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USDA SERVICE CENTERS

Multibillion Dollar Effort to Modernize Processes and Technology Faces Significant Risks

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The Honorable Bob Goodlatte
Chairman, Subcommittee on Department Operations,
Nutrition, and Foreign Agriculture
Committee on Agriculture
House of Representatives

Dear Mr. Chairman:

This report responds to your request for information on the Department of Agriculture's (USDA) effort to modernize information technology (IT) at its field service centers, which is being implemented as part of the department's Service Center Implementation initiative. The purpose of this initiative is to provide "one-stop" service to customers of the farm service, natural resources, and rural development agencies by collocating field offices and modernizing the business processes and IT used within these offices.

As agreed, our objectives for this review were to (1) describe USDA's current plans and ongoing efforts, including estimated costs, to modernize IT for its service centers and (2) identify any significant risks in these plans and ongoing efforts.

Results in Brief

USDA's service center IT modernization effort, as currently being planned, will be the biggest, most costly and complex in the department's history. It involves projects to (1) develop new business processes, (2) acquire and install telecommunications equipment, (3) acquire, implement, and maintain a common computing environment at about 3,100 locations, and (4) acquire and develop geospatial data.

USDA's life-cycle cost estimates show that the department could ultimately spend more than $3 billion for these projects by the year 2011. The department reported spending about $145 million since starting its service center IT modernization in 1996, and plans to spend over $200 million more during fiscal years 1998 and 1999.

USDA's multibillion dollar undertaking faces significant risks. Specifically:

- USDA continues to acquire new technology before it has reengineered business processes for providing one-stop service in all of its service centers.
- USDA is not managing its IT-related projects for its service centers as investments, using cost, benefit, risk, and performance information to select, control, and evaluate projects throughout their life-cycle.
- USDA has not completed a comprehensive plan identifying critical milestones, project dependencies, and resources required for the modernization.
- In acquiring technology, USDA is not following an incremental approach that uses cost justifications and performance measures for each increment to reduce risks associated with large-scale acquisitions or projects.
- USDA lacks the project management structure needed to manage a modernization of this magnitude. Specifically, USDA has not assigned a senior-level official with overall responsibility, authority, and accountability for managing and coordinating the separate, service center IT modernization projects and for ensuring that the Clinger-Cohen mandates have been met and that critical tasks are completed on time and within budget.

As a result of these risks, even if it spends billions of dollars on its service center IT modernization, the department may not obtain an adequate return on its investment nor meet the needs of its customers or achieve the Secretary's vision of one-stop service.

Many of the weaknesses we identified are similar to those that caused USDA's earlier Info Share program, which cost more than $100 million, to fail. Until the department resolves the critical weaknesses and institutionalizes the processes needed to manage its service center IT modernization in accordance with the mandates of the Clinger-Cohen Act, the Congress may wish to limit IT funding for the USDA service centers to only that necessary to (1) bring mission-critical systems into compliance with Year 2000 requirements, (2) implement cost-effective efforts that support ongoing operations and maintenance, and (3) develop and document a concept of operations and the new mission-critical business processes necessary to provide one-stop service at all sites and integrate the service center business process reengineering project with its county-based study.

Scope and Methodology

In conducting our review, we analyzed relevant service center IT modernization plans and studies. These included USDA's Service Center Business Process Reengineering Business Case, Service Center Business Need and Technical Alternative Evaluation Study, Service Centers Modernization Strategy, Business Integration Center Project Plan, Service Centers Strategic Plan, Service Center IT Procurement Plan, and Common Computing Environment Implementation Strategy. We interviewed senior USDA officials coordinating the Service Center Implementation initiative, as well as those leading various projects under this initiative, to gain an understanding of the department's efforts and plans to modernize business processes and IT for the service centers. We interviewed senior Office of the Chief Information Officer officials to discuss the role that office has played in overseeing the service center IT modernization and implementing the Clinger-Cohen mandates within the department, and met with Office of Management and Budget (OMB) officials to discuss their reviews of funding requests by USDA for this effort.

To identify significant risks in USDA's activities and plans, we compared the management of these efforts with requirements of the Clinger-Cohen Act and with generally accepted sound management principles as outlined in our executive guides and OMB guidance on evaluating and managing IT investments, and determined whether recommendations from past reports, particularly those related to USDA's Info Share program, had been implemented. We did not validate the accuracy of agency-provided data on cost or benefit estimates, or actual costs. Appendix I provides further details of our scope and methodology.

We conducted our review from September 1997 through May 1998, in accordance with generally accepted government auditing standards. We provided a draft copy of this report to USDA for comment. USDA's comments are discussed in the "Agency Comments and Our Evaluation Section" and are reproduced in appendix II.

Background

In early 1992, USDA began studying options for restructuring the department, including the county-based structure consisting of thousands of county offices nationwide delivering farm and rural development programs to customers. At that time, USDA had separate IT modernization efforts planned for each of the farm service, conservation, and rural development agencies. In light of the impact of possible restructuring on these plans, the Chairman and Ranking Minority Member of the Senate Committee on Agriculture, Nutrition, and Forestry urged USDA to postpone

purchases of computer technology beyond what was necessary to maintain existing systems until the new structure of the department was defined. USDA agreed, and in April 1993 established a consolidated, multiagency program called Info Share. The goal of Info Share was to improve operations and delivery of services to customers by reengineering business processes and developing integrated information systems.

We reported in August 1994 that Info Share was being managed as a vehicle for acquiring new technology rather than for reengineering business processes to better serve farm service customers.[1] We recommended that Info Share be refocused on business process reengineering rather than on information technology acquisition, and that Info Share be linked to the department's reorganization.

In response to our report, the General Services Administration canceled USDA's procurement authority for the program and OMB placed Info Share on its list of high-risk programs. However, as reported by USDA's Office of Inspector General (OIG), over $100 million had already been spent on the project during fiscal years 1993 and 1994.[2] USDA later disbanded the Info Share program.

USDA established the Service Center Implementation initiative in February 1995. Its objectives are to (1) reduce the number of field office locations for the farm service and rural development agencies from about 3,700 to about 2,500 and (2) restructure these 2,500 locations into one-stop service centers that would serve farm service, conservation, and rural development customers. In doing so, USDA expects to improve service delivery to customers and reduce costs.

Responsibility for the Service Center Implementation initiative is assigned to a Subcommittee of the National Food and Agriculture Council (NFAC) consisting of agency administrators for the service center agencies.[3] To achieve the objectives of the Service Center Implementation initiative, NFAC has undertaken several activities. One activity involves the service center IT modernization effort that consists of several major projects to reengineer business processes and acquire integrated information

[1]USDA Restructuring: Refocus Info Share Program on Business Processes Rather Than Technology (GAO/AIMD-94-156, August 5, 1994).

[2]Monitoring of the Info Share Program (USDA/OIG Report 50530-1-HQ, May 4, 1995).

[3]The service center agencies consist of the Farm Service Agency (FSA), Natural Resource Conservation Service (NRCS), and Rural Development (RD). RD is comprised of the Rural Housing Service, Rural Business-Cooperative Service, and Rural Utilities Service.

systems—computers, software, telecommunications, and data. Other ongoing NFAC activities include closing and moving field offices into collocated sites, training staff on culture change to prepare them to work together within a single location, and consolidating the agencies' separate administrative structures into a single structure that supports all three agencies. A small interagency team—the Service Center Implementation team—works for NFAC to coordinate these projects and activities.

The department also has two other activities underway that could have an impact on the IT modernization projects. One is a county-based study evaluating, among other things, how the Farm Service Agency (FSA), Natural Resource Conservation Service (NRCS), and Rural Development (RD) can best deliver service to customers at the service centers. The department contracted for this study in December 1997 and intends to use the results, due in September 1998, to help determine how county offices will be structured and how the department will deliver services. The second activity is the department's effort to make its information systems Year 2000 compliant.

USDA's Chief Information Officer (CIO) has overall responsibility for implementing the Clinger-Cohen Act within the department. This official also has oversight responsibility within the department for the service center IT modernization. A senior policy adviser, who reports to the CIO, is responsible for conducting periodic reviews of projects under the initiative and contracting for independent verification and validation assessments when the CIO's office believes they are warranted.

Service Center IT Modernization Is Massive and Complex

USDA's service center IT modernization consists of four major projects, undertaken concurrently since fiscal year 1996: (1) developing new business processes, (2) acquiring and installing telecommunications equipment, (3) acquiring, implementing, and maintaining a common computing environment at about 3,100 locations, and (4) acquiring and developing geospatial data.[4] Each is described below.

Business Process Reengineering Project

USDA's NFAC commissioned four business process reengineering teams to develop new, common business processes for operating the one-stop service centers. One team was responsible for reengineering processes used to interface with customers and provide general information and

[4]Geospatial data refers to data files that are comprised of geographically-referenced features (i.e., land cover or soils types) that are described by geographic positions and attributes in a digital format.

then refer customers to program specialists for more detailed information; the second team was responsible for reengineering processes to assist customers in applying for program benefits, processing applications, and delivering benefits; the third team was responsible for reengineering processes used to acquire, access, annotate, update, analyze, and share geospatial information; and the fourth team was responsible for reengineering administrative processes supporting fleet management, travel, and hiring.

In August 1997, these four teams collectively developed 17 recommendations for implementing business improvements. The recommendations included developing a common database for customer information and creating a mechanism for providing consistent cross-training at all service centers. The teams also identified steps necessary for implementing these recommendations. USDA plans to begin implementing the recommendations during the remainder of fiscal year 1998 and in fiscal year 1999.

Telecommunications Project

The goal of the telecommunications project is to replace the existing telecommunications infrastructure to allow the agencies located in the same building or geographic area to share data and transfer calls, consolidate telecommunications services, and provide an integrated electronic mail (e-mail) system and satellite transmission down-links for training. To do so, USDA is acquiring and installing new data communications equipment (i.e., modems, routers, hubs), voice communications equipment (i.e., integrated phone systems), and wiring. USDA's current plans call for completing installation of this equipment and wiring at about 3,100 locations—2,554 service centers, 52 state offices, and 500 other support offices—by the end of 1998.

USDA's original goal was to install new telecommunications equipment and wiring at all sites by the end of 1997. However, in January 1997 USDA experienced significant problems when it began nationwide implementation of the project. Because telecommunications equipment being installed at the initial sites was not properly configured and did not interface with the existing computer equipment, it did not work properly and therefore delayed the installation schedule. As a result of this, as well as other factors, the telecommunications project fell more than 1 year behind schedule, and the overall cost of the project has increased by millions. As of May 31, 1998, about 40 percent of the 3,100 planned installations had been completed.

