

GAO

January 2001

# High-Risk Series

## An Update





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January 2001

The President of the Senate  
The Speaker of the House of Representatives

Since 1990, GAO has periodically reported on government operations that it identifies as “high risk.” This effort, which was supported by the Senate Committee on Governmental Affairs and the House Committee on Government Reform, brought a much-needed focus to problems that are impeding effective government and costing the government billions of dollars. To help, GAO has made hundreds of recommendations to improve these high-risk operations. Moreover, GAO’s focus on historical high-risk problems contributed to the Congress enacting a series of governmentwide reforms to strengthen financial management, improve information technology practices, and instill a more results-oriented government during the past decade.

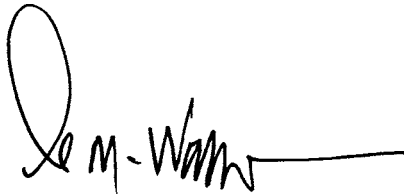
GAO’s high-risk status reports are provided at the start of each new Congress. This update should help the Congress and the new Administration in carrying out their responsibilities while improving government for the benefit of the American people. It summarizes progress made in correcting high-risk problems, actions underway, and further actions that GAO believes are needed.

Historically, GAO has designated federal programs and operations as high risk because of their greater vulnerabilities to fraud, waste, abuse, and mismanagement. This has served to identify and help resolve serious weaknesses in areas that involve substantial resources and provide critical service to the public. We will continue to give consideration to these

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traditional vulnerabilities but also give added emphasis to identifying as high risk those major programs and operations that need urgent attention in order to ensure our national government functions in the most economical, efficient, and effective manner possible. In this regard, we are designating strategic human capital management as a governmentwide high-risk area in this update.

Copies of this series are being sent to the President, the congressional leadership, other Members of the Congress, the Director of the Office of Management and Budget, and the heads of major departments and agencies.

A handwritten signature in black ink, appearing to read "D. M. Walker", with a long horizontal line extending to the right.

David M. Walker  
Comptroller General  
of the United States

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# Executive Summary

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Since our last status report in January 1999 agencies have taken additional steps and the Congress has addressed several areas we designated as being high risk. Additionally, we have continued to work constructively to assess progress and make recommendations necessary to resolve these risks. We also have looked across government to identify emerging high-risk areas that need attention.

Subsequent to the 1999 high-risk update report, we completed an assessment of the methodologies and criteria used to determine which federal government programs and functions should be designated as high risk. We considered comments provided on a publicly available exposure draft, and published our final guidance document, *Determining Performance and Accountability Challenges and High Risks* (GAO-01-159SP), in November 2000. The final criteria consider qualitative and quantitative factors and agencies' corrective measures. The final document also includes criteria for determining governmentwide high risks and for removing high-risk designations.

In this current update, we discuss (1) five areas for which the high-risk designation is being removed, (2) one area—strategic human capital management across government—that is being added to our list, (3) three program areas for which the high-risk focus is being modified, and (4) the important progress being made to further resolve the remaining high-risk areas and challenges that are yet to be addressed in resolving them.

Overall, agencies are taking these problems seriously and making progress in trying to correct them. The Congress also has acted to address several individual high-risk areas through hearings and legislation. Continued perseverance in addressing high-risk areas will ultimately yield significant benefits. Lasting

solutions to high-risk problems offers the potential to save billions of dollars, dramatically improve service to the American public, strengthen public confidence and trust in the performance and accountability of our national government, and ensure the ability of government to deliver on its promises.

Over time, as high-risk operations have been corrected and other risks have emerged, we have removed areas from the list and added new ones to keep the Congress current on areas needing attention. Information on the total additions to, and removals from, our high-risk list over the past 11 years is shown in table 1.

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**Table 1: Overall Changes in GAO's High-Risk List, 1990 to 2001**

<b>Changes 1990–2001</b>	<b>Number of Areas</b>
Original high-risk list in 1990	14
High-risk areas added since 1990	19
High-risk areas removed since 1990	11
Current high-risk list in 2001	22

<b>Changes 1999–2001</b>	
High-risk list in 1999	26
High-risk areas added in 2001 <sup>a</sup>	1
High-risk areas removed in 2001 <sup>b</sup>	5
Current high-risk list in 2001	22

<sup>a</sup>In 2001, the focus of a previously designated IRS-related high-risk area was expanded (see page 21).

<sup>b</sup>In 2001, the focus of a previously designated HUD-related high-risk area was reduced, and another IRS-related area was narrowed (see page 21).

For this 2001 high-risk update, we have determined that five high-risk areas warrant removal from the list. They include the Year 2000 Computing Challenge and the 2000 Census, which were both dependent on time-related



events that have elapsed. Also, legislative and agency actions, including those in response to our recommendations, were significant enough to remove the high-risk designations for the farm loan programs managed by the Department of Agriculture (USDA) and for the Superfund program, which are programs we have monitored as high-risk for the past 11 years. Additionally, the National Weather Service (NWS) has acted to implement our recommendations to better manage its information technology modernization, which we designated high risk in 1995. NWS' modernization is critical to weather forecasting to enhance public safety.

Since our high-risk program began in 1990, we have removed the high-risk designations from 11 areas, which are listed in table 2. Six of these areas were among the 14 programs and operations we determined to be high-risk at the outset of our efforts to monitor such programs. These results demonstrate that the sustained attention and commitment by the Congress and agencies to resolve serious, long-standing high-risk problems has paid off, as the root causes of the government's exposure for almost half of our original high-risk list have been successfully addressed.

**Table 2: High-Risk Designations Removed**

High-Risk Area	Year Added	Year Removed
Pension Benefit Guaranty Corporation	1990	1995
State Department Management of Overseas Real Property	1990	1995
Federal Transit Administration Grant Management	1990	1995
Bank Insurance Fund	1991	1995
Resolution Trust Corporation	1990	1995
Customs Service Financial Management <sup>a</sup>	1991	1999
The Year 2000 Computing Challenge	1997	2001
The 2000 Census	1997	2001
Superfund Program	1990	2001
Farm Loan Programs	1990	2001
National Weather Service Modernization	1995	2001

<sup>a</sup>Originally part of a broader high-risk area designated as Managing the Customs Service.

Also, we have determined that one new area—strategic human capital management—merits designation as a governmentwide high-risk. While legislation and other actions have been put in place since 1990 to address most major management areas, the government’s approach to managing its people—its human capital—is the critical missing link in reforming and modernizing the federal government’s management practices. Many agencies are experiencing serious human capital challenges, such as skills imbalances, succession planning challenges, outdated performance management systems, and understaffing. The combined effect of these challenges serves to place at risk the ability of agencies to efficiently, economically, and effectively accomplish their missions, manage critical programs, and adequately serve the American people both now and in the future. To a significant extent, serious management challenges across a wide range of federal agencies, covering programs that involve billions of federal expenditures, can be attributed to

shortcomings in how agencies manage their human capital.

We are also continuing to monitor 21 other areas we previously designated as high risk. For three of these areas, the focus of our high-risk work has been modified. In the case of the Department of Housing and Urban Development (HUD), we are reducing the number of HUD program areas deemed to be “high risk” due to progress made by the agency. Also, the focus of the previously designated IRS Tax Filing Fraud high-risk area is being narrowed to better define the scope of our concern, which is Earned Income Credit noncompliance. For another IRS program, previously designated IRS receivables, we are expanding our focus to now cover the collection of unpaid taxes. We are redefining this area because some key collection actions have declined since 1997, and IRS lacks a measure of voluntary compliance to help assess the impact of such declines on compliance.

The 22 areas that comprise our current high-risk list are identified in table 3. These areas cover a range of key government operations and functions including governmentwide information security; several major technology investments; basic financial accountability at large departments and agencies; and the management of major benefit, lending, procurement, and other important programs across government.

**Table 3: GAO's 2001 High-Risk List**

2001 High-Risk Areas	Year Designated High Risk
<b>Addressing Governmentwide High-Risk Areas</b>	
• Strategic Human Capital Management	2001
• Information Security	1997
<b>Ensuring Major Technology Investments Improve Services</b>	
• FAA Air Traffic Control Modernization	1995
• IRS Tax Systems Modernization	1995
• DOD Systems Modernization	1995
<b>Providing Basic Financial Accountability</b>	
• DOD Financial Management	1995
• Forest Service Financial Management	1999
• FAA Financial Management	1999
• IRS Financial Management	1995
<b>Reducing Inordinate Program Management Risks</b>	
• Medicare Program	1990
• Supplemental Security Income	1997
• Earned Income Credit Noncompliance	1995
• Collection of Unpaid Taxes	1990
• DOD Infrastructure Management	1997
• DOD Inventory Management	1990
• HUD Single-Family Mortgage Insurance and Rental Housing Assistance Program Areas	1994
• Student Financial Aid Programs	1990
• Asset Forfeiture Programs	1990
<b>Managing Large Procurement Operations More Efficiently</b>	
• DOD Weapon Systems Acquisition	1990
• DOD Contract Management	1992
• Department of Energy Contract Management	1990
• NASA Contract Management	1990

The following sections summarize the progress made in resolving the problems in areas for which high-risk designations are being removed and in correcting the

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problems in the remaining high-risk areas, as well as actions underway to address these risks and further actions that GAO believes are needed.

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## High-Risk Designations Removed

We remove the high-risk designation when legislative and agency actions, including those in response to our recommendations, result in significant progress toward resolving a high-risk problem, or when other factors affect a high-risk area, such as the occurrence of a time-related event. For this update, we are removing five areas. We will, however, continue to monitor these programs, as appropriate, to ensure that the improvements we have noted are sustained.

The following areas are being removed from our high-risk list.

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## The Year 2000 (Y2K) Computing Challenge

In 1997, when we designated the Year 2000 computing challenge as a high-risk area, we wanted to stimulate greater attention to assessing the government's exposure to Year 2000 risks and to strengthen planning for achieving Year 2000 compliance for mission-critical systems. This was necessary because the public faced a high risk that critical services provided by the government and the private sector could be severely disrupted by the Year 2000 problem.

To help agencies mitigate their Y2K risks, we produced a series of guides and reports. Our guides provided systematic approaches to enterprise readiness, business continuity and contingency planning, testing, and day-one planning. They were used by federal agencies and other organizations to help organize and manage their Year 2000 programs. In addition, we issued over 160 reports and testimony statements detailing specific findings and recommendations related to the Year 2000 readiness of both the government as a whole and a wide

range of individual federal agencies. Our recommendations were almost universally embraced.

The Year 2000 challenge was met through the collaborative efforts of the Congress, the Administration, federal agencies, state and local governments, and the private sector. The Congress held numerous hearings and passed important legislation. The President's Council on Year 2000 Conversion took many actions, including working with federal agencies, state and local governments, the private sector, and the United Nations on the Year 2000 issue. As a result, the century-change and leap-day rollover periods passed with only a few significant Year 2000 related incidents. (See page 55.)

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## The 2000 Census

The decennial census is the nation's most comprehensive and expensive statistical data-gathering program. Accurate results are critical because, as required by the Constitution, decennial census data are used to reapportion seats in the House of Representatives. Public and private decisionmakers also use census data for such purposes as state and local redistricting, allocating billions of dollars in government funding, and a number of planning and evaluation activities such as market research.

Beginning in February 1997, when we first designated the 2000 census a high-risk area, and in subsequent reports, we noted that formidable challenges surrounded critical census-taking operations. Key among these challenges were building a complete and accurate master address file, motivating the public to participate in the census by returning their census questionnaires, meeting field staffing goals in a tight labor market, and collecting timely and accurate data from nonrespondents.

Moreover, in anticipation of comparatively low public participation in the census, the Bureau of the Census planned on using statistical sampling and estimation procedures that the Bureau believed would be more accurate and cost-effective than visiting every nonresponding household. However, Congress, citing legal and methodological concerns, did not agree to the Bureau's planned use of sampling, which raised questions about the Bureau's readiness for taking a "traditional," nonsampling census. In January 1999, the Supreme Court ruled that the Census Act (13 U.S.C. 195) prohibited the use of statistical sampling for purposes of determining the population count used to apportion the House of Representatives, which eliminated any uncertainties about which census design the Bureau was to use.

Consistent with our findings, the Bureau of the Census took a number of steps aimed at addressing the operational challenges it faced, generally completed its peak data collection activities consistent with its operational plans, and appears to be on track with the remaining activities. As a result, we no longer consider the operation of the 2000 Census to be high risk.

Still, surmounting the various challenges to a successful census that the Bureau faced in 2000 came at considerable cost. As we noted in our December 1999 report, the Bureau estimated that the cost of the 2000 Census will be at least \$6.8 billion, an increase of 113 percent in real terms over the \$3.2 billion cost of the 1990 census in 1999 dollars.<sup>1</sup> Moreover, the single most important determinate of a successful census—the completeness and accuracy of the census count and, in particular, the size and nature of the undercount—will

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<sup>1</sup>2000 Census: Contingency Planning Needed to Address Risks That Pose a Threat to a Successful Census (GAO/GGD-00-06, December 14, 1999).

not be known until the Bureau completes various accuracy and coverage assessments. At the request of Congress, we will continue to review the Bureau's efforts on the 2000 Census, the lessons learned, and changes needed for 2010. (See page 60.)

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National Weather Service (NWS) Modernization

Almost two decades ago, the National Weather Service decided to improve its weather warnings and forecasts through a nationwide modernization program. The agency recognized that improved warnings and forecasts were essential to enhancing public safety and our nation's economic productivity. However, the modernization effort, originally expected to be completed in 1994, experienced difficulties that included schedule delays, cost overruns, and technical problems on key systems. Accordingly, in 1995, we identified NWS' modernization effort as a high-risk initiative because of several issues, such as the agency's lack of an overall systems architecture to guide the modernization and problems in developing the Advanced Weather Interactive Processing System (AWIPS)—the centerpiece of the modernization.<sup>2</sup>

Over the years, we have made numerous recommendations to address the modernization's difficulties, and NWS has acted to implement them. For example, in response to our recommendations, NWS established an overall systems architecture, improved the availability of its Next Generation Weather Radar, and enhanced its AWIPS software development processes. Due to NWS' progress in addressing key concerns, and in deploying and using AWIPS, we no longer consider NWS' modernization effort to be a high-

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<sup>2</sup>*High-Risk Series: An Overview* (GAO/HR-95-1, February 1995); *High-Risk Series: Information Management and Technology* (GAO/HR-97-9, February 1997); and *High-Risk Series: An Update* (GAO/HR-99-1, January 1999).



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risk initiative; however, we will continue to monitor NWS' plans to deploy enhancements to AWIPS. (See page 63.)

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**Farm Loan Programs**

USDA's farm loan programs have been identified as high risk since 1990 because of significant problems primarily with the direct loans. Among other factors, there had been a high rate of defaults on repayments, billions of dollars of losses had occurred and were likely to occur, and the Department had evolved into a continuous source of subsidized credit for thousands of borrowers. During the early- to mid-1990s, GAO made a variety of recommendations to USDA and the Congress that were aimed at improving the financial condition and operation of the farm loan programs.

Since then, the Congress and USDA have acted upon our recommendations to address the underlying causes of past program weaknesses. For example, the 1996 farm bill contained numerous provisions aimed at improving the solvency of USDA's farm loan programs, including prohibiting certain high-risk loans. As a result of these actions, the financial condition of USDA's direct farm loan program has improved dramatically, as shown in table 4. (See page 65.)

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**Table 4: Improved Condition of USDA's Direct Farm Loan Program**

<b>Date</b>	<b>Amount held by delinquent borrowers (in billions)</b>	<b>Percentage of outstanding principal</b>
September 1995	\$4.6	40.7
September 1996	\$3.6	34.2
September 1997	\$2.7	28.2
September 1998	\$2.4	26.4
September 1999	\$2.1	23.5
September 2000	\$1.8	20.9

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## Superfund Program

Under the Superfund program, five federal agencies are involved in cleaning up abandoned hazardous waste sites located on either private or federal lands, a job that could ultimately cost the federal government as much as \$300 billion.

Three major management problems led us to designate the Superfund program as a high-risk program in 1990. At that time, we found that (1) the Environmental Protection Agency (EPA) and the Departments of Agriculture, Defense, Energy, and the Interior were not giving priority for limited cleanup funds to those sites that posed the relatively highest risk to human health and the environment, (2) EPA was not recovering billions of dollars in indirect costs it had spent in cleanup costs from the parties responsible for contaminating the sites, and (3) EPA was not effectively controlling the costs of the contractors it used to conduct cleanups.

To address these major management problems, we reported on the need for (1) EPA and the Departments of Agriculture, Defense, Energy, and the Interior to set funding priorities based on a consideration of the health

and environmental risks posed by sites, (2) EPA to recover billions in certain cleanup costs from parties responsible for contaminating sites, and (3) EPA to better control contractors' costs. The agencies have demonstrated a commitment to improving their management of the Superfund program and have implemented a number of corrective actions in response to our concerns and recommendations.

For example, in response to GAO's concerns and recommendation, all five agencies now generally have systems in place to set priorities among Superfund sites—or portions of those sites—that are based on a consideration of the relative risks that sites pose, among other factors. Also, by using a new method to calculate the costs that it incurs to operate the Superfund program, EPA should be able to recover more of the indirect costs from responsible parties in cases in which EPA initially pays for the cleanup. In addition, EPA is now taking steps to better manage its contractor cleanup costs, and it has significantly reduced the percentage of cleanup funds it spends on contractor overhead costs, such as salaries and rent, rather than on actual cleanups. EPA has met or exceeded its goal of spending no more than 11 percent of total contractor cleanup funds on overhead costs. Because of the progress that has been made in addressing the management problems we have identified (see table 5), we are removing our designation of high risk for the Superfund program. (See page 67.)

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**Table 5: EPA’s Superfund Program Improvements**

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- ✓ Setting funding priorities based on a consideration of the health and environmental risks posed by sites
  - ✓ Implementing a new process to help EPA recover more cleanup costs from responsible parties
  - ✓ Taking steps to better control contractor costs
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**Strategic Human  
Capital  
Management Added  
to High-Risk List**

This year, we have designated human capital as a new governmentwide high-risk area. Federal programs involving billions of dollars rely for their success on the performance of the federal government’s people—its human capital. However, after a decade of government downsizing and curtailed investments in human capital, it is becoming increasingly clear that today’s federal human capital strategies are not appropriately constituted to adequately meet current and emerging needs of government and its citizens in the most effective, efficient, and economical manner possible.

Human capital management is a pervasive challenge across the federal government. We have identified shortcomings at multiple agencies involving key elements of modern human capital management, including strategic human capital planning and organizational alignment; leadership continuity and succession planning; acquiring and developing staffs whose size, skills, and deployment meet agency needs; and creating results-oriented organizational cultures. As our Performance and Accountability Series reports make clear, these human capital shortfalls are eroding the ability of some agencies to perform their core missions.

Agencies have made varying efforts to address their human capital needs, but must do more to create a

strategic and integrated approach to human capital management and to maximize their efforts within the context of current law. We have taken steps to encourage and facilitate the adoption throughout government of a greater human capital focus, pursuing vigorous outreach with federal agencies, the Office of Management and Budget (OMB), the Office of Personnel Management (OPM), and members of Congress in both houses and on both sides of the aisle. OPM has begun stressing to agencies the importance of integrating strategic human capital management with agency planning and has also been focussing more attention on developing tools to help agencies, such as new Senior Executive Service performance standards and a workforce planning model with associated web-based research tools. In addition, OPM has helped achieve incremental legislative reforms to help attract and retain federal employees, such as compensation flexibility for selected specialist positions and employee benefit enhancements. In regards to OMB, the President's fiscal year 2001 budget gave new prominence to human capital management by making "align Federal human resources to support agency goals" a Priority Management Objective and OMB's latest Circular No. A-11 guidance on preparing annual performance plans now states that agencies' fiscal year 2002 annual performance plans should set goals in such areas as recruitment, retention, training, appraisals linked to program performance, workforce diversity, streamlining, and family-friendly programs. While these actions are encouraging, the scope and magnitude of the federal government's human capital challenges will require additional actions on a range of issues as well as sustained and forceful leadership to make the promise of these initiatives a reality.

Among the most encouraging developments over the past two years has been the visibility given the human capital issue by the Senate Committee on Governmental Affairs and its Subcommittee on Oversight of

Government Management, Restructuring, and the District of Columbia. The Subcommittee has held a series of hearings on human capital in which we participated. The Committee and Subcommittee Chairmen both have recently issued reports underscoring the urgency of addressing the federal government's strategic human capital management problems.<sup>3</sup> In addition, Congress recently passed legislation that enables federal agencies to provide some education-related debt relief in exchange for government service. This is a positive step; however, additional legislative actions will ultimately be needed to attract and retain a skilled, knowledgeable, diverse, and performance-oriented workforce for the future.

As a first step toward providing agencies with the tools and concepts to help them improve their approaches to managing people, we have developed a conceptual framework for assessing human capital management.<sup>4</sup> The framework has guided our recent inquiries into strategic human capital management governmentwide and at specific federal agencies, some of which are now using the framework in their human capital planning efforts. We also developed a set of questions for political appointees that the Senate may use during the confirmation process to make clear its commitment to sound federal management and to explore what prospective nominees plan to do to ensure that their agencies recognize and enhance the value of their

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<sup>3</sup>See *Report of Senator Fred Thompson, Chairman, Committee on Governmental Affairs, on Management Challenges Facing the New Administration, Part 2: Federal Workforce Challenges, October 2000*; and *Report to the President: The Crisis in Human Capital*, report prepared by Senator George V. Voinovich, Chairman, Subcommittee on Oversight of Government Management, Restructuring, and the District of Columbia, Committee on Governmental Affairs, United State Senate, December 2000.

<sup>4</sup>*Human Capital: A Self-Assessment Checklist for Agency Leaders* (GAO/OCG-00-14G, September 2000).

people.<sup>5</sup> Further, we will continue to provide Congress with sound and reliable data gathering and analysis to help inform a consensus on what governmentwide human capital reforms may be needed. (See page 71.)

In addition to adding human capital strategy to our high-risk list, we are modifying the focus for our work involving a number of previously designated high-risk areas.

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### High-Risk Programs Involving a Modified Focus

The focus of our work involving specific high-risk areas may be modified over time as agencies progress in addressing high-risk areas and as additional information about them is developed from our work or becomes available as a result of implementation of various federal management reform initiatives, such as the Government Performance and Results Act and the Chief Financial Officers Act. For this update, we are modifying the scope of our high-risk concerns in the following areas involving HUD and the Internal Revenue Service (IRS).

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### HUD Single-Family Mortgage Insurance and Rental Housing Assistance Program Areas

Recognizing the progress HUD has made, we are reducing the number of HUD program areas deemed to be high risk. Specifically, because of the actions taken by HUD in response to our recommendations to improve its management controls over its Community Planning and Development programs, we no longer believe this HUD program area is at high risk. However, significant weaknesses (internal controls, information and financial management systems, organizational deficiencies, and staffing problems) still persist in two of HUD's major program areas which remain at high risk—single-family mortgage insurance and rental housing assistance.

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<sup>5</sup>*Confirmation of Political Appointees: Eliciting Nominees' Views on Leadership and Management Issues* (GAO/GGD-00-174, August 11, 2000).

To reduce financial risks, HUD's FHA needs to continue to improve its management over home mortgage loans made by private lenders that it insures against nearly all losses. While various factors, including a strong economy, have resulted in the accumulation of capital reserves of about \$16.6 billion on FHA-insured home loans valued at about \$454 billion, we estimate that FHA lost about \$1.9 billion during fiscal year 2000 on the sale of foreclosed homes that it had insured. We and HUD's Inspector General have identified opportunities to strengthen FHA's single-family mortgage insurance program management and internal controls and reduce financial risks. These include:

- strengthening the integrity of the single-family loan origination process;
- promoting better monitoring of lenders, appraisers, and property management and marketing contractors; and
- ensuring that sufficient staff are available and have the skills needed to carry out FHA's home loan mission.

In addition, making decent, affordable rental housing available for eligible low-income households is a top priority for HUD. However, HUD is able to serve fewer than half of the households who are eligible for assisted housing. Consequently, it is essential that HUD ensure that these programs are used efficiently and effectively to maximize the number of households it can assist. While the Department has made improvements, there are still significant opportunities to (1) reduce the \$3.1 billion in excess subsidy payments made over the last 4 years by ensuring that only eligible families occupy housing units and that those families are paying the correct rents; (2) ensure that providers of rental housing maintain housing that is decent, safe, sanitary, and in good condition; and (3) be certain that HUD has the capital resources and controls it needs to detect and



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address problems that exist in its rental housing assistance programs. (See page 167.)

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Earned Income  
Credit  
Noncompliance

We have narrowed the focus of the former high-risk area called IRS Tax Filing Fraud to better describe the scope of our current concern—billions of dollars for Earned Income Credit (EIC) claims that IRS paid but should not have. IRS estimates that it paid \$7.8 billion in such claims for tax year 1997 but does not know how much stems from fraud. It is likely that factors other than fraud contribute to taxpayers filing erroneous EIC claims. In 1998, with tools and funds provided by Congress, IRS began a 5-year EIC compliance initiative involving a mix of customer service and enforcement activities. In July 1998, we recommended that IRS develop evaluation plans for each initiative component to provide timely data for decisionmakers on the interim results of the initiative.<sup>6</sup>

IRS is collecting some data on initiative results, however, it is not sufficient to determine whether projects have reduced the overall non-compliance rate. Until sufficient data are available to demonstrate that IRS has implemented effective controls over EIC noncompliance and the billions of dollars in erroneous refunds that result, this remains a high-risk area. (See page 155.)

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Collection of Unpaid  
Taxes

IRS faces substantial challenges in carrying out one of its key functions—collecting unpaid taxes. Unpaid taxes include (1) delinquent taxes that IRS is attempting to collect, (2) taxes that IRS knows are due but it has decided not to pursue collecting, and (3) an unknown

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<sup>6</sup>*Earned Income Credit: IRS' Tax Year 1994 Compliance Study and Recent Efforts to Reduce Noncompliance* (GAO/GGD-98-150, July 28, 1998).

amount of unpaid taxes that IRS has not identified. As of September 30, 1999, the inventory of unpaid tax assessments that had some collection potential was \$104 billion. Since 1997, some key collection actions, such as levies and seizures, have declined. For example, levies have decreased dramatically from fiscal years 1997 to 2000—from about 3.7 million to about 220,000. These declines may increase the incentives for taxpayers to either not report or underreport their tax obligations. Because IRS lacks a measure of voluntary compliance, it does not know the impact of recent declines in collection actions. As a result, the former high-risk area that was called IRS receivables and unpaid assessments, and designated as such in 1990, has been expanded.

We have made numerous recommendations to address the serious deficiencies in IRS' financial management and operational systems that affect taxes receivable and other unpaid assessments. These include recommendations to correct systemic errors in taxpayer accounts that have led to instances of both lost revenue to the federal government and taxpayer burden, as well as to correct systemic deficiencies that have led to violations of the Internal Revenue Code. IRS is working to address these issues, but a sustained commitment by IRS senior management and successful implementation of IRS' systems modernization efforts will be needed to fully resolve these issues. (See page 157.)

The following sections discuss the important progress being made to further resolve the remaining high-risk areas and the challenges that are yet to be addressed in resolving them.

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## Resolving Serious Information Security Weaknesses

We designated information security as a governmentwide high-risk area in 1997 because growing evidence indicated that controls over computerized federal operations were not effective and because the related risks were escalating, in part due to increasing reliance on the Internet. In the months prior to issuance of our 1999 high-risk report, the President had launched a national effort to protect our nation's public and private critical computer-dependent infrastructures, and we had reported significant information security weaknesses in 24 major federal agencies, along with recommendations for improvements.

Since then, progress has been made, but recent audits show that federal operations and assets continue to be highly vulnerable to computer-based attacks. Several agencies have taken significant steps to redesign and strengthen their information security programs; the Federal Chief Information Officers Council has issued a guide for measuring agency progress, which we assisted in developing; the President issued a National Plan for Information Systems Protection and designated the related goals of computer security and critical infrastructure protection as a priority management objective in his fiscal year 2001 budget; and government information security reform provisions were enacted into law. These actions are laudable. However, recent reports and events indicate that they are not keeping pace with the growing threats and that critical operations and assets continue to be highly vulnerable to computer-based attacks.

We and agency inspectors general have made scores of recommendations to agencies regarding specific steps they should take to make their security programs more effective. Most agencies have heeded these recommendations and taken at least some corrective actions. However, more needs to be done, especially in

the area of security program management, which continues to be a widespread and fundamental problem.

Our May 1998 guide entitled *Information Security Management: Learning From Leading Organizations* (GAO/AIMD-98-68) provides a roadmap for managing risks through an ongoing cycle of activities coordinated by a central focal point, and, over the last two years, its concepts have become more widely adopted throughout the federal government. Government information security reform provisions included in the fiscal year 2001 Defense Authorization Act, enacted in October 2000, require agencies to adopt these risk management practices and require annual management evaluations and independent audits of agency security programs. Effective implementation of these legislative reforms could significantly reduce the government's risks.

In addition to individual agency efforts, further action is needed at the governmentwide level. While OMB, the Chief Information Officers (CIO) Council, and the various federal entities involved in critical infrastructure protection have expanded their efforts, it will be important to maintain the momentum. For example, it is important that these entities ensure that new tools, such as the CIO Council's *Security Assessment Framework*, and new requirements, such as those outlined in the fiscal year 2001 Defense Authorization Act, are implemented effectively. Even more important will be ensuring that the activities currently underway are coordinated under a comprehensive strategy and that the roles and responsibilities of the numerous organizations with central responsibilities are more clearly defined.

As the federal government moves forward in these areas, it will be important to take advantage of the experience gained from Year 2000 conversion efforts, which also involved mitigating risks to critical

computer-dependent operations. In October 1999,<sup>7</sup> we noted that several factors associated with the Year 2000 efforts had laid a foundation for longer-term improvements in the way people now view protecting computers that support critical operations. These factors include

- providing high-level congressional and executive branch leadership,
- understanding risks to computer-supported operations,
- providing adequate technical expertise,
- providing standard guidance,
- establishing public-private sector relationships,
- facilitating progress and monitoring performance,
- developing an incident identification and coordination capability, and
- implementing fundamental information technology management improvements.

(See page 97.)

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## Ensuring Major Technology Investments Improve Services

Progress is being made to implement essential information technology management processes called for by the 1996 Clinger-Cohen Act and related federal guidance, but several large modernization efforts that are key to delivering critical services continue to be at risk. In particular, these efforts include those underway to provide safe and efficient air travel, to modernize federal tax processing and customer service operations, and to support national defense operations. The Federal Aviation Administration (FAA), IRS, and the Department of Defense (DOD), respectively, are taking steps to implement modernization management capabilities to

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<sup>7</sup>*Critical Infrastructure Protection: Comprehensive Strategy Can Draw on Year 2000 Experiences* (GAO/AIMD-00-1, October 1, 1999).

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address our recommendations, but these projects continue to face challenges that could affect their cost, schedule, and performance.

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FAA Air Traffic Control Modernization

Over the past 19 years, the FAA Air Traffic Control modernization effort, expected to cost a total of \$45 billion through fiscal year 2005, has experienced cost overruns, schedule delays, and performance shortfalls of large proportions. Because of its size, complexity, cost, and problem-plagued past, we designated this program as a high-risk information technology initiative in 1995. Our work over the years has pinpointed root causes of the modernization program's problems, including immature software acquisition capabilities<sup>8</sup> and the lack of a complete and enforced architecture.<sup>9</sup>

Since 1995, we have made over 30 recommendations to address root causes of the modernization's problems, and FAA has initiated numerous activities in response to our recommendations. However, in many areas, more must be done. For example, the agency established a software acquisition process improvement initiative and is working to develop a comprehensive systems architecture, but neither of these efforts is complete. In the meantime, major projects continue to face challenges that could affect their cost, schedule, and performance. (See page 108.)

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<sup>8</sup>*Air Traffic Control: Immature Software Acquisition Processes Increase FAA System Acquisition Risks* (GAO/AIMD-97-47, March 21, 1997).

<sup>9</sup>*Air Traffic Control: Complete and Enforced Architecture Needed for FAA Systems Modernization* (GAO/AIMD-97-30, February 3, 1997).

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IRS Tax Systems  
Modernization

Over a decade ago, IRS began modernizing its inefficient and outdated systems used to process tax returns and respond to taxpayer inquiries. In 1995 we designated this modernization effort as a high risk and reported that it suffered from serious and pervasive management and technical weaknesses, such as lack of an enterprise architecture or “blueprint” for modernizing; lack of controls for selecting, controlling, and evaluating system investments; and lack of mature system development and acquisition processes.<sup>10</sup>

To address these and other weaknesses, we made a series of recommendations. Subsequently, the Congress placed certain limitations on IRS’ information technology spending and directed IRS to take actions consistent with our outstanding recommendations. The Congress has also legislated that we provide continuous oversight of IRS’ modernization spending plans. We have worked constructively with IRS to ensure that it satisfies congressional direction and implements our recommendations, and we have made additional recommendations as appropriate in light of IRS’ actions.<sup>11</sup>

In the last year, IRS has made important progress in satisfying congressional direction and fully implementing our recommendations. Nevertheless, important work remains to be accomplished, such as

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<sup>10</sup>*Tax Systems Modernization: Management and Technical Weaknesses Must Be Corrected If Modernization Is to Succeed* (GAO/AIMD-95-156, July 26, 1995).

<sup>11</sup>For example, see *Tax Systems Modernization: Blueprint Is a Good Start But Not Yet Sufficiently Complete to Build or Acquire Systems* (GAO/AIMD/GGD-98-54, February 24, 1998); *Tax Systems Modernization: Results of Review of IRS’ Initial Expenditure Plan* (GAO/AIMD/GGD-99-206, June 15, 1999); *Tax Systems Modernization: Results of Review of IRS’ March 7, 2000, Expenditure Plan* (GAO/AIMD-00-175, May 24, 2000); and *Tax Systems Modernization: Results of Review of IRS’ August 2000 Interim Spending Plan* (GAO-01-91, November 8, 2000).

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completing and enforcing its enterprise architecture, implementing investment portfolio management controls, and implementing disciplined system/software acquisition process controls. Until these and other modernization management capabilities and controls are in place and functioning, IRS will continue to risk spending hundreds of millions of dollars on systems that do not perform as intended and cost more and take longer to deploy than they should. (See page 112.)

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DOD Systems  
Modernization

DOD systems modernization efforts were designated high risk in 1995. DOD spends about \$20 billion annually on information technology (IT) to support a wide range of military operations and business functions and additional tens of billions of dollars more on technology embedded in sophisticated weaponry. This heavy reliance will only grow as the Department moves to modernize and respond to technological advances.

To effectively and efficiently leverage the huge sums of money that the Department plans to invest in IT, DOD will need to use IT implementation and oversight processes called for by the Clinger-Cohen Act, which we have recommended to DOD and the Congress has reemphasized. To date, the Department has been challenged in its efforts to implement these fundamental management controls, and although progress is being made, much remains to be accomplished. For example, we have recommended that DOD place a high priority on completing an electronic commerce implementation plan; finishing an electronic commerce architecture; establishing clearer lines of program management responsibility, authority, and accountability; and ensuring that all new electronic commerce initiatives



support the Department's strategic goals and have meaningful performance measures.<sup>12</sup> (See page 116.)

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## Providing Basic Financial Accountability

Agencies continue to make progress implementing the improvements called for by the Congress through the Chief Financial Officers (CFO) Act and other financial management reform legislation. These efforts will have to be sustained and built upon to attain the “end game” of having timely, accurate, and useful financial and other important management information to make decisions and monitor government performance every day. We are working with OMB, the Department of the Treasury, and agencies across government to identify and recommend financial management improvements.

An important milestone for each agency is to receive an unqualified, or “clean” opinion on its annual financial statements. Steady progress is being made in the number of agencies that have been able to do so. For these agencies, it will be important to maintain the ability to obtain unqualified opinions on their annual financial statements and to further improve financial reporting in areas such as reporting costs and measuring performance.

