begin to establish common data elements, characteristics, and standards (for example, data accuracy and timeliness standards). HUD has made progress, as well, in addressing its lack of an account coding (financial classification) structure for the financial systems integration effort. The officials stated that HUD program areas are evaluating a proposed coding structure. They said they will develop the coding structure to be consistent with the Department's Standard General Ledger that is also under development. If HUD successfully implements these new policies, a data management program and data dictionary, the Department will move toward its goal of increasing information systems effectiveness through the use of common data that can be understood and shared throughout the Department.

Actions to Implement Computer Security Controls and Contingency Planning

HUD officials acknowledged that the Department has not fully complied with federal security requirements and said HUD should do more to ensure proper security over sensitive systems and data. They said that over the past 3 years HUD has established a unit within IPS to manage and oversee security and developed a departmental ADP security program. They also noted that HUD replaced access control software for the Hitachi mainframe computer in November 1993, and corrected the specific weaknesses we found during our computer installation inspection tours. They said HUD expects to upgrade the access control software on the Unisys mainframes during the spring of 1994, and have contingency plans completed and fully tested for most of HUD's critical computer systems, networks, and installations by August 1994. We are encouraged by these efforts and believe they represent important steps that, if properly planned and implemented, will bring the Department into compliance with federal and departmental computer security requirements.

Department officials took exception to our statement that computer security has not been a departmental priority, citing their actions over the past 3 years as discussed above. We agree that HUD has recently begun to focus more attention on computer security and has initiated actions to correct the computer security weaknesses we identified. However, we continue to believe the serious computer security weaknesses we identified—including the failure to identify all sensitive systems in the Department, deficient security plans for sensitive systems and access controls for computer systems, failure to restrict access to sensitive data and systems to individuals with required background investigations, inadequate computer security monitoring, insufficient computer security training, and lack of contingency plans that provide for the recovery of critical systems—indicate that computer security has not been sufficiently emphasized within the Department. These conditions, which have not been fully corrected, continue to pose threats to the security of HUD's sensitive computer systems and data.

In regard to our findings pertaining to HUD background investigations, the HUD officials said the Department is trying to comply with federal policies and procedures. However, they acknowledged that their process remains awkward, slow, and costly. The officials said HUD is presently considering options to speed up and reduce the cost of the background investigation process. Department officials further agreed that they need to correct deficiencies at contractor-operated computer installations where contractor employees, who lack background investigations, routinely access data contained in four sensitive housing systems. However, they

considered it inappropriate to extrapolate the problems we found to deficiencies in HUD's overall background investigation process because the cases represent unique situations in which there were contracts several years old and for which the Government Technical Representatives are not IPS staff.

We disagree that we improperly project our findings regarding the lack of background investigations for HUD and contractor staff with access to sensitive systems and data. While HUD stated that these cases may be somewhat unique because of the absence of IPS staff, HUD is responsible for ensuring that its sensitive systems and data are protected from persons lacking required background investigations. This responsibility is not mitigated because Government Technical Representatives from one HUD organization rather than another oversee the development of the contract. In addition, the federal requirements for background investigations of employees and contractor personnel predate the effective dates of these contracts.[1] Furthermore, these contracts involve four of HUD's most highly sensitive computer systems, which support users throughout the Department. These systems store privacy data and proprietary business information and are used to control billions of dollars in housing program properties and assets. As such, HUD's failure to ensure that background investigations were performed for contractor employees, who continue to routinely access data in these sensitive computer systems, poses a substantial threat that HUD cannot afford to overlook.