Common Computing Environment Project

The goal of the common computing environment project is to replace the service center agencies' existing information technology systems (separate and various hardware, software, and applications at the 3,100 locations) with a common computing environment. To do so, the department plans to install a single, integrated information system—which USDA refers to as the common computing environment—consisting of new computer hardware (file and application servers, workstations, portable computers, and printers) and software for office automation, geographic information systems, and e-mail. USDA estimates that it will acquire some 38,000 personal computers—consisting of 7,000 workstations, 21,000 laptops, and 10,000 personal data assistants—and 24,000 printers, and thousands of cellular phones, global positioning satellite instruments, and digital cameras.

To date, USDA has completed planning documents and studies on configuring application servers for the common computing environment. These studies identified three alternatives for configuring various types of application servers and placing them within the service centers and/or at the state offices. USDA also recently acquired a limited number of network servers for office automation to test the integration of this new equipment with the agencies' existing computer equipment in a controlled environment. The department plans to conduct pilot tests at nine sites during the summer of 1998, and to begin acquiring new network servers before the end of fiscal year 1998. Plans show that the department will acquire the application servers during 2001.

Included under this project will be the complex and time-consuming task of modifying the service center agencies' existing business applications to operate on the new application servers. Currently, FSA, NRCS, and RD together have about 150 existing applications comprising about 12 million lines of code, much of which must be modified. USDA estimates show that this task will require as many as 1,500 staff years to complete. It is not clear when USDA will complete this task as some planning documents show that this may be completed by fiscal year 2002 while others show a completion date as late as fiscal year 2008. Until existing business applications are modified, the department plans to concurrently maintain and operate the new application servers and legacy systems.

Geospatial Data Project

The geospatial data project entails two primary activities to acquire and develop data for the geographic information systems that will be installed. The first of these is the acquisition of digital orthophotography—aerial

photographs of farm land digitized to be readable by a computer and augmented to provide detail related to land terrain and elevation. The second involves the acquisition and development of digitized data describing aspects of the nation's soils or wetlands data. USDA plans to complete the acquisition of these data by 2003.

As of May 1998, about 31 percent of the specified digital orthophotography had been acquired, and about 7 percent of the specified digital soils data had been obtained.

Overall Life-Cycle Costs Estimated to Exceed $3 Billion

USDA's life-cycle cost estimates show that the department could ultimately spend more than $3 billion on its four service center IT modernization projects from 1996 to 2011.[5] As shown in table 1, most of this amount (over 75 percent) would be spent on the common computing environment project. A more detailed breakout of these cost estimates is provided in appendix III.

Table 1: Summary of USDA Life-Cycle Cost Estimates for Each of the Four Major Projects Under Service Center IT Modernization

Dollars in millions

Major project	Estimated life-cycle costs
Business process reengineering project	$ 253
Telecommunications project	129[a]
Common computing environment project	2,687 to 2,991
Geospatial data project	472
Total estimated life-cycle costs (fiscal years 1996-2011)	**$3,541 to $3,845**

[a]Costs for the telecommunications project represent primarily acquisition and maintenance costs for the period from 1996 through 1999, since USDA has not developed total life-cycle costs for this project.

Source: USDA's service center IT modernization project planning documents. We did not independently verify USDA's life-cycle cost estimates.

By completing these projects and incurring these costs, USDA expects to significantly improve customer service, such as reducing the number of trips customers must make to an office or the amount of information they must provide to enroll in programs. USDA estimated the value of such

[5]Life-cycle costs represent those costs associated with planning, acquiring, developing, operating, and maintaining the projects during the entire period of 1996 to 2011. These costs include equipment and software, personnel, contractor support, services, supplies, and other related costs.

improvements to customers to total about $773 million by 2011.[6] Also over this time period, USDA estimates savings of $5.5 billion achieved mostly through productivity gains from reducing staff time needed (an estimated 19 million hours annually) to handle such tasks as explaining programs or determining eligibility.[7] The department cautioned, however, that these estimates must be validated in an operational environment.

While there is little doubt that modernizing processes and IT for the service centers can result in significant qualitative and quantitative improvements for the department and its customers, none of the estimated billions in productivity gains identified will result in actual dollar savings to the department. This is because USDA currently has no plans to make additional staff reductions (i.e., reductions beyond those already planned as part of the administrative consolidation) based on these expected productivity gains.

Table 2 details reported actual and planned costs for the four major service center IT modernization projects by fiscal year, from 1996 through 1999.

Table 2: Reported and Planned Costs for Service Center IT Modernization Projects

Dollars in millions

Major project	FY 1996 actual	FY 1997 actual	FY 1998 planned	FY 1999 planned
Business process reengineering project	$ .8	$ 8.6	$ 9.3	$ 13.8
Telecommunications project	72.7	10.7	23.4	9.0
Common computing environment project	4.2	0.0	42.3	69.5
Geospatial data project	30.0	17.5	19.8	13.8
Total	**$107.7**	**$36.8**	**$94.8**	**$106.1**

Source: USDA's Service Center Implementation Team budget documents and supporting documents for fiscal year 1999 OMB budget submissions. We did not independently verify the information provided in these documents.

To date, the reported source of funding for the service center IT modernization projects has primarily been the Commodity Credit Corporation (CCC), as shown in table 3. CCC is a government-owned and

[6]USDA developed this value by estimating such things as the reduction in time a customer would annually spend traveling to and from service centers or providing redundant information, and then multiplying this by the estimated number of customers affected and an average dollar value for such benefits (i.e., an average wage rate for each hour saved).

[7]USDA estimated the savings from productivity gains by having staff in 13 locations estimate the time it took to complete certain activities such as explaining programs or determining eligibility and the time that would be saved if such processes were reengineered. These estimates were then converted into personnel compensation in terms of dollars and extrapolated to all service centers.

operated corporation used to finance many domestic and international agricultural programs. In 1996, the Congress limited CCC's funding for computer and telecommunications equipment and services to a maximum of $170 million in fiscal year 1996 and a maximum of $275 million for fiscal years 1997 through 2002. About 70 percent of USDA spending for the service center IT modernization projects in fiscal years 1996 and 1997 came from CCC funds. Only about 35 percent will come from CCC in fiscal years 1998 and 1999. The remainder will come from appropriated funds.

Table 3: Reported and Planned Source of Funding for Service Center IT Modernization Projects

Dollars in millions

Funding source	FY 1996 actual	FY 1997 actual	FY 1998 planned	FY 1999 planned
CCC funds	$ 94.7	$ 6.5	$51.7	$ 17.3
FSA appropriations	1.8	1.2	1.1	30.1
NRCS appropriations	8.0	27.5	36.2	35.3
RD appropriations	2.4	1.5	5.8	7.0
Info Share appropriations[a]	.8	•	•	•
Unallocated[b]	•	•	•	16.4
Total	**$107.7**	**$36.8**[c]	**$94.8**	**$106.1**

[a]In 1995, the Congress appropriated $7.5 million for the Info Share program. These funds were appropriated to the Office of the Secretary and are under the Secretary's control.

[b]Planned funding for which no source has yet been identified.

[c]Does not add due to rounding.

Source: USDA's Service Center Implementation Team budget documents and supporting documents for fiscal year 1999 OMB budget submissions. We did not independently verify the information provided in these documents.

In addition to spending funds for the service center IT modernization, USDA agencies continue to acquire IT independently. Over the past 2 years, agencies have reported spending about $100 million to acquire computer hardware and software separate from the $145 million specifically reported under the service center IT modernization (see table 4).

Between 1995 and 1997, for example, NRCS and RD purchased about 6,800 computers/laptops at a reported cost of about $51 million to replace equipment in the service centers. FSA, NRCS, and RD also plan to spend about $50 million total on computer hardware and software in fiscal years 1998 and 1999, at least $8.5 million of which would be used to replace existing service center equipment.

Table 4: Reported and Planned Agency Expenditures for IT (Hardware and Software) Made Within Each Agency Outside of the Service Center IT Modernization

Dollars in millions

Agency (source)	FY 1996 actual	FY 1997 actual	FY 1998 planned	FY 1999 planned
FSA (appropriations)	$ 3.5	$ .7	$ 2.6	$ 3.3
FSA (CCC funds)	21.2	4.8	10.9	14.2
NRCS (appropriations)	30.2	13.9	9.3	7.9
RD (appropriations)	21.5	2.8	.7	1.2
Total	**$76.4**	**$22.2**	**$23.5**	**$26.6**

Source: USDA's OMB A-11 submissions. We did not independently verify this information.

Weaknesses Create Significant Risks for Service Center IT Modernization

USDA's multibillion dollar service center IT modernization has several significant weaknesses that place the entire effort at risk of not achieving an adequate return on its investment or its goal of improved customer service. Specifically, the department (1) has acquired, and plans to continue acquiring, new technology without first reengineering its processes to provide one-stop service in all service centers; (2) is not managing its service center IT modernization projects as investments using cost, benefit, risk, and performance information to select, control, and evaluate projects throughout their life-cycle; (3) lacks a comprehensive plan for its service center IT modernization that specifies dependencies among projects, critical milestones, and resources required; (4) is not following an incremental approach in acquiring technology using cost justifications and performance measures for each increment to reduce risks associated with large-scale acquisitions or projects; and (5) has not established the management structure with the requisite responsibility, accountability, and authority for managing and coordinating the separate service center IT modernization projects and ensuring that critical tasks are completed on time and within budget.

Technology Acquired and More Acquisitions Planned Prior to Defining New Business Processes

The Clinger-Cohen Act requires that agencies analyze their missions and, where appropriate, reengineer mission-related and administrative processes before making significant investments in supporting information technology to avoid wasting funds on IT that does not meet their needs. We have previously reported that when IT projects precede business process redesign, they typically fail or reach only a fraction of their potential.[8]

[8]Executive Guide: Improving Mission Performance Through Strategic Information Management and Technology (GAO/AIMD-94-115, May 1994).

USDA has defined and documented neither a concept of operations nor the mission-related business processes that will be needed to provide one-stop service at all its centers. The Secretary envisions every one-stop service center providing its customers with access and service for all farm, conservation, and rural development programs. Yet, the department's plans show that all three agencies—FSA, NRCS, and RD—will be physically collocated at only about 700 of its 2,554 service centers. Approximately 1,650 other centers will house only two agencies, with the remaining 200 centers having staff from only one agency present. Because the department does not currently provide services and programs for all three agencies at every site, new and fundamentally different processes, information flows, and databases would be required to meet the Secretary's vision of one-stop service in all service centers.