Several major departments are not yet able to produce auditable financial statements on a consistent basis, and a sustained commitment by these agencies will be needed for continued progress. Producing auditable financial statements is important in order to have this information available for use by the Congress in overseeing agency programs, by agency managers in maintaining accountability and managing operations, and by Treasury in preparing the legislatively required

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<sup>12</sup>*Defense Management: Electronic Commerce Implementation Strategy Can Be Improved* (GAO/NSIAD-00-108, July 18, 2000).

governmentwide financial statements. Further, many agencies have been able to obtain unqualified audit opinions only through heroic efforts, which include using extensive ad hoc procedures and making billions of dollars in adjustments to derive numbers as of a single point in time—the end of the fiscal year. Agencies do not yet have the financial systems needed to dependably produce annual financial statements and other financial information needed to manage day-to-day operations. For fiscal year 1999, agency financial auditors have reported that 21 of 24 major agencies' financial systems do not comply substantially with federal accounting standards or financial systems and other requirements.

Financial management at the agencies with the most significant problems (DOD, the Forest Service, FAA, and IRS) have been designated as high risk.

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## DOD Financial Management

Considering DOD's vast operations, including an estimated \$1 trillion in both assets and reported liabilities and a reported net cost of operations of \$378 billion in fiscal year 1999, effective asset accountability and reliable financial information are critical. The Department continues to confront pervasive and complex financial management problems that can seriously diminish the efficiency of the military services' support operations. Since 1995, when we designated DOD financial management as high risk, the Department has made progress in a number of areas, both larger steps forward and smaller incremental improvements. However, DOD has a long way to go to effectively address these problems.

We have testified<sup>13</sup> that:

- DOD's financial reporting continues to be inaccurate. No major part of DOD's operations has been able to prepare financial statements that comply with generally accepted accounting principles and pass the test of an independent financial audit. The most recent audits of DOD's financial statements—for fiscal year 1999—highlight ongoing financial management challenges that affect the development of accurate and complete financial information. Weaknesses include an inability to reconcile an estimated \$7 billion difference between its available fund balances and Treasury's. In addition, while the Department reported the total net costs for its operations as \$378 billion, it could not justify this amount.
- DOD does not have an effective process in place to comprehensively and accurately report liabilities associated with its environmental and disposed costs. DOD has taken important steps to better recognize and report on these liabilities, increasing its reported estimated liabilities from \$34 billion in its fiscal year 1998 financial statements to \$80 billion in fiscal year 1999.
- DOD has been unable to maintain effective accountability over its weapon systems and support equipment and its huge investment in inventories. Lacking such accountability could affect supply responsiveness and purchase decisions.
- DOD has acknowledged that its current financial management systems (1) are flawed with decades-old problems that will take time to resolve, (2) for the most part do not comply with federal financial management systems requirements, and (3) were not designed to collect data in accordance with generally

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<sup>13</sup>*Department of Defense: Progress in Financial Management Reform* (GAO/T-AIMD/NSIAD-00-163, May 9, 2000).

accepted accounting principles. The Department has set out an integrated financial management system goal. However, it faces a significant challenge in integrating its financial management systems because of its size and complexity and the condition of its current financial management operations.

Successfully completing efforts to prepare financial statements that can withstand the test of an audit will be a key milestone for DOD. It will also be a milestone for the federal government as a whole since the government's consolidated financial statements cannot be given a clean audit opinion until DOD's financial statements are auditable.

As we recently testified, many of DOD's planned financial management improvement initiatives need to be designed to result in more than just a one-time, year-end number for financial statement purposes. In the long term, sustaining the strong commitment we have seen over the past few years from the highest levels of DOD leadership—a commitment that must extend to the next Administration—will be needed to overhaul DOD's financial management systems and to focus on the rudimentary processes and controls needed to routinely generate reliable financial information. (See page 122.)

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Forest Service  
Financial  
Management

We designated the Forest Service's financial management high risk in 1999. Since the first audit of the Forest Service's financial statements, which covered fiscal year 1991, the USDA's Inspector General (IG) has found serious accounting and financial reporting weaknesses, some of which continue to exist today. While the Forest Service has committed considerable resources and has progressed in addressing some of its long-standing financial management deficiencies, much work remains.

In fiscal year 1999, the IG was unable to determine the accuracy of the reported \$3.1 billion in net property, plant, and equipment, which represented 51 percent of the agency's total assets. Also, the IG identified significant accounting and reporting weaknesses in the Forest Service's fund balance with Treasury accounts and in its financial management systems.

The Forest Service implemented a new accounting system agencywide on October 1, 1999, as scheduled. However, it faces a number of challenges related to consolidating, integrating, and reengineering its financial management feeder systems and reorganizing its field structure to ensure clear lines of responsibility and accountability within each region.

The Forest Service has completed several corrective actions and has begun others that, if successfully carried through, will represent important steps toward achieving financial accountability. The Forest Service must sustain top management commitment and have substantial additional resources devoted to addressing its accounting and reporting weaknesses. The Forest Service will also need to address material internal control weaknesses that limit its ability to maintain accountability over its assets on an ongoing basis. (See page 127.)

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## FAA Financial Management

In January 1999, we designated FAA's financial management as a high-risk area because of serious and long-standing accounting and financial management weaknesses. FAA received its first ever unqualified opinion on its fiscal year 1999 financial statements, which represents progress from prior years when the IG was unable to express an opinion on FAA's financial statements. This represents an important milestone, but it took heroic efforts to achieve that unqualified opinion. FAA has not yet proven it can sustain this outcome, and

it has not reached the end goal of routinely having timely, accurate, and useful financial information.

For example, because FAA lacks an adequate system to account for its property, plant, and equipment (PP&E) on an ongoing basis, it had to use alternative procedures and labor-intensive methods to establish a PP&E baseline and PP&E costs, reported to be \$10.8 billion at the end of fiscal year 1999. FAA also lacks a cost accounting system or an alternative means to meaningfully accumulate and report its costs.

FAA has efforts underway to develop new systems for maintaining PP&E records and providing cost accounting capabilities. Until FAA has financial management systems and related procedures and controls that provide reliable information for (1) preparing its financial statements and reports, (2) accounting for its PP&E on an ongoing basis, and (3) meaningfully accumulating and reporting its costs for programs and activities, FAA financial management will continue to be at high risk. In addition, FAA's unqualified audit opinion will be difficult to sustain while these problems continue to exist. (See page 131.)

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## IRS Financial Management

We designated IRS financial management as high risk in 1995. IRS has neither the reliable financial and operational information needed to measure the full cost of administering the Internal Revenue Code nor the data to report meaningful, cost-based performance information. As a result, IRS management and the Congress lack the information to determine whether IRS has the appropriate levels of funding and staff and is effectively using them.

Because of these problems, we were unable to render audit opinions on four of IRS' six financial statements, and our opinion on its balance sheet was qualified for

fiscal year 1999. IRS was able to reliably report the amounts of tax revenue collected and related refunds disbursed during fiscal year 1999 and the balance of taxes receivable outstanding at fiscal year-end. However, to achieve this, IRS depended on successfully completing extensive and time-consuming ad hoc procedures to compensate for its long-standing and pervasive internal control weaknesses.

As our audits of IRS' financial statements have identified, IRS' primary internal control weaknesses relate to several areas.<sup>14</sup> For example, severe weaknesses in accounting, reporting, and budgetary controls rendered IRS unable to reliably report how it spent the \$8.5 billion it was appropriated by the Congress in fiscal year 1999. Also, internal controls over tax receipts and data do not adequately protect the federal government and taxpayers from the vulnerability to loss from theft and inappropriate disclosure of proprietary taxpayer information. Additionally, serious internal control deficiencies affect IRS' management of unpaid tax assessments. IRS still lacks a subsidiary ledger that tracks and accumulates unpaid tax assessments on an ongoing basis. Further, significant and long-standing weaknesses in controls over information systems have been reported for the past 7 years. We also found that computer security controls over IRS' key applications that manage budget execution, tax return input, and receipt processing did not provide assurance that only authorized personnel had access to the application and related data, that the data were complete and accurate, and that application and data integrity was maintained.

IRS has taken action on a number of the financial management issues we have identified, and has shown a

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<sup>14</sup>*Financial Audit: IRS' Fiscal Year 1999 Financial Statements* (GAO/AIMD-00-76, February 29, 2000).

strong commitment to resolving these issues. In particular, IRS has worked aggressively to address a number of issues that are not dependent on systems modernization for their resolution. IRS also recognizes, however, that the resolution of many of its financial management issues depends on the success of its systems modernization efforts. (See page 135.)

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### Reducing Inordinate Program Management Risks

Our work to identify performance and accountability challenges has shown material weaknesses in several major program and mission areas across government. We have designated and continue to monitor them as high risk because the underlying problems can significantly impair service, reduce effectiveness, or diminish efficiency. Although agencies are making progress in addressing inordinate program management risks, until additional progress is made, these programs will remain high risk. Addressing the weaknesses in high-risk program management areas can significantly reduce government costs and improve services.

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### Medicare Program

The Medicare program, which is administered by the Health Care Financing Administration (HCFA) in the Department of Health and Human Services (HHS), was designated a high-risk area in 1990 and remains so today. Medicare is inherently challenging to manage because of its sheer size and vast range of participants—including about 40 million beneficiaries and nearly a million physicians, hospitals, and other providers. In fiscal year 2000, Medicare outlays totaled an estimated \$218 billion. As the baby boom generation becomes eligible for benefits, program spending will significantly increase. Absent any program reforms, the Medicare program is expected to double its share of the national economy by 2075, according to the Medicare Trustees' 2000 Annual Report. Moreover, a panel of experts advising the Trustees recently concluded that, based on projections of future health care costs, the estimate of future



Medicare expenditures should be increased significantly, which would dramatically add to the program's projected long-term deficits. These projections exclude consideration of any potential program changes, such as the addition of a prescription drug benefit.

In recent years, some of the companies that contract with the government to pay physicians, hospitals, and other providers that bill Medicare had defrauded the program or had not rigorously safeguarded the program's payments. Breakdowns in payment safeguards were due partly to HCFA's weak efforts to monitor and evaluate contractors' performance and partly to the lack of information on how providers responded to Medicare's various payment policies. For fiscal year 1999, the HHS Inspector General estimated that about \$14 billion of the \$171 billion in Medicare's fee-for-service payments were improper because claims lacked appropriate documentation, were not for Medicare-covered services, or were for services deemed not medically necessary. We made several recommendations to strengthen HCFA's oversight of Medicare's claims administration contractors, and the agency has taken steps in this direction.<sup>15</sup>

Nevertheless, other vulnerabilities exist. New prospective payment methods, along with Medicare's method for paying managed care plans, are designed to dampen providers' incentives to deliver unnecessary care but may result in providers' achieving gains by inappropriately reducing patient care. Because all payment methods can be subject to inappropriate manipulation, the ability to promptly generate and

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<sup>15</sup>*Medicare Contractors: Despite Its Efforts, HCFA Cannot Ensure Their Effectiveness or Integrity* (GAO/HEHS-99-115, July 14, 1999) and *Medicare Contractors: Further Improvement Needed in Headquarters and Regional Office Oversight* (GAO/HEHS-00-46, March 23, 2000).

analyze consistent, reliable data on payments and service utilization is a crucial program safeguard. However, HCFA lacks data that are timely, accurate, and useful on payment and service use trends essential to effective program monitoring. This will likely remain a problem for some time to come. HCFA's efforts to modernize its information systems are still largely in the early stages, but the agency has begun revamping its financial management, managed care, and claims database systems in a concerted effort to improve program management.<sup>16</sup> (See page 141.)

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## Supplemental Security Income

Supplemental Security Income (SSI) overpayments and outstanding debt owed to the program remain at high levels. In fiscal year 1999, outstanding SSI debt and newly detected overpayments for the year totaled more than \$3.8 billion. We designated SSI high risk in 1997. We subsequently issued numerous recommendations aimed at strengthening the Social Security Administration's (SSA) ability to better verify recipients' financial eligibility for the program and recover overpayments.<sup>17</sup>

In response, SSA has taken steps in coordination with the Congress, to improve the financial integrity and management of SSI. For example, SSA submitted its first major SSI legislative proposal in 1998, which included numerous overpayment deterrence and recovery provisions that directly responded to our prior recommendations. Many of these provisions were incorporated into the Foster Care Independence Act, which was signed into law in 1999. Other actions taken by SSA in response to our recommendations include

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<sup>16</sup>*Medicare: HCFA Faces Challenges to Control Improper Payments* (GAO/T-HEHS-00-74, March 9, 2000).

<sup>17</sup>*Supplemental Security Income: Action Needed on Long-Standing Problems Affecting Program Integrity* (GAO/HEHS-98-158, September 30, 1998).

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enhancing its computer matching efforts to better verify recipient eligibility and significantly increasing its reviews of recipient financial status. SSA's initiatives have the potential to significantly improve SSI management and financial integrity.

However, many of the problems facing the program are attributable to more than 20 years of inattention to payment controls and will take time to correct. Thus, SSA should move forward in fully implementing debt collection tools already available to it, continue to develop additional ways to improve program management and integrity, and seek legislative changes as appropriate. Until additional progress is made, the SSI program will remain at high-risk of waste, fraud, abuse, and continued overpayments. (See page 151.)

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## DOD Infrastructure Management

DOD infrastructure management was identified as a high-risk area in 1997. DOD defines infrastructure as those activities that provide support services to mission programs, such as combat forces, and primarily operate from fixed locations. The activities include such program elements as installation support, acquisition infrastructure, central logistics, and central training, central medical and central personnel. In fiscal year 2001, approximately \$33 billion of infrastructure costs related to maintenance and upkeep of facilities across these program elements are expected.

Infrastructure costs continue to consume a larger than necessary portion of DOD's budget. Although the United States has made significant reductions in defense force structure and military spending since the end of the Cold War, it has not achieved commensurate reductions in operations and support infrastructure costs. As the Department has sought to bring about a revolution in military affairs, it has realized that it must transform its support infrastructure to become leaner and more efficient to serve the warfighter faster, better, and

cheaper. However, planned savings from outsourcing initiatives of about \$9.2 billion by 2005, are likely to be smaller than expected. DOD has also realized that high-priority needs such as weapons modernization can be fulfilled only with a large influx from infrastructure savings. The effectiveness of many civilian agencies has also been undermined by outmoded organizational structures that drain resources needed to make improvements to mission delivery capabilities.

DOD has made some progress in reducing infrastructure costs, principally through the congressionally approved Defense Base Closure and Realignment process. However, significant opportunities for further reductions remain.<sup>18</sup> The Department projects that additional base closure rounds could produce new savings of about \$3.4 billion a year once realignment and closure actions were completed and the costs of implementing these actions were offset by savings. As we have recommended, DOD needs to develop a plan to better integrate, guide, and sustain the implementation of its diverse defense reform initiatives and an approach for making key investment decisions.

Key reform initiatives, such as acquisition, financial management, and logistics reform, could be strengthened if addressed in an integrated fashion. DOD also needs to develop a comprehensive long-range plan for its facilities infrastructure that addresses facility requirements, recapitalization, and maintenance and repair needs. Development of such a plan could be significantly affected by DOD's ability to reach agreement with the Congress on the need for additional base realignment and closure rounds. The infrastructure problems in civilian agencies also suggest the possible

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<sup>18</sup>*Defense Management: Actions Needed to Sustain Reform Initiatives and Achieve Greater Results* (GAO/NSIAD-00-72, July 25, 2000).

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relevance of a civilian facility closure and realignment process.<sup>19</sup> (See page 159.)

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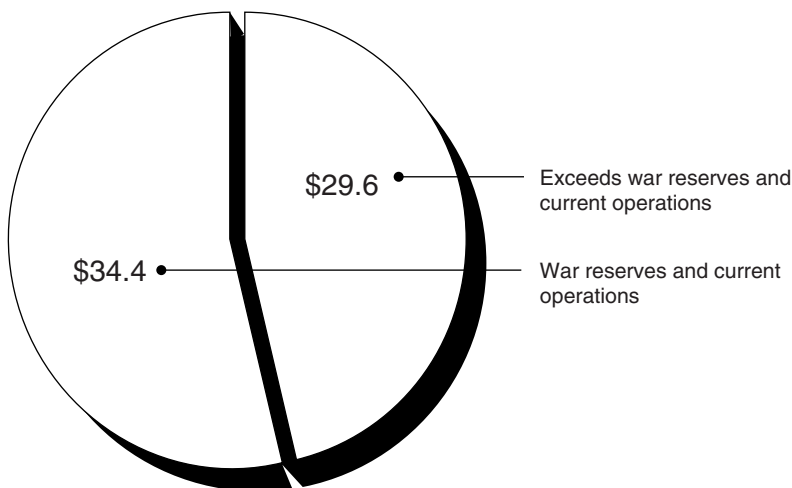
**DOD Inventory  
Management**

Management of DOD's \$64 billion inventory of spare and repair parts has been a high-risk area since 1990. While DOD has taken actions to improve inventory management, including reducing the amount of inventory it holds, our past and current work in this area indicates that DOD is (1) continuing to store unnecessarily large amounts of material, (2) purchasing material for which there is no valid requirement, (3) experiencing equipment readiness problems because of a lack of key spare parts, and (4) not maintaining adequate visibility over material being shipped to and from military activities. As shown in figure 1, about half of the \$64 billion inventory exceeds war reserve or current operating requirements.

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<sup>19</sup>*Budget Issues: Effective Oversight and Budget Discipline Are Essential—Even in a Time of Surplus* (GAO/T-AIMD-00-73, February 1, 2000).

Figure 1: DOD Inventory That Exceeded Requirements as of September 30, 1999



Dollars in billions

Source: GAO Analysis

Also, as of September 30, 1999, DOD records showed that the Department had inventory on order valued at about \$1.6 billion that would not have been ordered based on current requirements. As we have recommended, DOD needs to expand its efforts to make greater use of supply-chain best management practices similar to those used in the private sector, such as using highly accurate information systems to track and control inventory and employing various methods to speed the flow of parts through the logistics pipeline.<sup>20</sup> (See page 164.)

<sup>20</sup>*Defense Logistics: Actions Needed to Enhance Success of Reengineering Initiatives* (GAO/NSIAD-00-89, June 23, 2000).

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Student Financial Aid Programs

The Department of Education has addressed many of the issues involving student financial aid programs, and the national student loan default rate is the lowest ever—6.9 percent for fiscal year 1998, the most recent year for which data are available. The lower default rate has been attributed to a robust economy, better management by the Department, tougher enforcement tools authorized by the Congress, and stepped up efforts by colleges, lenders, guaranty agencies, and other participants in the federal loan program.

However, the Department continues to face challenges managing student financial aid programs. Despite the reduction in default rates, the risk of default continues and the downturn in default rates may not continue if economic conditions decline. Further, the annual costs of defaults remain substantial—about \$4.3 billion in fiscal year 1999 alone; over \$28 billion over the last ten years.<sup>21</sup>

Student financial aid programs continue to be high risk primarily because the Department lacks the financial and management information needed to manage these programs effectively and the internal controls needed to maintain the integrity of their operations. For example, because the Department did not properly account for and analyze transactions for its guaranteed student loan program or properly reconcile related accounting and budgetary accounts, the Department could not be assured that its financial or budgetary reports were accurate. In addition, continued weaknesses in information systems controls increase the risk of disruption in services and make the Department's loan data vulnerable to unauthorized access, inadvertent or deliberate misuse, fraudulent use, improper disclosure,

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<sup>21</sup>Some default costs may have been recovered through collections of previously defaulted amounts.

or destruction, all of which could occur without detection. With the exception of fiscal year 1997, Education has not received an unqualified, or “clean,” opinion on its financial statements since its first agencywide audit in 1995. Moreover, Education’s OIG has been pursuing those suspected of defrauding the federal government. For example, in the last four fiscal years (fiscal years 1997 - 2000) Education’s OIG opened 1030 fraud investigative cases and achieved 737 closures, including 268 convictions or guilty or “no contest” pleas. (See page 173.)

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### Asset Forfeiture Programs

The asset forfeiture programs operated by the Department of the Treasury and the Department of Justice also remain high risk. As of September 30, 1999, the combined value of assets in these two programs was more than \$1 billion. Both programs also hold large amounts of nonvalued assets such as illegal drugs and weapons. In 1990, we designated these programs as high risk because they did not adequately focus on managing the items seized and Treasury and Justice had not formed a plan to consolidate postseizure administration of certain properties to eliminate duplication of resources and reduce administrative costs.

We have made recommendations to certain Treasury and Justice entities relating to improving accountability and stewardship over property seized, primarily illegal drugs and weapons. These entities have taken many actions to address our recommendations. However, challenges remain to address the programs’ continued weaknesses in accountability for and reporting of seized and forfeited property.



Legislation in 1988 required Treasury and Justice to develop a plan to consolidate their seized property management functions. In 1991, we recommended that they consolidate the postseizure management and disposition of noncash seized properties to reduce administrative costs.<sup>22</sup> Although the Departments have not made plans for consolidating their programs, in September 2000, they contracted for a study to identify opportunities for increased cooperation and sharing of agency and contractor resources. Until this study is complete, the federal government will have missed opportunities for achieving reductions in administrative costs. (See page 178.)

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## Managing Large Procurement Operations More Efficiently

Federal agencies spend billions of tax dollars each year to acquire goods and services—ranging anywhere from multibillion-dollar weapon systems to complex space and satellite systems. In recent years, the acquisition process has become more streamlined as new contract vehicles and techniques have allowed agencies to buy what they need much faster than in the past.

Progress is being made. As we recently testified, reforms undertaken by the Congress and the Administration have focused largely on simplifying the process, particularly for buying commercial products and services, and on attempting to improve decision-making.<sup>23</sup> Agencies themselves have also made improvements in the way they relate to and oversee their contractors.

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<sup>22</sup>*Asset Forfeiture: Noncash Property Should be Considered Under the Marshals Service* (GAO/GGD-91-97, June 28, 1991).

<sup>23</sup>*Federal Acquisition: Trends, Reforms, and Challenges* (GAO/T-OCG-00-7, March 16, 2000).

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Nevertheless, many initiatives now underway will take a number of years to implement and demonstrate concrete results. And, as our reviews have shown, additional efforts need to be undertaken to adopt and implement best practices that have proven successful in the private sector.<sup>24</sup> Our work continues to show that some of the government's largest procurement operations are not always run efficiently, and we have recommended ways to operate them better.

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DOD Weapon  
Systems Acquisition

DOD spends close to \$100 billion annually to research, develop, and acquire weapon systems. We designated weapon system acquisition as high risk in 1990 because our reviews continually identified persistent problems regarding (1) questionable requirements and solutions that were not the most cost-effective available, (2) unrealistic cost, schedule, and performance estimates, (3) questionable program affordability, and (4) the use of high-risk acquisition strategies.

The effect of these problems is significant. We continue to uncover and report on examples of weapon system programs with questionable mission needs. For example, the Air Force and Navy continued their plans to spend \$5 billion acquiring 19,000 Joint Standoff Weapons even though the ability to use the weapon against moving and relocatable targets was significantly less than originally projected. Moreover, we continue to identify programs facing significant performance and schedule risks because of technical challenges and compressed schedules. For example, the Navy was moving toward a full rate production decision on the MV-22 Osprey aircraft without having an appropriate level of confidence that the program would meet design parameters as well as cost and schedule objectives.

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<sup>24</sup>*Defense Acquisition: Employing Best Practices Can Shape Better Weapon System Decisions* (GAO/T-NSIAD-00-137, April 26, 2000).

Overall, our reviews have also found that DOD tends to overestimate the availability of future funding, and, when coupled with the tendency to underestimate program costs, this has resulted in the advent of more programs than could be executed as planned. Thus, tension still exists between wants and needs—such as buying new weapons and sustaining existing weapons—and what can be afforded.

While these problems have proven resistant to past reform efforts, we are finding that the best practices employed by leading commercial firms to develop new products offer different and promising solutions. More specifically, our reviews have shown that product development in commercial ventures is a clearly defined undertaking that will not be started unless a firm has the technology in hand to meet customers' needs. Moreover, successful firms demand and receive specific knowledge about a new product before they begin production. They do not proceed with a particular program unless a strong business case on which the program was originally justified continues to hold true.<sup>25</sup> We believe that DOD should follow best commercial practices unless there is a clear and compelling reason not to.

DOD has many acquisition reform initiatives in process and, as we recommended in our series of best practice reports, has taken some steps to attain the same kinds of outcomes achieved by leading firms. A few programs have exhibited some of these features in the early stages of development, but it would be premature to interpret this progress as evidence that systemic change has occurred in DOD's acquisition process. The key to meaningful change will depend on whether DOD, with the support of the Congress, can institute new incentives

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<sup>25</sup>*Defense Acquisition: Employing Best Practices Can Shape Better Weapon System Decisions* (GAO/T-NSIAD-00-137, April 26, 2000).

and a different environment through individual decisions. (See page 184.)

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## DOD Contract Management

In contracting for goods and services, DOD also continues to experience significant challenges related to (1) improving oversight and accountability in the acquisition of services, (2) preventing erroneous and improper payments being made to its contractors—for fiscal years 1994-99, DOD reported that contractors returned nearly \$5.3 billion,<sup>26</sup> (3) implementing commercial practices for contract pricing,<sup>27</sup> and (4) managing health care contracts.<sup>28</sup> As a result, serious risks pervade nearly every aspect of the acquisition process—from not having the skills, knowledge, and succession planning needed to effectively manage large procurements; to lacking assurance that the Department is obtaining fair and reasonable prices; to overpaying contractors by billions of dollars. As a result, we have reported DOD contract management as a high-risk area since 1992.

Over the last few years, partly in response to recommendations made through many of our reviews, DOD has made meaningful changes to improve the way it relates to contractors and the rules governing these relationships—such as introducing performance metrics to measure changes in contracting processes and undertaking initiatives to improve contractor payment processes. Nevertheless, these changes are by no means complete, and acquisition reform, with its emphasis on

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<sup>26</sup>*Financial Management: Billions in Improper Payments Continue to Require Attention* (GAO-01-44, October 27, 2000).

<sup>27</sup>*Contract Management: DOD Pricing of Commercial Items Needs Continued Emphasis* (GAO/NSIAD-99-90, June 24, 1999).

<sup>28</sup>*Defense Health Care: Operational Difficulties and System Uncertainties Pose Continuing Challenges for TRICARE* (GAO/T-HEHS-98-100, February 26, 1998).

widespread reengineering of fundamental processes, continues to need attention at the highest levels in DOD. In particular, DOD still must address a range of major workforce challenges; resolve underlying weaknesses related to contractor payments, including accounting system deficiencies; and successfully implement improvement actions related to health care contracts. (See page 193.)

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Department of  
Energy Contract  
Management

The Department of Energy (DOE), the largest civilian contracting agency, relies primarily on contractors to operate its facilities and carry out its missions. In fiscal year 1999, DOE obligated about \$15.5 billion, or about 90 percent of its total obligations, to contracts. Since 1990 we have designated DOE's contract management as high risk because of the challenges the agency faces. Over the years we and others have reported on these challenges which include noncompetitive awards, cost and schedule overruns, inadequate oversight of contracts, and an inability to hold contractors accountable.

In response, DOE has begun numerous initiatives to address the challenges. For instance, partly in response to issues raised by our reviews, DOE has acted to include performance incentives in contracts,<sup>29</sup> and it created a new office to implement policies and procedures to improve project management and oversight. Although progress is being made, many of the initiatives DOE is undertaking will take a number of years to fully implement. Further, since DOE uses contractors to manage many aspects of its missions, initiatives to improve contract management need to be directed at the underlying culture of the organization. (See page 200.)

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<sup>29</sup>National Laboratories: DOE Needs to Assess the Impact of Using Performance-Based Contracts (GAO/RCED-99-141, May 7, 1999).

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NASA Contract  
Management

The National Aeronautics and Space Administration (NASA) spends more than \$12 billion annually for goods and services to support space exploration as well as science and engineering efforts. In 1990, we identified NASA's contract management as an area at high risk because it lacked effective systems and processes for overseeing contractors' activities and because field centers were not complying with contract management requirements.

NASA has made progress toward resolving these problems, especially with regard to improving oversight of procurement practices, but key steps remain. Specifically, NASA has not made as much progress in implementing a new integrated financial management system, which is critical to effective management of procurement resources. Also, to complete work on its largest contract for the International Space Station, NASA still relies on contract changes that initiate new work before NASA and the contractor agree on a final estimated cost and fee—a risky practice because it increases the potential for cost and scheduling delays.<sup>30</sup> (See page 206.)

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<sup>30</sup>*Space Station: Prime Contract Changes* (GAO/NSIAD-00-103R, May 11, 2000).



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# Substantial Progress Made to Resolve Several High-Risk Areas

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The government continues to make progress toward long-needed improvements in high-risk areas. In several cases, legislation and oversight by the Congress and actions by agencies, including those in response to our recommendations, have resulted in substantial improvements. For five areas, progress in resolving problems in, or other factors affecting, high-risk areas warrant our removing the high-risk designation. These include two areas that were dependent on time-related events that have already occurred and two areas that were first identified as high risk when our initiative began 11 years ago.



## High-Risk Designations Removed

- Year 2000 Computing Challenge
- The 2000 Census
- National Weather Service Modernization
- Farm Loan Programs
- Superfund Program



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## **Year 2000 Computing Challenge**

Because of the urgent nature and potential widespread impact of the Year 2000 problem on critical government operations, in February 1997 we designated it a high-risk area across the federal government. In particular, as we reported in April 1998, the public faced a high risk that critical services provided by the government and the private sector could be severely disrupted by this problem.<sup>1</sup> Our purpose in designating the Year 2000 computing challenge as high risk was to stimulate greater attention to assessing the government's exposure to Year 2000 risks and to strengthen planning for achieving Year 2000 compliance for mission-critical systems.

The federal government was initially slow in addressing the Year 2000 challenge but, as the date grew closer, the government's response improved. In its first governmentwide quarterly progress report, the Office of Management and Budget (OMB) reported that, as of May 15, 1997, only 21 percent of the 24 major federal departments' and agencies' mission-critical systems were compliant. In July 1997, we testified on this report and found that there was ample evidence that OMB and key federal agencies needed to heighten their levels of concern and move with more urgency.<sup>2</sup>

Subsequent to our July 1997 testimony, additional federal government attention began to be paid to the Year 2000 problem. For example, in September 1997, OMB began to place agencies into one of three tiers based on their progress. Agencies in the tier that

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<sup>1</sup>*Year 2000 Computing Crisis: Potential for Widespread Disruption Calls for Strong Leadership and Partnerships* (GAO/AIMD-98-85, April 30, 1998).

<sup>2</sup>*Year 2000 Computing Crisis: Time is Running Out for Federal Agencies to Prepare for the New Millennium* (GAO/T-AIMD-97-129, July 10, 1997).

indicated insufficient evidence of progress came under additional scrutiny, including reporting on their progress monthly and meeting with high-level Administration officials. By December 1997, expressing its concern about whether agencies would have enough time to adequately test mission-critical systems in production settings, OMB accelerated two of its governmentwide target milestones—moving up the date for completing renovation by 3 months and for implementation by 8 months. Finally, in 1999, according to OMB’s Director, the Administration designated resolving the Year 2000 problem as its foremost management objective. By December 1999, OMB reported that 99.9 percent of the 24 major federal departments’ and agencies’ mission-critical systems were compliant.

One of the most significant actions taken by the Administration on the Year 2000 issue was establishing the President’s Council on Year 2000 Conversion, which played an essential role in the government’s response. The Council was established by the President in February 1998, and its Chair was tasked with (1) overseeing the activities of agencies; (2) acting as chief spokesperson in national and international forums; (3) providing policy coordination for executive branch activities with state, local, and tribal governments; and (4) promoting appropriate federal roles with respect to private-sector activities.

The Council took many actions between its inception and its conclusion of operations at the end of March 2000. These actions included working with the United Nations, state and local governments, and the private sector on the Year 2000 issue. For example, consistent with recommendations in our April 1998 report, the Council established over 25 sector-based working groups and conducted outreach activities, and the Chair directed the Council’s sector working groups to assess

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**Substantial Progress Made to  
Resolve Several High-Risk Areas**

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the status of their sectors.<sup>3</sup> In 1999, the Council issued four public reports summarizing these assessments. The last of these reported that, since the Council's first report in January 1999, considerable progress had been made in both the public and private sectors, and it concluded that it was unlikely that there would be major national failures or breakdowns related to the Year 2000.

As a result of this increased government response to the Year 2000 computing challenge, by November 1999, we testified that substantial progress had been made to reduce Year 2000 risks to the public.<sup>4</sup> Indeed, during the century-change and leap-day rollover period, most Year 2000-related errors reported by the federal government were minor and did not have an effect on operations or the delivery of services.<sup>5</sup> Even those that were significant (that resulted in degraded service or, if not corrected, would have so resulted) were mitigated by quick action to fix the problem or by implementing contingency plans.

Sustained bipartisan and bicameral congressional leadership played a key role in addressing the Year 2000 challenge. The Congress held agencies responsible for demonstrating progress and heightened public awareness of the problem by holding over 100 hearings. In particular, the Senate Special Committee on the Year 2000 Technology Problem and the House Year 2000 Task Force—co-chaired by the Subcommittee on Government Management, Information and Technology of the Committee on Government Reform, and the

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<sup>3</sup>GAO/AIMD-98-85, April 30, 1998.

<sup>4</sup>*Year 2000 Computing Challenge: Noteworthy Improvements in Readiness But Vulnerabilities Remain* (GAO/T-AIMD-00-37, November 4, 1999).

<sup>5</sup>*Year 2000 Computing Challenge: Leadership and Partnerships Result in Limited Rollover Disruptions* (GAO/T-AIMD-00-70, January 27, 2000).

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**Substantial Progress Made to  
Resolve Several High-Risk Areas**

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Subcommittee on Technology of the Committee on Science—played major leadership roles. The Congress also passed legislation to facilitate the nation’s Year 2000 work, including passing the Year 2000 Information and Readiness Disclosure Act, which provided limited exemptions and protections for the private sector in order to facilitate the sharing of Year 2000 readiness information.

In addition, to help agencies mitigate their Year 2000 risks, we produced a series of guides and reports. Our guides provided systematic approaches to enterprise readiness, business continuity and contingency planning, testing, and day one planning.<sup>6</sup> Federal agencies and other organizations used these guides widely to help organize and manage their Year 2000 programs. In addition, we issued over 160 reports and testimony statements detailing specific findings and recommendations related to the Year 2000 readiness of both the government as a whole and a wide range of individual federal agencies. Our recommendations were almost universally embraced.

It is critical that the momentum generated by the government’s Year 2000 efforts not be lost. In September 2000, we reported that although the Year 2000 challenge was finite, it led to the development of initiatives, processes, methodologies, and experiences that can assist in resolving ongoing management challenges, such as computer security and critical infrastructure

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<sup>6</sup>*Year 2000 Computing Crisis: An Assessment Guide* (GAO/AIMD-10.1.14, issued as an exposure draft in February 1997 and in final form in September 1997), *Year 2000 Computing Crisis: Business Continuity and Contingency Planning* (GAO/AIMD-10.1.19, issued as an exposure draft in March 1998 and in final form in August 1998), *Year 2000 Computing Crisis: A Testing Guide* (GAO/AIMD-10.1.21, issued as an exposure draft in June 1998 and in final form in November 1998) and *Year 2000 Day One Planning and Operations Guide* (GAO/AIMD-10.1.22, October 1999).

protection.<sup>7</sup> First, the Year 2000 challenge demonstrated the value of sustained and effective bipartisan oversight by both the Senate and the House of Representatives, which highlighted the issue and provided needed resources. Second, leadership, commitment, and coordination by the federal government, which included periodic reporting and oversight of agency efforts, were major reasons for the government's Year 2000 success. Third, the President's Council on Year 2000 Conversion and individual agencies formed working partnerships with other agencies, states, other countries, and the private sector. Fourth, communication within agencies, with partners, and with the public was vital to coordinating efforts and ensuring an appropriate public response. Finally, the federal government implemented initiatives that helped ensure that necessary staff and financial resources would be available to agencies.