HUD officials agreed that the Department needs to do a better job monitoring compliance with computer security requirements, noting that HUD is seeking contractor assistance to support a regular monitoring program and more frequent computer security reviews at headquarters and field offices. Regarding HUD's reliance on contractors to initialize, set, and maintain security parameters on the Department's mainframe computer systems, the officials remarked that HUD has corrected this deficiency for one mainframe computer system. In particular, the IPS Director replaced the security software for one of HUD's mainframe computer systems and strengthened controls over access by having the IPS ADP Security Office initialize and set the security parameters itself. The Director has also placed responsibility for maintaining the security parameters with the ADP Security Office. The Director stated that enhanced access controls for the remainder of HUD's mainframe systems are expected to be completed during the spring of 1994. We believe the

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[1]OMB Circular No. A-130, Part III, Management of Federal Information Resources (June 25, 1993); and OMB Circular No. A-71, Transmittal Memorandum No. 1, Security of Federal automated information systems (July 27, 1978) rescinded.

steps taken by the IPS Director have strengthened internal controls over security software and access to computer data.We also believe the planned actions are needed to better monitor computer security compliance at HUD offices and enhance access controls for the remainder of the Department's mainframe systems. If these actions are properly implemented, they will help protect the Department's sensitive systems and data.

HUD officials also said they believe the Department has done a credible job of addressing computer security awareness and training requirements given its present budget situation. Despite HUD's efforts, however, agency personnel told us they were not fully aware of their computer security responsibilities. Although budgetary constraints are difficult live with, they do not relieve the Department of the obligation to ensure that all staff are made aware of their computer security responsibilities and to obtain sufficient training to fulfill them.

The officials agreed that disruptions of computer operations could adversely affect their ability to process critical computer systems that support HUD's missions, pointing out that the development and testing of contingency plans are a HUD priority. They said HUD expects to complete a business resumption plan for the entire Department in July 1994. The plan is to include disaster recovery planning for HUD's mainframe computer systems located in Lanham, Maryland; headquarters and field office local area networks; 10 microcomputer systems designated as critical; and the Department's telecommunications network. The IPS Director also stated that in January 1994 HUD ordered a larger Hitachi computer system for its primary computer installation in Lanham, Maryland. The existing Hitachi computer system is to be moved to HUD's Reston, Virginia, computer installation and serve as a back-up computer system. In addition, the HUD officials agreed that contingency plans are needed for the two other computer installations referenced in our report, stating that HUD is currently working with the Office of Housing to modify contracts to include contingency planning requirements.

Until HUD develops and fully tests contingency plans and disaster recovery procedures for all of its critical computer systems, the Department will continue to face unnecessarily high risks that its missions will be seriously impaired should a major service disruption or disaster occur. Therefore, we continue to believe that HUD should report the lack of contingency plans as a material internal control weakness under the Federal Managers' Financial Integrity Act.

Actions to Improve Management and Oversight of the Financial Systems Integration Effort

Department officials agreed that HUD has not effectively managed its financial systems integration effort. They stated, however, that through the efforts of the Systems Integration Steering Committee, HUD has taken action to obtain agreement on the effort's direction and goals, define responsibilities, and establish an oversight and coordination mechanism. We agree the efforts of the Systems Integration Steering Committee have clarified responsibilities and strengthened oversight and accountability for the financial systems integration effort. We believe, however, these efforts must continue throughout the integration effort to ensure that the Department's integration goals are met.

Although the officials agreed that CFS/TRACS and the Core Accounting System included duplicate functions related to monitoring Section 8 budget execution, they took exception to our finding that this was due to the lack of effective planning and coordination. They stated that HUD intentionally included the functions in the scopes of both projects and left it up to the two project teams to work together to decide how to provide the needed functionality. However, we continue to believe that the lack of planning and coordination caused the project teams to work on duplicative efforts. According to the project teams and related documentation, project team members were not aware that both teams were asked to automate the same functions. It was not until HUD began to demonstrate the functionality of the CFS/TRACS system that the two project teams became aware of the duplication.

The officials also questioned the need for a high level, departmentwide transition plan. They said it is HUD's belief that by empowering the program assistant secretaries to develop systems plans based on their business strategies, developing a central agency accounting system to record financial activities, implementing financial systems integration standards, and developing a uniform accounting coding structure, a detailed transition plan is not necessary. Instead, the officials noted that under the revised integration strategy HUD plans to address this requirement by having each project team include a transition plan as part of its detailed project work plan.

We agree that each system project team should plan for conversion to and implementation of the new integrated systems. This is consistent with federal systems standards, HUD's system development methodology, and accepted practice. However, for large-scale modernizations, such as the financial systems integration effort, that include concurrent implementation of many large systems projects over an extended period,

we believe that a detailed plan to guide the overall effort is important to
ensure success.