Nevertheless, the department has reported already spending over $140 million on its service center IT modernization, and plans to spend over $200 million more in fiscal years 1998 and 1999, with most of these funds used for acquiring new technology. Because the department's plans show that it will still be reengineering processes during fiscal years 1998 and 1999, and may not be finished reengineering until 2003, USDA has no assurance that these new IT acquisitions will meet customer needs or allow the department to provide one-stop service as envisioned by the Secretary.

Furthermore, USDA's efforts to reengineer business processes at the service centers are redundant and uncoordinated. Both the county-based study USDA contracted for in December 1997 and the service center IT modernization's business process reengineering project are evaluating how the service center agencies (FSA, NRCS, and RD) should provide customer service at the centers. The two, however, are proceeding independently. Without integrating the study and the reengineering project, USDA may find costly rework necessary and waste IT resources. For example, one deliverable of the study is to include options to consolidate, centralize, outsource, privatize, cross-service, or franchise programmatic functions. The study may, therefore, recommend outsourcing or privatizing functions that are being reengineered by the service center IT modernization.

Information Technology Is Not Being Managed as an Investment

Agencies are required by the Clinger-Cohen Act of 1996 to use a capital planning and investment control process to assess and manage the risks of IT acquisitions. This act requires agencies to compare and prioritize all IT

projects using explicit quantitative and qualitative decision criteria. In September 1996, we reported that successful public and private organizations select, control, and evaluate major IT projects based on objective, reliable data including expected and actual mission benefits, potential risks, and estimated and actual costs of each project.[9] In September 1995, after USDA's OIG reported that the department was not effectively tracking costs for Info Share, the Senate Appropriations Committee noted in report language that it expected USDA to develop a comprehensive cost accounting and budget tracking process prior to making IT purchases.

USDA's CIO is still in the process of developing and testing a capital planning and investment control process for the department and its agencies to use when assessing and managing IT acquisitions. Also, the department has not yet developed a comprehensive cost accounting and budget tracking system for the service center IT modernization. In the absence of a completed investment control process and cost accounting and budget tracking system, USDA continues to spend hundreds of millions of dollars on IT with no assurance that these expenditures will return commensurate benefits, and with limited ability to control and evaluate these investments effectively.

For example, the department reviewed and approved the service center IT modernization plans and fiscal year 1998 and 1999 IT budgets of $200 million without considering explicit qualitative and quantitative information that is necessary to effectively assess IT projects and make high-quality investment decisions. First, no information on mission-related performance measures for any of the service center IT modernization projects was used because such information had not yet been developed, and risk information had been developed for only the telecommunications project. Second, information on estimated benefits and costs was not available for some projects. Moreover, although OMB developed capital asset criteria and worksheets that agencies are to use to consistently and objectively rate and rank IT projects, the department did not use this decision criteria to rate and rank its service center IT modernization projects.

Once selection has occurred, as we reported in September 1996, leading organizations continue to manage their investments, maintaining a cycle of continual control and evaluation. To do so, projects are reviewed by senior

[9]Information Technology Investment: Agencies Can Improve Performance, Reduce Costs, and Minimize Risks (GAO/AIMD-96-64, September 30, 1996).

executives at specific milestones as the project moves through its lifecycle and as the dollar amounts spent on the project increase. At these milestones, the executives compare the expected costs, risks, and benefits with the actual costs incurred, risks encountered, and benefits realized to date. This enables senior executives to (1) identify and focus on managing high-potential or high-risk projects, (2) reevaluate investment decisions early in a project's lifecycle if problems arise, (3) be responsive to changing external and internal conditions in mission priorities and budgets, and (4) learn from past successes and failures in order to make better decisions in the future.

Although USDA has had the service center IT modernization projects underway since 1996 and has spent millions of dollars on them, the department is not systematically controlling and evaluating these IT projects throughout their lifecycles. First, executives are not reviewing these projects at specific milestones to ensure that these continue to be viable investments. Second, the department is not developing and maintaining the quantitative and qualitative information needed by these executives to effectively control and evaluate these IT projects. For example, the department has not developed an effective cost estimating, budgeting, and accounting process to identify, track, and report actual costs so that these could be compared to estimated costs. Third, while benefits have been estimated for the IT projects, they are not defined in terms of measurable mission-related performance improvements so that actual benefits could be tracked against estimates to assess the impact the IT investments have on productivity and mission performance. Finally, USDA has not identified and quantified risks for each of the projects.

Service Center IT Modernization Lacks Comprehensive Plan

Although USDA began its service center IT modernization in 1996, it still has no comprehensive plan for this effort. Such a plan is important for defining the milestones for major segments of each project under the IT modernization, dependencies among all the project's segments, and resources required to complete them. It helps identify priorities as to which project segments must be completed first and where milestone and resource shifts must be made to ensure that the most critical segments are completed on time, within budget, and, more importantly, are successful.

The department has been drafting a plan that identifies activities under its Service Center Implementation initiative, including information on the service center IT modernization projects. USDA expected to complete this plan by September 1997, but had not done so as of May 31, 1998.

As currently drafted, however, this plan is not comprehensive and cannot be used for identifying priorities and where resource shifts must occur among the IT modernization projects to ensure that the most critical segments are completed. First, the plan does not identify all major segments of the four IT modernization projects. For example, milestones and dependencies for some major segments—such as implementing reengineered processes or migrating applications to the new computing environment—are not identified.

Second, the draft plan does not include any information on resources needed to complete the IT modernization projects. Project estimates show that as many as 1,600 IT staff will be needed in fiscal years 1999 and 2000. This includes about 1,500 IT staff to carry out and support the common computing project and another 100 IT staff to implement the reengineering and geospatial projects. Staff estimates were not available for the telecommunications project. Currently, however, USDA documents show that there are only about 1,380 total IT staff within FSA, NRCS, and RD combined. USDA could not explain why its resource estimates were incomplete and inconsistent, and could not provide a plan for meeting the requirement for 1,600 IT staff.

Better planning of IT resources for the modernization is especially critical because IT resources will also be required for other important USDA efforts. For example, a large number of the existing 1,380 IT staff will be needed to ensure Year 2000 compliance of the service center agencies' application systems that comprise about 12 million lines of code in thousands of offices. In May 1998 we testified that USDA faces tremendous challenges in ensuring that vital public services are not disrupted due to Year 2000-related computing problems and that FSA expressed concern that they may lack the staff resources necessary to complete Year 2000 work.[10]

Similarly, IT resources will be required to consolidate the three service center agencies' separate administrative structures. However, as part of this consolidation, which USDA began in March 1998, NFAC plans to reduce the service center agencies' current IT staffing levels by about 400 over the next 4 fiscal years.

None of these major efforts (i.e., the modernization, Year 2000 conversion, or the administrative consolidation) will succeed unless USDA plans effectively for the use of its IT resources.

[10]Year 2000 Computing Crisis: USDA Faces Tremendous Challenges in Ensuring That Vital Public Services Are Not Disrupted (GAO/T-AIMD-98-167, May 14, 1998).

Incremental Approach Not Being Used to Reduce Risks

To reduce risks associated with large-scale IT projects, the Clinger-Cohen Act requires agencies to implement major IT acquisitions in manageable increments. Each increment is independently cost-justified and performance-based measures are developed to ensure that each increment provides an attractive return on investment and provides mission-related benefits.

To date, USDA has not been acquiring new technology incrementally. For example, rather than divide its $129 million telecommunications project into successive increments, and demonstrating the effectiveness of each increment before acquiring the next, USDA committed to implementing the entire project, which includes completely replacing voice and data communications equipment at all 3,100 sites. By not using an incremental approach, USDA has significantly increased the risks associated with this project, which has already fallen more than a year behind schedule and according to USDA will be $17.5 million over its budget of $111.3 million.

For planned fiscal year 1998 and 1999 acquisitions for its common computing environment project, USDA has identified a phased implementation strategy where each phase could be acquired separately. For example, one phase entails acquiring network servers for all of the centers, while another entails acquiring application servers to provide the common computer equipment to run service center business applications. However, the department has not developed cost justifications and performance measures for each phase to ensure that each phase independently provides an attractive return on the planned investment and measurable mission-related benefits.

Service Center IT Modernization Management Structure Has Not Been Established

To succeed, complex IT projects must be managed effectively. We have reported in the past on the need for strong project management at USDA when undertaking IT projects.[11] In a September 1994 assessment, a contractor identified the lack of a manager dedicated full-time to Info Share as one of the root causes for its problems.[12] In May 1995, USDA's OIG raised similar concerns citing the fact that USDA lacked a single individual or group with the requisite responsibility and authority to make decisions and manage the various projects under Info Share. Subsequently, in September 1995, the Senate Appropriations Committee noted in report

[11]Information Resources: Management Improvements Essential for Key Agriculture Automated Systems (GAO/IMTEC-90-85, September 12, 1990).

[12]Project Management Assessment of USDA's Info Share Program, September 30, 1994, Management Analysis Company.

language that it expected USDA to defer new technology acquisitions until concerns raised by USDA's OIG about project management, and other areas, were satisfied.

Although the Secretary delegated overall responsibility for implementing the Service Center Implementation initiative to a subcommittee of NFAC and an executive officer was appointed to coordinate the activities of this subcommittee, USDA still lacks the project management structure needed to manage a modernization of this magnitude. Specifically, USDA has not assigned a senior-level official with overall responsibility, authority, and accountability for managing and coordinating the separate service center IT modernization projects and ensuring that critical tasks are completed on time, within budget, and in accordance with the Clinger-Cohen mandates. Although USDA has a CIO, the CIO is not responsible for the service center IT modernization. Instead, responsibility, accountability, and authority for control of the four service center IT modernization projects and resources is fragmented and ineffective. Three of the four IT modernization projects have managers who report to their service center agency, while the fourth reports to the executive officer. Because each service center agency controls its own project resources, effective joint planning and execution in the interest of USDA as a whole has not occurred and completion of key tasks has been delayed.

For example, although the executive officer planned to complete a Service Center Implementation initiative plan by September 1997, he could not effectively prioritize the tasks involved in staff reporting to the service center agencies. As a result, the plan had still not been completed as of May 31, 1998. Likewise, the executive officer could not reallocate the resources necessary to begin implementing the recommendations for improvements made under the business process reengineering project.