Individual agencies also gleaned lessons from their Year 2000 efforts that can be carried forward. Specific management practices that contributed to Year 2000 success included top-level management attention, risk analysis, project management, development of complete information systems inventories and strengthened configuration management, independent reviews by internal auditors and independent contractors, improved testing methods and procedures, and business continuity and contingency planning. By continuing and strengthening these practices in the future, federal agencies are more likely to improve their overall IT management record, particularly in the areas of critical infrastructure protection and security, the effective use of technology, and large-scale IT investments.

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<sup>7</sup>Year 2000 Computing Challenge: Lessons Learned Can Be Applied to Other Management Challenges (GAO/AIMD-00-290, September 12, 2000).

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For additional information on Year 2000 computing issues, please contact Joel C. Willemsen, Managing Director, Information Technology, at (202) 512-6253 or *willemsenj@gao.gov*.

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## The 2000 Census

With respect to the 2000 Census, the Bureau of the Census generally completed its peak data collection activities consistent with its operational plans, and remaining activities appear to be on track. As a result, we no longer consider the operation of the 2000 Census to be high risk.

Beginning in February 1997, when we first designated the census a high-risk area, and in subsequent reports, we noted that formidable challenges surrounded critical census-taking operations. Key among these challenges were building a complete and accurate master address file, motivating the public to participate in the census by returning their census questionnaires, meeting field staffing goals in a tight labor market, and collecting timely and accurate data from nonrespondents.

Moreover, in anticipation of comparatively low public participation in the census, the Bureau planned to use statistical sampling and estimation procedures that it believed would be more accurate and cost-effective than visiting every nonresponding household. However, Congress, citing legal and methodological concerns, did not agree to the Bureau's planned use of sampling, which raised questions about the Bureau's readiness for taking a "traditional," nonsampling census. In January 1999, the Supreme Court ruled that the Census Act (13 U.S.C. 195) prohibited the use of statistical sampling for purposes of determining the population count used to apportion the House of Representatives, which eliminated any uncertainties about which census design the Bureau was to use.

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**Substantial Progress Made to  
Resolve Several High-Risk Areas**

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As we noted in several reports and testimonies, the Bureau took a number of steps aimed at addressing the challenges it faced. For example, in late 1997, the Bureau redesigned its existing procedures for building its master address file. Under the new approach, temporary Bureau employees went door-to-door verifying the majority of housing unit addresses across the country. To increase public participation in the census, the Bureau streamlined census questionnaires, and implemented an aggressive outreach and promotion campaign, hiring a private sector advertising firm to promote the census nationally, and partnering with religious, community, and other local organizations to market the census on a grassroots basis.

The Bureau's peak data collection activities proceeded on or ahead of schedule and generally performed as planned. Particularly noteworthy was an initial mail response rate of 65 percent, which was four percentage points higher than the Bureau anticipated and matched the response rate of the 1990 Census. As we have often noted, although the response rate does not guarantee a successful census, it reduced the cost and scheduling pressures in nonresponse follow-up and subsequent census operations while enhancing data quality. Indeed, this lower nonresponse follow-up workload, combined with the Bureau having met its national staffing goals, helped the Bureau complete nonresponse follow-up in nine and a half weeks, several days ahead of schedule.

Still, surmounting the various challenges to a successful census that the Bureau faced in 2000 came at considerable cost. As we noted in our December 1999 report, the Bureau estimated that the cost of the 2000 Census will be at least \$6.8 billion, an increase of 113 percent in real terms over the \$3.2 billion cost of the

1990 census in 1999 dollars.<sup>8</sup> Moreover, the single most important determinate of a successful census—the completeness and accuracy of the census count and, in particular, the size and nature of the undercount—will not be known until the Bureau completes various accuracy and coverage assessments. Past experience suggests that increased investment in the census does not necessarily generate more accurate results. Indeed, the 1990 Census was, at that time, the most expensive in the nation’s history, but it left millions of Americans—particularly members of minority groups—uncounted.

As the Bureau looks toward the next census, continued societal and demographic changes such as more complex living arrangements and a large non-English-speaking population, will make the national headcount in 2010 at least as challenging as it was in 2000. As a result, it will be important for the Department of Commerce to ensure that the Bureau completes its evaluations of key census operations as planned, and explore innovative options in time for taking a more complete, accurate, and cost-effective census in 2010.

This issue is also discussed in *Major Management Challenges and Program Risks: Department of Commerce* (GAO-01-243, January 2001), which includes a list of related GAO reports. For additional information on the 2000 Census, please contact J. Christopher Mihm, Director, Strategic Issues, at (202) 512-3236 or [mihmj@gao.gov](mailto:mihmj@gao.gov).

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<sup>8</sup>*2000 Census: Contingency Planning Needed to Address Risks That Pose a Threat to a Successful Census* (GAO/GGD-00-06, December 14, 1999).



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**National Weather  
Service  
Modernization**

In the 1980s, NWS decided to leverage the power of information technology to achieve more uniform weather services across the nation, improve forecasting, provide more reliable detection and prediction of severe weather and flooding, permit more cost-effective operations through staff and office reductions, and achieve higher productivity. At that time, NWS began a nationwide modernization program to upgrade weather-observing systems (such as satellites and radars), to design and develop advanced computer workstations for forecasters, and to reorganize its field office structure. NWS' modernization included five major systems initiatives: the Next Generation Weather Radar, the Next Generation Geostationary Operational Environmental Satellite, the Automated Surface Observing System, and the Advanced Weather Interactive Processing System (AWIPS), and Central Computer Upgrades.

In 1995, 1997, and 1999, we identified NWS' modernization as a high-risk initiative because of several issues, including NWS' lack of a systems architecture to guide the modernization effort and problems in developing AWIPS. Over the years, we made a series of recommendations intended to address NWS' problems. For example, in 1994, we recommended that NWS develop an overall systems architecture to be used as a guide in developing current and future subsystems;<sup>9</sup> in 1995, we recommended that the agency correct shortfalls in its radar performance;<sup>10</sup> and in 1996, we recommended that NWS improve its processes for testing AWIPS software and obtain an independent

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<sup>9</sup>*Weather Forecasting: Systems Architecture Needed for National Weather Service Modernization* (GAO/AIMD-94-28, March 11, 1994).

<sup>10</sup>*Weather Forecasting: Radar Availability Requirement Not Being Met* (GAO/AIMD-95-132, May 31, 1995).

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**Substantial Progress Made to  
Resolve Several High-Risk Areas**

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AWIPS cost estimate since NWS did not have reliable project cost information.<sup>11</sup>

NWS has acted to implement our recommendations. In June 2000, the agency established an architecture and is using it to guide its systems' future evolution. In accordance with Office of Management and Budget guidance on architecture development, NWS' architecture includes important elements, such as information on its business processes, systems, and technical standards. While NWS expects to enhance this document in future versions, this is a good first step toward developing a comprehensive systems architecture and will help the agency ensure that enhancements to its modernized systems will be compatible and cost-effective.

NWS has also improved its radar availability, strengthened its software development and testing processes, and completed an independent cost estimate of AWIPS. Further, NWS overcame major obstacles in developing AWIPS. The system is now operating in field offices across the country, though with less than the full functionality that AWIPS was planned to provide. For example, it does not provide weather forecasters a full range of interactive forecast preparation techniques, such as allowing forecasters to enter human observations of the weather into radar-based warning tools. To allow more efficient and improved forecasts, NWS plans to deploy radar and infrastructure enhancements to AWIPS in three phased releases beginning in 2001 and 2002.

Given the agency's progress in issuing its initial systems architecture, and in deploying and using the AWIPS

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<sup>11</sup> *Weather Forecasting: Recommendations to Address New Weather Processing Systems Development Risks* (GAO/AIMD-96-74, May 13, 1996).

system, NWS' modernization effort no longer merits a high-risk designation, and we are removing it from our high-risk list. We will, however, continue to monitor NWS' efforts to develop and deploy AWIPS enhancements.

This issue is also discussed in *Major Management Challenges and Program Risks: Department of Commerce* (GAO-01-243, January 2001), which includes a list of related GAO reports. For additional information on the National Weather Service modernization, please contact Joel C. Willemssen, Managing Director, Information Technology, at (202) 512-6253 or [willemssenj@gao.gov](mailto:willemssenj@gao.gov).

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## **Farm Loan Programs**

The Department of Agriculture's (USDA) farm loan programs are intended to provide temporary financial assistance to farmers and ranchers who are unable to obtain commercial credit at reasonable rates and terms. In operating the farm loan program, USDA faces the conflicting tasks of providing temporary credit to high-risk borrowers so they can stay in farming until they are able to secure commercial credit and of ensuring that the taxpayers' investment is protected. The unpaid principal on USDA's farm loan portfolio totaled more than \$16.6 billion on September 30, 2000; about \$8.7 billion in direct loans and almost \$8 billion in guaranteed loans.

USDA's farm loan programs have been identified as high risk since 1990 because of significant problems primarily with the direct loans. As we have previously reported, the farm loan programs had experienced a high rate of defaults on repayments, billions of dollars of losses had occurred and were likely to occur, and the Department had evolved into a continuous source of subsidized credit for thousands of borrowers. These problems occurred because of (1) program policies—

some of which were congressionally directed—that contributed to financial risks and (2) the failure of the Department’s field office officials to comply with existing loan and property management standards. For example, program policies allowed borrowers who defaulted and caused losses on past USDA farm loans to obtain new loans and allowed borrowers to obtain new direct loans for operating expenses without demonstrating their ability to pay their existing USDA debt. Also, field office lending officials approved loans using unrealistic estimates of production, income, and expenses, and often failed to verify borrowers’ existing debts.

We are now removing the program’s high-risk designation. Since our last high-risk update in January 1999, the financial condition of USDA’s farm loan program has continued to improve. As of September 30, 2000, delinquent borrowers held more than \$1.8 billion, or about 21 percent, of the outstanding principal on direct loans as compared with \$2.4 billion (over 26 percent) in September 1998. This September 2000 portfolio condition is dramatically improved over that in September 1995 when the amount owed by delinquent borrowers was \$4.6 billion (about 41 percent). The condition of the guaranteed loan portfolio, which has always been much better than the direct loan portfolio, has continued to be relatively healthy.

We believe that these improvements in part reflect actions that the Congress and USDA have taken to address the underlying causes of past program weaknesses. More specifically, the 1996 farm bill contained numerous provisions, based in part on recommendations we previously made, aimed at improving the solvency of USDA’s farm loan programs, including prohibiting certain high-risk loans. For example, the bill generally prohibited borrowers who caused losses on past USDA farm loans from obtaining new loans and specifically prohibited borrowers who

were behind on payments on existing loans from obtaining new direct operating loans. USDA and the Congress need to monitor the effects of the lending and servicing reforms contained in the 1996 farm bill and any future legislation to ensure that improvements in the financial integrity of the farm loan programs continue.

This issue is also discussed in *Major Management Challenges and Program Risks: Department of Agriculture* (GAO-01-242, January 2001), which includes a list of related GAO reports. For additional information on farm loan programs, please contact Lawrence J. Dyckman, Director, Natural Resources and Environment, at (202) 512-3841 or [dyckmanl@gao.gov](mailto:dyckmanl@gao.gov).

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## Superfund Program

Five federal agencies are involved in cleaning up most abandoned hazardous waste sites located on either private or federal lands under the Superfund program, a job that could ultimately cost the federal government more than \$300 billion. For over a decade, our work has identified recurring problems that have put Superfund at risk. These collective problems led us since 1990 to designate Superfund at high risk of being vulnerable to waste, fraud, abuse, and mismanagement. At that time, we had found that the Environmental Protection Agency (EPA) and the Departments of Agriculture, Defense, Energy, and the Interior were not giving priority for limited cleanup funds to those sites that posed the relatively highest risk to human health and the environment. Further, although under Superfund's stringent liability provisions, responsible parties must pay for cleanups or EPA can conduct the cleanup and subsequently recover its costs from the responsible parties, we found that EPA was not recovering billions of dollars in indirect costs it had spent on cleanups from the parties responsible for contaminating the sites—dollars it could use on additional cleanups. Finally, EPA was not effectively controlling the costs of the

contractors it used to conduct cleanups. To address these problems, we reported on the need for (1) EPA and the Departments of Agriculture, Defense, Energy, and the Interior to set funding priorities based on a consideration of the health and environmental risks posed by sites, (2) EPA to recover billions in certain cleanup costs from parties responsible for contaminating sites, and (3) EPA to better control contractors' costs.

In the intervening decade, the agencies have demonstrated a commitment to improving their management of the Superfund program and have implemented a number of corrective actions in response to our concerns and recommendations. Because of the progress that has been made in addressing the management problems we have identified, we are removing our designation of high risk for this program. More specifically:

- In response to our concerns and recommendations, all five agencies now generally have systems in place to set priorities among Superfund sites—or portions of those sites—that are based on a consideration of the relative risks the sites pose, among other factors. Defense and Energy do not set priorities for sites on an agencywide basis but rather for each military component or installation. Each agency also allocates limited cleanup funds according to the priorities. However, within Interior, we found in the past that its Bureau of Land Management did not have an inventory of the numerous hazardous abandoned mines it manages in order to be able to set priorities or a cleanup strategy for them. In the past year, the Bureau has made considerable progress towards developing such an inventory and strategy. Finally, EPA has responded to our past concerns and is working with the states to assign responsibility for assessing Superfund sites

potentially posing the highest risk and determining whether and how to proceed with cleanup.

- EPA has made progress in addressing our past concerns and recommendations related to cost recovery by adopting a new method to calculate the costs it incurs to operate the Superfund program. By using the new cost rate, EPA should be able to increase recoveries from responsible parties in situations where EPA initially pays for the cleanup. Indirect costs are those prorated across all sites because they are not attributable to a particular site, and in the past EPA did not include many of them in its indirect cost calculations. EPA estimates the new indirect cost rates will enable it to pursue the recovery of up to \$600 million on those cleanups currently awaiting a final settlement and on average about \$100 million per year on future cleanups. In addition, the agency is upgrading and better linking its financial accounting and Superfund information systems so that it can more efficiently maintain records critical to cost recovery negotiations and more effectively track its cost recovery efforts.
- EPA is also taking steps to better manage its contractor cleanup costs. In responding to our recommendations that the agency better control Superfund contractors' costs, EPA has significantly reduced the percentage of cleanup costs it spends on contractor overhead costs, such as salaries and rent, rather than on actual cleanups. EPA did this in part by reducing the number of cleanup contracts it maintains, an important step because the future workload of the program could decrease. In addition, EPA has eliminated most of its Superfund contract audit backlog and is generally meeting its goal of completing audits within 2 years of receiving the necessary information from the relevant contractors. Finally, EPA is now generating independent estimates of what cleanup work should cost in order

to negotiate the best contract price for the government and is taking steps to improve the quality of those estimates. The steps include issuing a clear policy on the importance of controlling contractor costs; developing new cost-estimating guidance, including a Web-based cost-estimating tool that incorporates actual cost data; and providing training on the policy and guidance.

We will continue to monitor the Department of the Interior's Bureau of Land Management's progress in implementing a cleanup program and EPA's efforts to improve its cost-estimating practices. But we believe that the significant progress achieved in solving the other problems we had identified, as well as the considerable changes in the program over the last decade, have reduced the risk that the program poses to the federal government. EPA has already selected the cleanup methods for most of the sites currently in the program, and construction of these methods is under contract or completed. Also, EPA has worked extensively with the states to accomplish additional cleanups nationwide. Finally, EPA and the Congress are in the process of trying to forecast the future policy direction of the program. Given the uncertainty about its direction, we will continue monitoring policy and program administration issues affecting the program.

This issue is also discussed in *Major Management Challenges and Program Risks: Environmental Protection Agency* (GAO-01-257, January 2001), which includes a list of related GAO reports. For additional information on Superfund, please contact David G. Wood, Director, Natural Resources and Environment, at (202) 512-3841 or [woodd@gao.gov](mailto:woodd@gao.gov).



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# Strategic Human Capital Management: A Governmentwide High-Risk Area

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High performing organizations in the private and public sectors have long understood the relationship between effective “people management” and organizational success. An organization’s people—its human capital—are its most critical asset in managing for results. However, the federal government has often acted as if people were costs to be cut rather than assets to be valued. After a decade of government downsizing and curtailed investments in human capital, it is becoming increasingly clear that today’s federal human capital strategies are not appropriately constituted to adequately meet current and emerging needs of government and its citizens in the most effective, efficient, and economical manner possible.

Strategic human capital management is a pervasive challenge in the federal government. Our work has found challenges in key areas.



**Strategic Human Capital Management — Challenges In Key Areas**

- Strategic human capital planning and organizational alignment
- Leadership continuity and succession planning
- Acquiring and developing staffs whose size, skills, and deployment meet agency needs
- Creating results-oriented organizational cultures

While legislation and other actions have been put in place since 1990 to address most major management areas, human capital is the critical missing link in

reforming and modernizing the federal government's management practices. Inattentiveness to strategic human capital management has created a governmentwide risk—one that is fundamental to the federal government's ability to effectively serve the American people. Stated simply, human capital problems lead to programmatic problems and risks. As our Performance and Accountability Series (PAS) reports make clear, human capital shortfalls are eroding the ability of many agencies—and threatening the ability of others—to effectively, efficiently, and economically perform their missions. Consequently, this high risk area urgently needs greater attention to ensure maximum government performance and accountability for the benefit of the American public.

Recently, agencies have begun efforts to address their strategic human capital management needs. In addition, as detailed below, the Office of Management and Budget (OMB), the Office of Personnel Management (OPM), and Congress have all taken steps to underscore the importance of the issue. But all federal agencies need to give strategic human capital management the enhanced and sustained attention it deserves and to modernize their human capital policies and practices. Even in the absence of fundamental legislative reforms, there is much more that can and should be done today by individual agencies, OMB, OPM, and Congress.

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## The Missing Link in the Performance Management Framework

Today's nonpostal civilian federal workforce is smaller than it was a decade ago. From approximately 2.3 million federal employees in fiscal year 1990, the number was reduced to fewer than 1.9 million by fiscal year 1999.<sup>1</sup> But what happened—or more importantly,

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<sup>1</sup>See Office of Personnel Management's *Federal Civilian Workforce Statistics (1990-1999)*.

did not happen—as this downsizing was being accomplished was just as significant as the downsizing itself. For example, much of the downsizing was set in motion without sufficient planning for its effects on agencies' performance capacity.<sup>2</sup> Across government, federal employers reduced or froze their hiring efforts for extended periods, as shown in figure 2. This helped reduce their numbers of employees, but it also reduced the influx of new people with new knowledge, new energy, and new ideas—the reservoir of future agency leaders and managers.

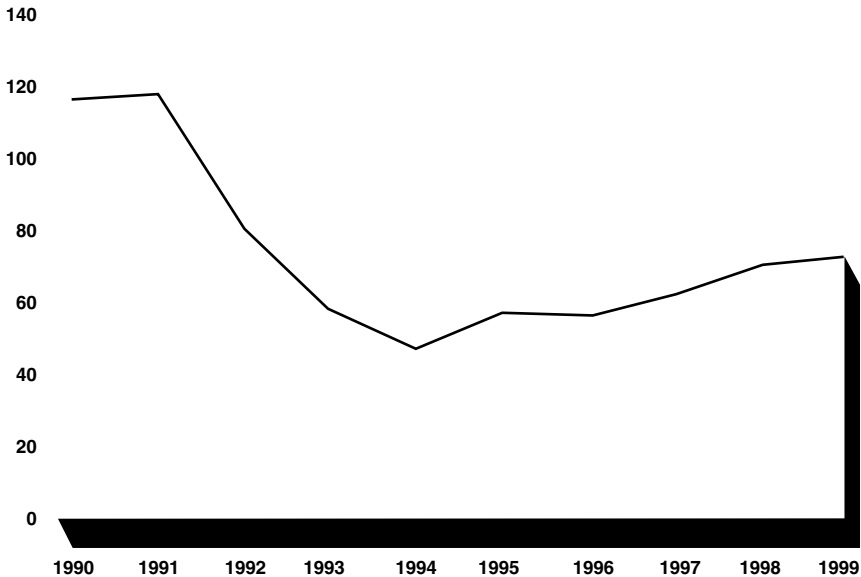
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<sup>2</sup>*Federal Workforce: Payroll and Human Capital Changes During Downsizing* (GAO/GGD-99-57, Aug. 13, 1999).

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**Figure 2: Federal Permanent Hires Fiscal Years 1990–1999 (Excluding Postal Service)**

Permanent hires (in thousands)



Note: The number of permanent hires excludes Senior Executive Service permanent hires and represents individuals, not FTEs.

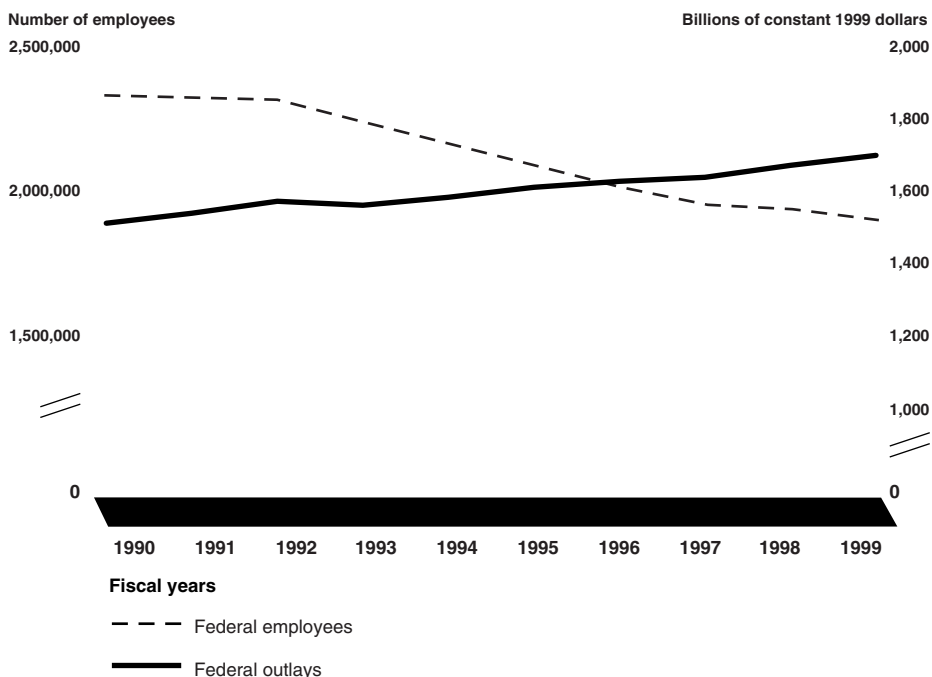
Source: GAO calculations based on OPM data.

Further, anecdotal evidence tells us that as agencies tried to save on workforce-related costs, they cut back on other human capital investments, such as performance rewards, enabling technologies, and the training and professional development programs they would need if their smaller workforces were to compensate for institutional losses in skills and experience. These curtailed investments in human capital took place even as a smaller federal workforce remained to oversee larger federal budgets, as shown in figure 3. Today, it is critically important that federal agencies put greater focus on workforce planning and take the necessary steps to build, sustain, and effectively

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deploy the skilled, knowledgeable, diverse, and performance-oriented workforce needed to meet the current and emerging needs of government and its citizens.

**Figure 3: Federal Nonpostal Civilian Employment Compared With Federal Outlays - Fiscal Years 1990-1999**



Source: GAO calculations based on OPM and OMB data.

Even as the downsizing of the federal workforce was proceeding, Congress was developing a new performance management framework for the federal government—one that promises a more strategic, results-oriented, accountable approach to managing federal agencies. The federal management reforms of

the 1990s addressed most of the essential elements of the modern performance management model: financial management, information technology management, and results-oriented goal-setting and performance measurement. The people dimension has yet to find the broad conceptual acceptance or political consensus needed for reform to occur, and in this sense human capital remains the missing link in the federal performance management framework. However, for the principles of performance management embodied in this framework to produce real improvements in how the federal government operates, agencies will need to strategically manage all of their resources—financial, information technology, and people—to achieve results.

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## **Strategic Human Capital Management Is a Pervasive Challenge in the Federal Government**

As we have noted previously, high-performing organizations focus on valuing and investing in their employees and on aligning “people policies,” especially their performance management programs, to support overall organizational performance goals.<sup>3</sup> However, our work has shown that federal agencies have not consistently made these principles an integral part of their strategic and programmatic approaches to mission accomplishment. As discussed in our PAS reports and other work, agencies have experienced human capital challenges in such areas as succession planning and performance management, thereby eroding—or threatening to erode—agencies’ ability to economically, effectively, and efficiently perform their missions. Agencies’ strategic human capital management challenges involve such key areas as strategic human capital planning; leadership continuity and succession planning; acquiring and developing staffs whose size, skills, and deployment meet agency needs; and creating results-oriented organizational cultures.

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<sup>3</sup>*Human Capital: Key Principles From Nine Private Sector Organizations* (GAO/GGD-00-28, January 31, 2000).

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**Strategic Human  
Capital Planning and  
Organizational  
Alignment**

High-performing organizations establish a clear set of organizational intents—mission, vision, core values, goals and objectives, and strategies—and then integrate their human capital strategies to support these strategic and programmatic goals. However, under downsizing, budgetary, and other pressures, agencies have not consistently taken a strategic, results-oriented approach to human capital planning.

Today, human capital challenges are common across the federal landscape. (See table 6.) For example, at NASA, internal studies found that a one-third reduction in the space shuttle program’s workforce had affected NASA’s ability to safely support the shuttle’s planned flight rate. At DOD, where a Defense Science Board task force found “there is no overarching framework” for planning DOD’s future workforce,<sup>4</sup> civilian downsizing has led to skills and experience imbalances that are jeopardizing acquisition and logistics capacities. In addition, the State Department is having difficulty recruiting and retaining Foreign Service Officers, as well as staff for counternarcotics efforts. Also, staffing shortfalls in the procurement area have hampered U.S. Agency for International Development (USAID) reconstruction assistance in the wake of natural disasters. Although many agencies have begun to recognize the importance of strategic human capital management to mission accomplishment and have taken steps to align their human capital with their missions, goals, and other needs, it is clear that many agencies still find themselves facing serious challenges that will require the sustained attention and commitment of agency leaders.

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<sup>4</sup>*Final Report of the Defense Science Board Task Force on Human Resources Strategy*, Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics, February 2000, p. viii.

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**Table 6: Examples of Agencies with Human Capital Challenges**

Agency	Human Capital Challenges
<b>Agriculture</b>	Organizational culture problems, including resistance from affected USDA agencies and employees, have hampered departmentwide reorganization and modernization efforts. Further, the nation's food safety system, in which USDA plays a major role, continues to suffer from inconsistent oversight, poor coordination, and inefficient deployment of resources.
<b>Bureau of Indian Affairs</b>	Untrained and inexperienced staff hamper effective management of \$3 billion in Indian trust funds.
<b>Commerce</b>	A lack of sufficient numbers of experienced staff with the right expertise limits the ability of Commerce and two other trade agencies to monitor and enforce trade agreements.
<b>DOD</b>	In the past 2 years, the military services have struggled to meet recruiting goals. Attrition among first-time enlistees has reached an all-time high. The services face shortages among junior officers, and problems in retaining intelligence analysts, computer programmers, and pilots. On the civilian side, skills and experience imbalances following downsizing are jeopardizing acquisitions and logistics capabilities.
<b>Energy</b>	Headquarters and field staff have lacked contract management skills to oversee large projects, such as the cleanup of radioactive and hazardous waste sites.
<b>EPA</b>	EPA has not yet implemented any systematic means of determining the right size, skills needs, or deployment of its workforce to carry out its mission and achieve its strategic goals and objectives, despite the demand for new skills due to technological changes and the shift in EPA's regional environmental responsibilities to the states, as well as growing retirement eligibilities in its workforce.
<b>FAA</b>	Air traffic control modernization is fraught with cost, schedule, and performance problems due in part to an organizational culture that impaired the acquisition process.
<b>Health Care Financing Administration</b>	Medicare's leadership problems include the lack of any official whose sole responsibility it is to run the program. Further, frequent leadership changes at HCFA have hampered long-term Medicare initiatives and the pursuit of a consistent management strategy. HCFA's workforce lacks skills needed to meet recent legislative requirements. The mismatch between HCFA's administrative capacity and its mandate could leave Medicare unprepared to handle future population growth and medical technology advances.
<b>HUD</b>	As HUD's reorganization moves into its final phases, workload imbalances pose programmatic challenges to several specialty centers and field offices. Single family mortgage insurance programs administered by HUD's Federal Housing Administration have been marked by a number of human capital challenges, including insufficient staff. Further, insufficient or inexperienced staff led to problems in quality assurance reviews for 203(k) home rehabilitation loans and oversight of appraisers and mortgage lenders.
<b>Immigration and Naturalization Service</b>	Lack of staff to perform intelligence functions and unclear guidance for retrieving and analyzing information hamper efforts to combat the growing problem of alien smuggling.
<b>Interior and U.S. Forest Service</b>	Difficulties replacing experienced fire personnel threaten firefighting capabilities during catastrophic events.



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(Continued From Previous Page)

<b>Agency</b>	<b>Human Capital Challenges</b>
<b>IRS</b>	IRS lacks reliable cost and operational information to measure the effectiveness of its tax collection and enforcement programs and to judge whether its is appropriately allocating its staff resources among competing management priorities.
<b>NASA</b>	Staff and skills losses following downsizing pose potentially serious problems for the safety and planned flight rate of the space shuttle.
<b>National Park Service</b>	Historically, the Park Service's decentralized priority-setting and accountability systems left it without the means to monitor progress toward achieving its goals or hold park managers accountable for the results of park operations. The park concessions program continues to face management problems, including inadequate qualifications and training of the agency's concession specialists and concessions contracting staff. Insufficient fire safety training has contributed to fire safety risks at visitor centers, hotels, and other national park buildings.
<b>Nuclear Regulatory Commission</b>	NRC's organizational culture is struggling with the agency's new "risk-informed" regulatory approach. Further, NRC's ability to maintain the skills needed to achieve its mission and fill the gaps created by growing retirement eligibilities could be threatened by the decline in university enrollments in nuclear engineering and other fields related to nuclear safety.
<b>Pension Benefit Guaranty Corporation</b>	Because the agency did not adequately link its contracting decisions to long-term strategic planning, it may not have the cost-effective mix of contractor and federal employees needed to meet future workload challenges. Further, PBGC employees who monitor contractors lack adequate guidance and policies essential to monitoring contractor performance.
<b>SSA</b>	Increasing demand for services, imminent retirement of a large part of its workforce, changing customer expectations, and mixed success in past technology investments will challenge SSA's ability to meet its service delivery demands, which include faster and more accurate benefit claims determinations and increased emphasis on returning the disabled to work.
<b>State</b>	Issues related to the quality of life at overseas posts, career development opportunities, and talent management are hampering recruitment and retention of Foreign Service Officers. Efforts to determine the right size and composition of overseas posts have begun, but State faces challenges in aligning its workforce with new economic, political, security, and technological requirements. Also, staffing shortfalls are hampering counternarcotics programs and efforts to combat visa fraud.
<b>USAID</b>	Staffing shortfalls in the procurement area have hampered the agency's ability to initiate and monitor contracts, thus delaying reconstruction assistance in the wake of natural disasters in Central America and the Caribbean.
<b>Veterans Affairs</b>	A national nursing shortage could adversely affect VA's efforts to improve patient safety in VA facilities and put veterans at risk. Further, VA's training and recruitment programs may not be adequate to ensure a sufficient workforce of competent claims processors, which would likely undermine efforts to reduce current problems of claims processing backlogs and errors.

Source: GAO's *Performance and Accountability Series* reports.

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The strategic planning requirements of the Government Performance and Results Act (GPRA) provide a useful framework for agencies to integrate their human capital strategies with their strategic and programmatic planning—and in particular, to identify the workforce size, skills mix, and deployment needed for mission accomplishment and to create strategies to fill the gaps. However, while agencies’ fiscal year 2001 annual performance plans all included at least some discussion of human capital, the discussions varied widely in scope and specificity. Some agencies’ plans provided detailed goals, objectives, and strategies for human capital management, but others merely noted the importance of human capital in general terms. In either case, agencies will need to follow up through effective implementation and assessment to determine whether their plans lead to improvements in human capital management and programmatic outcomes.

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**Leadership  
Continuity and  
Succession Planning**

Because it will entail changes in management systems and organizational cultures that will take years to implement, the transition to modern performance management will require sustained commitment on the part of agency leaders and managers. However, whether at the top leadership levels or among managers, many agencies are plagued by turnover that could hamper these efforts. For example, the Health Care Financing Administration (HCFA), which administers the multibillion dollar Medicare program, has had 19 Administrators or Acting Administrators in its 24 years of existence—an inhibiting factor in the implementation of long-term Medicare initiatives and the pursuit of a consistent management strategy. At the Department of Energy (DOE), the office responsible for the Stockpile Stewardship Program has seen the proportion of offices vacant or with acting managers rise from 17 percent in 1996 to almost 65 percent in 2000. This high turnover may help account for the fact that the same

programmatic concerns in the nuclear weapons stockpiling program are cited by GAO year after year.

We have noted that successful organizations know the importance of fostering a committed leadership team and providing reasonable continuity through succession planning and executive development. The customarily high turnover rate among political appointees has been a long-standing issue at the upper levels of the executive branch.<sup>5</sup> But succession planning for career executives—always a challenge for federal agencies—looms especially urgent as the current corps of Senior Executive Service (SES) members approaches retirement age.<sup>6</sup> (See figure 4.) The retirement eligibility trends suggest a loss in leadership continuity, institutional knowledge, and expertise in the SES ranks—impacts that will be felt to varying degrees among federal agencies and occupations. Agencies need to aggressively pursue the comprehensive SES succession planning and executive development actions needed to address this issue.

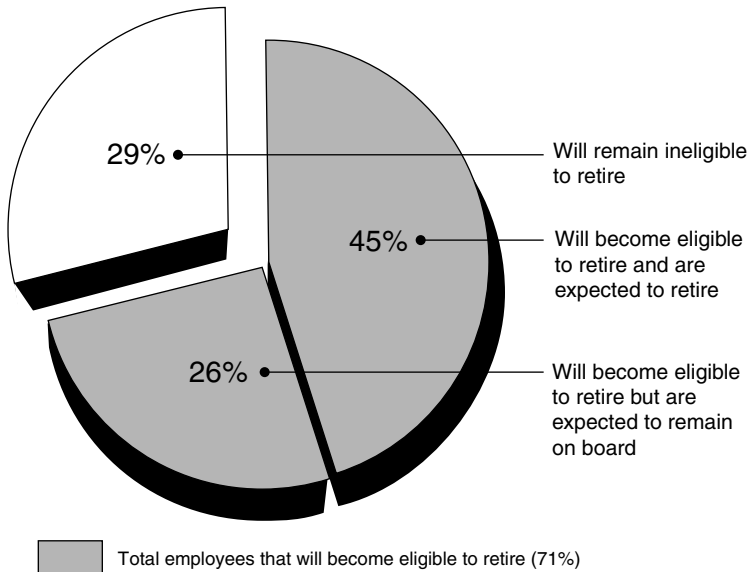
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<sup>5</sup>*Political Appointees: Turnover Rates in Executive Schedule Positions Requiring Senate Confirmation* (GAO/GGD-94-115FS, April 21, 1994).

<sup>6</sup>See *Senior Executive Service: Retirement Trends Underscore the Importance of Succession Planning* (GAO/GGD-00-113BR, May 2000).

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**Figure 4: Proportion of Career SES Members Projected to Become Eligible to Retire, and Those Projected to Retire, by Fiscal Year 2005.**



Note: Projections are for Sept. 30, 2005 and are calculated on the basis of the 5,981 career SES members employed as of Sept. 30, 1998.

Source: GAO calculations based on OPM data.