Information System Deficiencies Cited in HUD's Fiscal Year 1992 FMFIA Report

System Name	Title of Nonconformance
Employees Time Reporting	Does not comply with OMB Circular A-127 (A-127) and lacks automated interfaces.[a]
Annual Contributions	Lacks automated interfaces.
Rapid Housing Payment	Does not comply with A-127.
Insurance in Force Premium Liquidations and Controls	Inadequate data quality, documentation, and support of mission.
Treasury Reporting	Functionally redundant and does not comply with the Joint Financial Management Improvement Program (JFMIP) requirements.
Office of Procurement and Contracts Management Information	Does not support overall mission performance. Does not comply with Standard General Ledger (SGL) or JFMIP's core financial systems requirements. Inadequate data quality, interfaces, system documentation, and audit trails.
SF-224 Transaction Reconciliation	Functionally redundant.
Loan Accounting	Does not comply with A-127.
Single Family Premium Collections	Inadequate support of mission and does not support case-level reconciliation. Inadequate subsidiary ledger.
Single Family Insurance	Inadequate support of mission and does not support case-level reconciliation. Lacks effective interfaces.
Single Family Insurance Claims Subsystem	Inadequate support of mission and subsidiary ledger.
Low Rent Housing Security Ledger	Does not comply with JFMIP's core financial systems requirements.
Assisted Housing Accounting	Does not comply with JFMIP's core financial systems requirements.
National Credit Bureau Referral	Lacks effective interfaces.
Federal Assistance Award Data	Does not comply with A-127.
Resource Allocation Guideline	Does not comply with A-127.
Mortgage Insurance General Accounting	Does not comply with SGL or JFMIP's core financial systems requirements.
General Program Accounting Diversified Payment	Does not comply with JFMIP's core financial systems requirements.
Furniture & Equipment Management Information	Does not comply with A-127. Lacks automated interfaces.
Section 235 Accounting	Does not comply with A-127.
Section 235 Automated Validation and Editing	Does not comply with JFMIP's core financial systems requirements.
Line of Credit Control	Does not comply with A-127.

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System Name	Title of Nonconformance
OMB Standard General Ledger	In development phase. Does not support overall mission.
Funds Accounting and Status Tracking	Does not comply with A-127.
Single Family Property Disposition	Does not comply with A-127.
Distributive Shares and Refund	Does not comply with A-127.
Multifamily Mortgage Auction System Section 221(g)(4)	Does not comply with A-127.
One-time Mortgage Insurance Premiums	Inadequate subsidiary ledger.
Section 8 Accounting	Does not comply with JFMIP's core financial systems requirements.
Budget Management Information	Does not comply with A-127.
Treasury Check Writing	Does not comply with JFMIP's core financial systems requirements.
Program Accounting	Does not comply with A-127.
HUD Administrative Accounting	Does not comply with A-127.
Government National Mortgage Association Mortgage-backed Securities	Does not comply with A-127.
Default Management	Does not comply with A-127.
Pool Transfer	Does not comply with A-127.
Subservicer Reporting	Does not comply with A-127.
Check Record Issuance	Does not comply with A-127.
MACOLA Accounting Software	Multiple departmental general ledgers.
Demographic Eligibility and Allocations	Lacks current system documentation.
Field Office Reporting and Management System/Community Planning and Development	Lacks effective interfaces.
Annual Report to Congress	Does not comply with A-127.
Action Grant Information	Does not comply with A-127.
Secretary's Discretionary Fund Management Information	Does not comply with A-127.
Community Planning and Development Management Information Retrieval	Does not comply with A-127.
Homeless Assistance Management Information	Does not comply with A-127.
Economic Development Management Information	Does not comply with A-127.
Community Development Block Grant Contract Activity	Does not comply with A-127.
Urban Homesteading Program Management Information	Does not comply with A-127.
Community Development Block Grant Activities Reporting	Lacks adequate data quality.