Conclusions

USDA's effort to modernize business processes and IT for its service centers is expected to be the biggest, most costly and complex IT modernization effort in its history, with estimated costs ultimately exceeding $3 billion. USDA has failed in past efforts to plan and manage IT modernization, and some of the same fundamental planning and management weaknesses that caused past failures threaten this effort. Until the department corrects these weaknesses, it is unlikely to achieve an adequate return on its investment, meet the needs of its customers, or achieve the Secretary's vision of one-stop service.

Matters for Congressional Consideration

Until the department resolves its critical weaknesses and institutionalizes the processes needed to manage its service center IT modernization in accordance with the mandates of the Clinger-Cohen Act, the Congress may wish to limit IT funding for the USDA service centers to only that necessary to (1) bring mission-critical systems into compliance with Year 2000 requirements, (2) implement cost-effective efforts that support ongoing operations and maintenance, and (3) develop and document a concept of operations and the new mission-critical business processes necessary to provide one-stop service at all sites and integrate the service center business process reengineering project with the county-based study.

Recommendations

We recommend that the Secretary of Agriculture ensure that the following actions are completed before investing in any effort to modernize USDA's IT beyond that necessary for making mission-critical systems Year 2000 compliant and cost- effectively supporting ongoing operations and maintenance.

- Develop and document a concept of operations and the new mission-critical business processes necessary to provide one-stop service at all sites.
- Integrate the service center business process reengineering project with the county-based study.

One approach for ensuring completion of these actions would be to assign accountability to the Deputy Secretary who would need to work with the Under Secretaries and Assistant Secretaries for the service center agencies and the CIO.

We also recommend that the Secretary hold the CIO accountable, and provide her requisite authority and responsibility for managing and implementing the service center IT modernization, and direct that she complete the following additional actions:

- Identify, assess, and document the risks, costs, benefits, and performance measures for each service center IT project before providing additional funding to ongoing projects and approving any new projects, and then use this information to review, control, and evaluate these projects at specific milestones of the project's lifecycles.
- Develop a comprehensive plan for the service center IT modernization that documents and tracks all critical milestones, dependencies among major segments, and resources needed to complete them, taking into account the

resources that will be needed to make the service center agencies' systems Year 2000 compliant.

- Develop an acquisition strategy that focuses on buying technology in manageable increments, where cost justification and performance measures are developed and documented for each increment.

We further recommend that the Deputy Secretary report on a regular basis to the Secretary on the progress the department is making to implement each of these recommendations, and notify the Secretary when all of the identified weaknesses have been fully addressed and resolved.

Agency Comments and Our Evaluation

USDA's Deputy Secretary provided written comments on a draft of this report. They are summarized below, along with our responses, and reproduced in their entirety as appendix II.

USDA agreed with some of our findings and recommendations. Specifically, USDA agreed to integrate the service center business process reengineering project with the county-based study. USDA also agreed to complete a comprehensive plan identifying critical milestones, project dependencies, and resources required for the modernization. Further, USDA agreed that the Deputy Secretary should report on a regular basis to the Secretary on progress the department is making to implement each of our recommendations.

USDA also agreed with two other recommendations, but stated it was already performing consistent with these recommendations. First, the department agreed that IT-related projects should be managed as investments, but said that it was already accomplishing this. For example, the department stated that "service center IT projects are subjected to the evolving USDA capital investment and control process just as any other investment." The department also said that its Executive Information Technology Investment Review Board has "devoted considerable effort to examining these activities and monitoring progress" and that "USDA management is provided information regarding the progress of the investment in the Service Center Implementation initiative by means of monthly Program Management Reviews."

Our work showed, however, that the department does not have the process or the information to effectively manage the service center IT projects as investments. Although the Clinger-Cohen mandate requires that agencies use a capital planning and investment control process to

assess and manage the risks of IT acquisitions, USDA has neither completely developed nor implemented such a process. Also, the department's senior executives have not been substantively involved in systematically controlling and evaluating the projects. For example, USDA's Executive Information Technology Investment Review Board has met only once since October 1997, when it approved the service center IT modernization plans and budgets. Minutes from that meeting, held on June 16, 1998, show no indication that the board discussed or evaluated information on service center IT modernization costs, benefits, risks, or performance measures. Regarding the monthly Program Management Reviews, the CIO's May 15, 1998, review found "irregular attendance" at the monthly meetings and that monthly progress reports provided to the Deputy Secretary "are often not timely, complete, or in a format to clearly communicate whether or not major initiatives are on target or behind."

Second, the department agreed with our recommendation that technology should be acquired in manageable increments, each of which provides documented mission-related return on investment, but stated it was already doing so. We do not agree that this is being accomplished adequately. As discussed in the report, USDA began implementing the entire $129 million telecommunications project on a nationwide basis 5 months before it completed the cost/benefit analysis. By the time the cost/benefit analysis was completed, USDA had already obligated over half the $129 million for this project. No project increments were defined, no incremental cost/benefit analyses were prepared, and no incremental mission-related performance measures were developed.

In addition, USDA disagreed with several of our recommendations. Specifically, USDA disagreed that it should define and document a concept of operations for providing one-stop service in all of its service centers before investing in new IT. USDA stated that it can simultaneously reengineer business processes and purchase IT, and said that "because the business process reengineering process will take several years to complete, the investments cannot wait until the full process is completed." The department further stated that it objected to the "premise that every process inherent in delivering service must be fully reengineered before implementation can begin," and asserted that "an incremental and parallel approach is the best way to proceed given the massive business processes involved and the changing technology which will allow USDA to achieve efficiencies and savings as we move through the reengineering process."

USDA's position is not consistent with the Clinger-Cohen mandate that agencies reengineer mission-related and administrative processes before making significant investments in supporting IT. If USDA continues making major IT purchases before determining how it will do business in its service centers, it risks repeating past failures, i.e., investing millions of dollars on IT that does not effectively satisfy its needs. The department needs to understand clearly how it is going to operate before it acquires supporting technology. This does not mean that every process must be fully reengineered before any investments can be made. It means that every process that is being automated must be fully reviewed and changes understood before technology is acquired to support it.

USDA also disagreed with our recommendation that the CIO be given responsibility for managing the service center IT modernization. The department considered this a reversal of our earlier recommendations related to Info Share, that pointed out as a weakness that it was being driven by IT personnel rather than program personnel. USDA said its strategy has been to assign the responsibility and accountability for service center initiatives to agency program leadership. It further said that separating IT modernization from program change initiatives would invite "repeating mistakes of the past." USDA agreed that "much needs to be done to improve the project management structure" and said it is taking steps to do so, but said it will continue to implement this initiative under its current approach of "assigning day-to-day leadership and accountability to agency heads, acting collectively as the NFAC, and assigning the IT policy and oversight function to the CIO to ensure the effort is successful."

USDA organizational weaknesses, in particular the fact that its CIO does not have the responsibility and authority needed to effectively manage major IT acquisitions agencywide, have contributed to past failures like Info Share. To correct the weaknesses, we recommended in past reports, and continue to recommend in this report, that the senior business managers in USDA be responsible for business process reengineering, but that the CIO be held accountable and responsible for managing the service center IT modernization. As currently planned, this IT modernization will be the biggest and most costly in USDA's history. If USDA is to avoid repeating past mistakes, it cannot insist on maintaining the status quo, i.e., having no senior-level official with overall responsibility, authority, and accountability for managing and coordinating the separate service center IT modernization projects and for ensuring that the Clinger-Cohen mandates have been met and that critical tasks are completed on time and within budget.

In addition, USDA stated that it is not funding IT projects without preparing the requisite data and analyses, and that the "common computing environment [investment] has not been approved by USDA for procurement and deployment, and the CIO has conditioned any such approval on meeting capital investment planning and control requirements and other factors."

Based on the results of our audit work, USDA claims that service center IT project approval is conditioned on "meeting capital investment planning and control requirements and other factors" are not convincing and are not supported by facts. USDA does not define what its "planning and control requirements and other factors" are, and has not completed development of, nor implemented, a capital investment process. Nonetheless, USDA plans to spend over $200 million in fiscal years 1998 and 1999, which includes investments for the common computing environment. These plans were approved by the department's Executive Information Technology Investment Review Board and the CIO.

Finally, the department said it strongly opposes our suggestion that the Congress limit funding until the weaknesses we identified are resolved. The department stated that it believed limiting IT funding at this critical juncture would shut down much of the reengineering and technical development work that is underway and would cause USDA to forego implementation of improvements.

USDA's view that our recommendations related to limiting its IT funding would "shut down much of the reengineering . . . work" is not correct. Our recommendation allows for funding to help USDA develop and document a concept of operations and the new mission-critical business processes necessary to provide one-stop service at all sites and integrate the service center business process reengineering project with the county-based study, and we have amplified the wording in our matters for congressional consideration to reflect this.

While USDA does not take issue with most of our recommendations, it does not explain whether or how it plans to implement them. Rather, USDA cites actions that it already has underway and believes these are sufficient to mitigate risks. Although some of the steps being taken by USDA are helpful, they will not and do not correct the persistent weaknesses we identified.

USDA also raised several additional matters that do not affect our conclusions and recommendations and thus are not discussed here. These matters and our responses are discussed in appendix II.

As agreed with your office, unless you publicly announce its contents earlier, we will not distribute this report until 30 days from the date of this letter. At that time, we will send copies to the Secretary of Agriculture; the Chairmen and Ranking Minority Members of the Senate Committee on Governmental Affairs, the Senate and House Committees on Appropriations, and the House Committee on Government Reform and Oversight; the Director, Office of Management and Budget; and other interested parties. Copies will also be made available to others upon request.

Please contact me at (202) 512-6408 if you or your staff have any questions concerning this report. I can also be reached by e-mail at *willemssenj.aimd@gao.gov*. Major contributors to this report are listed in appendix IV.

Sincerely yours,

Joel C. Willemssen
Director, Civil Agencies Information Systems

Contents

Abbreviations

CIO	chief information officer
CCC	Commodity Credit Corporation
FSA	Farm Service Agency
IT	information technology
NFAC	National Food and Agriculture Council
NRCS	Natural Resource Conservation Service
OCIO	Office of the Chief Information Officer
OIG	Office of Inspector General
OMB	Office of Management and Budget
RD	Rural Development
USDA	United States Department of Agriculture

Scope and Methodology

To obtain information on USDA's current plans and ongoing efforts to modernize IT for its service centers, we analyzed relevant plans and studies for the department's service center IT modernization, including USDA's Service Center Business Process Reengineering Business Case and supporting documentation on the business process reengineering and geospatial data projects; the Service Center Business Need and Technical Alternative Evaluation Study; the Service Centers Strategic Plan; the Service Centers Modernization Strategy; Business Integration Center Project Plan; the Service Center IT Procurement Plan; and the Service Center Common Computing Environment Implementation Strategy. We also interviewed the Executive Officer and his deputy from the Service Center Implementation team and those individuals leading IT modernization major projects to determine how these plans and efforts were being managed and undertaken.