A related leadership issue involves executive compensation. Federal executives must often compete for talent against private sector organizations that compensate their executives at levels far above what the federal government offers. Moreover, the existing cap on SES pay has increased pay compression between the maximum and lower SES pay levels, meaning that federal executives at different levels of responsibility can receive identical salaries. Further, pay compression can create situations in which the difference between executive and nonexecutive pay is so small that the financial incentive for managers to apply for positions of greater responsibility may disappear.

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**Acquiring and  
Developing Staffs  
Whose Size, Skills,  
and Deployment  
Meet Agency Needs**

High-performing organizations identify their current and future human capital needs—including the appropriate number of employees, the key competencies for mission accomplishment, and the appropriate deployment of staff across the organization—and then create strategies for identifying and filling the gaps.

Faced with growing retirement eligibilities—some 35 percent of the fiscal year 1998 federal workforce will be eligible for regular retirement by 2006—agencies may have difficulties replacing the loss of skilled and experienced staff. Moreover, some agencies face imposing challenges filling certain mission-critical occupations due to increasing competition in the labor market. For example, the Nuclear Regulatory Commission (NRC) must deal with declining university enrollments in nuclear engineering and other fields related to nuclear safety. A nationwide nursing shortage threatens efforts by the Department of Veterans Affairs (VA) to improve performance at VA hospitals, putting veterans' care at risk. The Department of the Interior and the U.S. Forest Service must maintain their firefighting capacity during catastrophic events, even as experienced fire personnel retire and prove increasingly difficult to replace.

Confronting staffing challenges such as these, it is critical for agencies to engage in effective recruiting and succession planning strategies. This includes attracting and retaining skilled and knowledgeable individuals whose performance meets or exceeds expectations, regardless of their age. All decisions in regard to recruiting and retention—as in every area of human capital management—must be based on clearly defined, well-documented, consistently applied, transparent criteria that are nondiscriminatory and merit-based. To deal with their recruiting and retention challenges, agencies also need to identify and use the hiring and retention flexibilities available to them. It is also crucial

to invest in training and developing staff to meet agencies' specific performance needs. Agencies we studied faced a number of challenges in this area, including a lack of staff and resources to develop training and development programs to ensure that their employees had the competencies needed to perform mission-critical activities.<sup>7</sup> A particularly critical area on which to focus better investments in training is contract management, where agencies must have enough skilled staff on board to oversee the quality, cost, and timeliness of products and services delivered by third parties—and where agencies such as DOE, HCFA, and HUD, among others, have experienced costly performance problems.

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**Creating Results-  
Oriented  
Organizational  
Cultures**

Many federal agencies lack a crucial ingredient found in successful organizations: organizational cultures that promote high performance and accountability. In fact, the results of our 2000 survey of federal managers indicated that in some key areas, agencies may be losing ground in their efforts to build organizational cultures that focus on results.<sup>8</sup> For example, in one important area—use of performance information for program management activities—a significantly lower percentage of managers reported that they were using such information to a great or very great extent in 2000 than in 1997 for five out of eight key management activities we asked about. (See table 7.) Overall, the survey findings underscored the importance of having agency leaders and managers with the skills and commitment to drive cultural change.

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<sup>7</sup>*Human Capital: Design, Implementation, and Evaluation of Training at Selected Agencies* (GAO/T-GGD-00-131, May 18, 2000).

<sup>8</sup>The survey was a follow-up to one we did in 1996-1997. See *Managing for Results: Federal Managers' Views Show Need for Ensuring Top Leadership Skills* (GAO-01-127, Oct. 20, 2000); and *The Government Performance and Results Act: 1997 Governmentwide Implementation Will Be Uneven* (GAO/GGD-97-109, June 2, 1997).

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**Table 7: Percentage of Federal Managers Who Reported Using Information Obtained From Performance Measurement to a Great or Very Great Extent for Various Management Activities**

Management Activity	1997 Survey <sup>a</sup>	2000 Survey <sup>a</sup>	Difference
Setting program priorities	66%	56 %	-10% <sup>b</sup>
Allocating resources	62	53	-9 <sup>b</sup>
Adopting new program approaches or changing work processes	66	51	-15 <sup>b</sup>
Coordinating program efforts with other internal or external organizations	57	43	-14 <sup>b</sup>
Refining program performance measures	52	44	-8
Setting new or revising existing performance goals	58	51	-7
Setting individual job expectations for my staff	61	51	-10 <sup>b</sup>
Rewarding staff I manage or supervise	53	53	None
Developing and managing contracts	N/A <sup>c</sup>	38	N/A <sup>c</sup>

<sup>a</sup>Percentages based on those respondents answering on the extent scale.

<sup>b</sup>Statistically significant difference.

<sup>c</sup>Not available; question not asked in 1997.

Source: GAO survey data.

Organizational cultures can be a barrier to high performance and make management improvement efforts more difficult. For example, a “stovepiped” culture at the Federal Aviation Administration (FAA) has been one of several underlying causes of acquisition problems in the agency’s multibillion dollar modernization program, which has experienced cost overruns, schedule delays, and significant performance shortfalls. Cultural issues have also been linked to long-standing security problems at DOE weapons laboratories, and to intractable waste, fraud, abuse, and mismanagement problems in the Social Security

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Administration's (SSA) high-risk Supplemental Security Income program.

Agency leaders and managers have a number of strategies available to them to steer their organizational cultures to support agency goals. These include modern performance management and incentive approaches—whether directed at individual employees or teams—to help empower and motivate staff, reward high performance, and ensure accountability. However, agencies we have studied have struggled to link employee performance expectations to agency goals and many have reported that they do not know whether their incentive programs are effectively motivating their employees.<sup>9</sup>

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## **Agencies, OMB, OPM, and Congress Have Key Roles to Play**

As leaders and managers in the federal government have become more acutely aware of challenges facing the government in the human capital area, some have taken steps to improve their approaches to building and maintaining human capital. As noted in our PAS reports, some of the agencies whose human capital problems were mentioned earlier—such as NASA, HCFA, and NRC—have efforts under way to address them. However, agencies' human capital problems are invariably difficult and the associated programmatic risks continue to take their toll. Even under the constraints of current law, federal agencies, OMB, OPM, and Congress can and should do more to foster human capital improvements.

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<sup>9</sup>*Human Capital: Using Incentives to Motivate and Reward High Performance* (GAO/T-GGD-00-118).



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**Agencies Need to  
Focus on Human  
Capital**

The key step for agencies that hope to improve their “people management” is to focus on human capital as a strategic asset. Agencies can begin by assessing how well their existing human capital approaches support their missions, goals, and other organizational needs. A useful assessment tool is GAO’s human capital framework, which identifies a number of human capital elements and underlying values that are common to high-performing organizations. This framework is shown in table 8 and also presented in *Human Capital: A Self-Assessment Checklist for Agency Leaders* (GAO/OCG-00-14G, Sept. 2000). We have used the framework to guide our recent inquiries into human capital issues across the federal government and at specific agencies, some of which—such as NASA and SSA—have said they are using the framework in their human capital planning efforts.

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**Table 8: GAO’s Human Capital Framework**

<b>Strategic Planning</b>	<p>Establish the agency’s mission, vision for the future, core values, goals and objectives, and strategies.</p> <ul style="list-style-type: none"> <li>• Shared vision</li> <li>• Human capital focus</li> </ul>
<b>Organizational Alignment</b>	<p>Integrate human capital strategies with the agency’s core business practices.</p> <ul style="list-style-type: none"> <li>• Improving workforce planning</li> <li>• Integrating the human resources function</li> </ul>
<b>Leadership</b>	<p>Foster a committed leadership team and provide for reasonable continuity through succession planning.</p> <ul style="list-style-type: none"> <li>• Defining leadership</li> <li>• Building teamwork and communications</li> <li>• Ensuring continuity</li> </ul>
<b>Talent</b>	<p>Recruit, hire, develop, and retain employees with the skills needed for mission accomplishment.</p> <ul style="list-style-type: none"> <li>• Recruiting and hiring</li> <li>• Training and professional development</li> <li>• Workforce deployment</li> <li>• Compensation</li> <li>• Employee-friendly workplace</li> </ul>
<b>Performance Culture</b>	<p>Empower and motivate employees while ensuring accountability and fairness in the workplace.</p> <ul style="list-style-type: none"> <li>• Performance management</li> <li>• Performance incentives</li> <li>• Continuous learning and improvement</li> <li>• Managers and supervisors</li> <li>• Job processes, tools, and mission support</li> <li>• Information technology</li> <li>• Inclusiveness</li> <li>• Employee and labor relations</li> </ul>

Although some improvements in the civil service will require legislative reforms, federal agencies must not wait to modernize their human capital policies and

practices. Agencies can and must take the initiative to be more competitive in attracting new employees with critical skills; create the kinds of performance incentives and training programs that motivate and empower employees; and build labor-management relationships that are based on common interests and the public trust.

To shape human capital strategies that support their specific needs and circumstances, agencies must identify the flexibilities available to them under current law. As we have previously reported, some of the barriers to effective strategic human capital management in the federal government do not stem from law or regulation.<sup>10</sup> Some of these barriers arise out of long-standing attitudes about the limitations that have been placed on agency officials' managerial prerogatives or about the basic ways in which people ought to be managed. However, changing times demand new approaches, and agencies need to be innovative and energetic in their use of the human capital flexibilities available to them.<sup>11</sup>

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<sup>10</sup>*Transforming the Civil Service: Building the Workforce of the Future—Results of a GAO-Sponsored Symposium* (GAO/GGD-96-35, December 20, 1995).

<sup>11</sup>OPM has made information on human capital flexibilities readily available. For example, see *HR Innovators' Tool Kit*, U.S. Office of Personnel Management.

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**OMB and OPM Must  
Be Leaders**

It is clear that OMB and OPM have substantial roles to play in fostering a more results-oriented approach to strategic human capital management across government.

OPM has begun stressing to agencies the importance of integrating strategic human capital management into agency planning.<sup>12</sup> OPM has also been focussing more attention on developing tools to help agencies. For example, it has developed a workforce planning model with associated research tools and has launched a website to facilitate information sharing about workforce planning issues. OPM has also brought attention to the need for integrating human capital professionals into agencies' planning processes, acknowledging that a gap exists between the roles that federal human capital professionals need to perform—such as those of technical expert and strategic partner—and those that they have traditionally been given.<sup>13</sup>

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<sup>12</sup>See OPM's *Strategic Human Resources Management: Aligning With the Mission*, U.S. Office of Personnel Management, September 1999.

<sup>13</sup>*The HR Workforce: Meeting the Challenge of Change*, U.S. Office of Personnel Management, January 2000. See also *A Call to Action: A Coalition on the Future of the Federal Human Resource Management Profession*, Federal Section of the International Personnel Management Association, September 2000.

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Further, OPM recently revised the SES performance management regulations so that a balanced scorecard of customer satisfaction, employee perspectives, and organizational results will be used by agencies to evaluate executive performance. In addition, OPM has helped achieve incremental legislative reforms to help attract and retain Federal employees, such as compensation flexibility for selected specialist positions and employee benefit enhancements.

Characterizing the most appropriate mission and role for OPM, and defining the most effective tools and strategies for accomplishing its goals in a changing civil service, have been long-standing issues facing the agency.<sup>14</sup> OPM's recent efforts to communicate the importance of aligning human capital with results clearly reflect the important role it can play in promoting human capital improvements.

While OPM has recently done more to promote strategic human capital management, OMB has played a limited role in this key area to date. OMB's role in setting governmentwide management priorities and defining resource allocations will be critical to inducing agencies to integrate strategic human capital management into their core business processes. In 2000, two key steps were taken that reflected OMB's potential importance in

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<sup>14</sup>See *Observations on the Office of Personnel Management's Fiscal Year 1999 Performance Report and Fiscal Year 2001 Performance Plan* (GAO/GGD-00-156R, June 30, 2000); *Civil Service Reform: Changing Times Demand New Approaches* (GAO/T-GGD-96-31, October 12, 1995); and *Managing Human Resources: Greater OPM Leadership Needed to Address Critical Challenges* (GAO/GGD-89-19, January 19, 1989).

this area. First, the President's fiscal year 2001 budget gave new prominence to human capital management by making "align Federal human resources to support agency goals" a Priority Management Objective. Second, a June 2000 presidential memorandum directed the heads of the executive branch departments and agencies to integrate human resources management into their planning, budgeting, and mission evaluation processes. The memo also directed agencies to include specific human resource management goals and objectives in their strategic and annual performance plans, beginning October 1, 2000. OMB's latest Circular No. A-11 guidance on preparing annual performance plans now states that agencies' fiscal year 2002 annual performance plans should set goals in such areas as recruitment, retention, training, appraisals linked to program performance, workforce diversity, streamlining, and family-friendly programs.

These actions by OMB will prove to be useful steps if they result in a better governmentwide focus on the strategic importance of human capital. What is now required is the sustained and forceful leadership to make the promise of these initiatives a reality. This will require much greater attention by OMB to strategic human capital management issues. OMB has the ability to ensure that agencies view this area as a critically important element in their overall strategic planning, performance management, and budgeting efforts. Important areas for attention include benchmarking and best practices efforts within the executive branch and greater attention during resource allocation to the linkages between agency missions and the human capital needed to pursue them. OPM can help, but OMB must be directly involved in this area, given its importance from both a mission accomplishment and resource allocation perspective.

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**Congressional  
Leadership Will Be  
Critical to Improving  
Human Capital  
Governmentwide**

Leadership on the part of Congress will be critical if governmentwide improvements in strategic human capital management are to occur. To raise the visibility of the human capital issue and to move toward a consensus on legislative reforms, commitment to people as an urgent federal management concern must come from both parties in both houses of Congress. One of the most encouraging developments in this regard over the past two years has been the attention paid the issue by the Senate Committee on Governmental Affairs and its Subcommittee on Oversight of Government Management, Restructuring, and the District of Columbia.<sup>15</sup>

Through the creation over the past decade of the performance management framework, Congress has been the institutional champion for improving management of the federal government. On an agency-specific basis as well, support from Congress has been indispensable to instituting and sustaining management reforms. Congress has opportunities available through its confirmation, oversight and appropriations, and legislative roles to ensure that agencies recognize their responsibilities and have the needed tools to manage their people for results.

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<sup>15</sup>The Committee and Subcommittee Chairmen both have recently issued reports underscoring the urgency of addressing the federal government's strategic human capital management problems. See *Report of Senator Fred Thompson, Chairman, Committee on Governmental Affairs, on Management Challenges Facing the New Administration, Part 2: Federal Workforce Challenges*, October 2000; and *Report to the President: The Crisis in Human Capital*, report prepared by Senator George V. Voinovich, Chairman, Subcommittee on Oversight of Government Management, Restructuring, and the District of Columbia, Committee on Governmental Affairs, United States Senate, December 2000.

First, Congress can draw wider attention to the critical role of human capital in the performance management paradigm. One means of focusing on the critical link between people management and program results is through the appointment and confirmation process, where the Senate has an opportunity to make clear its commitment to sound federal management and to explore what prospective nominees plan to do to ensure that their agencies recognize and enhance the value of their people.<sup>16</sup>

As part of the oversight and appropriations processes, Congress can examine whether agencies are managing their human capital to improve the effectiveness, efficiency, and economy of their programs and deliver better performance to the American people. Congress can also encourage more agencies to identify the flexibilities available to them under current law and to reexamine their approaches to strategic human capital management in the context of their individual missions, goals, and other organizational needs.

Congress can also play a defining role in determining the scope and appropriateness of additional human capital flexibilities agencies may seek through legislation. For agencies that request legislative exceptions from current civil service constraints, Congress can require that they make a business case based on rational and fact-based analyses of their needs, the constraints under which they presently operate, and the flexibilities available to them. Further, Congress may wish to consider, on its own, a variety of targeted investments or new flexibilities—while maintaining appropriate safeguards to prevent abuse—to address emerging human capital

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<sup>16</sup>Toward this end, we recently developed a set of questions for political appointees that the Senate may use during the confirmation process. See *Confirmation of Political Appointees: Eliciting Nominees' Views on Leadership and Management Issues* (GAO/GGD-00-174, August 11, 2000).



challenges in such areas as recruiting and hiring, executive pay compression, and the loss of institutional knowledge and skills associated with the rising numbers of individuals eligible to retire. For example, Congress recently passed legislation that enables federal agencies to provide some education-related debt relief in exchange for government service. This is a positive step; however, additional legislative actions will ultimately be needed to attract and retain a skilled, knowledgeable, diverse, and performance-oriented workforce for the future.

Ultimately, Congress may wish to consider comprehensive legislative reform in the human capital area to address the missing link in the performance management portfolio, giving agencies the tools and reasonable flexibilities they need to manage effectively while providing appropriate safeguards to prevent abuse. As part of this effort, Congress may also wish to consider the extent to which traditional “civil service” approaches—structures, oversight mechanisms, rules and regulations, and direction-setting—make sense for a government that is largely a knowledge-based enterprise that has adopted and is now implementing modern performance management principles.

As noted earlier, a consensus has yet to emerge on broad-based federal human capital reform. However, even in the absence of fundamental legislative reform, federal agencies need to take a more strategic and integrated approach to human capital management and to maximize their efforts in such areas as recruiting and retention, succession planning, training and professional development, and performance management and rewards, within the context of current law. Congress, OMB, OPM, and the agencies should work together to make this happen.

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**Strategic Human Capital  
Management: A Governmentwide  
High-Risk Area**

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For additional information on strategic human capital management issues, please contact Victor S. Rezendes, Managing Director, Strategic Issues, on (202) 512-6082 or at [rezendesv@gao.gov](mailto:rezendesv@gao.gov).

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# Resolving Serious Information Security Weaknesses

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We designated information security as a governmentwide high-risk area in 1997 and 1999 because growing evidence indicated that controls over computerized federal operations were not effective and because the related risks were escalating, in part due to increasing reliance on the Internet. For example, in September 1998<sup>1</sup> we had reported significant information security weaknesses in 24 major federal agencies. In the months prior to our January 1999 high-risk report, the President had launched a national effort to protect our nation's critical public and private computer-dependent infrastructures, as outlined in Presidential Decision Directive 63 (PDD 63).

Since issuance of our last high-risk report in January 1999, progress in strengthening federal information security has been mixed. Efforts to address the problem have gained momentum. However, recent audits show that federal operations and assets continue to be highly vulnerable to computer-based attacks.

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## Important Actions Taken

Since January 1999, efforts to improve information security have expanded at individual agencies and at the governmentwide level.

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<sup>1</sup>*Information Security: Serious Weaknesses Place Critical Federal Operations and Assets at Risk* (GAO/AIMD-98-92, September 23, 1998).

- Several agencies have taken significant steps to redesign and strengthen their information security programs. For example, IRS has made notable progress in improving computer security at its facilities, corrected a significant number of identified weaknesses, and established a servicewide computer security management program that should, when fully implemented, help the agency effectively manage its security risks.<sup>2</sup> Similarly, the Environmental Protection Agency has moved aggressively to reduce the exposure of its systems and data and to correct weaknesses we identified in February 2000. While we have not tested their effectiveness, these actions show that the agency is taking a comprehensive and systematic approach that should help ensure that its efforts are effective.<sup>3</sup>
- In January 2000, the President issued the *National Plan for Information Systems Protection*.<sup>4</sup> This plan, which focused largely on efforts to protect federal infrastructures, is intended to be a major element of a more comprehensive effort to protect the nation's information systems and critical assets from future attacks. Subsequent versions are to address a broader range of concerns, including the specific role industry and state and local governments will play in protecting physical and cyber-based infrastructures from deliberate attack, as well as international aspects of critical infrastructure protection.<sup>5</sup> Also,

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<sup>2</sup>*Financial Audit: IRS' Fiscal Year 1999 Financial Statements* (GAO/AIMD-00-76, February 29, 2000).

<sup>3</sup>*Information Security: Fundamental Weaknesses Place EPA Data and Operations at Risk* (GAO/AIMD-00-215, July 6, 2000).

<sup>4</sup>*Defending America's Cyberspace: National Plan for Information Systems Protection: Version 1.0: An Invitation to a Dialogue*. Released January 7, 2000. The White House.

<sup>5</sup>*Critical Infrastructure Protection: Comments on the National Plan for Information Systems Protection* (GAO/T-AIMD-00-72, February 1, 2000).

the President designated the related goals of computer security and critical infrastructure protection as a priority management objective in his fiscal year 2001 budget.

- In mid-1999, the Security Committee of the Federal Chief Information Officers (CIO) Council expanded its name and its focus to “Security, Privacy, and Critical Infrastructure” and established three subcommittees to address issues in these three areas. Since then, the Committee has taken steps to raise awareness, promote best practices, and provide agencies tools for improving their security programs. For example, during 2000, the Committee sponsored development of a *Federal Information Security Assessment Framework*, which is intended to serve as a self-assessment guide for agencies and a means of measuring their progress. We participated in development of the framework, which was issued for agency use in December 2000, accompanied by our letter of support.
- The Federal Computer Incident Response Capability (FedCIRC) at the General Services Administration and the National Infrastructure Protection Center located in the Federal Bureau of Investigation have both expanded their efforts to issue warnings of potential computer intrusions or misuse and to assist in responding to computer security incidents. In October 2000, the CIO Council provided detailed guidance, developed cooperatively with the Office of Management and Budget and others, on the process agencies should follow to ensure that they (1) report security incidents to FedCIRC and (2) receive alerts and warnings from FedCIRC.
- During 1999 and 2000, the Congress held important hearings on progress at specific agencies and on ways to strengthen information security practices throughout the federal government and to better

address threats to the nation's critical computer-dependent infrastructures. Several proposed bills were considered, and, in October 2000, provisions intended to strengthen federal information security were enacted in law.

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**Continuing  
Weaknesses  
Underscore Need  
for Further Actions**

Although the improvement efforts cited above are laudable, recent reports and events indicate that they are not keeping pace with the growing threats. While complete summary data are not available because many computer security incidents are not reported, the number of incidents that are reported is growing. For example, the number of reported incidents handled by Carnegie-Mellon University's CERT Coordination Center<sup>6</sup> has increased from 1,334 in 1993 to 9,859 in 1999 and to 15,167 during the first three quarters of 2000. Similarly, the Federal Bureau of Investigation reports that its caseload of computer intrusion-related cases is more than doubling every year. Further, in May 2000, the ILOVEYOU computer virus caused widespread disruptions throughout the federal government.

In September 2000, we reported that, based on our analysis of the previous year's audit reports, federal computer security continued to be fraught with weaknesses and that, as a result, critical operations and assets continue to be at risk. Similar to our September 1998 summary report, our September 2000 report identified significant weaknesses in each of the 24 agencies covered by our review.<sup>7</sup>

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<sup>6</sup>Originally called the Computer Emergency Response Team, the center was established in 1988 by the Defense Advanced Research Projects Agency. It is charged with (1) establishing a capability to quickly and effectively coordinate communication among experts in order to limit the damage associated with, and respond to, incidents and (2) building awareness of security issues across the Internet community.

<sup>7</sup>*Information Security: Serious and Widespread Weaknesses Persist at Federal Agencies* (GAO/AIMD-00-295, September 6, 2000).

Recently reported findings for individual agencies include the following examples.

- In October 1999<sup>8</sup> and September 2000,<sup>9</sup> we reported that pervasive computer security weaknesses at the Department of the Treasury's Financial Management Service placed billions of dollars of payments and collections at significant risk of loss or fraud, vast amounts of sensitive data at risk of inappropriate disclosure, and critical computer-based operations at risk of serious disruption. These weaknesses affected a wide array of information systems that the Financial Management Service used in its role as the government's central financial manager, disbursing, and collection agency. Our reports contained over 100 detailed recommendations for correcting control weaknesses, many of which the Service has implemented.
- In June 2000,<sup>10</sup> we reported that computer systems at the Department of Energy's laboratories supporting civilian research had become a popular target of the hacking community with the result that the threat of attacks had grown dramatically in recent years. We further noted that because of security breaches, several laboratories had been forced to temporarily disconnect their networks from the Internet, disrupting the laboratories' ability to do scientific research for up to a full week on at least two occasions. We recommended that the Secretary take specific actions to strengthen the management of the

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<sup>8</sup>*Financial Management Service: Significant Weaknesses in Computer Controls* (GAO/AIMD-00-4, October 4, 1999).

<sup>9</sup>*Financial Management Service: Significant Weaknesses in Computer Controls* (GAO/AIMD-00-305, September 26, 2000).

<sup>10</sup>*Information Security: Vulnerabilities in DOE's Systems for Unclassified Civilian Research* (GAO/AIMD-00-140, June 9, 2000).

Department's unclassified computer security program.

- In July 2000, we reported serious and pervasive problems that essentially rendered the Environmental Protection Agency's (EPA) agencywide information security program ineffective. Our tests of computer-based controls concluded that the computer operating systems and the agencywide computer network that support most of EPA's mission-related and financial operations were riddled with security weaknesses.<sup>11</sup> Our reviews resulted in over 100 recommendations for correcting specific control weaknesses and strengthening EPA's agencywide security program.
- In June 1999,<sup>12</sup> October 1999,<sup>13</sup> and September 2000,<sup>14</sup> we reported that the Department of Veterans Affairs had not yet fully implemented an integrated security management program and had not devoted adequate resources to effectively manage computer security at its medical facilities. In response to our findings and recommendations, the Department plans to implement additional security initiatives in 2001 and establish a fully operational security program by 2003.

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<sup>11</sup>*Information Security: Fundamental Weaknesses Place EPA Data and Operations at Risk* (GAO/AIMD-00-215, July 6, 2000).

<sup>12</sup>*VA Information Systems: The Austin Automation Center Has Made Progress in Improving Information System Controls* (GAO/AIMD-99-161, June 8, 1999).

<sup>13</sup>*Information Systems: The Status of Computer Security at the Department of Veterans Affairs* (GAO/AIMD-00-5, October 4, 1999).

<sup>14</sup>*VA Information Systems: Computer Security Weaknesses Persist at the Veterans Health Administration* (GAO/AIMD-00-232, September 8, 2000).



- In October 2000, we reported that pervasive weaknesses in the Corps of Engineers' computer controls at its data processing centers and other Corps' sites could allow both hackers and numerous legitimate users to improperly modify, inappropriately disclose, and/or destroy sensitive and financial data, including Privacy Act data such as social security numbers and other personal information. Further, such weaknesses could result in a disruption of critical computer-based operations. These weaknesses also increase the vulnerability of other Department of Defense networks and systems to which the Corps' network is linked.<sup>15</sup> We recommended 93 specific corrective actions to address the weaknesses identified.

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## Further Actions Needed

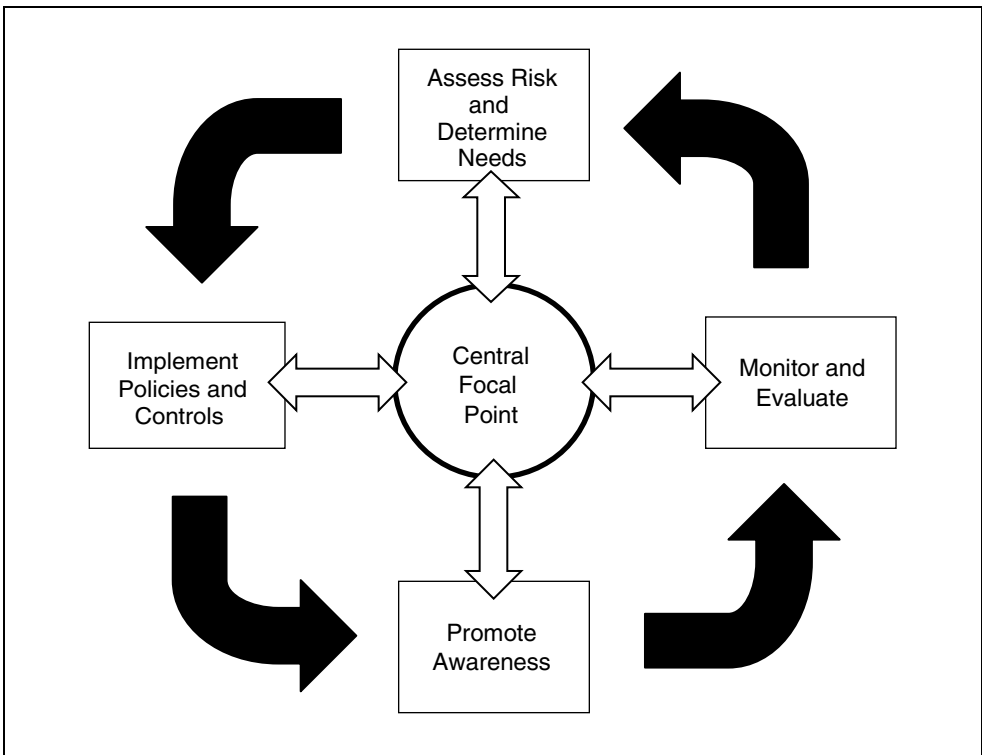
We and agency inspectors general have made scores of recommendations to agencies regarding specific steps they should take to make their security programs more effective. Most agencies have heeded these recommendations and taken at least some corrective actions. However, more needs to be done, especially in the area of security program management, which continues to be a widespread and fundamental problem. Recent audits continue to show that many agencies have not developed security plans for major systems based on risk, have not documented security policies, and have not implemented a program for testing and evaluating the effectiveness of the controls they rely on. As a result, they could not ensure that the controls they had implemented were operating as intended and they could not make informed judgments as to whether they were spending too little or too much of their resources on security.

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<sup>15</sup>*Financial Management: Significant Weaknesses in Corps of Engineers' Computer Controls* (GAO-01-89, October 11, 2000).

Our May 1998 guide entitled *Information Security Management: Learning From Leading Organizations* (GAO/AIMD-98-68) provides a roadmap for managing risks through an ongoing cycle of activities coordinated by a central focal point, and, over the last two years, its concepts have become more widely adopted throughout the federal government. These risk management concepts are depicted in the Risk Management Cycle shown in figure 5.

Figure 5: Risk Management Cycle



With enactment of the government information security reform provisions of the fiscal year 2001 Defense Authorization Act, in October 2000, agencies were

formally required to adopt these risk management practices. In addition, the new law required annual management evaluations and independent audits of agency security programs.

In November 1999, we issued a supplement to our May 1998 guide entitled *Information Security Risk Assessment: Practices of Leading Organizations* (GAO/AIMD-00-33), which provides additional direction on this important aspect of security program management, including a list of critical success factors and examples of practical risk assessment procedures that have been successfully adopted by leading organizations.

In addition to individual agency efforts, further action is needed at the governmentwide level. While OMB, the CIO Council, and the various federal entities involved in critical infrastructure protection have expanded their efforts, it will be important to maintain the momentum. For example, it is important that these entities ensure that new tools, such as the CIO Council's *Security Assessment Framework*, and new requirements, such as those outlined in the fiscal year 2001 Defense Authorization Act, are implemented effectively. Even more important will be ensuring that the activities currently underway are coordinated under a comprehensive strategy and that the roles and responsibilities of the numerous organizations with central responsibilities are clearly defined.

Further, as the federal government moves forward in these areas, it will be important to take advantage of the experience gained from Year 2000 conversion efforts, which also involved mitigating risks to critical

computer-dependent operations. In October 1999,<sup>16</sup> we noted that several factors associated with the Year 2000 efforts had laid a foundation for longer-term improvements in the way we view protecting computers supporting critical operations. These factors include

- providing high-level congressional and executive branch leadership,
- understanding risks to computer-supported operations,
- providing adequate technical expertise,
- providing standard guidance,
- establishing public-private sector relationships,
- facilitating progress and monitoring performance,
- developing an incident identification and coordination capability, and
- implementing fundamental information technology management improvements.

For additional information on information security issues, please contact Robert F. Dacey, Director, Information Technology, at (202) 512-3317 or [daceyr@gao.gov](mailto:daceyr@gao.gov).

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<sup>16</sup>*Critical Infrastructure Protection: Comprehensive Strategy Can Draw on Year 2000 Experiences* (GAO/AIMD-00-1, October 1, 1999).

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# Ensuring Major Technology Investments Improve Services

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The rapid pace of technological change and innovation has offered unprecedented opportunities for the government to use information technology (IT) to improve operational performance, reduce costs, and enhance service responsiveness to citizens and consumers. Yet at the same time, a range of issues have emerged about how to best manage and integrate complex information technologies and management processes so that they are aligned with mission goals, strategies and objectives. It is critical that federal agencies have effective leadership and focused management control over the government's \$40 billion annual investment in information technology.

The government has made improvements in its IT management, such as updating policies and guidance to reflect best practices. Moreover, agencies are responding with concerted actions to effectively address critical IT management shortcomings in response to passage of the 1996 Clinger-Cohen Act. Nevertheless, our work shows that agencies continue to be challenged by (1) fundamental weaknesses in information technology investment selection and management control processes, (2) slow progress in designing and implementing information technology architectures, (3) inadequate or immature software development, cost estimating, and systems acquisition practices, (4) the need to build effective chief information officer leadership and organizations, and (5) significant computer security weaknesses.

Several large modernization efforts that are key to delivering critical services continue to be at risk. In particular, these efforts include those underway to provide safe and efficient air travel, to modernize tax processing and customer service operations, and to support national defense operations. Since these projects were designated high risk in 1995, we have continued to monitor them and recommend ways to ensure these major technology investments are

successful in improving service and reducing costs. FAA, IRS, and DOD, respectively, are taking steps to implement modernization management capabilities to address our recommendations, but these projects continue to face challenges that could affect their cost, schedule, and performance.

A graphic titled "High-Risk Information Technology Areas" featuring a stylized illustration of the U.S. Capitol building on the right. The title is in bold black text. Below the title, a list of three items is presented in a white box with a grey border and a drop shadow.

**High-Risk Information  
Technology Areas**

- FAA Air Traffic Control Modernization
- IRS Tax Systems Modernization
- DOD Systems Modernization

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## **FAA Air Traffic Control Modernization**

Faced with rapidly growing traffic volume and aging equipment, FAA initiated an ambitious Air Traffic Control (ATC) modernization effort in 1981. This effort involves acquiring new air traffic control facilities, as well as a vast network of radar, automated data processing, navigation, and communications equipment, and it is expected to cost a total of \$45 billion through fiscal year 2005. To date, the Congress has appropriated over \$32 billion, and FAA estimates that it will need \$13 billion more.

Over the past 19 years, the modernization effort has experienced cost overruns, schedule delays, and performance shortfalls of large proportions. Our work over the years has pinpointed root causes of the modernization program's problems, including (1) immature software acquisition capabilities, (2) the lack of a complete and enforced systems architecture,

(3) inadequate cost estimating and cost accounting practices, (4) the lack of an effective Chief Information Officer (CIO) management structure, (5) an ineffective investment management process, and (6) an organizational culture that impaired the acquisition process. We also noted that FAA faced many challenges in implementing its new air traffic management concept known as “free flight,” which would allow pilots more flexibility in choosing routes and is intended to improve air traffic safety and efficiency.

Since 1995, we have made over 30 recommendations to address the root causes of the modernization’s problems. For example, we recommended that FAA improve its software acquisition capabilities by institutionalizing mature processes, develop and enforce a complete systems architecture, and implement an effective CIO management structure consistent with the department-level CIOs prescribed by the Clinger-Cohen Act of 1996.

FAA initiated numerous activities in response to our recommendations in each of these areas. However, in many areas, more must be done. For example:

- FAA developed an integrated framework for improving its software acquisition, software development, and systems engineering processes. The agency is also tracking several projects’ efforts to improve these processes. However, FAA does not yet require all systems to achieve a minimum level of software process maturity before being funded.
- FAA is working to develop a complete systems architecture, or overall blueprint, and expects to issue its draft of a technical architecture in 2001.
- To improve cost estimates, FAA developed a standard work breakdown structure and has established an historical database for tracking

systems' costs and other information. However, it has not yet fully instituted rigorous cost estimating practices. Further, FAA is working to develop a cost accounting capability and expects to have this capability fully in place by September 2002.