(continued)

System Name	Title of Nonconformance
HOME Investment Partnership Act	Does not comply with A-127.
Hope for Ownership of Single Family Homes	Does not comply with A-127.
Community Planning and Development Information Management	Does not comply with A-127.
Office of Personnel and Training Personnel/Payroll	Does not comply with A-127.
Bond Payment	Does not comply with JFMIP's core financial systems requirements.
Tracking Advanced Procurement Plans	Does not support overall mission performance. Not in compliance with SGL or JFMIP's core financial systems requirements. Inadequate data quality, system documentation, and audit trails. Lacks effective interfaces.
Project and Resource Management	Does not comply with A-127.
Departmental Accounts Receivable Tracking/Collection	Does not comply with A-127.
Task Management Information	Does not comply with A-127.
Integrated Procurement Management	Does not support overall mission performance. Not in compliance with SGL or JFMIP's core financial systems requirements. Inadequate data quality, system documentation, and audit trails. Lacks effective interfaces.
Section 8 Management Information	Lacks effective interfaces and reconciliations with other systems.
Computerized Underwriting Processing	Inadequate support of mission. Does not support underwriting mission.
Average Area Purchase Prices	Lacks effective interfaces.
Housing Development Grant Information	Lacks effective interfaces.
Computerized Home Underwriting Management	System not fully developed. Inadequate support of mission.
Foreclosure Case Management and Financial Tracking	Does not comply with A-127.
Single Family Insurance Consolidator and Distributor	Inadequate system documentation.
Annual Premium Billing	Inadequate support of mission and data quality. Lacks documentation.
Public Housing Fiscal Data Survey	Does not comply with A-127.
Policy Development and Research Market Analysis Support	Does not comply with A-127.
Consolidated Single Family Statistical	Inadequate support of mission. Changed requirements and reporting entities have made system development inadequate.

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System Name	Title of Nonconformance
Single Family Default Monitoring Subsystem	Lacks adequate interfaces.
Home Mortgage Disclosure Act	Inadequate support of mission.
Multifamily Property Management	Does not comply with A-127.
Multifamily Insurance	Inadequate data quality and documentation. Lacks effective interfaces.
Multifamily Accounting Reporting Servicing	Inadequate data quality and documentation. Lacks effective interfaces.
Institution Master File	Does not comply with A-127.
Multifamily Information Processing	Inadequate support of mission. Needs to be completed, technically upgraded and integrated.
Credit Alert Interactive Voice Response	Does not comply with A-127.
Single Family Mortgage Notes Servicing	Lacks effective interfaces.
Mortgage Insurance Accounting Diversified Payments	Does not comply with JFMIP's core financial systems requirements.
Title I Notes Servicing	Does not comply with A-127.
Title I Insurance and Claims	Inadequate support of mission. Insufficient data on insurance outstanding.
Multifamily Insurance and Claims	Lacks adequate interfaces.
Tenant Rental Assistance Certification	Lack of capability (system in development phase).
Multifamily Insured and Direct Loan Information	Lacks effective interfaces.
Departmental Automated Audits Management	Does not comply with A-127.
Travel Tracking	Lacks single entry point for data.
Public Housing Development Cost Limits	Does not comply with A-127.
Regional Operating Budget and Obligations Tracking	Lacks automated interfaces.
Management Information Retrieval	Inadequate system documentation and audit trails.
Public and Indian Housing Fund Assignment	Does not comply with A-127.
System Management Information Retrieval/Public Housing	Lacks effective interfaces.
Public Housing Authority Statement of Operating Receipts and Expenditures	Lacks data quality.
Advanced Technology Ledger Accounting	Does not comply with SGL or JFMIP's core financial systems requirements. Lacks effective interfaces.

(continued)

System Name	Title of Nonconformance
Issuer Management	Does not comply with A-127.
Issues Profile Analysis Database	Does not comply with A-127.
Home Equity Conversion Mortgages	Inadequate data quality and documentation. Reconciliation deficiencies.

[a]OMB Circular No. A-127, Financial Management Systems, July 23, 1993, requires that agencies establish and maintain a single, integrated financial management system.

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