Using the Service Center Business Process Reengineering Business Case, Service Center Business Need and Technical Alternative Evaluation Study, and telecommunications planning documents, we identified the department's estimated costs for the service center IT modernization. We also obtained information from the Service Center Implementation team budget officer on expenditures the department has incurred since 1996, as well as planned expenditures for fiscal years 1998 and 1999. We used the agency's OMB A-11 submissions to identify expenditures that service center agencies had made and planned to make. We did not validate the accuracy of agency-provided data on cost or benefit estimates, or actual costs.

To identify significant risks in USDA's service center IT modernization activities and plans, we compared them with requirements under the Clinger-Cohen Act and with generally accepted sound management practices as outlined in GAO guidance—Executive Guide: Improving Mission Performance Through Strategic Information Management and Technology (GAO/AIMD-94-115) and Executive Guide: Measuring Performance and Demonstrating Results of Information Technology Investments (GAO/AIMD-98-89) and OMB's Circular A-130, Management of Federal Information Resources. We also determined whether recommendations made in past GAO reports, particularly those related to USDA's Info Share Program, had been implemented.

In addition, we met with USDA officials and obtained information on the two other major initiatives the department has underway that could affect the service center IT modernization effort—the county-based study

evaluating options for delivering services at the service center and the Year 2000 conversion of all of the agencies' IT systems.

Finally, we interviewed senior CIO officials to discuss their roles in overseeing the service center IT modernization, and met with OMB officials to discuss their reviews of related funding requests by USDA. We performed our work at USDA headquarters in Washington, D.C., and at service centers in Higginsville and Richmond, Missouri. Our work was performed from September 1997 through May 1998 in accordance with generally accepted government auditing standards.

Comments From the Department of Agriculture

Note: GAO comments supplementing those in the report text appear at the end of this appendix.

DEPARTMENT OF AGRICULTURE
OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20250

July 21, 1998

The Honorable Gene L. Dodaro
Assistant Comptroller General
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Dodaro:

Thank you for the opportunity to respond to your draft report titled "USDA Service Centers: Multi-Billion Dollar Effort to Modernize Processes and Technology Faces Significant Risks".

As you know, and as is reflected in your draft General Accounting Office (GAO) report, modernization of the U.S. Department of Agriculture's (USDA) service center information technology is a major and complex effort. As Deputy Secretary and Chief Operations Officer of USDA, I provide oversight to ensure that USDA's reorganization and management improvement goals are achieved. The good news is we have come a long way in the last three years. We are confident that we are on the right track and will continue to make significant progress -- as long as we have the staff and the budget we need to keep the project moving.

In the last three years, USDA has achieved the following:

(1) Improved senior management oversight

Project management oversight has been revamped to include a combination of senior policy, program and management expertise:

Full responsibility and accountability for implementation has been designated to program Agency Heads and Under Secretaries. Strategic decisions are made at monthly meetings of the National Food and Agriculture Council subcommittee on USDA Service Centers. USDA's Chief Information Officer and Chief Financial Officer are both members of the subcommittee.

The Office of the Chief Information Officer, created in 1996, is responsible for compliance with the Clinger-Cohen Act, and provides USDA with aggressive monitoring, evaluation and oversight of all information technology (IT) aspects of service center implementation.

AN EQUAL OPPORTUNITY EMPLOYER

As Deputy Secretary I chair two new USDA oversight and control management boards: (1) the Service Center Implementation Policy Oversight Board responsible for providing policy guidance to the National Food and Agriculture Council, and ensuring that program goals, objectives and policies are met; and (2) the Executive Information Technology Investment Review Board (EITIRB) responsible for approving and monitoring all major USDA Information Technology (IT) investments, including the Service Center initiatives. As Chair, I receive regular briefings on progress and provide updates to the Secretary.

In order to better control and coordinate IT procurement, and ensure compliance with the requirements of the Clinger-Cohen Act, the CIO uses the USDA Moratorium process (which was strengthened in the fiscal year 1998 Appropriations Act) and the requirements of Office of Management and Budget Apportionment Control process. The CIO has also implemented a structured independent verification and validation (IV&V) program, which provides critical assessment of costs, schedules, and performance of service center initiatives, to control the progress of the IT projects which support Service Center implementation.

The result is that project accountability, oversight, and control has significantly improved. We believe that the current structure is working and is appropriate for the project. We therefore disagree with GAO's conclusions regarding these issues and urge you to review the content and tone of the report.

(2) Improved project design and management controls

In a 1994 report on USDA IT modernization GAO identified USDA's IT focus as a problem and recommended that the effort be program driven. USDA agreed and responded by restructuring our approach to ensure that the Service Center initiative is program driven. We believe this is critically important in order to succeed and will continue to use this approach.

We agree with GAO that effective project design and management can only be achieved when the reengineering of business processes (BPR) occurs before technology acquisitions. However, USDA uses the widely accepted business practice of incremental BPR in parallel with IT acquisitions. We object to the GAO premise that every process inherent in delivering service must be fully reengineered before implementation can begin. USDA has completed several reengineering efforts that cannot be fully implemented until the supporting technology is installed. Others will be ready for deployment in the very near future or will be completed over the next several years. Each reengineering project offers the promise of improved service delivery and streamlined management.

An incremental and parallel approach is the best way to proceed given the massive business processes involved and the changing technology which will allow USDA to achieve efficiencies and savings as we move through the reengineering process. Our phased plan for the enabling technology is designed around this incremental approach. We also require laboratory testing and live pilot testing of new process and technology solutions prior to acquisition and deployment.

We would also like to note that is important to place USDA progress on Service Center implementation in the context of the significant impacts of recent programmatic changes, USDA reorganization, office restructuring including co-location and closures, and Congressional budget cuts. Because of budget reductions we have had to cut staff and offices while maintaining program delivery before accomplishing significant reengineering. We have to maintain current equipment and work to transition to our reengineered systems. And we have to achieve this with significantly fewer staff and a reduced budget.

In its current form, the GAO draft report fails to recognize USDA's progress, and suggests that we are proceeding down a high-risk path that will not lead to success. The report focuses on weaknesses and potential risks without noting that USDA is already aware of the technical issues raised in this report (thanks to our improved internal project management and oversight controls) and steps are being taken to correct deficiencies before projects are allowed to proceed.

There are inevitably cracks and weaknesses in the system, and GAO can play a constructive role in helping USDA identify solutions. However, I strongly object to the suggestion in the current GAO draft report that Congress "may wish to limit IT funding for the USDA service centers" .... "until the department resolves the critical weaknesses and institutionalizes the processes needed to manage its service center IT modernization in accordance with...the Clinger-Cohen Act".

Limiting IT funding at this critical juncture would essentially shut down much of the reengineering and technical development work that is underway and would cause USDA to forego implementation of improvements for 12-18 months. USDA must be able to implement improvements as rapidly as possible in order to deal with increasing budget constraints and to deal effectively with long standing congressional concerns regarding IT issues in the Service Center agencies. Any limitation that would add significant time between the time we are ready to make the changes and the time we are able to make the changes would be disastrous.

In closing, we believe we are on the right course, are cognizant of the risks, and have taken prudent management steps to mitigate those risks. We look forward to working closely with the GAO and with Congress on this very important initiative.

Sincerely

Richard E. Rominger
Deputy Secretary

**STATEMENT OF RESPONSE TO
U.S. GENERAL ACCOUNTING OFFICE DRAFT REPORT
JULY 1998 ENTITLED
"USDA SERVICE CENTERS:
MULTI-BILLION DOLLAR EFFORT TO MODERNIZE PROCESSES AND
TECHNOLOGY FACES SIGNIFICANT RISKS"
(GAO/AIMD-98-168)**

This response is organized into major sections that correspond to the General Accounting Office (GAO) report format. Issues and comments raised by GAO are shown in bold print followed by the United States Department of Agriculture (USDA) response.

RESULTS IN BRIEF

See comment 1.

GAO's reference in the second paragraph to $3 billion in lifecycle costs for these investments by the year 2011 is misleading. It should be clarified so the reader understands that these are not the capital investment costs of the improvements but represent the total costs, including personnel costs, of operating the technology over the next decade.

See comment 2.

GAO asserts that USDA continues to acquire new technology before it has reengineered business processes. In the period 1995-1997, USDA did make some moderate investments, primarily to upgrade the FSA system 36 machines, to upgrade the Natural Resources Conservation Service (NRCS) Field Office Computing System (FOCS) platforms, and to provide computers required to implement the Dedicated Loan Origination Servicing System (DLOS) of Rural Development. These interim investments were coordinated and justified separately based on costs and benefits as well as critical program needs. They were recognized as steps needed to support the business of the agencies as we go through the next five-year period to reengineer the business processes collectively and plan and acquire an interoperable, shared information system for all of the agencies. It should be noted that the Rural Development investment, in fact, was to implement a reengineered process, the DLOS, that will save hundreds of millions of dollars in support and other costs. In 1997, USDA instituted a moratorium on IT investments that was further strengthened in FY 1998. Exceptions are considered and granted only to meet Year 2000 needs or emerging needs associated with equipment failures, new program or legislative requirements, or major initiatives such as civil rights and service center implementation. The current level of investments is significantly lower than previous years and, in the case of the service center agencies, exceptions granted generally include conditions such as buying computers that meet the minimum standards set for the Common Computing Environment (CCE) pilot sites.

Planned service center investments are directly tied to the business process reengineering (BPR) work that is being done. The planned phasing of future CCE investments is consistent with the BPR process, including the piloting and testing of the reengineered processes and enabling technologies. Phases of technology investments will move

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forward as they are justified and needed to field new business processes, meet Year 2000 needs, etc. Because the BPR process will take several years to complete, the investments cannot wait until the full process is completed. We must provide the enablers to take advantage of efficiencies and service improvements as they are ready to be fielded. By using an interoperable and scalable architecture, USDA will be able to move through the next five years transitioning from the old to the new in a manageable fashion. The business of the collective agencies is too comprehensive and complex and changes too frequently to suggest that all business should be reengineered before any investments are made. If USDA were to take that approach, some of the agency equipment would be nearly twenty years old, and we would have foregone the chance to reap millions of dollars of benefits and efficiencies before replacements were provided, not to mention the issue of Year 2000 failures.