- FAA established a CIO management structure consistent with the provisions of the Clinger-Cohen Act, and the CIO is working to manage several complex agencywide initiatives, which include improving information systems security, developing a complete systems architecture, and improving the agency's software acquisition processes. However, the CIO faces a continuing challenge in ensuring that these initiatives are implemented and enforced.
- To improve its investment management processes, FAA is now overseeing investment risks and capturing key information from the investment selection process in a management information system. However, the agency has not yet issued guidance for validating investment analysis data or instituted a process for evaluating projects after implementation in order to identify lessons learned and to improve the investment management process.
- FAA issued an organizational culture framework in 1997 and is working to implement it. However, the Department of Transportation's (DOT) Inspector General reported in August 2000 that FAA's culture remains a barrier to successful acquisition projects and that integrated teams, a key mechanism to deliver more cost-effective and timely products, are not working well because FAA's culture continues to operate in vertical "stovepipes," which conflict with the horizontal structure of team operations.<sup>1</sup> In fact,

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<sup>1</sup>DOT Office of Inspector General, *Survey of the Federal Aviation Administration's Integrated Product Development System* (AV-2000-110, August 29, 2000).



our recent report on FAA's Wide Area Augmentation System (WAAS) confirmed that the integrated teams were not working as intended.<sup>2</sup> We found that competing priorities between two key organizations that are part of the WAAS integrated team negated the effectiveness of the team's approach for meeting the agency's goals for WAAS.

- FAA established a program office for its free flight initiative to help reduce technical and financial risk through the limited implementation of selected technologies for evaluation prior to their full implementation. However, many challenges remain, including developing software, integrating free flight technologies with other modernization projects, and addressing human factor issues affecting controllers and pilots.

Clearly, FAA has initiated numerous improvements, but its reform efforts are not yet complete. In the meantime, major projects continue to face challenges that could affect their cost, schedule, and performance. For example, in June 2000 we reported that FAA's WAAS project had experienced cost increases of \$500 million, or about double the original cost, and a 3-year delay. Further, cost increases and schedule delays are likely to grow because of problems associated with meeting a key performance requirement to provide timely warnings when its signal is providing misleading information and should not be used.

We made several recommendations to FAA to address some of the risks facing the WAAS program. We will

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<sup>2</sup>WAAS, which will be a ground- and satellite-based navigation system for airspace users, is intended to significantly augment and improve the current ground-based system, which requires pilots to fly less efficient routes to arrive at their destinations.

continue to evaluate FAA's progress on this and other system acquisition efforts.

This issue is also discussed in *Major Management Challenges and Program Risks: Department of Transportation* (GAO-01-253, January 2001), which includes a list of related GAO reports. For additional information on FAA's Air Traffic Control modernization, please contact Joel C. Willemsen, Managing Director, Information Technology, at (202) 512-6253 or [willemsenj@gao.gov](mailto:willemsenj@gao.gov).

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## IRS Tax Systems Modernization

Over a decade ago, IRS began modernizing its inefficient and outdated IT systems used to process tax returns and respond to taxpayer inquiries. In 1995, we reported that this modernization effort suffered from serious and pervasive management and technical weaknesses, and until these weaknesses were corrected, IRS was not ready to invest billions of dollars building modernized systems.<sup>3</sup> At that time, we made recommendations to correct the weaknesses.

Immediately following our 1995 report, IRS made limited progress in strengthening its modernization management capability. As a result, we suggested in 1996, that the Congress limit IRS' IT spending to certain cost-effective categories. In the fiscal year 1997 Omnibus Consolidated Appropriations Act (Public Law 104-208), the Congress did so and directed IRS to develop a plan to correct its weaknesses, including developing and submitting to the Congress by May 1997, an enterprise architecture (or agency-wide blueprint for the modernization). In response, IRS took several actions to address congressional direction and

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<sup>3</sup>*Tax Systems Modernization: Management and Technical Weaknesses Must Be Corrected If Modernization Is To Succeed* (GAO/AIMD-95-156, July 26, 1995).

implement our recommendations. For example, IRS developed the first two levels of a four-level enterprise architecture, referred to by IRS as the Modernization Blueprint.

In September 1997 briefings and a subsequent report in early 1998, we noted that the blueprint was a good first step that provided a solid foundation from which to define the level of detail and precision needed to effectively and efficiently build a modernized system of interrelated systems.<sup>4</sup> Subsequently, the Congress established a multiyear capital account—the IT Investments Account (ITIA)—to fund IRS system modernization initiatives and limited IRS’ obligation of these funds until it met certain conditions.<sup>5</sup>

Between May 1999 and October 2000, IRS submitted three expenditure plans and two interim “stop gap” plans, totaling about \$477 million, for multiple program and project-level modernization initiatives. This series of plans was consistent with our position for IRS to incrementally modernize its systems and submit incremental expenditure plans for release of ITIA funds. As we had reported, such an incremental approach is an industry best practice and, if properly implemented, is an appropriate approach to systems modernization.<sup>6</sup>

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<sup>4</sup>*Tax Systems Modernization: Blueprint Is a Good Start But Not Yet Sufficiently Complete to Build or Acquire Systems* (GAO/AIMD/ GGD-98-54, February 24, 1998).

<sup>5</sup> IRS was to submit to the Congress for approval an expenditure plan that (1) implements the blueprint, (2) complies with requirements of the Office of Management and Budget’s (OMB) system investment guidelines, (3) passes reviews and approvals by IRS, Treasury’s IRS Management Board, and OMB and is reviewed by us, (4) meets the requirements of IRS’ system life cycle management program, and (5) complies with federal acquisition requirements and management practices.

<sup>6</sup>*Tax Systems Modernization: Results of Review of IRS’ Initial Expenditure Plan* (GAO/AIMD/GGD-99-206, June 15, 1999).

We found that these expenditure plans generally complied with the legislative conditions and our open recommendations. However, we also reported that IRS' plans to build systems (perform detailed design and software development activities) before correcting its long-standing weaknesses introduced a high risk of failure.<sup>7</sup> In March 2000, IRS appropriately restructured its modernization program by scaling back its system development activities and giving priority to putting in place modernization management capabilities and controls. IRS' appropriation subcommittees underscored the need for IRS to pursue this restructuring.

Since it restructured the program, IRS has made important progress in addressing our recommendations. Specifically, in July 2000, IRS established a program office to manage and oversee modernization activities. In response to our recommendations, IRS is taking steps to make the program office fully functional by early 2001 and is tracking this as a major program risk until it is done. Also in response to our recommendations, IRS has begun using performance-based task orders to better ensure contractor satisfaction of specified system and service requirements on time and within budget.

In addition, in September and November 2000, when we reported on IRS' most recent ITIA requests,<sup>8</sup> we observed that IRS had continued to make progress in

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<sup>7</sup>For example, see *Tax Systems Modernization: Results of Review of IRS' March 7, 2000, Expenditure Plan* (GAO/AIMD-00-175, May 24, 2000) and *Tax Systems Modernization: Results of Review of IRS' August 2000 Interim Spending Plan* (GAO-01-91, November 8, 2000).

<sup>8</sup>IRS submitted its second interim plan to the Congress in late August 2000 and requested approximately \$32 million to carry the modernization through the end of fiscal year 2000 and into early fiscal year 2001. In early October 2000, IRS submitted its third expenditure plan, requesting about \$200 million to fund modernization program-level activities through September 2001 and project-level activities through their next milestones.

implementing our modernization management recommendations. For example, we reported that IRS had largely defined its system life cycle methodology that incorporated software acquisition and investment management processes as well as program roles and responsibilities of IRS and its prime contractor. To fully implement our recommendation, IRS plans to have its life cycle management processes—referred to by IRS as the Enterprise Life Cycle—implemented in early 2001. We also reported on IRS progress in implementing our recommendation for developing and implementing an enterprise architecture.

Despite important progress, IRS has more work to do before it will have fully addressed our recommendations. IRS has plans and initiatives underway to do so, but until this work is completed, key modernization management controls are missing, which increases the risks of projects not performing as intended, and costing more and taking longer than they should. These risks are not as severe early in the projects' life cycles when they are being planned (project definition and design), but escalate as projects begin to be built (detailed design and software development). Given that IRS plans to begin building several major projects, it is important for IRS to continue to make implementation of these program management controls, particularly completion of its enterprise architecture, a top priority and to refrain from building systems until these controls are sufficiently in place and functioning. We have made recommendations, which IRS has agreed to implement to accomplish this.

This issue is also discussed in *Major Management Challenges and Program Risks: Department of the Treasury* (GAO-01-254, January 2001), which includes a list of related GAO reports. For additional information on tax systems modernization, please contact Randolph C. Hite, Director, Information Technology, at (202) 512-3439 or [hiter@gao.gov](mailto:hiter@gao.gov).

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## **DOD Systems Modernization**

DOD spends about \$20 billion annually on IT to support a wide range of military operations and business functions (e.g., logistics, finance and accounting, health services), and tens of billions more on technology embedded in sophisticated weaponry. This heavy reliance will only grow as the Department moves to modernize and respond to technological advances that are changing traditional approaches to managing business functions and engaging in conflicts.

To effectively and efficiently leverage the huge sums of money that the Department plans to invest in IT, DOD will have to develop and implement an integrated set of enterprise architectures, or Departmentwide blueprints defining the future operational and technical environments for its core military operations and business functions. It will also have to use investment selection, control, and evaluation processes that ensure production of tangible, observable improvements in mission performance and accountability, at acceptable costs within reasonable timeframes. To date, the Department has been challenged in its efforts to implement these fundamental management controls, and although progress is being made, much remains to be accomplished.

The Department of Defense Appropriation Act for Fiscal Year 2000 (P. L. 106-79, Oct. 25, 1999) reemphasized the need for the kind of IT implementation and oversight processes cited in the Clinger-Cohen Act of 1996. Among other things, the act calls for an IT investment oversight process that covers the life of each investment and includes explicit criteria for analyzing projects' expected and actual cost, benefits, and risks. DOD Inspector General and our reports on DOD systems modernization efforts have identified a broad array of

problems that reinforce the need for those processes and management controls.<sup>9</sup>

The Department's vision of using electronic commerce technologies to transform and streamline its business processes and relationships is a vivid illustration of the problems and risks that DOD faces in this area. Specifically, we reported that the Department's electronic commerce vision is at risk because a key element—a DOD-wide implementation plan, including an electronic commerce enterprise architecture—has not been developed to direct and control business process change and IT investments in this area.<sup>10</sup> Without these management controls, the Department does not have a common blueprint or roadmap that is essential for effectively introducing modern electronic commerce operations and investing in supporting systems.

DOD has not developed such a plan primarily because its Chief Information Officer (CIO) and the Joint Electronic Commerce Program Office have been unable to reach agreement with the military services and Defense agencies on the scope and content of the plan. In lieu of a common and integrated approach to electronic commerce, DOD is allowing the joint program office, the military services, and three of the larger Defense agencies to develop separate plans. According to CIO officials, the separate plans may then be merged into a DOD-wide plan at some point in the future,

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<sup>9</sup>*Defense Information Management: Continuing Implementation Challenges Highlight the Need for Improvement* (GAO/T-AIMD-99-93, February 25, 1999), *Acquisition Management of the Composite Health Care System II Automated System* (Report Number 99-068, January 21, 1999), and *Defense Management: Electronic Commerce Implementation Strategy Can Be Improved* (GAO/NSIAD-00-108, July 18, 2000).

<sup>10</sup>GAO/NSIAD-00-108, July 18, 2000.

however, no specific commitment or date for doing this has been established.

As a result, DOD components are addressing architecture development within their respective, stovepipe organizations. Such an approach will not adequately support the Department's electronic commerce strategic objectives, such as achieving systems interoperability across the Department and streamlining its processes before implementing electronic commerce technologies.

Accordingly, we recommended that DOD place a high priority on completing an electronic commerce implementation plan; finishing an electronic commerce architecture; establishing clearer lines of program management responsibility, authority, and accountability; and ensuring that all new electronic commerce initiatives support the Department's strategic goals and have meaningful performance measures. In commenting on the report, the Department concurred with our findings and recommendations.

In its 2000 annual report to the President and the Congress, DOD acknowledged that improvements were needed in IT management and oversight. Additionally, the report cites steps underway to address its challenges in this regard, such as creation of a Portfolio Management and Oversight Working-Level Integrated Product Team to ensure that IT investments are managed and evaluated based on specific measurable contributions to the Department's mission goals and priorities. Similarly, the DOD has published an enterprise architecture framework to guide component efforts in developing architectures and to better ensure that they are defined consistently. Also, the Department's fiscal year 2001 performance plan, which was required by the Government Performance and



Results Act of 1993, included performance goals for IT management.

Recognition that improvements are needed in systems modernization management is a positive step. Equally important will be the unwavering commitment of DOD's executive leadership. In successfully addressing the Year 2000 computing challenge, DOD recognized the importance of this commitment. According to DOD's lessons learned report, in the summer of 1998, senior DOD leaders recognized that the century date change was a CEO problem. Additionally, the Department recognized that a "business-as-usual" approach would not solve a problem as challenging, pervasive, and risky as Year 2000. Accordingly, DOD instituted new, more enterprise-focused Year 2000 management controls. As we have reported and recommended,<sup>11</sup> applying Year 2000 lessons learned to management of systems modernization efforts will better position DOD to effectively invest in IT in a way that optimizes Departmentwide performance and accountability.

We plan to continue evaluating DOD's approach to investing in IT and to promote a more integrated approach across organizational and cultural divides.

This issue is also discussed in *Major Management Challenges and Program Risks: Department of Defense* (GAO-01-244, January 2001), which includes a list of related GAO reports. For additional information on DOD systems modernization efforts, please contact Randolph C. Hite, Director, Information Technology, at (202) 512-3439 or [hiter@gao.gov](mailto:hiter@gao.gov).

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<sup>11</sup>*Department of Defense: Implications of Financial Management Issues* (GAO/T-AIMD/NSIAD-00-264, July 20, 2000).

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# Providing Basic Financial Accountability

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The federal government has historically lacked timely, accurate, and useful financial information to assure financial accountability. Without good financial information, the government cannot adequately measure and control costs, manage for results, nor make timely and fully informed decisions about allocating limited resources.

Over the past decade, the Congress has put in place a financial management reform legislative framework—the Chief Financial Officers (CFO) Act, the Federal Financial Management Improvement Act (FFMIA), and the Government Management Reform Act. These statutes set the expectation for agencies to improve financial reporting and internal control, routinely produce sound cost and operating performance information and design results oriented reports on the government’s financial condition, and strengthen human capital practices in financial operations. These legislative expectations are not yet fulfilled.

A critical aspect of this is the legislative requirement for annual audited financial statements for 24 major federal departments and agencies beginning with fiscal year 1996, as well as for the government as a whole beginning with fiscal year 1997. We have seen a steady increase in the number of agencies that have obtained unqualified opinions on their financial statements and in agencies’ timeliness in issuing them. Fifteen of 24 major agencies received unqualified opinions on their fiscal year 1999 financial statements—for fiscal year 1996, only 6 agencies achieved that goal. At the same time, several major departments are not yet able to produce auditable financial statements on a consistent basis. The most significant in this regard is the Department of Defense (DOD), which represents a large percentage of the government’s assets, liabilities, and net costs, but is not yet able to comply with generally accepted accounting principles.

Challenges also continue in producing reliable statements for the entire U.S. government. For the last 3 years, we reported serious deficiencies in the government's systems, recordkeeping, documentation, financial reporting, and controls. Until DOD, which is a major contributor to these problems, has auditable financial statements, the government's consolidated statements cannot be given a clean audit opinion.

While clean audit opinions are essential to providing an annual public scorecard, they do not guarantee that agencies have the financial systems needed to dependably produce reliable financial information. Many agencies have been able to obtain unqualified audit opinions only through heroic efforts, which include using extensive ad hoc procedures and billions of dollars in adjustments to derive numbers as of a single point in time—the end of the fiscal year. These efforts are often completed months after the end of the fiscal year. The fundamental problem is that agency financial systems cannot routinely provide this information.

Modernizing financial management systems is critical because most federal agencies' financial management systems do not meet systems requirements and cannot provide reliable financial information for managing day-to-day government operations and holding managers accountable. For fiscal year 1999, agency financial auditors have reported that 21 of 24 major agencies' financial systems did not comply substantially with federal accounting standards and financial systems and other requirements, as required by FFMIA. It will take time and effort to raise federal financial systems to the level of quality and reliability envisioned in FFMIA and the CFO Act.

We have seen important progress in improving financial management, and a host of corrective actions are

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underway. These efforts will have to be sustained and built upon to attain the “end game” of having reliable, useful, and timely financial and other important management information to make decisions and monitor government performance every day. Concerted effort over a number of years will be needed to achieve the intent of the CFO Act and other financial management improvement legislation.

We are working with OMB, Treasury, and agencies across government to identify and recommend financial management improvements. The financial operations at agencies with the most significant problems have been designated as high risk.

A graphic titled "High-Risk Financial Management Areas" featuring a list of four areas and an illustration of the U.S. Capitol building. The graphic has a white background with a grey border and a drop shadow effect.

**High-Risk Financial  
Management Areas**

- DOD Financial Management
- Forest Service Financial Management
- FAA Financial Management
- IRS Financial Management

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## **DOD Financial Management**

Accurate financial information is crucial to making sound decisions and controlling assets so that DOD’s mission and goals are efficiently and effectively accomplished. Considering DOD’s vast operations, including an estimated \$1 trillion in both assets and reported liabilities, and a reported net cost of operations of \$378 billion in fiscal year 1999, effective asset accountability and reliable financial information are

critical. The Department continues to confront pervasive and complex financial management problems that can seriously diminish the efficiency of the military services' support operations. Since 1995, DOD financial management has been on our list of high-risk areas vulnerable to waste, fraud, abuse, and mismanagement. The Department has made progress in a number of areas, both larger steps forward and smaller incremental improvements. As detailed in the following paragraphs, however, DOD has a long way to go to effectively address these problems.

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**Financial Reporting  
Continues to Be  
Inaccurate**

No major part of DOD's operations has been able to pass the test of an independent financial audit. The most recent audits of DOD's financial statements—for fiscal year 1999—highlight ongoing financial management challenges that affect the development of accurate and complete financial information. If available, this information could provide useful perspectives to decisionmakers on such key areas as budget requests, performance measurement, and costs. For example, because of weaknesses in DOD's budget execution accounting, the Department does not know with certainty the amount of funding it has available.

These weaknesses include (1) an inability to reconcile an estimated \$7 billion difference between DOD's available fund balances and Treasury's, (2) frequent adjustments of recorded payments between appropriation accounts—with nearly \$1 of every \$3 in fiscal year 1999 contract payments representing an adjustment, and (3) incorrect or unsupported obligations. In addition, DOD records show an estimated \$1.6 billion of transactions held in suspense accounts at the end of fiscal year 1999. Until these suspended transactions are posted to the proper appropriation account, the Department will have little assurance that reported appropriation balances are correct. As we have testified, such information is essential for DOD and the

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Congress to determine if funds are available to reduce current funding requirements or to be reprogrammed to meet other critical program needs.

Also, we have testified that, while the Department reported the total net costs for its operations as \$378 billion, it could not justify this amount. Areas in which DOD has been hampered by the lack of reliable information on the full cost of its programs include (1) accounting for the costs associated with functions studied for potential outsourcing under OMB Circular A-76, including a long-standing concern over how accurately DOD's in-house cost estimates reflect actual costs; (2) controlling and managing weapon system acquisition, operation, and disposal costs under its overall Defense Reform Initiative; and (3) long-standing problems in accumulating and reporting the cost data needed to help assess the economy and efficiency of its businesslike activities used to provide goods and services in support of the military services.

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**Environmental  
Liability Is Uncertain**

DOD does not have an effective process in place to comprehensively and accurately report liabilities associated with its environmental and disposal costs. DOD has taken important steps to better recognize and report on these liabilities, increasing its reported estimated liabilities from \$34 billion in its fiscal year 1998 financial statements to \$80 billion in fiscal year 1999. As we have testified, more complete and accurate information on these liabilities would be an important factor in determining the timing of funding requests. However, the full magnitude and timing of these costs are not yet known because (1) DOD does not yet have a comprehensive inventory of all potential environmental and disposal liabilities, potentially excluding billions of dollars of costs associated with nonnuclear weapons, conventional munitions, and ongoing operations; (2) estimates were not based on the consistent application of assumptions and methodologies, resulting

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in some cases in significantly different results across the services; and (3) support for the basis of reported cost estimates continues to be inadequate.

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**Accountability Over  
Equipment and  
Inventory Is Weak**

DOD cannot properly account for and report on its weapon systems and support equipment. Lacking such reliable information, DOD has little assurance that all items purchased are received and properly recorded. Because the military services cannot identify all of their weapon systems and support equipment through a centralized system, each service had to supplement its automated data with manual procedures to collect the information needed on these assets to meet military objectives and readiness goals. For example, items that were not included in the Army's centralized systems in fiscal year 1999 included 56 airplanes, 32 tanks, and 36 Javelin missile command-launch units. Additionally, DOD has also been unable to account for and control its huge investment in inventories. These weaknesses (1) increase the risk that responsible inventory item managers may request funds to obtain additional, unnecessary items that may be on hand but not reported and (2) result in a loss of accountability that could affect supply responsiveness and purchase decisions. (DOD inventory management, which is another high-risk area, is discussed later in this report.)

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**Financial  
Management Systems  
Are Inadequate**

Establishing an integrated financial management system—including both automated and manual processes—will be key to reforming DOD's financial management operations. DOD has acknowledged that its current financial management systems (1) are flawed with decades-old problems that will be impossible to reverse overnight, (2) for the most part do not comply with federal financial management systems requirements, and (3) were not designed to collect data in accordance with generally accepted accounting principles. The Department has set out an integrated

financial management system goal. However, it faces a significant challenge in integrating its financial management systems because of its size and complexity and the condition of its current financial management operations. That is, DOD supports personnel on an estimated 500 bases in 137 countries and territories throughout the world, makes an estimated \$24 billion in monthly disbursements, and maintains as many as 500 or more active appropriations in any given year. In addition, each service operates unique, nonstandard financial processes and systems. As a result, millions of transactions must be keyed and rekeyed into multiple systems.

Transactions must be recorded using a complex line of accounting that accumulates appropriation, budget, and management information that varies by military service and fund type. An error in any one character in such a line of code can delay payment processing or affect the reliability of data used to support management and budget decisions.

Further, through the Year 2000 experience, DOD has learned that its goal of systems improvement initiatives should be improving end-to-end business processes. Lessons learned from the Year 2000 effort also stressed the importance of strong leadership from top leaders in making any goal—such as financial management and systems improvements—an entitywide priority. DOD's current Financial Management Improvement Plan sets out an integrated financial management system as the long-term solution for establishing effective financial management and includes hundreds of initiatives to address its financial management problems. However, as we recently testified, the plan's vision and goals fell short of achieving basic financial management accountability and control and did not position DOD to adopt financial management best practices.



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Key Actions Needed

Successfully completing efforts to prepare financial statements that can withstand the test of an audit will be a key milestone for DOD. Such audit efforts can help in better understanding the extent, nature, and underlying causes of the Department's long-standing financial management problems, identifying information needs, and strengthening fundamental discipline in its controls and systems. However, as we recently testified, many of the planned financial management improvement initiatives are mainly focused on one-time, year-end numbers for financial statement purposes. In the short term, DOD also needs to focus on improving its routine processes and controls relied on to manage its every day operations.

In the long term, sustaining the strong commitment we have seen over the past few years from the highest levels of DOD leadership—a commitment that must extend to the next Administration—will be needed to overhaul DOD's financial systems and to ensure that personnel throughout the Department share the common goal of establishing financial management systems and processes that routinely generate reliable financial information.

This issue is also discussed in *Major Management Challenges and Program Risks: Department of Defense* (GAO-01-244, January 2001), which includes a list of related GAO reports. For additional information on DOD financial management, please contact Gregory D. Kutz, Director, Financial Management and Assurance, at (202) 512-9095 or [kutzg@gao.gov](mailto:kutzg@gao.gov).

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Forest Service  
Financial  
Management

Since the first audit of the Forest Service's financial statements, which covered fiscal year 1991, the USDA's Inspector General (IG) has found serious accounting and financial reporting weaknesses, some of which continue to exist today. While the Forest Service has

committed considerable resources and has progressed in addressing some of its long-standing financial management deficiencies, much work remains. In fiscal year 1999, the IG was unable to determine the accuracy of the reported \$3.1 billion in net property, plant and equipment, which represented 51 percent of the agency's total assets. Also, the IG identified significant accounting and reporting weaknesses in the Forest Service's fund balance with Treasury accounts and its financial management systems. Due to the severity of the aforementioned deficiencies, in February 2000, the IG disclaimed from issuing an opinion on the Forest Service's fiscal year 1999 financial statements. In addition to the IG reported weaknesses, we have reported that the Forest Service's autonomous field structure has hampered efforts to correct these accounting and financial reporting problems.

The IG reported in its fiscal year 1999 audit report that it was unable to determine the accuracy of the Forest Service's reported \$3.1 billion in net property, plant and equipment. Specifically, of the \$3.1 billion, the IG could not verify the accuracy of the pooled assets, such as roads and trails, valued at \$1.5 billion, because the agency lacked sufficient documentation to support their purchase price, date acquired, and related depreciation costs. In addition, the IG reported that the Forest Service's pooled assets did not include the book value of road prism costs—costs associated with the underlying foundation—for roads constructed prior to fiscal year 1998.

The IG's audit also disclosed that it was unable to verify fund balances with Treasury totaling \$2.6 billion because the reconciliation of agency records with Treasury records had not been completed. The IG has been providing consulting services to the Forest Service and the agency's outside consultant by assisting in researching and analyzing unreconciled differences between agency and Treasury records and by

monitoring the agency's efforts to correct systemic problems within its new accounting system that have contributed to the unreconciled differences.

While the Forest Service made great strides during fiscal year 2000 to reconcile its fund balance with Treasury accounts, the IG still considers the absolute unreconciled differences between the Forest Service and Treasury's records significant and believes the Forest Service should continue to research and correct the unreconciled amounts. As of October 2000, the IG estimated the absolute difference between Treasury's records and the Forest Service's general ledger was over \$592 million for disbursements, and over \$71 million for collections. However, the IG noted that some of the unreconciled differences can be attributed to normal timing differences. In addition, the IG stated that a portion of the unreconciled differences will be corrected when systems problems that have been present in the Forest Service's new accounting system—such as posting fund balance transactions to the incorrect account—are fixed.

The Forest Service implemented its new accounting system agencywide on October 1, 1999, as scheduled. Despite some start-up problems, such as rejected transactions and system downtime, Forest Service staff are now entering transactions into the system. However, the new accounting system depends on and receives data from feeder systems that the IG and the outside consultant have characterized as seriously deficient. Specifically, the IG reported that these feeder systems—which process and transfer information such as credit card, personal property, and travel transactions into the new accounting system—are poorly documented, operationally complex, deficient in appropriate control processes, and costly to maintain. The IG has also concluded that these feeder systems reduce assurance that the new system will be able to provide timely, accurate, reliable, and consistent financial information.

USDA has agreed with the IG's recommendation to develop a long-range plan to consolidate, integrate, and/or reengineer the feeder systems. According to USDA officials, the agency is in the process of requesting the funding needed to implement the long-range plan. In the meantime, USDA officials stated that the agency has developed an interim plan to address problems plaguing some of the feeder systems that the Forest Service uses in their financial operations. USDA anticipates implementing this interim plan during this fiscal year.

The independence afforded by the agency's autonomous field structure has hampered efforts to correct accounting and financial reporting weaknesses. The Forest Service's field structure lacks a consistent structure for financial management practices and each unit has operated independently when carrying out various functions such as budget execution and financial plan development. The Forest Service has initiated an assessment of its field office financial management organizational structure but has not yet reorganized its field structure to ensure clear lines of responsibility and accountability within each region. Until this is completed, the Forest Service's current autonomous field structure may hamper its efforts to achieve financial accountability.

The Forest Service has completed several corrective actions and begun others that, if successfully carried through, represent important steps toward achieving financial accountability. For example, the Forest Service implemented the previously mentioned new accounting system and completed and implemented its methodology for valuing road assets with the IG's concurrence. In addition, the Forest Service is working to resolve problems in reconciling the fund balance with Treasury accounts. The Forest Service must sustain top management commitment and have substantial additional resources devoted to addressing its

accounting and reporting weaknesses. In addition, the Forest Service will need to demonstrate sustained financial accountability, which goes beyond receiving an unqualified audit opinion. For instance, the Forest Service will need to address material internal control weaknesses that limit its ability to maintain accountability over its assets on an ongoing basis.

Because major barriers to achieving financial accountability at the Forest Service remain, we continue to designate the Forest Service's financial management as a high-risk area.

This issue is also discussed in *Major Management Challenges and Program Risks: Department of Agriculture* (GAO-01-242, January 2001), which includes a list of related GAO reports. For additional information on Forest Service financial management, please contact McCoy Williams, Acting Director, Financial Management and Assurance, at (202) 512-6906 or [williamsm1@gao.gov](mailto:williamsm1@gao.gov).

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## **Federal Aviation Administration (FAA) Financial Management**

In January 1999, we designated FAA's financial management as a high-risk area because of serious and long-standing accounting and financial management weaknesses. FAA received its first ever unqualified opinion on its fiscal year 1999 financial statements, which represents progress from prior years when the IG was unable to express an opinion on FAA's financial statements. But it took heroic efforts to achieve an unqualified opinion. For example, because FAA lacks an adequate system to account for its property, plant, and equipment (PP&E) on an ongoing basis, FAA used alternative procedures and labor-intensive methods to establish a baseline and costs for PP&E. FAA has reached an important milestone by attaining a clean audit opinion on its financial statements, but it has not yet proven it can sustain this outcome, and it has not

reached the end goal of routinely having timely, accurate, and useful financial information.

Until FAA has financial management systems and related procedures and controls that provide reliable information to (1) prepare financial statements and reports, (2) account for PP&E on an ongoing basis, and (3) meaningfully accumulate and report costs for programs and activities, FAA financial management will continue to be at high risk of waste, fraud, abuse, and mismanagement.

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**FAA Property  
Systems**

Since 1994, DOT's Inspector General has reported that FAA lacks the systems and related procedures to accurately and routinely account for its PP&E—which, as of September 30, 1999, totaled \$10.8 billion. This lack of timely and accurate PP&E information may impede program officials' ability to properly manage and safeguard these assets and to make prudent business decisions. It may also limit their ability to accurately determine the costs of operations on an ongoing basis.

In fiscal year 1999, FAA started an extensive labor-intensive project to reconstruct the detailed records needed to document its PP&E costs. With a significant effort and commitment of resources, FAA made real progress and, for the first time, established a PP&E baseline. This extraordinary effort resulted in corrections to previously reported PP&E amounts, including a \$3 billion increase in the reported cost of PP&E and an \$806 million increase in accumulated depreciation. While these special efforts established a baseline for PP&E, without adequate systems and controls, FAA will have difficulty tracking its PP&E activity on a routine basis. In its report on FAA's financial statements for fiscal year 1999, the IG concluded that the manual and labor-intensive efforts could not be sustained in the future and are prone to errors, mistakes, and inaccuracies. As a result, the IG

classified the internal controls over FAA's PP&E as a material weakness.

During fiscal year 2000, FAA began implementing a new system to maintain detailed PP&E records that can calculate depreciation. In the past, depreciation expense, which is an important component of FAA's operating costs, required the preparation of separate electronic spreadsheets. The new system is expected to be fully operational by September 2001. However, the full benefits of the new system for PP&E will not be realized until it is integrated with systems changes (or replacements) to FAA's existing related property systems that identify and track PP&E activity, such as property acquisitions and disposals. FAA does not expect these related PP&E systems to be fully implemented until fiscal year 2003. We will continue to monitor FAA's progress in implementing these new systems to determine whether they are responsive to the concerns that we and the IG has raised.

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**FAA Managerial Cost  
Accounting  
Information**

FAA lacks a cost accounting system or an alternative means to meaningfully accumulate and report its costs. The objective of a cost accounting system is to accurately assign basic financial costs—such as an agency's labor, overhead, and other costs—to program activities and projects. Accurate cost information is essential in managing FAA's programs in the following areas: (1) budgeting and cost control, (2) performance management, (3) determination of cost reimbursements and the setting of fees and prices, (4) program evaluations, and (5) choosing between alternative actions.<sup>1</sup> Deficiencies in these areas limit FAA's and

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<sup>1</sup>The Statement of Federal Financial Accounting Standards No. 4, *Managerial Cost Accounting Standards*, July 31, 1995, describes these five areas for which cost information is essential in managing government programs.

others' ability to make effective decisions about resource needs and to adequately control major projects, such as its multibillion-dollar ATC modernization program.

FAA has made substantial progress in developing its cost accounting capabilities. It is developing a comprehensive cost accounting system which it expects to have fully operational by the end of fiscal year 2002. This system is expected to provide detailed information about the costs of services that FAA provides to the public. As of September 30, 2000, FAA had implemented three of the four Air Traffic Services cost accounting system applications.<sup>2</sup>

In July, these applications began producing reports that FAA's managers are using for analysis and training. The fourth application is scheduled for implementation during the second quarter of fiscal year 2001. These plans address many of our concerns. However, the applications being placed in service are not fully integrated with other FAA and DOT systems. Integration, which is an important element to fully realize the efficiency and effectiveness of modern data processing systems, is dependent on the eventual replacement of those other systems. In addition, FAA's cost systems applications, like DOT's system, presently require some costs to be manually allocated, rather than allocating them automatically. As a result, the systems do not provide the reliable up-to-date data needed for making decisions.

This issue is also discussed in *Major Management Challenges and Program Risks: Department of Transportation* (GAO-01-253, January 2001), which

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<sup>2</sup>Air Traffic Services is the FAA organization responsible for maintenance and operation of the national airspace system.



includes a list of related GAO reports. For additional information on FAA financial management, please contact Linda M. Calbom, Director, Financial Management and Assurance, at (202) 512-9508 or *calboml@gao.gov*.

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## **IRS Financial Management**

IRS financial management continues to be a high-risk area because of ongoing weaknesses in IRS financial management and operational systems and processes. IRS has neither the reliable financial and operational information needed to measure the full cost of administering the Internal Revenue Code nor the data to report meaningful, cost-based performance information. As a result, IRS management and the Congress lack the information to determine whether IRS has the appropriate levels of funding and staff and is effectively using them.

Because of these problems, we were unable to render audit opinions on four of IRS' six financial statements, and our opinion on its balance sheet was qualified for fiscal year 1999. IRS was able to reliably report the amounts of tax revenue collected and related refunds disbursed during fiscal year 1999 and the balance of taxes receivable outstanding at fiscal year-end. However, to achieve this, IRS once again depended on successfully completing extensive and time-consuming ad hoc procedures to compensate for its long-standing and pervasive internal control weaknesses.

IRS has taken action on a number of the financial management issues we have identified, and has shown a strong commitment to resolving these issues. In particular, IRS has worked aggressively to address a number of issues that are not dependent on systems modernization for their resolution. IRS recognizes, however, that the resolution of many of the financial

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management issues depends on the success of its systems modernization efforts.

IRS' primary internal control weaknesses relate to the following areas.

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**Accountability Over  
Administrative  
Accounts and  
Budgetary Resources**

Our audit of IRS' fiscal year 1999 financial statements identified severe weaknesses in accounting, reporting, and budgetary controls that rendered IRS unable to reliably report how it spent the \$8.5 billion it was appropriated by the Congress in fiscal year 1999. IRS was unable to reliably report the costs of its programs, was not timely charging costs against appropriations and was failing to de-obligate balances appropriately, and continued to exhibit severe deficiencies in accountability for property and equipment.

These weaknesses seriously impaired IRS' ability to ensure that resources were spent in accordance with laws, regulations, and management policy. IRS did make substantial progress in resolving its long-standing problems with controls over its fund balance with Treasury,<sup>3</sup> and has laid the groundwork for institutionalized reconciliation policies and procedures that, if effectively implemented and maintained, should prevent similar problems from recurring in future years.

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**Management of  
Taxpayer Receipts  
and Data**

IRS' internal controls over tax receipts and data do not adequately protect the federal government and taxpayers from the vulnerability to loss from theft and inappropriate disclosure of proprietary taxpayer information. IRS made some improvements in these controls during fiscal year 1999, such as enhancing

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<sup>3</sup>Agencies record their budget spending authorizations in their fund balance with Treasury accounts. Agencies increase or decrease these accounts as they collect or disburse funds.

controls over tax receipts by strengthening courier operations. However, we continued to find significant but easily correctable weaknesses. For example, we found that IRS continued to allow thousands of employees access to taxpayer receipts and data before it received the results of their fingerprint checks. We also continued to find checks left in open baskets, returned checks that had not been marked nonnegotiable, and personal belongings of IRS' employees allowed into restricted areas where taxpayer receipts were being processed. These weaknesses expose the government and taxpayers to avoidable losses and increase the risk that confidential taxpayer data may be compromised.

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**Management of  
Unpaid Tax  
Assessments**

IRS continues to have serious internal control deficiencies that affect its management of unpaid tax assessments. IRS still lacks a subsidiary ledger that tracks and accumulates unpaid tax assessments on an ongoing basis. Consequently, IRS must rely on specialized computer programs to extract unpaid assessment information from its masterfiles—its only detailed databases of taxpayer account information—in order to prepare its financial statements. However, tens of billions of dollars in adjustments were necessary to correct misclassifications and eliminate duplications in fiscal year 1999. Additionally, IRS' automated records continued to contain errors and IRS continued to experience delays in recording tax assessments, payments, and other activities.

These weaknesses have resulted in both lost revenue to the government and significant taxpayer burden. For example, during fiscal year 1999, IRS (1) pursued collection efforts against taxpayers actually due refunds and issued refunds to taxpayers who actually owed taxes, (2) entered into installment agreements that did not provide for full payment of the outstanding taxes owed, and (3) did not always promptly release tax liens

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once the tax liability had been satisfied.<sup>4</sup> In addition, we found that IRS did not aggressively pursue significant amounts in outstanding taxes owed the federal government, resulting in potentially billions of dollars in lost revenue.

This issue is also discussed later under the high-risk area designated as Collection of Unpaid Taxes.

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**Computer Security  
Controls**

For the past 7 years, we have reported significant and long-standing weaknesses in controls over IRS' information systems. We also found that computer security controls over IRS' key applications that manage tax return input, and receipt processing did not provide assurance that only authorized personnel had access to the application and related data, that the data were complete and accurate, and that application and data integrity was maintained.

IRS has made significant progress in improving computer security weaknesses that we have identified. However, much remains to be done to resolve the serious weaknesses within IRS' computing environment that place its automated systems and taxpayer data at serious risk to both internal and external threats.

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**Addressing the Issues**

We have provided IRS with detailed management and operational recommendations, and we will continue to make additional recommendations as necessary. Additionally, to better assist the Congress in making informed funding decisions concerning the appropriate levels and uses of IRS' resources, Congress should

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<sup>4</sup>The Treasury Inspector General for Tax Administration also reported IRS delays in releasing tax liens in its report *Controls for Ensuring That Federal Tax Liens are Promptly Released in the Northeast Region* (Report No. 682302, September 8, 1998).

consider requiring IRS to provide reliable aggregate cost-benefit information related to its various collection and enforcement activities in any budget request for additional resources in support of these programs. IRS' senior management, including the Deputy Commissioner for Operations, has been proactive in addressing these issues and has played a major role in the progress IRS has achieved to date. However, resolving many of IRS' most serious problems will require a sustained long-term commitment of resources, continued involvement of senior management, and sustained progress in systems modernization.

This issue is also discussed in *Major Management Challenges and Program Risks: Department of the Treasury* (GAO-01-254, January 2001), which includes a list of related GAO reports. For additional information on IRS financial management, please contact Steven J. Sebastian, Acting Director, Financial Management and Assurance, at (202) 512-3406 or [sebastians@gao.gov](mailto:sebastians@gao.gov).

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# Reducing Inordinate Program Management Risks

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We have identified inordinate program management risks in major program and mission areas. These range from large benefit payment programs that sustain substantial losses to the earned income credit program that experiences a high rate of noncompliance, the problems related to collecting unpaid taxes, and the continuing difficulties associated with programs that provide financial aid to students. We have reported these in our Performance and Accountability Series and have designated, and continue to monitor several of them, as high risk because the underlying problems can significantly impair service, reduce effectiveness, or diminish efficiency. Effectively addressing the underlying causes of program management weaknesses offers tremendous opportunities to reduce government costs and improve services.



## High-Risk Program Management Areas

- Medicare Program
- Supplemental Security Income
- Earned Income Credit Noncompliance
- Collection of Unpaid Taxes
- DOD Infrastructure Management
- DOD Inventory Management
- HUD Single-Family Mortgage Insurance and Rental Housing Assistance Program Areas
- Student Financial Aid Programs
- Asset Forfeiture Programs

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**Medicare Program**

Because of the program's vast size and complex structure, in 1990 we designated Medicare as a high-risk program—that is, at risk of considerable losses to waste, fraud, abuse, and mismanagement—and it remains so today. Since that time, we have consistently reported on systemic difficulties in safeguarding Medicare payments. One such difficulty is the production of reliable management information, which has had an impact on paying or denying Medicare claims appropriately, developing new payment methods for post-acute care, paying Medicare's managed care (Medicare+Choice) plans appropriately, and implementing sound financial management practices.

In Medicare's traditional fee-for-service component, HCFA does not have a clear picture of the individual or relative performance of the program's claims administration contractors, which are responsible for safeguarding Medicare's fee-for-service payments. In fiscal year 1999, these payments totaled \$171 billion. HCFA also lacks sufficient information on newly designed payment systems to determine whether providers are being paid appropriately for the services they deliver. As for Medicare+Choice, HCFA similarly lacks the data needed to monitor the appropriateness of payments made to health plans and the services Medicare enrollees receive. Due to a failed attempt in the 1990s to modernize Medicare's multiple information systems, HCFA's current systems remain seriously outmoded. Without effective systems, the agency is not well positioned for sound financial or programmatic management.

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**In Traditional  
Medicare, Problems  
Ensuring Appropriate  
Claim Payment  
Remain**

HCFA contracts with private companies, mostly insurance companies, to review and pay providers' claims for health care delivered to program beneficiaries. These contractors run the day-to-day operations of Medicare's traditional, fee-for-service

program component, which accounts for over 80 percent of the program. Although the contractors are the front-line of defense against provider fraud and abuse and erroneous Medicare payments, in the 1990s, several contractors defrauded the government or settled cases alleging fraud for hundreds of millions of dollars.

HCFA rarely uncovered these cases through its own oversight efforts. The reason is, in part, that the agency relied on contractors' self-certifications of management controls and contractors' self-reported data on performance and seldom made independent validations of contractor-provided information. This is inconsistent with federal standards that require the monitoring of internal controls to assess the quality of performance over time and ensure that identified problems are promptly resolved.<sup>1</sup>

Our July 1999 report on HCFA's efforts to monitor Medicare's claims administration contractors identified many weaknesses. For years, HCFA's contractor evaluation process lacked the consistency that agency reviewers need to make comparable assessments of contractor performance. HCFA reviewers had few measurable performance standards and little agencywide direction on monitoring contractor's payment safeguard activities. Under these circumstances, the reviewers in HCFA's 10 regional offices, who were responsible for conducting contractor evaluations, had broad discretion to decide what and how much to review as well as what disciplinary actions to take against contractors with performance problems. This highly discretionary evaluation process allowed

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<sup>1</sup>The Comptroller General's *Standards for Internal Control in the Federal Government* (GAO/AIMD-00-21.3.1, November 1999) provides a framework for agencies to establish and maintain internal controls and identify and address major performance and management challenges in areas at greatest risk of fraud, waste, abuse, and mismanagement.



key program safeguards to go unchecked and led to the inconsistent treatment of contractors with similar performance problems. In addition, responsibility for various aspects of contractor activities was splintered across many central office components, while regional staff who conducted day-to-day oversight were not directly accountable to any particular central office unit.

As a result of these findings, we made a number of recommendations to improve HCFA's management and oversight of Medicare claims administration contractors. In summary, we recommended that HCFA enforce contractors' compliance with existing standards while developing better standards for assessing contractor performance; strengthen accountability for evaluating contractor performance and agency oversight; and require verification of contractors' internal controls and contractor-reported data. In response to our recommendations, HCFA

- has begun using national review teams to conduct contractor evaluations. The teams combine the expertise and dual perspective of central and regional office staff.
- established an executive-level position at its central office with ultimate responsibility for contractor oversight and recently established four positions in the field reporting directly to that executive, reflecting the 4 groupings of its 10 regional offices.
- hired several public accounting firms to review overall internal control design and the effectiveness of financial controls at 26 Medicare contractors and required contractors with control weaknesses to develop plans to correct them.<sup>2</sup>

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<sup>2</sup>For fiscal year 2001, HCFA is planning to have effectiveness of information technology, claims processing, financial, and debt collection controls tested at 13 Medicare contractors.

HCFA is also seeking to enhance the usefulness of the Medicare national fee-for-service claims error rate data developed by the HHS Office of the Inspector General (OIG). Each year, from reviewing a sample of paid claims, the OIG estimates how many claims were paid in error because they lacked appropriate documentation, were not for Medicare-covered services, or were for services deemed not medically necessary. However, the error rate does not distinguish between benign paperwork mistakes and abusive billing practices, nor does it identify the volume of erroneous payments at each contractor. Thus, to improve the error rate's use as a management tool, HCFA has an initiative to develop a separate error rate for each contractor. It has hired a "validation" contractor that will randomly sample processed claims and recheck the processing and payment decisions made. From the results, HCFA intends not only to measure contractor performance but also to identify which categories of services or provider types are the source of improper billing practices, thus targeting specific areas that need improvement.

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**Improved Payment  
Methods Can Still Be  
Exploited**

In addition to monitoring the contractors' claims review activities to ensure that only appropriate claims are paid, HCFA faces challenges in establishing appropriate prices to pay for covered services. Most recently, it has had the challenge of ensuring the integrity of new payment methods mandated by the Congress. For example, the Balanced Budget Act of 1997 introduced several payment reforms, calling for HCFA to develop and implement new methods to pay for post-acute care—the care provided principally by skilled nursing facilities, home health agencies, and outpatient rehabilitation facilities. Under the old payment methods, post-acute care providers were reimbursed their costs (within certain limits) for all the services delivered. The Congress changed this payment approach to control the rapid spending growth for post-acute care that occurred during most of the 1990s.

Under the new approach, known as prospective payment (currently in place for home health providers and skilled nursing facilities), post-acute care providers are paid rates fixed in advance for units of care (such as a day in a skilled nursing facility or an episode of home health care) rather than for the costs of each service. Providers face the risk of loss if their costs exceed their payments, while those that can furnish care for less than the prospective payment rate will retain the difference. However, a new opportunity for providers to boost net revenues inappropriately exists under this approach: providers could skimp on services and compromise the patient's quality of care. HCFA does not have the analytic tools available to identify and document underservice.

Major gaps in information make prospective payment systems vulnerable to manipulation, thus undermining the systems' potential to constrain Medicare costs. To protect taxpayer dollars, HCFA needs the information to ensure that claims payments are accurate and that payment rates are set at the appropriate level. To protect beneficiaries, HCFA needs information on patients' health status and use of services to guard against providers' withholding needed services. Our findings on the prospective payment method for home health services illustrate the problem and support our recommendation, as shown in table 9.

**Reducing Inordinate Program  
Management Risks**

**Table 9: Risk-Sharing Could Mitigate Potential Problems in Home Health Payments**

<b>Design of home health prospective payment system</b>	<p>Selected design features include the following:</p> <ul style="list-style-type: none"> <li>• Home health agencies receive one payment for each 60-day episode of care, regardless of the actual services provided. There are no limits on the number of episodes a home health agency may provide a patient.</li> <li>• Rates are based on pre-BBA use levels, which are widely regarded as excessive.</li> </ul>
<b>Vulnerability to payment abuses</b>	<p>To increase revenues, a provider could</p> <ul style="list-style-type: none"> <li>• treat beneficiaries for more episodes than necessary</li> <li>• reduce the number of visits provided during an episode</li> </ul>
<b>GAO recommendation</b>	<p>To mitigate beneficiary and financial risk, we recommended that HCFA adopt a risk-sharing provision whereby the government shares in a home health agency's excessive losses but protects the program from an agency's excessive gains.<sup>a</sup></p>
<b>Agency response</b>	<p>HCFA did not agree to implement our recommendation. It was concerned that any additional change to payment policy would be too confusing for home health agencies at this time. However, we believe that the absence of any constraint on payments leaves Medicare's new home health payment system open to exploitation.</p>

<sup>a</sup>A risk-sharing arrangement that limits the amount a home health agency can lose or gain would involve a year-end settlement that compares an agency's actual Medicare-allowed costs with its total Medicare payments. Payments above the costs would be constrained to a specific percentage, as would agency losses.

**Medicare+Choice  
Has Its Own Set of  
Integrity Issues**

Medicare's managed care component known as Medicare+Choice is also subject to improper payment problems. In fiscal year 1999, payments to Medicare+Choice plans totaled \$37 billion, or more than 17 percent of all program spending. The fact that a Medicare+Choice plan receives a fixed monthly payment for each beneficiary it enrolls rather than for each service delivered raises another set of program integrity challenges involving excessive payments for enrollees and failure to deliver necessary services.

Plans may be overpaid when they attract relatively healthy and low-cost beneficiaries. It becomes a program integrity issue when plans purposely seek to enroll these individuals. Plans may also be overpaid

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**Reducing Inordinate Program  
Management Risks**

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when their reported data used to establish payment levels are erroneous or misreported. Program integrity is also compromised when plans fail to deliver services that enrolled beneficiaries need. Table 10 provides specific examples of these issues.

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**Table 10: Program Integrity Issues in Medicare+Choice**

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<b>Favorable selection of healthier beneficiaries</b>	Through their marketing practices or provider incentive arrangements, some plans may attract healthier beneficiaries and have more of their sick members disenroll. Plans gain financially because healthy beneficiaries cost less to serve than chronically or acutely ill beneficiaries. Whether intentional or accidental, however, favorable selection results in huge excess Medicare costs. In August 2000 we reported that, in 1998, Medicare+Choice plans were paid an estimated \$3.2 billion more than if the plans' enrollees had received care in the traditional Medicare program. In reports and testimony, we have consistently discussed the need to adjust Medicare+Choice payments to reflect enrollees' health status. However, in 1999, the Congress slowed implementation of HCFA's health-status-based payment adjuster and mandated additional studies on HCFA's adjustment methods.
<b>Misreported or erroneous data that increase payments</b>	The HHS OIG found cases in which Medicare paid plans for deceased beneficiaries and beneficiaries receiving services in traditional Medicare. The OIG also found that some plans inappropriately received enhanced payments because the plans erroneously reported some of their enrollees as having institutional status. (An enrollee's residence in an institution triggers a higher payment.) In 1998, we reported that some plans took advantage of an overly broad Medicare definition to classify healthy beneficiaries living in retirement communities as living in "institutions" and thereby increase their Medicare payments substantially. HCFA has since adopted our recommendation to tighten the definition of an institution for payment purposes, but the extent to which the new definition is being enforced is uncertain.
<b>Failure to deliver required services</b>	In April 1999, we reported that a large Medicare+Choice plan provided a prescription drug benefit with less coverage than it agreed to in its contract with HCFA. This case was discovered in our review of plan marketing materials, which found that several plans distributed misleading, inaccurate, or incomplete information about covered benefits. In a separate April 1999 report, we noted that several plans failed to adequately inform beneficiaries that they could appeal a plan's decision to deny services or payment for services. We have made several recommendations addressing HCFA's need to develop formatting and content standards for plans' marketing and appeals process literature. HCFA has implemented certain of our recommendations and has established work groups to consider others.

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Reliable information about plan enrollees will become even more critical in the future as Medicare phases in a new risk adjustment methodology that will pay plans on

the basis of their enrollees' expected care costs. Under this new methodology, payment rates will be determined largely by patient utilization data submitted by plans. Any errors in the patient data will thus result in inaccurate plan payments.

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**Inadequate  
Information Systems  
and Financial  
Management  
Continue to  
Undermine Efforts to  
Safeguard Medicare**

A major weakness underlying HCFA's efforts to ensure proper payments of Medicare claims is that its information systems are outmoded and many of its financial management procedures are not yet in order. Although HCFA has taken steps to begin modernizing its systems and strengthening its financial management, many challenges remain.

In the early 1990s, HCFA launched a systems acquisition initiative to replace Medicare's multiple, contractor-operated claims processing systems with a single, more technologically advanced system. It was envisioned that such a system would have information for both traditional Medicare and Medicare+Choice, simplify program administration, save on administrative costs, and better ensure proper payment by greatly improving HCFA's ability to spot improper billing practices. Although based on a sound notion, this system acquisition failed due to a series of planning and implementation missteps. Thus, Medicare was left with numerous aging information systems that needed Year 2000 renovation. To its credit, HCFA made exceptional efforts to ensure that the agency's systems and those of its business partners were prepared, with the result that HCFA reported few significant Year 2000 problems. These system renovations, however, put broader modernization plans on the back burner until recently. To date, initial work on some of its systems has begun, but completion of its systems modernization remains years away.

Similarly, HCFA's first step toward improving its financial management procedures met with success, but

much work in this area remains to be done. In an audit of its fiscal year 1999 financial statements, HCFA received for the first time an unqualified, or “clean,” opinion. The agency achieved this, in part, because it recognized the need to address long-standing concerns about the accuracy of Medicare accounts receivable—primarily overpayments made to providers that need to be recouped. Assisted by the HHS OIG and auditors from an independent public accounting firm, HCFA conducted an extensive effort to validate reported receivables, which resulted in a one-time write-off of \$3 billion.

However, HCFA has a long way to go to achieve sound financial management—that is, systems, processes, and controls that routinely generate reliable, useful, and timely information for managers and other decisionmakers. Since the audit of the fiscal year 1996 financial statements, subsequent annual audits and other reviews have found numerous weaknesses in internal controls in HCFA’s financial activities. At the heart of its problems, the agency does not have a single, integrated financial accounting system that can be used to track and report financial activities, including receivables. Instead, HCFA and its contractors use several fragmented and overlapping systems and do not adequately verify the accuracy of reported activities and balances, which increases the risk of errors and misstatements. For example, Members of Congress were concerned that millions of dollars were owed to Medicare by Texas home health agencies that had been paid too much for services provided to Medicare beneficiaries and were no longer in business. The usefulness of the information HCFA developed in response to this concern was limited, however, since HCFA was not able to determine the correct amounts owed. In part, this was because HCFA’s Provider Overpayment Report system, which it uses to track certain overpayments, had incorrect information. This situation and problems with the adequacy of existing

internal controls indicate that extraordinary measures will be needed to maintain a clean opinion on HCFA's annual financial statements until these problems can be remedied.

The fragmentation of accounting systems that overlap without being reconciled makes generating accurate and reliable information a major challenge. For example, even after the \$3 billion write-off of accounts receivable, HCFA was left with significant amounts of delinquent receivables. At the end of fiscal year 1999, HCFA had an accounts receivable balance of \$7.3 billion, of which 45 percent was more than 6 months delinquent. HCFA's efforts under the Debt Collection Improvement Act of 1996 to refer delinquent debt for collection to the Department of the Treasury in a timely manner have been confounded, in part, because of the work it takes the contractors to validate each debt before it can be referred to Treasury.<sup>3</sup> Such validation is problematic because of the unreliability of the agency's systems for tracking and recording overpayments.

We, the OIG, and independent auditors have made numerous recommendations to strengthen HCFA's financial management. Because of the seriousness of the challenge, we recommended that HCFA develop a comprehensive strategy to address financial management and accountability issues. To this end, HCFA has initiated a number of efforts, including working to develop a set of integrated financial management information systems. However, these systems are not expected to be fully operational until 2004 at the earliest. In the meantime, using its current systems, HCFA and its contractors must take interim steps to put adequate controls in place. Without these

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<sup>3</sup>The act generally requires that debts delinquent over 180 days be transferred to Treasury or, in certain cases, a Treasury-designated center for debt collection.



controls, HCFA is not in a position to generate the consistent and accurate data needed to ensure the integrity of the agency's financial management operations.

This issue is also discussed in *Major Management Challenges and Program Risks: Department of Health and Human Services* (GAO-01-247, January 2001), which includes a list of related GAO reports. For additional information on Medicare, please contact Leslie G. Aronovitz, Director, Health Care, on (312) 220-7600 or at [aronovitzl@gao.gov](mailto:aronovitzl@gao.gov).

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## Supplemental Security Income

In prior work, we have reported on Supplemental Security Income (SSI) program abuses and mismanagement, increases in overpayments, and SSA's difficulties recovering outstanding SSI debt. These issues have spurred congressional criticism of SSA's ability to manage its workloads effectively. In February 1997, we designated SSI a high-risk program because of its susceptibility to fraud, waste, abuse, and mismanagement. We found that, to a great extent, SSA's inability to address its most significant problems with the SSI program is attributable to two underlying causes: (1) an organizational culture that places a greater priority on processing and paying claims than on controlling program expenditures and (2) a management approach characterized by SSA's reluctance to fulfill its policy development and planning role in advance of major program crises.

In regard to SSA's organizational culture, our prior work confirmed that there has been a tendency among staff and managers to view the SSI program in much the same way as SSA's Old Age Survivors Insurance and Disability Insurance programs—where emphasis is placed on quickly processing claims for individuals with an earned right to benefits—rather than as a welfare program,

where additional income and asset verifications are necessary. As a result, SSA has often relied heavily on recipient self-reporting of their financial circumstances with insufficient agency verification. SSA's culture has also contributed to the low priority placed on recovering overpayments once they are identified. This has been evidenced by SSA's past reluctance to use available overpayment recovery tools and to pursue additional tools aggressively when warranted, including tax refund offsets, credit bureau reporting, collection agencies, and interest levies on outstanding debt. In fiscal year 1999, outstanding SSI debt and newly detected overpayments for the year totaled more than \$3.8 billion. SSI write-offs—overpayments waived or deemed uncollectable by SSA—also totaled about \$466 million for the year. We have reported that write-offs represent overpaid program dollars that SSA will likely never recover.

In regard to SSA's management approach, our work also shows that SSA's actions have been historically reactive in nature, resulting in missed opportunities to address critical policy issues before they reach crisis levels. However, in response to our high-risk designation and report recommendations, SSA has taken steps in coordination with the Congress to improve the financial integrity and management of SSI. For example, in 1998, SSA submitted its first major SSI legislative proposal, which included numerous overpayment deterrence and recovery provisions. Many of these provisions were incorporated into the Foster Care Independence Act, which was signed into law in 1999. The Act, which directly addresses several of our prior recommendations, provides SSA with additional tools for obtaining applicant income and resource information from financial institutions, accessing state databases for essential eligibility information, imposing a period of ineligibility for applicants who transfer assets in order to qualify for SSI benefits, and using credit bureaus, private collection agencies, interest levies, and other means to recover delinquent debt.

SSA also produced its first SSI management report in 1998, which discussed its intent to take aggressive action to control program overpayments and outstanding debt through enhanced computer matching and other means. This includes more frequent (monthly) data matches to identify ineligible SSI recipients residing in nursing homes and stepping up efforts to obtain online access to SSI recipient employment and income information. In fiscal year 1999, SSA also sought and obtained additional budget resources to substantially increase the number of SSI financial redeterminations conducted. These reviews focus on income and resource factors affecting eligibility and payment amounts. Through this effort, SSA calculated that it collected and prevented nearly \$600 million in overpayments above fiscal year 1998 levels. SSA's Office of Inspector General has also significantly increased the level of resources and staff dedicated to investigating program fraud and abuse. Finally, SSA has begun using tax refund offsets for delinquent SSI debtors and has recovered about \$84 million in additional collections over the last 2 fiscal years. This increased emphasis on program integrity is further evident in SSA's planning and performance measurement activities. SSA's current strategic and annual performance plans include several goals and performance measures targeted specifically at achieving SSA's goal of improving SSI program integrity and addressing fraud and abuse.

SSA's initiatives have the potential to significantly improve SSI management and financial integrity. However, many problems facing the program are attributable to more than 20 years of inattention to payment controls and will take time to correct. SSI overpayments and outstanding debt owed to the program remain at high levels. Further, our recent work shows that SSI continues to be vulnerable to abuse, especially from individuals feigning disabilities with the help of suspicious medical providers and middlemen. Last year, SSA's Office of Inspector General also

reported that, since 1998, SSI representative payees<sup>4</sup> have defrauded the program of nearly \$8 million in benefit payments. This was attributable primarily to SSA's failure to screen and monitor these individuals sufficiently. SSA's OIG also recently reported that due to weaknesses in SSA's verification processes, thousands of fugitive felons incorrectly received more than \$76 million in SSI benefits over the last several years, despite a law prohibiting such payments.

We believe that sustained and additional actions are needed to improve SSI program integrity. In accordance with our prior recommendations, SSA should move forward in fully implementing the debt collection tools currently available to it, continue to develop additional ways to improve program management and integrity, and seek legislative changes as appropriate. SSA should also consider ways to revise its work credit and measurement system, which has historically rewarded staff for cases processed, rather than thoroughly verifying applicant eligibility or preventing overpayments. Any revised system should include specific goals and performance measures to hold staff and managers accountable for ensuring program integrity. If properly implemented and managed, such measures should ultimately facilitate a change in SSA's organizational culture and provide much-needed incentives for staff to devote time to verifying recipient information, preventing fraud and abuse, and controlling program overpayments. Until additional progress is made, the SSI program will remain at high-risk for waste, fraud, abuse, and mismanagement.

This issue is also discussed in *Major Management Challenges and Program Risks: Social Security Administration* (GAO-01-261, January 2001), which

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<sup>4</sup>SSA appoints representative payees to SSI recipients whom it has determined incapable of managing their own benefits.

includes a list of related GAO reports. For additional information on Supplemental Security Income, please contact Barbara D. Bovbjerg, Director, Education, Workforce, and Income Security, at (202) 512-7215 or [bovbjergb@gao.gov](mailto:bovbjergb@gao.gov).

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## **Earned Income Credit Noncompliance**

Earned Income Credit (EIC) noncompliance<sup>5</sup> exposes the federal government to billions of dollars of risk. Subsequent to an April 1997 IRS study showing billions of dollars of EIC noncompliance, Congress passed legislation that provided IRS additional funding and new enforcement tools specifically designated for EIC-related activities. With these new tools and funds, in 1998, IRS began a 5-year EIC compliance initiative that involved several components directed at the major sources of EIC noncompliance. For example, IRS initiated enforcement efforts that focused on (1) cases in which an EIC-qualifying child's Social Security number (SSN) was used on more than one tax return for the same tax year and (2) returns filed by certain EIC claimants who used the head-of-household filing status. IRS' efforts have, among other things, reduced the number of EIC-related errors involving SSNs and enabled IRS to stop millions of dollars in erroneous EIC claims.

In July 1998, we recommended that IRS develop evaluation plans for each component of the EIC compliance initiative so that decisionmakers would have timely data for use in continually improving EIC

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<sup>5</sup>In 1995, we designated IRS Tax Filing Fraud as a high-risk area. We have narrowed the focus of this area to better describe the scope of our current concern—billions of dollars for Earned Income Credit (EIC) claims that IRS paid but should not have.

compliance efforts.<sup>6</sup> IRS is collecting data on initiative results, such as the number of erroneous refund claims identified. However, it is not sufficient to determine whether projects have reduced the overall noncompliance rate.

In September 2000, IRS reported the results of a compliance study involving tax year 1997 returns, that is pre-compliance initiative returns. The study showed that of the estimated \$30.3 billion in EIC claims, \$9.3 billion was claimed erroneously. Of that \$9.3 billion, about \$7.8 billion (about 26 percent of the total claims) was paid out by IRS.<sup>7</sup>

IRS is conducting an EIC compliance study of tax year 1999 returns and plans to study tax year 2001 returns. IRS plans to analyze the results of those studies, along with the results of the tax year 1997 study, to measure changes in taxpayer behavior and to determine the effectiveness of the EIC initiative. IRS officials did not know when the results of the tax year 1999 study would be finalized. This area remains high risk because billions of dollars are at risk for improper payment and IRS lacks sufficient data to demonstrate that it has implemented effective controls over EIC noncompliance and the erroneous refunds that result.

This issue is also discussed in *Major Management Challenges and Program Risks: Department of the Treasury* (GAO-01-254, January 2001), which includes a list of related GAO reports. For additional information on Earned Income Credit noncompliance, please

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<sup>6</sup>*Earned Income Credit: IRS' Tax Year 1994 Compliance Study and Recent Efforts to Reduce Noncompliance* (GAO/GGD-98-150, July 28, 1998).

<sup>7</sup>*Compliance Estimates for Earned Income Tax Credit Claimed on 1997 Returns, Department of Treasury, Internal Revenue Service, September 2000.*

contact James R. White, Director, Tax Administration and Justice, at (202) 512-9110 or [whitej@gao.gov](mailto:whitej@gao.gov).

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## Collection of Unpaid Taxes

IRS faces substantial challenges in carrying out one of its key functions—collecting unpaid taxes. Unpaid taxes include (1) delinquent taxes that IRS is attempting to collect, (2) taxes that IRS knows are due but it has decided not to pursue collecting, and (3) an unknown amount of unpaid taxes that IRS has not identified. As of September 30, 1999, the inventory of unpaid tax assessments that had some collection potential was \$104 billion. Since 1997, some key collection actions, such as levies and seizures, have declined. For example, levies have decreased dramatically from fiscal years 1997 to 2000—from about 3.7 million to about 220,000. These declines may increase the incentives for taxpayers to either not report or underreport their tax obligations. Because IRS lacks a measure of voluntary compliance, it does not know the impact of recent declines in collection actions. As a result, the former high-risk area covering IRS receivables and unpaid assessments<sup>8</sup> has been expanded. The expanded high-risk area encompasses not only unpaid taxes known to IRS but also includes unpaid taxes that IRS does not know about.

The former high-risk area was originally designated as such in 1990, in part, due to serious deficiencies in IRS' information systems. The deficiencies resulted in the lack of sound, reliable information that hindered IRS'

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<sup>8</sup>Unpaid tax assessments consist of (1) taxes due from taxpayers for which IRS can support the existence of a receivable through taxpayer agreement or a favorable court ruling (federal taxes receivable); (2) compliance assessments in which neither the taxpayer nor the court has affirmed that the amounts are owed; and (3) write-offs, which represent unpaid assessments for which IRS does not expect further collections due to such factors as the taxpayer's death, bankruptcy, or insolvency.

ability to focus collection efforts on those accounts that had the greatest collection potential. These conditions persist. IRS' systems are not integrated; thus, they continue to create high rates of error in taxpayer accounts, which in some cases have led to instances of taxpayer burden and lost revenue to the federal government.

IRS attempts to identify taxpayers who have not paid the taxes they owe through its various enforcement programs. In making decisions about the number and types of enforcement cases to pursue, IRS considers its resources as well as the potential for collection. IRS attributes its inability to fully pursue such cases to a decrease in staff, reassignment of collection employees to support customer service activities, and additional staff time needed to implement certain taxpayer protections that were included in the IRS Reform and Restructuring Act. However, inadequate financial and operational information has rendered IRS unable to develop cost-based performance information for its tax collection and enhancement programs and to judge whether it is appropriately allocating available resources among competing management priorities.

IRS' financial management weaknesses continue to expose the federal government to significant losses of tax revenue and increase the burden on compliant taxpayers, who bear the burden of financing the government's activities. Over the past 8 years, we have issued many reports on financial management and internal control weaknesses fundamentally affecting IRS' operations such as collecting unpaid taxes and collecting and reporting financial data. We have made numerous recommendations to address the serious deficiencies in IRS' financial management and operational systems that affect taxes receivable and other unpaid assessments. These include recommendations to correct systemic errors in taxpayer accounts that have led to instances of both lost revenue



to the federal government and taxpayer burden, as well as to correct systemic deficiencies that have led to violations of the Internal Revenue Code. IRS is working to address these issues, but a sustained commitment by IRS senior management and successful implementation of IRS' systems modernization efforts will be needed to fully resolve these issues.

This issue is also discussed in *Major Management Challenges and Program Risks: Department of the Treasury* (GAO-01-254, January 2001), which includes a list of related GAO reports. For additional information on collection of unpaid taxes, please contact James R. White, Director, Tax Issues, at (202) 512-9110 or [whitej@gao.gov](mailto:whitej@gao.gov).

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## **DOD Infrastructure Management**

Although the United States has made significant reductions in defense force structure and military spending since the end of the Cold War, it has not achieved commensurate reductions in operations and support infrastructure<sup>9</sup> costs. As the Department has sought to bring about a revolution in military affairs, it has realized that it must transform its support infrastructure to become leaner and more efficient to serve the warfighter faster, better, and cheaper. It has also realized that high-priority needs such as weapons modernization can be fulfilled only with a large influx from infrastructure savings. While DOD has made some progress, it needs to do more to achieve significant reductions in its infrastructure costs, and many

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<sup>9</sup>DOD defines infrastructure as those activities that provide support services to mission programs, such as combat forces, and primarily operate from fixed locations. The activities include such program elements as installation support, acquisition infrastructure, central logistics, and central training, central medical and central personnel. In fiscal year 2001, approximately \$33 billion of infrastructure costs are expected to be related to maintenance and upkeep of facilities across these program elements.

obstacles remain. The effectiveness of many civilian agencies has also been undermined by outmoded organizational structures that drain resources needed to make improvements to mission delivery capabilities.

Designated high risk in 1997, DOD Infrastructure costs continue to consume a larger than necessary portion of DOD's budget. Our recent reviews of DOD's Future Years Defense Program (FYDP) did not find significant reductions in DOD's budgets devoted to supporting infrastructure. For example, we reported in April 1996 that no significant net infrastructure reductions were expected between fiscal years 1996 and 2001.<sup>10</sup> We noted that the proportion of planned infrastructure funding in DOD's budgets would remain relatively constant at about 60 percent through 2001. This is not to suggest that operating efficiencies and reductions have not occurred due to such efforts as base realignment and closure, consolidations, regionalization, privatization, and outsourcing efforts. However, our October 2000 analysis of the FYDP for fiscal years 2001-2005 found that the portion of the FYDP devoted to direct infrastructure relative to mission has not changed, despite the expectations that it would.<sup>11</sup> At the same time, the Department acknowledges that it has not been spending enough to offset a growing backlog of facilities maintenance and repair projects.

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<sup>10</sup>*Defense Infrastructure: Budget Estimates for 1996-2001 Offer Little Savings for Modernization*, (GAO/NSIAD-96-131, April 4, 1996).

<sup>11</sup>*Future Years Defense Program: Risks in Operation and Maintenance and Procurement Programs* (GAO-01-33, October 5, 2000).

The Defense Reform Initiative, announced by the Secretary of Defense in November 1997, was intended to improve the effectiveness and efficiency of DOD's business processes and support infrastructure. It represents a number of management initiatives, such as adopting best business practices; expanding the use of electronic commerce, logistics reengineering, and public-private competitions (using the Office of Management and Budget's A-76 process),<sup>12</sup> and eliminating unneeded facilities infrastructure. The latter has included such actions as demolition of unneeded buildings, privatization of housing and utilities on military facilities, and a proposal for additional base realignment and closure rounds.

While the initiatives collectively offer the potential for significant long-term savings, the Department is not likely to realize quickly large-scale net savings from many of these initiatives because most individual initiatives are long-term efforts that require significant up-front investments to implement. Additionally, the major benefit from some of the initiatives involves cost avoidance such as avoiding upkeep of unneeded buildings and relying on private sector resources, rather than the government's, for needed capital investment for new housing and revitalized utilities.

In July 2000, we reported that only a few of the reform initiatives had been completed and, while most of the remaining initiatives are progressing, they face barriers that could keep them from meeting specific time frames and goals.<sup>13</sup> For example:

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<sup>12</sup>Under A-76, agencies conduct public/private competitions to determine whether the public or private sector will perform selected commercial activities and functions.