GAO also asserts that USDA is not managing its information technology (IT)-related projects for its service centers as investments, using cost, benefit, risk and performance information to select, control, and evaluate projects throughout their life-cycle. This view is inaccurate. Service Center IT projects are subjected to the evolving USDA capital investment and control process just as any other investment. Extensive documentation of the Service Center Business Case and technical solutions has been completed that includes benefit, cost and risk information. The USDA Chief Information Officer (CIO) conducted an independent verification and validation (IV&V) contractor review of this documentation that, while pointing out some shortcomings that need to be addressed, essentially verified that the documentation was properly done and competent. The Executive Information Technology Investment review Board (EITIRB) has devoted considerable effort to examining these activities and monitoring progress. The CIO has established a Senior Executive Position to focus oversight activities for this initiative. IV&V by outside contractors has been used extensively by OCIO to evaluate service center projects and plans. The USDA moratorium and approval authority of the CIO for IT procurements are used as control points to ensure that proper planning and execution is taking place. The CIO has used her authority to suspend projects and stop work when conditions have warranted until problems are resolved. Regular reviews of milestones and performance are conducted.

The GAO draft report provides no recognition of the approval, monitoring and control processes that USDA has established for this project. It also does not recognize that, except for the telecommunications initiative that was started in FY 1996, only pre-acquisition activities have approval from the CIO to proceed. These include support for BPR, pilot projects, technical studies and evaluations, etc. The CCE has not been approved by USDA for procurement and deployment, and the CIO has conditioned any such approval on meeting capital investment planning and control requirements and other factors. These activities are still in the development stage and, as GAO recognized, involve issues that must be resolved before USDA will move ahead. These issues, however, have been identified earlier by the internal USDA oversight process and are in the process of being corrected. USDA has no intention of moving forward with CCE acquisition until all of the requisite plans, management and controls are in place to ensure

success.

GAO also raises the issue that USDA has not completed a comprehensive plan identifying critical milestones, project dependencies and resources required for modernization. USDA internal reviews have also identified this as an issue needing correction. Individual project plans exist for each of the major components of the modernization and a high level plan exists for the overall effort. The only operational project, LAN/WAN/Voice, has a very well defined plan that is being used to manage the project. The service center agencies and Service Center Implementation Team are well aware of the Department concerns in this area and understand that this more comprehensive and integrated plan will need to be finalized and approved as part of the conditions for any future IT acquisitions.

GAO also asserts that USDA is not following an incremental approach to technology acquisition that uses cost justification and performance measures for each increment to reduce risks. USDA, in fact, is employing an incremental approach to the IT modernization initiative. The operational project – LAN/WAN/ Voice – is further broken into incremental pieces that are stand-alone, justified on a benefit/cost basis and include performance measures. The CCE, which is not yet approved for acquisition, is broken down into three increments to be carried out over four years with each phase able to stand alone and return benefits and measurable performance improvements. Not all of the preliminary work is completed on these projects, and information needs to be validated through the pilot testing process, which is part of the requirement for acquisition approval. USDA is not pursuing a "grand design" approach to modernization but rather a "plan a little, implement a little, evaluate a lot, plan and implement more" approach.

GAO asserts that USDA lacks the project management structure to manage a modernization of this magnitude. USDA acknowledges that much needs to be done to improve the project management structure for this and other service center initiatives. Our internal reviews have pointed this out and a number of actions are underway to correct this as a condition of Departmental approval for moving service center initiatives forward. Some of these actions include: restructuring the Management Review Board of the National Food and Agriculture Council (NFAC); creating a full-time project management staff to support the various service center initiatives; developing a comprehensive project management plan; selecting an overall IT initiatives coordinator; and mandating performance standards related to service center implementation for managers involved in the effort. Lessons learned from the project management problems that occurred in the early phases of the LAN/WAN/Voice Project and documented in an independent IV&V, and the corrective measures taken, are also being used to shape the project management plans for the implementation of additional initiatives.

GAO asserts that risks or weaknesses that they have identified are similar to those they identified for Infoshare and that the Department may not obtain an adequate return on investment or meet the Secretary's vision for one-stop service. USDA

responses to the earlier GAO issues and the detailed comments in the rest of this document respond to this point. As stated earlier, GAO highlights the perceived and sometimes real problems associated with this effort, but does not discuss the critical differences between our current approach and the previous Infoshare approach. We believe that by providing leadership for this effort by the program leaders of the service center agencies, while also putting into place an aggressive approval, monitoring, oversight and evaluation process, and moving ahead in a very controlled and incremental way, that USDA has a formula that will be successful. We readily admit that we have had problems and that we will continue to have problems as we move ahead, but the system we have in place will identify these problems and enable us to correct them before they lead to any major failures or cost overruns.

The draft GAO report advises Congress until the weaknesses identified in their report are corrected, they may wish to limit IT funding for USDA service centers to only that necessary for Year 2000 and for cost effective efforts that support on-going operations and maintenance. The result of such a limitation would be to: shut down much of the Departmental work being done for the BPR and CCE projects; delay the acquisition of data needed for the labor-saving geographic information systems (GIS) applications that are planned; forego optimization of Administrative Convergence; forego implementation of completed and soon to be completed reengineered processes (i.e. Multi Family Housing, USDA credit card process, administrative applications, etc.); and forego any progress on data sharing, public access and other efficiencies and customer improvements planned. The department would have an 18-month budget process to go through after these increments were ready to move forward before they could be implemented. The likelihood that any progress could be made on any of these improvements given such a scenario would be small. USDA needs to be able to implement improvements as rapidly as possible in order to meet budgetary constraints and deal effectively with the longstanding problems in the agencies. Infusion of any new funds needed for capital improvements will obviously need to go through the budget process, but utilization of base funding to move forward should not be hampered by this kind of delay. USDA intends to fully brief OMB and Congressional interests before moving forward with major service center acquisitions. However, much work needs to be done before the Department itself will be in a position to approve these acquisitions.

SCOPE AND METHODOLOGY

This section of the report summarizes the audit process used by GAO, but does not provide sufficient detail to understand the analysis actually conducted. Conclusions in the report suggest that more thorough research in the areas of USDA IT investments, management practices, and project plans may have provided a more favorable view of USDA's performance on this initiative.

BACKGROUND

This section provides a good summary of the major elements of the SCI. However, it

would have been useful to describe other important supporting efforts that include the Quality Customer Service Project, Customer Outreach Project and Communications Project. These projects are an integral part of the Service Center Initiative (SCI) and play an important role in shaping the modernization of service centers.

SERVICE CENTER IT MODERNIZATION IS MASSIVE AND COMPLEX

Now on p. 6.

Page 11, 1st paragraph – Telecommunications Project
"As a result, the telecommunications project fell more than 1 year behind schedule, and the overall cost of the project has increased by millions."

See comment 3.

The GAO notes correctly that the LAN/WAN/Voice project experienced significant problems in January 1997. Dated and inaccurate survey data was originally used and created problems identifying the equipment and employee profile of each site. However, configuration and integration problems were largely contractual. An additional factor was the uncertainty of some of the office locations due to budget reductions. These issues contributed to significant schedule delays. After conducting a project review and bringing in an outside IV&V contractor, the USDA CIO suspended the project. The appropriate and timely suspension resulted in re-examining and strengthening of management processes while ensuring compliance with OMB guidance on IT procurement. The CIO lifted the suspension in October 1997, subject to a number of conditions and reporting requirements. The corrective measures identified by the CIO and implemented by the project team have saved millions of dollars in costs that would have been incurred otherwise, and has resulted in the development of management tools that can be passed on to other projects. These measures included a new contract performance clause, an earned value system, and other tools to monitor and measure performance and costs. The LAN/WAN/Voice case is clear evidence that USDA is providing the appropriate management oversight to identify and correct problems.

See comment 4.

Also noted in the draft GAO report is that the overall cost of the project has increased by millions. In fact, the opposite is true. The original budget for the project was $132.5 million in 1996 the budget was adjusted, primarily due to competitive bidding, to $117.5 million. The current project budgeted cost is $121.6 million.

Page 11, last sentence – Common Computing Environment Project
"USDA estimates that it will acquire some 38,000 personal computers (workstations, laptops, and personal data assistants), 24,000 printers, and thousands of cellular phones, global positioning satellite instruments, and digital cameras.

See comment 5.

The number of personal computers that will be acquired under CCE is cited as 38,000. This number is misleading in that it apparently includes PDA's (Personal Data Assistants) which are not personal computers. These devices are used to collect field data electronically, which can later be transferred and used within the applications running on the more robust personal computers. PDA's are not currently capable of running full-scale office automation applications, a capability normally associated with a personal

computer.

The numbers of desktops and laptops to be acquired for the CCE has been examined as part of a Sensitivity Analysis completed in April 1998. The original staffing levels used to determine the number of personal computers that would be required to equip all Service Center employees were based on 1996-97 staffing numbers. This resulted in an estimate of 28,000 computers needed under a full replacement scenario. With the availability of 1998 staffing levels, the equipment numbers are being adjusted to reflect the reductions that have occurred. The Sensitivity Analysis addresses projected staffing reductions that are shown in the agency budgets to examine what the impacts on the CCE funding requirements and equipment might be. Given that these are projections subject to final budget actions, this is the best available information on which to plan this project. However, the phased approach to acquisitions allows continual adjustment of these requirements to reflect personnel and budget changes through the implementation period.

The additional citation on numbers of printers, cell phones, global positioning systems, and digital cameras does not explain the purpose, use, and benefits of these devices within future service center operations. The Business Process Reengineering Business Case identified significant benefits to USDA customers and efficiencies for USDA staff through increasing the mobility of the Service Center workforce. Providing technology that allows USDA employees to work at the customers' home or on their land will significantly change the way that services and programs are provided. The devices listed are intended to enable the mobility needed to implement this new service capability.

Now on p. 7.

Page 12, 2nd paragraph – CCE Migration of Legacy Systems
"Included under this CCE project will be the complex and time-consuming task of modifying the service center agencies' existing business applications to operate on [the new environment.]"