<sup>13</sup>*Defense Management: Actions Needed to Sustain Reform Initiatives and Achieve Greater Results* (GAO/NSIAD-00-72, July 25, 2000).

- DOD's program to evaluate activities involving over 200,000 positions for potential outsourcing is expected to result in estimated savings of \$9.2 billion by 2005 and \$2.8 billion in annual recurring savings thereafter. However, the savings are likely to be smaller than expected in the short term because of delays in completing the studies and because the Department had not fully calculated either the investment costs associated with undertaking these competitions or the personnel separation costs likely to be associated with them.
- DOD has encountered delays in its efforts to improve military family housing through private sector financing, ownership, operation, and maintenance. Almost 4 years after the program was initiated, the Department has awarded few contracts to build or renovate military family housing units. While the program offers an important opportunity to improve military housing at a faster rate than relying on traditional military construction methods, we have found that DOD's life-cycle cost analyses associated with its privatization efforts have been incomplete and inaccurate and have overstated savings.<sup>14</sup>
- DOD continues to emphasize that additional base realignment and closure rounds are necessary to reduce unneeded infrastructure and to free up funds for readiness, weapon modernization, and quality-of-life plans. The Reform Initiative called for two additional rounds of base realignment and closure to supplement the four rounds conducted between 1988 and 1995. The Department projects that additional base closure rounds could produce new savings of \$3.4 billion a year once realignment and closure actions were completed and the costs of

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<sup>14</sup>*Military Housing: Continued Concerns in Implementing the Privatization Initiative* (GAO/NSIAD-00-71, March 30, 2000).

implementing these actions were offset by savings. However, because of issues related to economic impacts, cost and savings from prior rounds, and executive branch handling of two closure and realignment decisions in the 1995 round, Congress has been reluctant to authorize additional rounds.

As we have recommended, DOD needs to develop a plan to better integrate, guide, and sustain the implementation of its diverse defense reform initiatives and an approach for making key investment decisions. Key reform initiatives, such as acquisition, financial management, and logistics reform, could be strengthened if addressed in an integrated fashion.

DOD also needs to develop a comprehensive long-range plan for its facilities infrastructure that addresses facility requirements, recapitalization, and maintenance and repair needs. Development of such a plan could be significantly affected by DOD's ability to reach agreement with the Congress on the need for additional base realignment and closure rounds. Despite limitations in the precision of DOD's estimates of savings from base closures, our prior work has shown that significant net annual recurring savings can be expected once initial investment costs have been offset.<sup>15</sup> We also reported that legislation enacted in 1990 and which expired in 1995 has been seen by many officials as a starting point should the Congress decide that it wants to authorize future base realignment and closure rounds. The infrastructure problems in civilian

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<sup>15</sup>*Military Bases: Review of DOD's 1998 Report on Base Realignment and Closure* (GAO/NSIAD-99-17, November 13, 1998).

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agencies also suggest the possible relevance of a civilian facility closure and realignment process.<sup>16</sup>

This issue is also discussed in *Major Management Challenges and Program Risks: Department of Defense* (GAO-01-244, January 2001), which includes a list of related GAO reports. For additional information on DOD infrastructure management, please contact Barry W. Holman, Director, Defense Capabilities and Management, at (202) 512-5581 or [holmanb@gao.gov](mailto:holmanb@gao.gov).

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## DOD Inventory Management

One of the most serious weaknesses in DOD's logistics operations is the Department's inventory management processes. Since 1990, we have identified DOD's management of secondary inventories (spare and repair parts, clothing, medical supplies, and other items to support the operating forces) as a high-risk area because levels of inventory were too high and management systems and procedures were ineffective and wasteful. While DOD's inventory value for the last 10 years has been declining, our past and current work in this area indicates that DOD is (1) continuing to store unnecessarily large amounts of material, (2) purchasing material for which there is no valid requirement, (3) experiencing equipment readiness problems because of a lack of key spare parts, and (4) not maintaining adequate visibility over material being shipped to and from military activities. About half of DOD's \$64 billion secondary inventory exceeds war reserve or current operating requirements.

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<sup>16</sup>*Budget Issues: Effective Oversight and Budget Discipline Are Essential—Even in a Time of Surplus* (GAO/T-AIMD-00-73, February 1, 2000).

As of September 30, 1999, DOD records showed that the Department had inventory on order valued at about \$1.6 billion that would not have been ordered based on current requirements. We reported in June 2000<sup>17</sup> that it appeared items were needed when orders were placed, but either the records contained errors that resulted in overstating the requirements or the requirements changed after the orders were made. We also reported in November 1999<sup>18</sup> that the Air Force did not always cancel purchases that exceeded current operating requirements—primarily because the Air Force’s process for canceling contracts takes a long time, during which costs are incurred for which the government is liable.

Another problem is that DOD is selectively experiencing equipment readiness problems because of a lack of key spare parts. For years, insufficient spare parts have been recognized as a major contributor to aircraft performing at lower mission capable rates than expected. In June 2000,<sup>19</sup> we reported that insufficient quantities of spare parts is one of the primary reasons airlift and aerial refueling aircraft are performing below the Air Force Air Mobility Command mission capable standard rates. In April 1999<sup>20</sup> we reported that some Air Force major aircraft were unfit to fly because supply problems had risen from 6.4 percent in fiscal year 1990 to 13.9 percent in fiscal year 1998. We also reported that, to support the mission capability rates, the military was routinely cannibalizing aircraft for parts and using parts from

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<sup>17</sup>*Defense Inventory: Process for Canceling Inventory Orders Needs Improvement* (GAO/NSIAD-00-160, June 30, 2000).

<sup>18</sup>*Defense Inventory: Improvements Needed to Prevent Excess Purchases by the Air Force* (GAO/NSIAD-00-5, November 10, 1999).

<sup>19</sup>*Military Readiness: Air Transport Capability Falls Short of Requirements* (GAO/NSIAD-00-135, June 22, 2000).

<sup>20</sup>*Air Force Supply: Management Actions Create Spare Parts Shortages and Operational Problems* (GAO/NSIAD/AIMD-99-77, April 29, 1999).

units' war reserve kits that are intended to support deployed operations. The aircraft spare parts shortages were due, in part, to DOD's weaknesses in forecasting inventory requirements and the failure of DOD's logistics system to achieve expected inventory management improvements.

DOD's inability to maintain adequate oversight for material being shipped to and from military activities is another long-standing inventory management problem. The tracking of this inventory from origin to destination continues to raise concerns about the vulnerability of this inventory to waste, fraud, and abuse. We reported in June 2000<sup>21</sup> that the Army did not know the extent to which shipped inventory had been lost or stolen because of weaknesses in its inventory control procedures and financial management practices. We also reported in March 1999<sup>22</sup> that the Navy was unable to account for more than \$3 billion worth of inventory being shipped, including some classified and sensitive items.

Because DOD had not fully corrected its long-standing problems in tracking inventory during shipment, the Congress required DOD to submit a comprehensive plan addressing how it planned to ensure visibility over shipment of all end items and secondary items. In February 2000,<sup>23</sup> we reported that DOD's September 1999 plan did not contain some key management elements needed to effectively implement its proposed actions or to adequately address underlying weaknesses

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<sup>21</sup>*Defense Inventory: Army Needs to Strengthen and Follow Procedures to Control Shipped Items* (GAO/NSIAD-00-109, June 23, 2000).

<sup>22</sup>*Defense Inventory: Navy's Procedures for Controlling In-Transit Items Are Not Being Followed* (GAO/NSIAD-99-61, March 31, 1999).

<sup>23</sup>*Defense Inventory: Plan to Improve Management of Shipped Inventory Should Be Strengthened* (GAO/NSIAD-00-39, February 22, 2000).



that have led to the lack of control over inventory shipments. For example, the plan did not fully address how the Department will correct errors in the automated systems that the military services use to manage this inventory. In addition, the plan did not adequately address the underlying problems that have been consistently highlighted in prior GAO and DOD audit reports.

DOD has had some success in adopting best practices to improve inventory management and is looking at the possibility of using other new concepts. However, much needs to be done to resolve long-standing deficiencies that have increased the cost and decreased the effectiveness of DOD's logistics system. DOD faces significant challenges in addressing these and other logistics problems, and it is unclear to what extent the reengineering initiatives it has undertaken will achieve the required results.

This issue is also discussed in *Major Management Challenges and Program Risks: Department of Defense* (GAO-01-244, January 2001), which includes a list of related GAO reports. For additional information on DOD inventory management, please contact David R. Warren, Director, Defense Capabilities and Management, at (202) 512-8412 or [warrend@gao.gov](mailto:warrend@gao.gov).

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## **HUD Single-Family Mortgage Insurance and Rental Housing Assistance Program Areas**

The Department of Housing and Urban Development (HUD) encourages homeownership by providing mortgage insurance through its Federal Housing Administration (FHA) for about 7 million homeowners who otherwise might not have qualified for loans, as well as by managing about \$508 billion in insured mortgages and \$570 billion in guarantees of mortgage-backed securities. It also makes housing affordable for about 4 million low-income households by insuring loans for multifamily rental housing and providing rental

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assistance. In addition, it has helped to revitalize over 4,000 localities through community development programs. To accomplish these missions, HUD relies on the performance and integrity of thousands of mortgage lenders, contractors, property owners, public housing agencies, communities, and others to administer its programs. Strong oversight and management are critical to ensure that HUD's reliance on these third parties results in the effective and efficient stewardship of federal funds and the accomplishment of federal programs' goals and objectives.

In the late 1980s, various management deficiencies led to a number of widely publicized instances of waste, fraud, abuse, and mismanagement at HUD. In 1994, we designated all of HUD's major program areas as high risk because four major departmentwide deficiencies continued to undermine the integrity and accountability of HUD's programs. These deficiencies included (1) internal control weaknesses, such as a lack of necessary data and management processes; (2) poorly integrated, ineffective, and generally unreliable information and financial management systems; (3) organizational deficiencies, such as overlapping and ill-defined responsibilities and authorities between HUD headquarters and field organizations, and a fundamental lack of management accountability and responsibility; and (4) an insufficient mix of staff with the proper skills.

In 1997, HUD initiated its 2020 Management Reform Plan to address these and other deficiencies. In our January 1999 report on HUD's management challenges and program risks and our high-risk series update,<sup>24</sup> we reported that HUD had made credible progress in overhauling its operations but that several reforms were

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<sup>24</sup>*Major Management Challenges and Program Risks: Department of Housing and Urban Development (GAO/OCG-99-8, January 1999). High-Risk Series: An Update (GAO/HR-99-1, January 1999).*

in the early stages of implementation. Accordingly, we concluded that HUD's management deficiencies, taken together, continued to place the integrity and accountability of the Department's programs at high risk.

During the past 2 years, HUD has continued to make progress in addressing these problems. To address its internal control weaknesses, HUD has since January 1999 implemented new early warning monitoring tools, including the first physical inspections and financial assessments of the entire multifamily housing inventory. Through a large-scale computer matching initiative, which linked income data reported by tenants for housing and tax purposes, HUD also identified and sent letters to 211,000 households that may have underreported their incomes for housing purposes, thereby resulting in excess subsidy payments, estimated by HUD at \$3.1 billion over the last 4 years.

To improve its information and financial management systems, HUD has taken actions to develop an information technology investment management process to improve and strengthen the selection, control, and evaluation of information technology projects. In addition, HUD has reduced the number of financial management systems that are not in compliance with federal requirements.

To strengthen organizational links between headquarters and the field, improve accountability, and accomplish its missions more efficiently, during fiscal year 1999 HUD substantially completed its reorganization under the 2020 Management Reform Plan. Staff and workload were transferred from the field to several new specialty centers, which are now operating and have started to produce some results. For example, the Homeownership Centers reduced the average time for processing single-family mortgage

loans from 4 to 6 weeks to 2 to 3 days and the Enforcement Center relocated 427 families from substandard housing and recovered \$12.6 million from property owners for ineligible costs.

To ensure that it has the appropriate mix of staff with the proper skills to carry out its missions, HUD piloted a new resource estimation and allocation process to determine appropriate staffing levels. It also provided more training and travel funds for its staff.

HUD has taken important steps toward addressing some of its other management deficiencies. Its top management has given high priority to implementing the Department's 2020 Management Reform Plan, the Department's reorganization is substantially complete, and the Department's reform efforts have resulted in some improvements. Recognizing the progress HUD has made, we are reducing the number of HUD program areas deemed to be high risk. Specifically, because of the actions taken by HUD in response to our recommendations to improve its management controls over its Community Planning and Development programs, we no longer believe this HUD program area is at high risk. However, significant weaknesses (internal controls, information and financial management systems, organizational deficiencies, and staffing problems) still persist in two of HUD's major program areas which remain at high risk—single-family mortgage insurance and rental housing assistance.

To reduce financial risks, HUD's FHA needs to continue to improve its management over home mortgage loans made by private lenders that it insures against nearly all losses. While various factors, including a strong economy, have resulted in the accumulation of capital reserves of about \$16.6 billion on FHA-insured home loans valued at about \$454 billion, we estimate that FHA lost about \$1.9 billion during fiscal year 2000 on the sale

of foreclosed homes that it had insured. We and HUD's Inspector General have identified opportunities to strengthen FHA's single-family mortgage insurance programs' management and internal controls and reduce financial risks. These include:

- strengthening the integrity of the single-family loan origination process;
- promoting better monitoring of lenders, appraisers, and property management and marketing contractors; and
- ensuring that sufficient staff are available and have the skills needed to carry out FHA's home loan mission.

HUD also needs to resolve two material internal control weaknesses identified by its Inspector General relating to FHA's information and financial management systems—(1) fully reconciling accounting and budget systems for loan guarantees to ensure that all credit subsidy amounts are recorded properly and (2) improving information systems to support business processes more effectively.

The Department has begun to address many of our recommendations and those of the Inspector General related to its single-family mortgage insurance program, but it has not completed actions to implement most of them. Because of the programs' size, the variety of management challenges FHA faces, and the potential liability FHA has assumed, these programs remain at high-risk. To reduce the programs' financial risks, FHA must continue its efforts to strengthen its controls and monitoring. This includes completing actions on our recommendations, such as clarifying HUD's authority to hold FHA-approved lenders accountable for poor-quality

FHA single-family appraisals.<sup>25</sup> HUD must also continue its efforts to resolve the programs' two material internal control weaknesses and assess its staffing needs.

In addition, making decent, affordable rental housing available for eligible low-income households is a top priority for HUD. However, HUD is able to serve fewer than half of the households who are eligible for assisted housing. Consequently, it is essential that HUD ensure that these programs are used efficiently and effectively to maximize the number of households it can assist. While the Department has made improvements, there are still significant opportunities to (1) reduce excess subsidy payments by ensuring that only eligible families occupy housing units and that those families are paying the correct rents; (2) ensure that providers of rental housing maintain housing that is decent, safe, sanitary, and in good condition; and (3) be certain that HUD has the capital resources and controls it needs to detect and address problems that exist in its rental housing assistance programs.

HUD is addressing these challenges as well as our recommendations and those of the Inspector General. However, its actions are not yet complete. Because of their size and complexity and the opportunity to provide assisted housing to more low-income households through better management, these programs remain at high-risk. HUD must continue to strengthen its internal controls by completing its efforts to ensure that correct rental housing subsidies are paid. It must also complete actions on our recommendations aimed at improving the quality of contractors' physical inspections of the

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<sup>25</sup> *Single-Family Housing: Weaknesses in HUD's Oversight of the FHA Appraisal Process* (GAO/RCED-99-72, April 16, 1999).

condition of public and multifamily housing.<sup>26</sup> This includes revising its quality assurance activities to ensure that they provide the timely, reliable, and useful information needed for HUD to assess, among other things, compliance with inspection contracts.

This issue is also discussed in *Major Management Challenges and Program Risks: Department of Housing and Urban Development* (GAO-01-248, January 2001), which includes a list of related GAO reports. For additional information on HUD programs, please contact Stanley J. Czerwinski, Director, Physical Infrastructure, at (202) 512-7631 or [czerwinskis@gao.gov](mailto:czerwinskis@gao.gov).

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## Student Financial Aid Programs

Through federal grant and loan programs administered by the Department of Education, millions of students who might not otherwise have had access to higher education have been able to enroll in postsecondary education programs of their choice. These programs are the largest source of student aid in the United States, currently providing a total of about \$53 billion in federal student aid grants and loans to nearly 8.1 million students and parents.

These student aid programs, however, continue to be at high risk for fraud, waste, error, and mismanagement because Education lacks the financial and management information needed to manage these programs effectively and the internal controls needed to maintain the integrity of their operations. For example, because Education did not properly account for and analyze transactions for its guaranteed student loan program or properly reconcile related accounting and budgetary

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<sup>26</sup>*HUD Housing Portfolios: HUD Has Strengthened Physical Inspections but Needs to Resolve Concerns About Their Reliability* (GAO/RCED-00-168, July 25, 2000).

accounts, Education could not be assured that its financial or budgetary reports were accurate.

In addition, continued weaknesses in information systems controls increase the risk of disruption in services and make Education's loan data vulnerable to unauthorized access, inadvertent or deliberate misuse, fraudulent use, improper disclosure, or destruction, all of which could occur without detection. With the exception of fiscal year 1997, Education has not received an unqualified, or "clean," opinion on its financial statements since its first agencywide audit in 1995. Moreover, these programs operate independently with different rules, processes, and data systems and involve millions of students, thousands of schools, and thousands of lenders, guaranty agencies, third-party servicers, and contractors. Because of problems related to these long-standing conditions, in 1990, we designated Education's financial aid programs at high risk for fraud, waste, abuse, or mismanagement. This high-risk designation remains.

Although serious weaknesses continue, Education has addressed many of the issues we discussed in our series of reports on high-risk programs. For example, the national student loan default rate is the lowest ever—6.9 percent for fiscal year 1998, the most recent year for which data are available. This lower default rate is especially noteworthy considering that the dollar amount of loans has tripled and the number of loans has doubled since 1990. The lower default rate has been attributed to a robust economy, better management by Education, tougher enforcement tools authorized by the Congress, and stepped up efforts by colleges, lenders, guaranty agencies, and other participants in the federal loan program.

Education has also been pursuing those suspected of defrauding the federal government. For example, in the



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last four fiscal years (fiscal years 1997-2000) Education's OIG opened 1,030 fraud investigative cases and achieved 737 closures, including 268 convictions/pleas.<sup>27</sup>

Despite the reduction in default rates, the risk of default continues and the downward turn in default rates may not continue if economic conditions decline. Further, the annual costs of defaults remain substantial. In fiscal year 1999, the default cost for the Federal Family Education Loan Program (FFELP) and Federal Direct Loan Program (FDLP) was about \$4.3 billion; over \$28 billion since 1990.<sup>28</sup>

In July 1999, we reported that the method used by Education to calculate schools' default rates<sup>29</sup> understates the default rate, and we proposed an alternative, more appropriate method. We suggested that the Congress may wish to consider amending the Higher Education Act of 1965 to exclude from the annual calculation of school default rates borrowers who have loans in deferment or forbearance by the end of the 2-year cohort default period—a cohort consists of a group of borrowers who began repaying their loans during a given fiscal year. Further, we suggested that the

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<sup>27</sup>According to the OIG, pleas refer to guilty pleas (an accused person's formal admission in court of having committed the charged offense) or a plea of "no contest" (a criminal defendant's plea that, while not admitting guilt, the defendant will not dispute the charge). During the same time period, the OIG also reported achieving 261 indictments/informations. (An information is a formal criminal charge made by a prosecutor without a grand jury indictment, according to *Black's Law Dictionary* (St. Paul, Minn: West Group, 1999)).

<sup>28</sup>Some default costs may have been recovered through collections of previously defaulted amounts.

<sup>29</sup>The issue involves borrowers who have temporary approval through their lenders or loan servicers for "deferment" or "forbearance," that is, to delay payments on their loans. In Education's calculation of a school's default rate, these borrowers are not counted as defaulters, but they do count as a part of the total number of borrowers. The number of borrowers in default is divided by a number larger than the total number of borrowers who are actually repaying their loans. As a result, the default rate is understated.

Congress may wish to require that borrowers excluded from a cohort's default rate calculation due to an authorized deferment or forbearance are included in a future cohort after they have resumed making payments on their loans.

Education has improved its databases containing information about students receiving financial aid and its process for certifying schools to participate in federal student aid programs. However, Education's OIG has recently noted that the Department's process for recertifying foreign schools is ineffective. Also, in a separate study of the case management and oversight of all participating institutions, the OIG has recently found that proper controls were not in place to ensure the effective use of program reviews. These program reviews are intended to monitor and improve institutional performance and compliance with title IV requirements. The outcome of such reviews may determine whether an educational institution is recertified to participate in federal student aid programs.

The Department is improving its procedure for obtaining and verifying the eligibility information used to prevent student loan fraud. However, further improvements to prevent fraud are needed. As we reported in September 2000, the problem is that neither Education nor individual institutions such as colleges and universities that check the accuracy of student financial aid applications have access to third-party data sources to verify independently most applicants' family income before disbursing loan and grant payments. Education's OIG, which traced a sample of income data from applications that institutions had verified, documented weaknesses in the verification process. While Education's verification procedures—such as computer checks to identify error-prone applications—are reasonable for detecting and correcting mistakes on

applications, they cannot identify students who intentionally underreport family income.

In the 1998 amendment to title IV of the Higher Education Act, the Congress instructed Education and the Internal Revenue Service (IRS) to cooperate in verifying students' income to prevent loan fraud. Subsequently, in September 2000, we determined that Education could obtain eligibility information by matching automated computer files and accessing online databases from the IRS. The two agencies are currently conducting two pilot projects to match Education and IRS data. If the pilots are successful and if IRS grants Education permission to receive summary taxpayer information for use in verifying data provided on loan applications, Education could use enhanced data sharing to make more timely and accurate eligibility determinations.

While Education's performance plans for fiscal year 1999 through fiscal year 2001 address most of the Department's key outcomes, none of its goals or objectives directly address fraud, waste, and mismanagement in its financial management system or the high-risk status of its student financial aid programs. Because these vulnerabilities potentially pose high costs to the federal government and America's citizens, we concluded in a June 2000 report that Education should develop performance goals, objectives, and measures that directly relate to the management and oversight of its financial system and student loan programs. After we issued our report, Education revised its strategic plan to include a performance goal of improving the integrity of the financial aid program. For that goal, the Department has not developed objectives and measures although it has identified a number of strategies that have the potential to address our concerns, such as increasing oversight efforts, continuing to work on the feasibility of matching application and tax data, and educating the foreign school community about program requirements.

This issue is also discussed in *Major Management Challenges and Program Risks: Department of Education* (GAO-01-245, January 2001), which includes a list of related GAO reports. For additional information on student financial aid programs, please contact Cornelia M. Ashby, Director, Education, Workforce, and Income Security, at (202) 512-7215 or [ashbyc@gao.gov](mailto:ashbyc@gao.gov).

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## **Asset Forfeiture Programs**

The Departments of the Treasury and Justice operate similar but separate asset forfeiture programs.<sup>30</sup> As of September 30, 1999, the combined value of assets in these two programs was more than \$1 billion, of which about \$625 million and \$378 million were assets under Treasury's and Justice's management, respectively. Both programs also hold large amounts of nonvalued assets such as illegal drugs and weapons.

These programs were part of our original high-risk list in 1990 for two reasons. First, over the years, neither Treasury nor Justice had adequately focused on management and accountability for seized and forfeited items to reduce the risk of theft and misappropriation. Second, Treasury and Justice had not formed a plan to consolidate postseizure management and disposition to eliminate duplication of resources and reduce administrative costs.

In recent years, Treasury and Justice have taken many actions to address our recommendations to improve the management and accountability of seized and forfeited property. For example, in response to our recommendations to improve accountability and

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<sup>30</sup>The asset forfeiture program involves the management of property seized in consequence of a violation of public law, including monetary instruments, real property, and tangible personal property of others in the actual or constructive possession of the custodial agency, and forfeited property, or property for which the title has passed to the U.S. Government.

stewardship over seized property, Treasury's Customs Service has upgraded existing storage facilities and implemented a new seized property inventory system. These improvements have helped reduce the vulnerability of seized illegal drugs and other property to theft and misappropriation. In 1999, we reported that Justice had improved its management of real property, such as cars, boats, and houses, in the four locations we visited.<sup>31</sup> Specifically, our report indicated that we were able to account for all of the seized assets included in our review and that the seized assets generally appeared to be in good condition and were stored and secured properly, in accordance with the storage and maintenance contract provisions. In addition, Treasury and Justice are undertaking a joint study to examine the opportunities for increased cooperation in the management of the two programs. However, challenges remain to address the continued weaknesses in accountability for and reporting of seized and forfeited property. Also, the results of the joint study are yet to be determined.

As we reported in January 1999, a major management challenge facing Treasury's asset forfeiture program is the need to address weaknesses in the Department's accountability for and reporting of seized and forfeited property. In its audit of Custom's fiscal year 1999 financial statements, Treasury's Office of Inspector General (OIG) found that accountability controls over certain seized property still need improvement. For example, although system enhancements have been made to Customs' Seized Asset and Case Tracking System (SEACATS), the Treasury OIG reported that the SEACATS data could not be relied on for fiscal year 1999 financial reporting purposes without substantial manual

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<sup>31</sup>*Asset Forfeiture: Marshals Service Controls Over Seized Assets* (GAO/GGD-99-41, March 26, 1999).

reconciliation.<sup>32</sup> Further, Treasury reported instances of material nonconformance with the provisions of the Federal Financial Management Improvement Act of 1996 in its Fiscal Year 1999 Accountability Report involving SEACATS and the Secret Service's Seized Property Systems. We and Justice's auditors have also reported weaknesses in Justice's accountability and reporting over seized and forfeited property. In late 1999, we recommended that two Justice bureaus take several specific actions to address physical safeguards over drugs and firearm evidence and to strengthen accountability over such evidence.<sup>33</sup> The types of problems reported increase the risk of theft, misuse, and loss or compromise of evidence needed for prosecution purposes. In February 2000, independent auditors for Justice reported weaknesses in Justice's financial accounting controls used to report on and account for seized and forfeited property, such as seizing and custodial agencies not taking required steps to ensure that corrections to the Consolidated Asset Tracking System inventory records were properly made.<sup>34</sup>

Legislation in 1988 required Treasury and Justice to develop a plan to consolidate their seized property management functions. In 1991, we recommended that they consolidate the postseizure management and disposition of noncash seized property to reduce administrative costs. Although the Departments have

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<sup>32</sup> *Report on U.S. Customs Service's Fiscal Years 1999 and 1998 Financial Statements* (OIG-00-050), February 18, 2000, prepared by the Department of the Treasury's OIG.

<sup>33</sup> *Seized Drugs and Firearms: FBI Needs to Improve Certain Physical Safeguards and Strengthen Accountability* (GAO/AIMD-00-18, December 16, 1999) and *Seized Drugs and Weapons: DEA Needs to Improve Certain Physical Safeguards and Strengthen Accountability* (GAO/AIMD-00-17, November 30, 1999).

<sup>34</sup> *Audit Report: U.S. Department of Justice Annual Financial Statement Fiscal Year 1999* (00-06), February 2000, prepared by the Department of Justice's OIG.

not made plans for consolidating their programs, in September 2000, they contracted for a study to identify opportunities for increased cooperation and sharing of agency and contractor resources. The study is to result in recommendations for improving the effectiveness and efficiency of property management functions within the federal asset forfeiture program. The study is not expected to fully embrace the concept of consolidating the two separate, seized asset management and disposal functions, however, taking advantage of opportunities for cooperation and sharing of agency and contractor resources encompasses the spirit of the recommendation designed to reduce the programs' administrative costs.

To determine whether to remove the asset forfeiture programs from our high-risk list in the future, we will consider the results of Justice's and Treasury's study, including the implementation of any related recommendations, as well as the results of ongoing initiatives for resolving Justice and Treasury's respective weaknesses in accountability for and reporting of seized and forfeited property.

This issue is also discussed in *Major Management Challenges and Program Risks: Department of the Treasury* (GAO-01-254, January 2001) and *Major Management Challenges and Program Risks: Department of Justice* (GAO-01-250, January 2001), which include a list of related GAO reports. For additional information on asset forfeiture programs, please contact Norman J. Rabkin, Managing Director, Tax Administration and Justice, at (202) 512-3610 or [rabkinn@gao.gov](mailto:rabkinn@gao.gov).

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# Managing Large Procurement Operations More Efficiently

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Federal agencies spend billions of tax dollars each year to acquire goods and services—ranging anywhere from multibillion-dollar weapon systems to complex space and satellite systems, information technology systems, and hazardous waste cleanup. As we recently testified, the acquisition process has become more streamlined in the past few years as new contract vehicles and techniques have allowed agencies to buy what they need much faster than in the past. Nevertheless, our work continues to show that some of the government's largest procurement operations are not always run efficiently, and we have recommended ways to operate them better.<sup>1</sup>

Our reports on large procurement operations as well as information technology acquisitions show that many of the problems we have identified are rooted in the fact that agencies lack the right tools for getting the best deal possible. Upfront justifications are often narrowly focused, without full consideration of alternative solutions. In some cases, agencies are avoiding competition when acquiring services and skimping on such important practices as defining requirements and performing vigorous cost-benefit and pricing analyses. We have also found that agencies are embarking on high-risk acquisition strategies, such as beginning production of systems before development, testing, and evaluation are complete.

Once a deal is made, agencies are not always taking steps needed to effectively oversee their contractors. For example, the need to build in effective performance incentives that are clearly linked to an agency's objectives is frequently overlooked. Contractor work itself is often allowed to continue in the face of cost overruns and scheduling delays. Moreover, the

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<sup>1</sup>*Federal Acquisition: Trends, Reforms, and Challenges* (GAO/T-OCG-00-7, March 16, 2000).



government continues to experience problems achieving effective control over payments to contractors, and, as a result, has had to contend with billions of dollars in improper payments. When it comes to information technology acquisitions, our reviews also show that agencies often lack the capabilities and disciplined processes needed to effectively manage a contractor's efforts to design, develop, and implement a system.

It is also becoming increasingly evident that agencies are at risk of not having enough of the right people with the right skills to manage large procurements. Past downsizing efforts coupled with a continuing loss of government's more experienced and valued acquisition workers have resulted in a huge knowledge drain. At the same time, the demand for skilled acquisition workers to manage outsourcing efforts is growing as outsourcing becomes an increasingly popular avenue for delivery of government services. Acquisition workforce problems can be seen as part of a broader pattern of human capital shortcomings that have eroded mission capabilities across the federal government.

Progress is being made. Reforms undertaken by the Congress and the Administration have focused largely on simplifying the process, particularly for buying commercial products and services, and on attempting to streamline decisionmaking. Agencies themselves have also made improvements. Over the last few years, for example, DOD has made changes to improve the way it relates to contractors and the rules governing these relationships. The Department of Energy has efforts underway to improve acquisition planning as well as contract management and oversight. NASA has implemented a new system to help procurement managers measure and improve the performance of their organizations.

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Nevertheless, many initiatives now underway will take time to implement and demonstrate concrete results. And more work needs to be undertaken to adopt and implement best practices that have proven successful in the private sector. For practices to work, significant changes in the underlying environment are needed.<sup>2</sup> As a result, the large procurement operations discussed in the following sections will continue to merit close attention.

A graphic titled "High-Risk Procurement Operations" with a background image of the U.S. Capitol building. The graphic contains a bulleted list of four items: DOD Weapon Systems Acquisition, DOD Contract Management, Department of Energy Contract Management, and NASA Contract Management.

**High-Risk  
Procurement Operations**

- DOD Weapon Systems Acquisition
- DOD Contract Management
- Department of Energy Contract Management
- NASA Contract Management

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## **DOD Weapon Systems Acquisition**

Acquiring weapons for the military forces is central to accomplishing the Department's mission. DOD spends close to \$100 billion annually to research, develop, and acquire weapon systems. Although the Department has many acquisition reform initiatives in process, pervasive problems persist regarding (1) questionable

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<sup>2</sup>*Defense Acquisition: Employing Best Practices Can Shape Better Weapon System Decisions* (GAO/T-NSIAD-00-137, April 26, 2000).

requirements and solutions that are not the most cost-effective available; (2) unrealistic cost, schedule, and performance estimates; (3) questionable program affordability relative to competing wants and needs; and (4) the use of high-risk acquisition strategies. While these problems have proven resistant to reform, the best practices employed by leading commercial firms to develop new products offer different and promising solutions. We have reported that weapon systems acquisition is a high-risk area since 1990, and it remains on our high-risk list.

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**Requirements and  
Solutions That Are  
Questionable and Not  
Cost-Effective**

DOD acquisition policies require analyses of missions, mission needs, costs, and weapon system alternatives to ensure that cost-effective solutions are matched to valid needs before substantial resources are committed to a particular program. However, we have found that while the services conduct considerable analyses in justifying major acquisitions, these analyses can be narrowly focused, without full consideration of alternative solutions, including the joint acquisition of systems with the other services. In addition, because DOD does not routinely develop information on joint mission needs and aggregate capabilities, it has little assurance that decisions to buy, modify, or retire systems are sound. Three examples of our findings follow:

- The Air Force and Navy continued their plans to spend \$5 billion acquiring 19,000 Joint Standoff Weapons even though the ability to use the weapon against moving and relocatable targets was significantly less than originally projected.<sup>3</sup>
- Although average annual funding for space systems exceeds \$6 billion, the U.S. Space Command's long-range plan and the Air Force Space Command's

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<sup>3</sup>*Defense Acquisitions: Reduced Operational Effectiveness of Joint Standoff Weapon* (GAO/NSIAD-99-137, August 31, 1999).

supporting strategic master plan do not fully conform to the Department's new space policy. The plans propose space systems only and do not provide for an assessment of the cost-effectiveness of terrestrial land, sea, and air systems as alternatives to space systems, which is called for in DOD policy.<sup>4</sup>

- Although the F/A-18E/F met its key performance parameters, such as range and carrier suitability, the operational testers' comparisons of the F/A-18E/F to the F/A-18C showed that the former did not demonstrate superior operational performance. Instead, after comparing 18 operational mission areas such as interdiction and fighter escort, the testers concluded that the F/A-18E/F's operational mission effectiveness was essentially the same as the F/A-18C's. Such performance is disconcerting, given that the F/A-18E/F costs nearly twice as much as the F/A-18C/D.<sup>5</sup>

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### Unrealistic Cost, Schedule, and Performance Estimates

We continue to find that the desire of program sponsors to keep cost estimates as low as possible and to present attractive milestone schedules encourages the use of unreasonable assumptions about the pace and magnitude of the technical effort, material costs, production rates, savings from competition, and other factors. For example:

- Some F-22 development activities have been deferred, reduced, or eliminated in order to maintain the aircraft program's development costs within the congressional cost limitation.<sup>6</sup>

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<sup>4</sup>*Defense Acquisitions: Improvements Needed in Military Space Systems' Planning and Education* (GAO/NSIAD-00-81, May 18, 2000).

<sup>5</sup>*Defense Acquisitions: F/A-18E/F Aircraft Does Not Meet All Criteria for Multiyear Procurement* (GAO/NSIAD-00-158, May 26, 2000).

<sup>6</sup>*Defense Acquisitions: Use of Cost Reduction Plan in Estimating F-22 Total Production Costs* (GAO/T-NSIAD-00-200, June 15, 2000).

- The Army's Theater High Altitude Area Defense Program's compressed flight-test schedule did not allow for adequate ground testing, and as a result, officials could not detect problems prior to flight tests. The schedule also left insufficient time for preflight testing, post-flight analysis, and corrective actions.<sup>7</sup>
- The original schedule for developing the Joint Air-to-Surface Standoff Missile was ambitiously set at about half of what previous missile programs required. The schedule was later delayed by 22 months, and total program costs increased by \$500 million.