This statement and those referenced in the rest of the referenced paragraph do not fully represent the issue of migration of legacy applications to the new environment. There clearly is a large effort that would be associated with migrating all of the existing legacy applications to a new computing environment. However, at this point it is difficult to predict how many of the legacy applications will actually have to be moved to the new environment. The approach that is likely to be taken is that reengineering will address the business activities currently supported by the legacy applications. These legacy applications will be replaced with the reengineered business processes and associated applications, not migrated to the new environment. The 1500 staff years cited is a preliminary estimate by USDA, and is intended to make certain that this effort is not left out of the planning and costing processes. The magnitude of this final effort will be determined by the reengineering projects and any changes to the programs and missions of the partner agencies. For example, NRCS has recently issued directives that its legacy system, FOCS, is no longer to be used in the field. The business applications currently represented on FOCS will be reengineered, thus removing any need for migration to the new environment.

The staffing and cost estimates included within the CCE documentation do not reflect recent business decisions such as FOCS, and are thus higher than what will actually occur. It is likely that applications from the other partner agencies will also be retired as new legislation and program direction is implemented, making the legacy systems no longer useable. The actual migration effort will be substantially less than is currently shown in the documentation, but cannot be accurately predicted without knowing the future business process changes and business environment. The migration issue will be more fully addressed in the continuing documentation effort prior to a decision to acquire the pertinent increments of the CCE. It is projected that the majority of the reengineering /migration effort will be complete by the end of 2002, depending upon the resource availability and program requirements.

OVERALL LIFE-CYCLE COSTS ESTIMATED TO EXCEED $3 BILLION

Now on p. 9.

Page 15 – Productivity gains
"...none of the estimated billions in productivity gains identified will result in actual dollar savings to the department. This is because USDA currently has no plans to make additional staff reductions...based on these expected productivity gains."

See comment 6.

USDA disagrees with this statement. Much of the projected savings of staff years and funds for Administrative Convergence is expected to result from establishing a common IT infrastructure and providing modern, automated tools to the workforce. After full implementation, which is highly dependent upon IT investments to optimize, this administrative initiative alone will result in these agencies reducing administrative staff by 47% and costs by $144 million annually when compared to the 1993 baseline. Additionally, USDA has significantly reduced employment in the agencies (as much as 30% in some cases), and pending and projected budgetary actions will further reduce staffing. The productivity increases enabled through the planned investments are needed to prevent further degradation of services and to make improvements in those services, even in the face of lower staff levels. No plans have been made to further reduce staff because projected productivity gains have not yet been validated in pilot tests.

Now on p. 10.

Page 17, 1st paragraph – IT Procurements
"Between 1995 and 1997, for example, RD and NRCS purchased about 6,800 computers/laptops at a reported cost of about $51 million to replace equipment in the service centers."

See comment 7.

This statement on its own is misleading with respect to the purchase of computer systems for service centers in this time period. The acquisitions referenced involve equipment required to meet emergency needs of the partner agencies, an initiative that was included in the Service Center IT Working Plan. The purchases were principally to support the continued capability of the agencies to deliver services to their customers. Rural Development acquired computer systems during this period to allow them to implement the Distributed Loan Origination Servicing (DLOS) system, a major reengineering

project. NRCS acquired some 2000 Unix servers during this time to support the implementation of the FOCS and for other purposes. The Farm Service Agency (FSA) purchased an engineering upgrade to their System 36 computers to allow them to continue to run critical applications, which was not possible on the outdated equipment. In addition, many of the purchases that are included in the totals shown were for individual desktop or laptop systems to replace failed or no longer serviceable legacy equipment. The partner agencies rely on these systems to complete their work and provide service to their customers. When equipment fails, it needs to be replaced so that service is restored as soon as possible. Individual agency computer purchases have decreased significantly since the implementation of the USDA IT moratorium.

See comment 8.

Exceptions are provided for Year 2000 conversion requirements, program and legislated mandates, emergencies, and special initiatives. For service center agencies, exceptions granted are generally conditioned on the agency procuring computers that meet the minimum standards being tested for CCE in pilot sites. This is to ensure, to the extent possible, that interim purchases will fit in the new environment. These purchases are not made independently as suggested by GAO. The process set up by the CIO requires that all service center agency administrators sign off on an exception request. Each request is reviewed by the OCIO Service Center Oversight Staff and other reviewers before consideration is given to approval. As a result, certain conditions or limitations are often placed on the agency as part of any approvals.

WEAKNESSES CREATE SIGNIFICANT RISKS FOR SERVICE CENTER IT MODERNIZATION

Now on p. 11.

A. Technology acquired and More acquisitions Planned Prior to Defining New Business Processes (Page 18)

Now on p. 11.

USDA has and plans to continue acquiring new technology without first reengineering its processes to provide one-stop service in all service centers (Page 17).

See earlier comments under "Results in Brief".

GAO discusses past and planned USDA IT procurements during reengineering as if all IT components are tied directly to business processes. However, there are technologies that are universally needed to accomplish basic business activities. These include office automation applications, electronic mail, Internet access, and other similar applications. Also, there is recognition that these common applications can be supported on commodity computer systems, namely those that are sold as basic desktop or laptop business platforms.

Many of USDA's simple business processes can be reengineered to make immediate use of these common tools to deliver services. Most organizations are approaching technology implementation with the recognition that both the business processes and the

technology components are not static. If either component is held constant while the other is refined, the result is a solution that is not in balance. Either the business or the technology has changed to the extent that the solution no longer serves the organization. As a result, practicing experts are advising that there are basic technology components that can be implemented and that business process reengineering can proceed in parallel with these acquisitions. The Common Computing Environment Project implementation plan is structured to acquire these types of technologies within the first phases, with the more business sensitive components delayed until the reengineering is more complete. This should allow the Service Center implementation to proceed and have a better match of technology with the business requirements. It also enables the agencies to field current or soon to be available reengineered processes as they are ready to be implemented.

Now on p. 12.

USDA has not defined or documented a concept of operations or the mission-related business processes that will be needed to provide one stop service at all its centers (Page 19).

See comment 9.

USDA did develop a Service Center Concept of Operations in 1997. The Concept of Operations served as the springboard for the 1997 BPR study, consisting of the four BPR teams. The USDA October 1997 Business Case documented the results of the BPR Study. USDA is in the process of updating the Concept of Operations to reflect the current Service Center Initiative (SCI) effort and planned reengineered business.

USDA has also defined an Enterprise Activity Model addressing the complete scope of service center operations. Specific mission-related business processes are being evaluated and reengineered where appropriate by the BPR project teams, i.e., each project team is documenting the mission-related business processes that will be impacted by their project.

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The Department plans to spend over $200 million more in fiscal years 1998 and 1999, with most of these funds used for acquiring new technology (Page 19).

See comment 10.

The current breakdown of planned non-personnel spending (in $millions) is as follows:

	1998	1999
CCE	42.3	68.25
LAN/WAN/Voice	23.4	2.4
BPR	9.2	3.0
Base Data Acquisition	19.75	15.05
Training and Management	3.75	3.5
Total	98.40	92.20

It should be noted that of the funding requirements shown above, $100 million is planned for the first increment of CCE acquisition. The Department has not provided approvals to

the service center agencies to move forward with this and has set forth a number of conditions – including meeting the capital investment planning and control requirements – prior to any such approval. Other funds are for BPR and pre-acquisition studies, continuation of the deployment of LAN/WAN/Voice, and acquisition of base data that will be needed in the new environment.

LAN/WAN/Voice was justified in economic terms as a stand-alone project. It has been established as a business requirement that must be in place prior to operationalizing most BPR projects. An Economic Analysis report was produced in 1997 demonstrating net savings resulting from such things as reduction in the number of phone lines. Further, much of the telecommunications infrastructure being replaced was not Year 2000 compliant. Failure to proceed with this investment could have had catastrophic consequences.

The first phases of the IT modernization are aimed at providing a Year 2000 basic integrated voice and data telecommunications network and basic office tools that are common and will enable some reengineered processes to be fielded. The heavy business application servers are scheduled for 2001 when significant portions of BPR will have been completed.

USDA has no assurance that these new IT acquisitions will meet the customer needs or allow the department to provide one-stop service (Page 19).

Now on p. 12.

CCE is based on business requirements that reflect customer needs. Business requirements were translated into criteria, which CCE options are being measured against. The final CCE solution will not be selected until pilot testing is complete. The CCE solution that will be selected based on the ability to satisfy specific business requirements that are customer focused and documented in the 1997 Business Case.

The BPR projects are intended to achieve the one-stop service, as documented in the 1997 Business Case and the subsequent Implementation Strategy documents. Pilot testing is being conducted to validate that business case. If adjustments are required as a result of those tests, the IT investment plan will also be adjusted so that it does provide the enabling technology required to support the one-stop service concept.

USDA's efforts to reengineer the business processes at the service centers are redundant and uncoordinated. Both the county-based study USDA contracted for in December 1997 and the service center IT modernization business process reengineering project are proceeding independently. Without integrating the study and the reengineering project, USDA may find costly rework necessary and waste IT resources (Page 20).

Now on p. 12.

USDA has always planned to integrate the two projects in the fall of 1998. As part of its charge, the county-based study will provide an assessment of many service center activities. The results will be useful to Department leadership in determining the future

directions of the SCI as well as other initiatives aimed at improving program delivery.

While the two studies are proceeding in parallel, it has been determined that most of the infrastructure projects recommended by the BPR teams such as an integrated customer and land data sharing environment will be required under any scenario. Thus, USDA is progressing cautiously to ensure that the results of the strategic study will integrate with the tactical implementation of the service center initiative. Service Center implementation will be still in the piloting stage when the strategic study is complete this coming September. Integration and midcourse changes will occur at that time.

B. USDA is not managing its service center IT modernization projects as investments using cost, benefit, risk, and performance information to select, control, and evaluate projects throughout their life-cycle (Page 20).

Now on p. 12.

See earlier comments under "Results in Brief".

Agencies are required by the Clinger-Cohen Act of 1996 to use a capital planning and investment control process to assess and manage the risks of IT acquisitions. This process has been evolving over the past two years in terms of specific processes and requirements.