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**Questionable  
Program  
Affordability**

Each year for the past several years, we have reported that DOD's spending plans could not be executed with available funds. We continue to find and report on numerous problems with DOD's budgeting and spending practices for weapon system acquisitions, suggesting that wants and needs are not being balanced with affordability limitations. For example, the availability of several billions of dollars in funding increases that the Air Force has projected for space system expansion is uncertain.<sup>8</sup> The President and Congress have not agreed on overall funding increases to DOD for the first 6 years of the 18-year projection (fiscal years 2000-05). Additionally, for the last 12 years of the projection (fiscal years 2006-17) the Air Force relies on planned funding increases for program modernization without identifying funding sources, thus creating additional uncertainty and putting the expansion of space systems in jeopardy for affordability reasons.

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<sup>7</sup>*Missile Defense: THAAD Restructure Addresses Problems But Limits Early Capability* (GAO/NSIAD-99-142, June 30, 1999).

<sup>8</sup>GAO/NSIAD-00-81, May 18, 2000.

Further, we reported that current planned procurement spending may be reduced to fund potential operations and maintenance shortfalls. Specifically, DOD's 2001 Future Years Defense Plan may have understated cost and overstated savings projections for operations and maintenance which increases the risk that planned spending for procurement may be shifted to pay for operations and maintenance funding shortfalls.<sup>9</sup>

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## High-Risk Acquisition Strategies

In our previous high-risk reports, we stated that high-risk acquisition strategies—such as the acquisition of weapons based on optimistic assumptions about the maturity and availability of enabling technologies—were being based on the need to meet the threat and to reduce acquisition costs. We also reported on the high-risk practice of beginning production of a weapon system before development, testing, and evaluation are complete. Using highly concurrent strategies and rushing prematurely into production can lead to uninformed decisions about a weapon's demonstrated operational effectiveness and the purchase of systems that do not perform as intended, which ultimately result in lower-than-expected availability for operations and expensive modifications.

Nevertheless, DOD still begins production on many major and nonmajor weapons without first ensuring that the systems will meet critical performance requirements. Examples include:

- The Army plans to begin production of its Comanche helicopter before initial operational testing starts.<sup>10</sup>

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<sup>9</sup>*Future Years Defense Program: Risks in Operations and Maintenance and Procurement Programs* (GAO/NSIAD-01-33, October 5, 2000).

<sup>10</sup>*Defense Acquisitions: Comanche Program Cost, Schedule and Performance Status* (GAO/NSIAD-99-146, August, 24, 1999).

- The Army established an aggressive production schedule for an inexperienced contractor to produce its Family of Medium Tactical Vehicles, resulting in the contractor producing trucks that could not meet qualification and operational testing requirements.<sup>11</sup>
- The Navy was moving towards a full rate production decision on the MV-22 Osprey aircraft without having an appropriate level of confidence that the program would meet design parameters as well as cost and schedule objectives.<sup>12</sup>
- DOD, citing the emerging missile threat from rogue nations, compressed the National Missile Defense program schedule by at least 4 years—making the program vulnerable to delays.<sup>13</sup>

In addition to these examples, we have raised similar issues regarding the acquisition strategy for the Joint Strike Fighter Program<sup>14</sup> and production of the Navy F/A-18E/F aircraft.<sup>15</sup>

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## The Prospects for Change

After having performed hundreds of reviews of major weapon systems over the last 20 years, we have seen many of the same problems recur—cost increases, schedule delays, and performance shortfalls. These problems have proven resistant to reform in part because underlying incentives have not changed. On the other hand, our work also shows that leading

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<sup>11</sup>*Army Medium Trucks: Information on Delivery Delays and Corrosion Problems* (GAO/NSIAD-99-26, January 13, 1999).

<sup>12</sup>Letter to the Secretary of Defense, December 15, 2000.

<sup>13</sup>*Missile Defense: Status of the National Missile Defense Program* (GAO/NSIAD-00-131, March 31, 2000).

<sup>14</sup>*Defense Acquisitions: Decisions on the Joint Strike Fighter Will be Critical for Acquisition Reform* (GAO/T-NSIAD-00-173, May 10, 2000).

<sup>15</sup>*Defense Acquisitions: F/A-18E/F Aircraft Does Not Meet All Criteria for Multiyear Procurement* (GAO/NSIAD-00-158, May 26, 2000).

commercial firms are getting the kinds of outcomes from their development of new products that DOD seeks. Specifically, these firms are developing increasingly sophisticated products in significantly less time and at lower cost than their predecessors. Valuable lessons can be learned from the commercial sector and applied to the development of weapon systems.

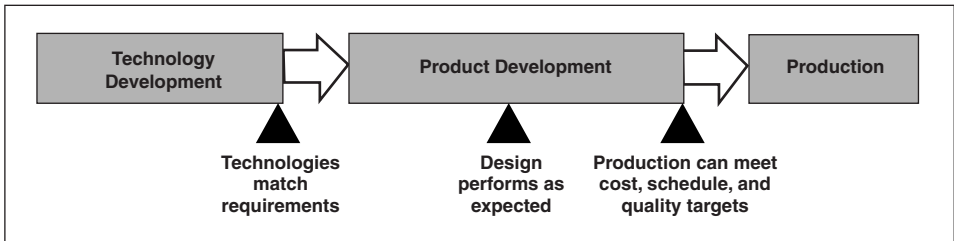
Leading commercial firms expect that their program managers will deliver high quality products on time and within budget.<sup>16</sup> Doing otherwise could result in the customer's walking away, meaning failure for the product. Thus, these firms have created an environment and adopted practices that put their program managers in a good position to succeed in meeting these expectations. Key elements of this environment are deliberately short cycle times, assurance that technology is mature before starting a new product development, and use of a knowledge-based approach to managing product development. Commercial firms develop new products in well under 5 years, a number that continues to fall. Short cycle times help people stay focused on delivering the product and make them accountable for outcomes. Specific practices are embodied in a knowledge-based approach to product development that can be distilled into three cumulative knowledge points, depicted in figure 6.

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<sup>16</sup>*Defense Acquisition: Employing Best Practices Can Shape Better Weapon System Decisions* (GAO/T-NSIAD-00-137, April 26, 2000).



Figure 6: Knowledge-based Process for Applying Best Practices to the Development of New Products



Source: GAO.

Product development in commercial ventures is a clearly defined undertaking that firms will not start unless they have the technology in hand to meet customers' needs. Leading firms do not ask their product managers to develop technology. The process of developing a product culminates in delivery and therefore gives great weight to design and production. The firms demand—and receive—specific knowledge about a new product before production begins. A program does not go forward unless a strong business case on which the program was originally justified continues to hold true. Such a knowledge-based process is essential to commercial firms' getting better cost, schedule, and performance outcomes. It enables decisionmakers to be reasonably certain about critical facets of the product under development when they need it.

DOD wants the kinds of outcomes commercial companies have achieved and has taken steps to reform its acquisition process to attain them. Examples include the recent revision of the 5000 series of acquisition guidance, which puts more emphasis on mature technology before a program is started and a more flexible requirements process that permits requirements to be met in stages. A few programs have exhibited some

of these features in the early stages of development, including the Tactical and Global Hawk unmanned aerial vehicles. It would be premature to interpret this progress as evidence that systemic change has occurred in DOD's acquisition process. Rather, such progress appears to be more the result of individuals' attempts to pioneer change through extraordinary effort.

The environment for DOD weapon system programs, particularly regarding the requirements setting, funding, and career management processes, encourages launching programs that embody more technical unknowns than commercial ventures and less knowledge about the performance and production risks they entail. The reason DOD programs are launched earlier is at least partly because establishing a formal program has been necessary to attract the funds needed to develop a new weapon system. As requirements are being set, a new weapon system is more likely to be funded if it possesses performance features that significantly distinguish it from other systems.

Consequently, DOD program managers have incentives to promote performance features and design characteristics that rely on immature technologies. To gain approval, program estimates are squeezed to fit into profiles of available funding. Additional requirements, such as high reliability, serve to make the fit even tighter. As competition for funding continues throughout the program, success becomes identified with the ability to secure the next installment. Other factors, such as the short tenures of program managers—relative to long development cycle times—and the unlikelihood that an unsatisfied customer will walk away, serve to make managers less accountable for delivering the product as promised.

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Key Actions Needed

As we have recommended, DOD leadership could improve the acquisition of weapon systems by (1) routinely considering, in establishing weapon requirements, joint mission needs and aggregate capabilities; (2) using more realistic assumptions in developing system cost, schedule, and performance requirements; (3) approving only those programs that can be fully executed within reasonable expectations of future funding; and (4) limiting the use of high-risk acquisition strategies.

Also, as we have recommended, taking these steps would require a better environment for starting and managing weapon system development programs. DOD leadership could help create such an environment by applying best commercial practices unless there is a clear and compelling national security reason not to. Such practices would enable DOD to (1) ensure that key technologies are mature before they are included in weapon system development programs; (2) set limits, such as 5 years for program development cycle times; and (3) adopt a knowledge-based approach to managing and making decisions on weapon system programs.

This issue is also discussed in *Major Management Challenges and Program Risks: Department of Defense* (GAO-01-244, January 2001), which includes a list of related GAO reports. For additional information on DOD weapon systems acquisition, please contact Jack L. Brock, Jr., Managing Director, Acquisition and Sourcing Management, at (202) 512-6240 or [brockj@gao.gov](mailto:brockj@gao.gov).

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DOD Contract  
Management

DOD spent in excess of \$130 billion in fiscal year 1999 for goods and services. Since 1992, we have reported DOD contract management as a high-risk area. It remains on our list of high-risk areas because DOD continues to experience significant challenges related to contract management, including (1) improving oversight

and accountability in the acquisition of services, (2) preventing erroneous and improper payments from being made to its contractors, (3) implementing commercial practices for contract pricing, and (4) managing health care contracts.

Although contract management remains a high-risk area, DOD has made meaningful changes to improve the way it relates to contractors and the rules governing these relationships over the last few years. It also has attempted to measure select changes to its contracting processes by establishing key metrics, including (1) the percentage of purchases made by purchase card, (2) the percentage of paperless contracting and payment transactions, and (3) the percentage reduction in acquisition workforce personnel. However, while DOD reported it generally met these established metrics for last year, the metrics do not measure many of the significant challenges to improving processes and controls for reducing contract risk.

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**Improving Oversight  
and Accountability in  
Acquiring Services**

DOD also faces challenges in addressing concerns about the lack of oversight and accountability in acquiring services. This is an area that must receive additional attention as DOD shifts to greater procurement of sophisticated services. DOD is presently changing what it buys and how it buys. For example, contracts for research and development, engineering, and various management support services make up a growing share of DOD's purchases. In fact, DOD now spends about \$70 billion annually acquiring services from the private sector, and that number is expected to grow as DOD pursues efforts to contract with the private sector for many functions currently performed by DOD personnel.

We recently raised concerns that DOD has avoided competition when acquiring services, and the DOD Inspector General found that DOD had not adequately

performed many basic management tasks, including market research, price analyses, and contractor surveillance.<sup>17</sup> Consequently, DOD seriously undermined its ability to ensure that it gets the best services at the best prices. Such concerns, in part, led the Congress to ask us to examine the practices of leading commercial companies and identify “best practices” that could yield benefits to DOD in acquiring services.

Both the Congress and DOD have taken steps to improve DOD’s acquisition of services. For example, recently enacted legislation<sup>18</sup> requires that each military department establish at least one center of excellence for service contracting. These centers are intended to assist the acquisition community by identifying and serving as a clearinghouse on best practices in contracting for services in the public and private sectors.

For its part, DOD has targeted the increased use of performance-based service acquisitions as a high priority. In April 2000, DOD announced that it had established a goal that by 2005, 50 percent of all service acquisitions, measured in both dollars and actions, be based on performance. Each of the military services and the Defense Logistics Agency are to develop an implementation plan, while DOD committed itself to provide training, templates, and other tools to its acquisition workforce to help define, acquire, and manage service requirements. While these initiatives

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<sup>17</sup>*Contracts for Professional, Administrative, and Management Support Services* (Office of the Inspector General, Department of Defense, D-2000-100, March 10, 2000) and *Contract Management: Not Following Procedures Undermines Best Pricing Under GSA’s Schedule* (GAO-01-125, November 28, 2000).

<sup>18</sup>*Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001* (P.L. 106-398, October 30, 2000).

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should help DOD improve its acquisition of services, it may be several years before they are fully implemented and the impact on DOD's acquisition of services can be evaluated.

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**Fixing DOD's High-Risk Payment Systems Is Imperative**

The need for DOD to achieve effective control over its payment process remains imperative. For fiscal years 1994-99, DOD reported that contractors returned nearly \$5.3 billion.<sup>19</sup> Of this amount, DOD's Defense Finance and Accounting Service erroneously paid \$1.2 billion—as a result of errors such as paying the same invoice twice or misreading invoice amounts. Other payment errors can be attributed to problems with contract administration, such as the failure to adjust progress payments for changes in contract requirements or performance. Further, in its fiscal year 1999 financial statements, DOD reported \$3.6 billion in uncollected debt that relates to a variety of contract payment problems. Of this amount, we determined that at least \$225 million relates to duplicate payments, overpayments, and payments for goods not received, all of which we consider improper payments.

DOD payment errors can be attributed to complex regulations, long-term contracts, nonintegrated systems, and the manual entry of contract data into payment systems. In October 2000, we reported that DOD had not yet made a comprehensive estimate of improper payments made to its contractors, and there are likely more overpayments that have yet to be identified and returned. With an annual budget of over \$130 billion in purchases involving contractors, DOD would benefit from estimating the magnitude of improper payments. As discussed in the financial management area, system

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<sup>19</sup>*Financial Management: Billions in Improper Payments Continue to Require Attention* (GAO-01-44, October 27, 2000).

deficiencies significantly contribute to improper payments.

In addition to improper payments, weak systems and internal controls can leave DOD vulnerable to fraud. In February 2000 testimony before the House Budget Committee, the DOD Deputy Inspector General stated that the finance and acquisition communities appear to be moving in opposite directions on contractor pay. He noted that while the finance community is attempting to improve controls over payments by taking measures such as rejecting vouchers with remittance addresses that are not in the Central Contractor Registry and may be suspect. Some DOD acquisition officials believe that payments to contractors are not being made promptly enough, and they advocate making payments without any attempt to match invoices to receiving documents.

According to the DOD Inspector General, contractor payment processes remain vulnerable to fraud. As of September 30, 1999, the Defense Criminal Investigative Service had 85 open financial fraud cases. Moreover, as DOD's reliance on electronic payment methods increases, unresolved computer security weaknesses will impact its vulnerability to fraudulent contract payments.

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### Adjusting to Commercial Contract Pricing Practices

In recent years, DOD has significantly changed the way it acquires goods and services by removing what were considered barriers to efficient and effective use of the commercial marketplace. A major focus of these changes is the adoption of commercial buying practices.<sup>20</sup> For example, for an increasing number of contracts for sole-source spare parts, DOD is transitioning from a cost-based pricing environment, in

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<sup>20</sup>*Federal Acquisition: Trends, Reforms, and Challenges* (GAO/T-OCG-00-7, March 16, 2000).

which contractor costs are the basis to negotiate prices, to a market-based or commercial pricing environment in which factors other than cost, such as pricing data, are the principal means used to determine the reasonableness of prices. While the level of commercial contracting remains relatively small compared to total DOD procurement, it is likely to increase substantially in the coming years.

Both we and the DOD Inspector General have found and recommended that DOD needs to strengthen its efforts to obtain fair and reasonable prices. For example, the Inspector General found that DOD needs to use more cost-effective buying strategies for commercial spare parts. The Inspector General noted that DOD was paying higher prices for some commercial spare parts than necessary. Our work also identified<sup>21</sup> cases in which limited price analyses of commercially offered prices resulted in significantly higher prices than previously paid. DOD is taking steps to improve its workforce training in commercial buying and pricing. How well DOD's acquisition workforce will adjust to an environment with increased use of commercial pricing practices remains to be seen.

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**Managing DOD's  
Contracts for Health  
Care**

DOD's difficulty in managing contracts is further illustrated in the implementation of its TRICARE health care program. TRICARE was established during a period of military downsizing and budget concerns to contain costs and maintain access to and the quality of health care for DOD's 8.2 million beneficiaries. To implement this program DOD awarded seven competitively bid 5-year contracts totaling about \$15 billion.

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<sup>21</sup>*Contract Management: DOD Pricing of Commercial Items Needs Continued Emphasis* (GAO/NSIAD-99-90, June 24, 1999).



Once these contracts were awarded, DOD made numerous and continuous changes to them through contract change orders. We reported that DOD had not developed a reliable estimate of the total federal liability for the contract changes and that DOD neither systematically reviewed the need for each order nor considered its likely costs and other effects.<sup>22</sup> As of July 2000, over 500 change orders to the TRICARE contracts had not been settled and may represent a significant future liability to the Defense Health Program. To address this growing backlog DOD initiated a plan, called Mobilization, to settle all of its open change orders by December 2000. We are evaluating DOD's progress in settling change orders and identifying improvements to the process.

Furthermore, in an effort to better control costs and improve health care contracting, DOD has initiated a broad review of TRICARE's operational structure. For the study, DOD will examine TRICARE's organization and business plans and will develop a revised procurement strategy. Whether DOD can successfully develop and launch the new procurement strategy and whether this new strategy will reduce the current volume of contract changes or control health care costs remains to be seen.

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**Key Actions Needed**

As we have previously stated in testimony, the problems that we have identified are difficult ones and are deep-rooted in very large programs and organizations. There is much to be learned from the best practices of leading, high-performing private sector organizations that can be used to improve the acquisition and contracting process

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<sup>22</sup>*Defense Health Care: Operational Difficulties and System Uncertainties Pose Continuing Challenges for TRICARE* (GAO/T-HEHS-98-100, February 26, 1998).

and controls to reduce contract risk. We testified that, when use of commercial best practices is determined to be appropriate, government agencies should adopt these practices unless compelling reasons exist for not doing so. To ensure that progress continues, sustained management attention and congressional oversight will be necessary.

This issue is also discussed in *Major Management Challenges and Program Risks: Department of Defense* (GAO-01-244, January 2001), which includes a list of related GAO reports. For additional information on DOD contract management, please contact David E. Cooper, Director, Acquisition and Sourcing Management, at (202) 512-4841 or [cooperd@gao.gov](mailto:cooperd@gao.gov).

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## Department of Energy Contract Management

Since 1990, we have designated contract management at the Department of Energy (DOE) as a high-risk area, and we continue to consider it high risk. DOE, the largest civilian contracting agency in the federal government, relies primarily on contractors to operate its facilities and carry out its missions. DOE uses contractors to manage a wide variety of activities, including performing research, maintaining the nuclear weapons stockpile, and cleaning up radioactive and hazardous wastes. To carry out these missions, DOE's contracts often involve the design, construction, and operation of multi-million-dollar, one-of-a-kind facilities. In fiscal year 1999, DOE obligated about \$15.5 billion, or about 90 percent of its total obligations, to contracts.

For years, we and others have reported on problems with DOE's contract management, which we have defined broadly to include contract administration and project management. These problems have included noncompetitive awards, cost and schedule overruns, the inadequate oversight of contractors' activities, an over-reliance on cost-reimbursement contracts, and an

inability to hold contractors accountable. Because it relies on contractors to carry out its missions, failing to address these problems could limit DOE's effectiveness and efficiency in its stockpile stewardship, security, cleanup, and other missions. DOE is aware of its contract management problems and has numerous initiatives under way to address them. While progress is being made to correct the problems, many of these initiatives will take a number of years to fully implement. Furthermore, since DOE uses contractors to manage many aspects of its missions, initiatives to improve contract management need to be directed at the underlying culture of the organization. Therefore, DOE will need to continue focusing management attention on these problems for the long term to effect lasting change for both DOE and contractor staff.

For example, DOE created a new office in November 1999 to implement policies and procedures to improve project management and oversight. Efforts are also under way to improve up-front acquisition planning, to help ensure that the appropriate contracting and financing approach is used on major projects, and to better integrate contract and project management. However, these initiatives are in the early stages, and it is too soon to tell whether they will be effective in preventing cost and schedule overruns and in holding contractors fully accountable. Cost and schedule overruns have plagued DOE's projects over the years, and they continue to persist, as shown in the following examples:

- The National Ignition Facility, being built at the Lawrence Livermore National Laboratory to evaluate the behavior of nuclear weapons without explosive testing, was originally expected to cost about \$2.1 billion and to be completed in 2002. DOE now estimates that this facility will eventually cost about \$3.5 billion and be completed in 2008—over \$1 billion dollar increase in cost and 6 years later than

originally estimated. As we reported in August 2000, these cost increases and schedule delays have been attributed to a combination of poor contractor management and inadequate DOE oversight, including inadequate technical and managerial skills to oversee the project. We recommended that DOE arrange for an outside scientific and technical review of the facility's remaining technical challenges related to its cost and schedule risks.

- At DOE's Savannah River Site, the in-tank precipitation process was selected in 1983 as the preferred method for separating highly radioactive wastes from 34 million gallons of liquids in storage tanks. In 1985, DOE estimated that it would take about 3 years and \$32 million to construct the in-tank precipitation facility. In April 1999, we reported that after a decade of delays and spending almost \$500 million, DOE suspended the project because it would not work safely and efficiently as designed. Among the factors contributing to this failure were the ineffectiveness of the contractor's management and of DOE's oversight of the project. Problems in management may have continued in DOE's efforts to find an alternative method for waste separation. According to a 2000 report by a committee of the National Research Council, the committee did not see a strong and technically informed management in place at the Savannah River Site. Furthermore, the committee noted that it became increasingly difficult to determine who was in charge of managing the program over the course of the committee's study.<sup>23</sup>

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<sup>23</sup>See *Alternatives for High-Level Waste Salt Processing at the Savannah River Site*, Committee on Cesium Processing Alternatives for High-Level Waste at the Savannah River Site, National Research Council, (2000). The National Research Council, as the principal operating agency of the National Academy of Sciences and the National Academy of Engineering, provides the government, public, and scientific and engineering communities with services and research.

In another example, DOE's Office of Environmental Management started its privatization initiative in 1995 to reduce the cost, and speed the cleanup, of its contaminated sites and to improve the contractors' performance. For large cleanup projects, this was primarily an alternative contracting and financing strategy that emphasized fixed-price contracts and full private financing. We reported in June 2000 that while fixed price contracting had been successful for some projects with a known scope, privatization has generally not accomplished DOE's goals for complex cleanup projects.

For example, DOE chose the privatization approach for the Tank Waste Project at the Hanford site. The project involved treating about 5 million gallons of highly radioactive wastes stored in underground tanks. The contract to design, build, and operate the facility to treat the wastes had an estimated price of \$6.9 billion. In April 2000, the contractor submitted a revised price estimate of over \$15 billion. DOE terminated the privatized contract because it was concerned about the contractor's performance and the rapidly escalating cost estimates, as well as the full private financing approach chosen by DOE. In October 1998, we concluded that DOE should reassess the cost-effectiveness of its proposed approach to the project, including contracting and financing alternatives to the privatized approach. On the basis of DOE's assessment of the alternatives, the Department has recompeted the project under a more traditional cost-reimbursement-plus-incentive-fee approach.

In 1993, DOE established a Contract Reform Team and in 1994 began implementing numerous initiatives to improve contract management. These initiatives include increasing competition and switching to performance-based contracts. For example, DOE revised its procurement regulations to make competition the normal practice and, overall, has increased its use of

competition in awarding contracts. As of September 2000, 68 percent of DOE's major contracts were awarded competitively compared with only 9 percent of its major contracts in 1990. However, some of DOE's larger contracts for operating its national laboratories, including ones that have a history of security and/or project management problems, continue to be extended rather than competed.<sup>24</sup> Deciding to extend rather than compete these contracts may weaken DOE's negotiating position to use contracts to effect changes that relate to problem areas such as security and project management.

In another example, DOE revised its procurement regulations to shift to performance-based contracts and to hold its contractors more accountable. In April 1999, DOE implemented a new fee policy that would put a contractor's entire incentive fee at risk for poor performance in environment, safety, and health areas. DOE also has initiatives in place to improve the performance incentives for contractors to align them more closely with DOE's strategic goals for a site. As of September 2000, DOE officials told us that all of their major contracts to manage and operate the Department's facilities are now performance-based contracts.

While performance incentives can better focus contractors' efforts in doing the work most crucial to achieving DOE's missions, the performance incentives are not always clearly linked to DOE's objectives nor structured to focus on outcomes to be achieved and, thus, may not accomplish the desired results. For example, in April 2000, DOE's Office of Inspector

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<sup>24</sup>DOE's national laboratories are designated as federally funded research and development centers and are not subject to full and open competitive procedures for their establishment or maintenance. Nevertheless, DOE has competed the contracts for some of its current centers.

General reported that the performance-based incentives at the Idaho National Engineering and Environmental Laboratory had not been fully successful in improving performance and reducing costs. Because of problems with structuring incentives to reward outcome rather than process and with validating the contractor's performance, the Office of Inspector General questioned \$11.3 million in incentive fees paid to the contractor.<sup>25</sup>

Our May 1999 report on the use of performance-based contracting at DOE's national laboratories indicated that DOE did not know if this form of contracting was achieving the intended results of improved performance and lower costs. We recommended that DOE evaluate the costs and benefits from using such contracts at its national laboratories. In April 1999, we reported that one of the factors contributing to DOE's security problems at the national laboratories was the lack of emphasis given to security matters in the contractor's performance incentives. For example, two of the contracts lacked performance incentives for counterintelligence activities, and the performance incentive for safeguarding classified documents and materials accounted for less than 1 percent in the contractor's performance evaluation. Over the long term, DOE may resolve all of the problems in its contract management. Until then, DOE's ongoing problems can increase the government's costs and expose DOE to billions of dollars of financial risk.

This issue is also discussed in *Major Management Challenges and Program Risks: Department of Energy* (GAO-01-246, January 2001), which includes a list of related GAO reports. For additional information on Department of Energy contract management, please

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<sup>25</sup>See *Performance Incentives at the Idaho National Engineering and Environmental Laboratory, Department of Energy*, (WR-B-00-05, April 3, 2000).

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contact James E. Wells, Director, Natural Resources and Environment, at (202) 512-6877 or [wellsj@gao.gov](mailto:wellsj@gao.gov).

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## NASA Contract Management

NASA spends more than \$12 billion annually for goods and services—ranging from procurements of expensive space hardware to contracts for research and development-related services. As such, much of NASA's success hinges on its contractors. Moreover, with most of its funds going to outside businesses and other organizations, it is exceedingly important that NASA have good control and oversight over its procurement dollars.

In 1990, we began a special effort to review and report on federal program areas that our work had identified as high risk because of vulnerabilities to waste, fraud, abuse, and mismanagement. We identified NASA's contract management as an area at high risk because it lacked effective systems and processes for overseeing contractor activities. Specifically, little emphasis was being placed on end results and on controlling costs. Procurement processes themselves were cumbersome and time-consuming. In 1992, we reported that the agency still had ineffective systems and processes for overseeing contractors' activities and that NASA field centers had failed to comply with contract management requirements.

Since then, NASA has made progress in addressing its contract management challenges. In July 1998, for example, we reported that NASA was developing systems to provide oversight and information needed to improve contract management and that it had made progress evaluating its field centers' procurement activities on the basis of international quality standards and its own procurement surveys. In January 1999, we found that NASA was implementing its new system for measuring procurement-related activities and had made



progress in evaluating procurement functions at its field centers.

Nevertheless, as discussed below, key issues remain. For example, in 1998 and again in 1999, we reported that NASA had delayed implementation of its integrated financial management system—which was central to producing accurate and reliable information needed to support contract management. Moreover, in 2000, we reported that NASA needed to rely less on the use of undefinitized contract actions—that is, unnegotiated contract changes—as a way of doing business since this practice could result in contract cost overruns and cost growth in the International Space Station program.

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**NASA Delayed  
Implementation of  
Integrated Financial  
Management System**

Modernizing NASA's financial management systems is key to providing better oversight over contract management activities. However, according to NASA, the agency's financial management environment is comprised of decentralized, nonintegrated systems with policies, procedures, and practices that are unique to its field centers. For the most part, data formats are not standardized, automated systems are not interfaced, and on-line financial information is not readily available to program managers. Thus, it is difficult to assure contracts are being efficiently and effectively implemented and budgets are executed as planned. In addition, NASA has pointed out that the cost to maintain these systems has been high, since both data and software are replicated at each field center.

To correct these problems, on September 18, 1997, NASA awarded a fixed-price contract, valued at \$186 million, to provide a NASA-wide integrated financial management system primarily based on commercial off-the-shelf software. The contract required that the integrated financial management project be implemented at all NASA centers by July 1, 1999. From its inception, the project experienced

significant development and implementation problems. Work was stopped on the contract in March 2000. On October 13, 2000, a settlement agreement was reached between NASA and the contractor to terminate the contract for the convenience of the government. NASA's total cost for the unsuccessful attempt to implement the integrated financial management project was \$131 million.

NASA is undertaking its third attempt to implement the integrated financial management project. Its approach focuses on learning from other organizations' successes in implementing similar projects, as opposed to revisiting its own failures. NASA has also abandoned the single product approach that the two prior attempts had as their basic architecture. Instead, the project will be broken down into implementable modules on the basis of the availability of proven software products. Specifically, NASA has segmented implementation of the integrated financial management project into 14 modules, with estimated completion scheduled in fiscal year 2007. The first project scheduled for completion is the core financial project for acquiring and implementing financial software to serve as the backbone for all the other projects. However, NASA has established only tentative planning dates for full implementation.

Until the core financial project is operational, NASA has devised an interim approach, which it believes will achieve certain benefits associated with full cost accounting practices. The concept of full cost accounting ties all agency costs (including civil service personnel costs) to major activities. NASA officials expect this approach to provide complete cost information to management for more fully informed decision-making. In September 1999, NASA's Chief Financial Officer directed that (1) the centers initiate full-cost accounting activities in fiscal year 2000; (2) the focus in the immediate future be on providing full cost

reports to center project managers; and (3) NASA not plan to spend significant amounts on enhancing existing systems on the basis of current plans to replace many of these systems, if not all, in the future. NASA plans to follow this interim approach until the core financial project is operational at all centers (estimated in 2003).

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**NASA Has  
Implemented Its New  
System for Measuring  
Procurement-Related  
Activities**

In response to our March 1997 report<sup>26</sup> on NASA's contract management and our observation on the agency's need to produce accurate and reliable procurement-related information, NASA implemented a revised system of procurement metrics in fiscal year 1999. This revised system involves the development of measurable performance metrics, benchmarking these metrics, and the development of both NASA headquarters and agencywide procurement customer satisfaction surveys for timeliness, quality, and service. According to a NASA official, the purpose of the initiative is to help procurement managers measure and improve the performance of their organizations.

NASA conducted a customer satisfaction survey in 1999. It showed that most participants were satisfied with procurement services quality, timeliness, and customer service. A second survey, now being analyzed, will further assess satisfaction in communication, customer service, meeting mission goals, and procurement knowledge and skills.

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<sup>26</sup>NASA Procurement: Contact Management Oversight (GAO/NSIAD-97-114R, March 18, 1997).

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**NASA Has Made  
Progress in  
Evaluating  
Procurement at Its  
Field Centers**

To strengthen contract management across the agency, NASA now requires a management system that, at a minimum, complies with the International Organization for Standardization (ISO) 9000<sup>27</sup> series of standards, which includes a standard for purchasing. The ISO 9000 series consists, in part, of 20 quality management and assurance standards. The general purchasing standard states that the supplier (for example, NASA's field centers' procurement offices) shall establish and maintain documented procedures to ensure that purchased products conform to specified requirements.

In April 1998, NASA's procurement officers agreed that a combination of ISO 9000 external and internal audits and procurement surveys should provide sufficient confidence in the soundness of NASA's procurement system. A NASA procurement official stated that NASA survey teams are currently conducting self-assessments and extensive audits of center operations on a 3-year schedule. Furthermore, NASA headquarters and all centers were certified as ISO 9000 compliant by authorized independent accreditation organizations as of the end of fiscal year 1999.

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**NASA Continues to  
Use Undefinitized  
Contract Actions**

NASA officials can authorize work to begin on a contract change before NASA and the contractor agree on a final estimated cost and fee. Such changes are referred to as undefinitized contract actions—that is, unnegotiated contract changes. Relying on unnegotiated changes as a way of doing business is risky because it increases the potential for additional unanticipated cost growth. This, in turn, may force an agency to divert scarce budget resources intended for other important

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<sup>27</sup>ISO is a worldwide federation of national standards bodies from some 130 countries. ISO 9000 standards provide a framework for quality management and quality assurance.

programs. In view of this risk, the Federal Acquisition Regulation and current NASA policy state that work on contract changes that have not been negotiated should occur on an exception basis and be limited to urgent requirements.

Both NASA's Office of the Inspector General and we have reported our concerns about NASA's frequent use of undefinitized contract changes. In May 2000, we reported<sup>28</sup> that NASA authorized 593 changes to the space station prime contract in fiscal years 1998 and 1999. The cost of these changes amounted to \$897.7 million. Of the 593 changes, 280 added capability or revised initial designs. Added capabilities were to increase the station's operational performance, especially in meeting research needs. Revisions of initial designs included changes to (1) correct operability and design deficiencies and (2) reduce cost, schedule, and technical risks. The total estimated cost of changes made to add capabilities and revise initial designs was \$368.1 million.

NASA officials have stated that because the space station program is complex and is nearing completion of the design, development, test, and evaluation stage of the program, the agency expects many urgent changes in the future. While they recognize that beginning work on contract changes that have not been negotiated is not the preferred way of doing business, NASA officials believe that such changes are necessary in order to avoid delaying the space station program schedule, to modify ongoing work, or to reduce the cost of a change by taking advantage of other ongoing work.

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<sup>28</sup>*Space Station: Prime Contract Changes* (GAO/NSIAD-00-103R, May 11, 2000).

Our recent review of space station prime contract changes,<sup>29</sup> however, showed that unnegotiated change orders accounted for more than one-half of all authorized changes and 98 percent of the cost of changes whereas the Federal Acquisition Regulation limits the use of such change orders to an exception basis. Moreover, the practice puts NASA at risk to unanticipated cost increases that may require funding reallocations and negatively impact other critical NASA programs.

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**Contract  
Management  
Remains a High-Risk  
Area**

While NASA has made progress in correcting some weaknesses in contract management, it has not yet established a financial management system or integrated it with full cost accounting practices. NASA is starting its third attempt on this effort by segmenting implementation of the project into 14 modules, with completion tentatively scheduled in fiscal year 2007. This effort will require continued management attention to correct problems and keep projects on schedule. NASA included an objective in its fiscal year 2000 strategic plan to continue to develop a new integrated financial management system. The strategic plan notes that the integrated financial management project and other initiatives, such as full-cost accounting, will improve NASA's financial resource management. Until the system is operational, performance assessments relying on cost data may be incomplete and full costing will be only partially implemented.

In NASA's view, with the exception of an integrated financial management system, significant progress has been made resolving those contract management challenges related to the procurement function, notably, measuring procurement-related activities and evaluating

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<sup>29</sup>GAO/NSIAD-00-103R, May 11, 2000.

procurement activities at its field centers. Therefore, NASA officials believe designating contract management as a major management challenge and high-risk area is no longer warranted.

While these actions are steps in the right direction, more actions are required to provide for effective oversight and management of the entire contract implementation process. Principally, NASA still needs an effective and efficient integrated financial management system as well as cost controls, particularly for the International Space Station program. Moreover, NASA's Inspector General and we have repeatedly reported on the need to limit the use of undefinitized contract change orders to prevent further unanticipated cost increases and scheduling delays. Therefore, we are retaining the high-risk designation for NASA contract management.

This issue is also discussed in *Major Management Challenges and Program Risks: National Aeronautics and Space Administration* (GAO-01-258, January 2001), which includes a list of related GAO reports. For additional information on NASA contract management, please contact Allen Li, Director, Acquisition and Sourcing Management, at (202) 512-3600 or [lia@gao.gov](mailto:lia@gao.gov).

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