The Clinger -Cohen Act of 1996, i.e., the Information Technology Management Reform Act of 1996 (ITMRA), Section 5122 regarding Capital Planning and Investment Control, requires the design and implementation of a process for maximizing the value and assessing and managing the risks of the information technology acquisitions. The process must:

> (1) provide for the selection of information technology investments to be made by the executive agency, the management of such investments, and the evaluation of the results of such investments; (2) be integrated with the processes for making budget, financial, and program management decisions within the executive agency; (3) include minimum criteria to be applied in considering whether to undertake a particular investment in information systems, including criteria related to the quantitatively expressed projected net, risk-adjusted return on investment and specific quantitative and qualitative criteria for comparing and prioritizing alternative information systems investment projects; (4) provide for identifying information systems investments that would result in shared benefits or costs for other Federal agencies or State or local governments; (5) provide for identifying for a proposed investment quantifiable measurements for determining the net benefits and risks of the investment; and (6) provide the means for senior management personnel of the executive agency to obtain timely information regarding the progress of an investment in an information system, including a system of milestones for measuring progress, on an independently verifiable basis, in terms of cost, capability of the system to meet specified requirements, timeliness, and

quality.

Section 5122(b) (40 U.S.C. 1422(b))

The GAO draft report asserts that the Service Center Information Technology (IT) Modernization efforts are not being managed in accordance with Clinger-Cohen Act concepts of capital planning and investment control.

In fact, this initiative is one of the most closely managed IT initiatives that the Department has ever undertaken because of its importance to improving customer service and the high financial and program delivery risks of failure. The USDA Executive Information Technology Investment Review Board (EITIRB), established pursuant to the Clinger-Cohen Act of 1996, has extensively reviewed and monitored progress on these initiatives. The USDA Chief Information Officer (CIO) has established a full-time Senior Executive oversight position to assist the effort and provide day-to-day monitoring and evaluation. The Office of the Chief Information Officer (OCIO) staff working on the overall USDA capital planning and investment processes are working hand-in-hand with the Service Center IT Modernization teams. In fact, OCIO staff are using some of the innovative analytical and standards setting processes developed by the Service Center teams, in further defining the overall capital planning and investment process for the Department, as a whole. Specific examples of accomplishment are:

- The CCE alternatives and BPR projects have been presented to USDA management for investment decisions, including the SCI Management Review Board (MRB), NFAC, and the USDA Executive Information Technology Investment Review Board.

- The Service Center Common Computing Environment project prepared a Capital Planning and Investment proposal in the fall of 1997 for the acquisition of Information Technology to support service center implementation. This proposal was modeled on the requirements of the Clinger-Cohen Act, the (Office of Management and Budget (OMB) Raines Rules, and other applicable guidance for IT investments. This proposal was formally adopted as part of the USDA IT Investment Portfolio by the EITIRB in October 1997. The results of this effort and the follow on work are being used within USDA as a model for the refinement of the CIO's capital planning and investment control process. Service center project staff have been working with OCIO personnel to develop the process and use the CCE proposal to help establish the necessary components.

See comment 11.

- The LAN/WAN/Voice (LWV) project installed its pilot sites in November 1996. As originally conceived the project was deficient in outlining cost, benefit, risk, and performance information. In June 1997, a cost/benefit model was created, risk factors were identified, risk simulations of schedule and cost were conducted, and performance measures, including the addition of performance based contractual clauses, were developed. The Cost/Benefit analyses were included in Technical Approval Documents prepared and evaluated by the CIO in October 1997. The full

roll-out cost/benefit assessment was prepared using a methodology that identified strategic and monetary business benefits that complies with OMB's Raines Rules guidance, the OMB Capital Programming Guide, and Clinger-Cohen section 5123. The risk management plan and LAN/WAN/Voice performance management system, using Earned Value, were prepared in compliance with the OMB Capital Programming Guide. OMB Office of Procurement Policy Staff have reviewed and endorsed the LWV implementation of its guidance.

- Service center investment decisions were integrated into the established USDA budget process during 1997 (for the 1999 budget), and any proposed investments will be integrated into the 2000 budget process.

- The 1997 Business Case that was presented to USDA management as part of the capital planning and investment process included an estimated $4.4 billion net savings between 1997 and 2011 from anticipated process savings and a estimated 41 % return on investment resulting from anticipated process savings and customer benefits. The business case has been validated by an independent contractor working under the direction of CIO, and their analysis indicated that the Business Case contains conservative estimates. The Business Case also addressed performance measures and risks.

- The USDA CIO is requiring the initiative to use the Government-wide CIO Council's recently developed Information Technology Investment Portfolio System (I-TIPS) to manage SCI investments, the same required of any agency investment. This system helps establish project priorities, based on risk adjusted benefits, using the Scoring Module within I-TIPS. The Control Module has just been delivered to OCIO and it will be included in this effort as soon as possible. As this process evolves, the service center initiative will use the new processes.

- USDA management is provided information regarding the progress of the investment in the Service Center Initiative by means of monthly Program Management Reviews (PMRs), periodic Management Review Board (MRB) meetings, and a variety of other management meetings and sessions. The overall investment is managed at the sub-cabinet level via the Information Technology Board. Progress against planned milestones is typically discussed in these meetings. The USDA CIO conducts regular progress reviews and provides monthly oversight assessments of progress, problems and issues.

- The USDA CIO is also using outside contractors in an independent verification and validation (IV&V) process to evaluate the Service Center IT Modernization activities. Projects are reviewed at various stages before they are allowed to proceed. Laboratory testing and piloting of solutions are key requirements before consideration is given to acquisition. Decisions on priorities and implementation of projects are made by program people, not IT staff, and are made on the basis of costs, benefits and risks.

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The GAO draft report implies that USDA is moving ahead with these investments on a large-scale basis without the requisite planning and control systems in place to ensure success. This is not the case. The only Service Center IT Modernization project that has been approved for acquisition and deployment is the telecommunications infrastructure. That project, known as the LAN/WAN/Voice (L/W/V), project was initiated in late 1996 after extensive review within the department and at the OMB and congressional staffs. It has been very closely monitored by USDA and, in fact, the USDA CIO suspended the implementation of the project in 1997 for several months until some early start up operational problems identified by an OCIO independent review were resolved. This project continues to operate under close special conditions and monitoring by the CIO and the EITIRB.

Other Service Center IT Modernization initiatives have been approved by the CIO for pre-acquisition activities only. This includes support of the Business Process Reengineering (BPR) work, further evaluation of technical alternatives, laboratory testing, pilot testing and demonstration sites. Although the Service Center IT plans do call for some phased acquisitions of the CCE equipment in late Fiscal Year (FY) 1998 and 1999, no approvals have been given to proceed with those acquisitions at this time. Prior to any such approvals, the CIO and the EITIRB must be satisfied that all conditions have been met to ensure a successful deployment and that the OMB and interested congressional parties are thoroughly briefed on what is planned.

Some of the management issues pointed out in the GAO draft report (i.e., the need for an improved budget, accounting, and tracking system for these initiatives; and the need for integrated plans and an adequate project management structure) are issues already pointed out in internal reviews and are being addressed as part of the conditions for acquisition approval.

The Department does expect the necessary conditions to be met and to be able to move into the first phase of CCE acquisition before the end of FY 1999. The first phase, however, is targeted towards addressing Year 2000 (Y2K) problems of the three agencies that would have to be dealt with anyway, completing the service center network, providing public access servers, and supporting administrative consolidation. This increment would put about one third of the planned CCE equipment in every field office and would provide common office tools and the ability to deploy some reengineered business processes, and would provide some ability for the agencies to share information.

Future phases of deployment in FY 2000 and 2001 would complete the system and provide the heavy business application equipment, including Geographical Information Systems (GIS) servers. Each phase of this project will receive intensive review, including IV&V, prior to moving forward, and each phase will be monitored and evaluated during deployment to ensure that the project achieves the objectives and benefits. The phased approach provides an opportunity to adjust acquisition and deployment based on any programmatic, budgetary, organizational or other changes that

may occur.

See comment 12.

Information on the extensive monitoring and evaluation process being used by USDA for this project, including listings of project reviews, IV&Vs, special internal reports, and regular reporting has been provided to GAO in the past but has not been recognized in the draft report. Nevertheless, some of the draft report appears to have used information on internal problems needing resolution that came from these internal reviews, especially those included in a May 15, 1998, OCIO report entitled "Service Center Implementation An Oversight Perspective - Refinements Needed".

GAO is correct in stating that the Service Center Modernization initiative is one of the most complex IT initiatives that USDA has ever undertaken. As such, USDA recognizes that we need to approach this in an incremental fashion and to assume that there will be problems but to have a monitoring and evaluation structure in place to recognize these problems early and to correct them. USDA believes that the appropriate approval, monitoring, and evaluation processes necessary to make this project successful have established and that they are consistent with the Clinger-Cohen Act.

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OMB capital asset criteria and worksheets were not used by USDA to objectively rate and rank for its service center IT modernization projects (Page 22).

See comment 13.

As mentioned above, SCI capital investment projects such as CCE and BPR projects were taken through an investment decision process that considered total investment amounts, risks, and anticipated savings and return on investment. The Raines Rules criteria were also used. As the tools for capital investment planning and control have evolved, the service center initiative has been required to incorporate them into their processes.

Now on p. 14.

USDA has not developed a comprehensive cost accounting or the budget tracking system for the service center IT modernization. USDA is not developing or maintaining quantitative/qualitative information needed by executives to effectively control and evaluate projects. For example, USDA has not developed effective cost estimating, budgeting, and accounting process necessary to identify, track, and report actual costs to be compared with estimated costs (Pages 20 - 22).

This has been a problem area pointed out in USDA internal oversight reviews and the agencies have been working to improve in this area. USDA has now developed and is currently implementing the SCI Integrated Tracking System to track the status of funds and use of resources. The system will be implemented on the Web, and will allow project management to:

- record project budgets, commitments, obligations, and expenditures monthly by resource type and source of funding by project, e.g., individual BPR projects such as GIS Data Acquisition
- split individual projects into phases or other line items

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- record the number of government personnel by grade dedicated to their projects
- record progress by project
- report status of funds, monthly activity, and progress against project objectives.
- report actual spending against planned spending.

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USDA lacks information on risks and mission-related performance measures for the IT modernization projects (Page 22).

The 1997 Business Case provided an identification and evaluation of risks for the SCI. The SC agency Performance Plans containing performance measures were used as the basis for performance measures incorporated into the SC Strategic Plan. The performance measures in the Strategic Plan were in turn used as the basis for defining performance measures in the Business Area Strategies (BPR was divided into 6 Business Areas by function, e.g., Eligibility and Compliance). The performance measures in the Business Area Strategies are being used as the basis for project performance measures being included in BPR project plans.

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Information on estimated benefits and costs was not available for some projects (Page 22).

The 1997 Business Case includes estimated costs for each of the initial 17 BPR projects and CCE. Anticipated project 1998, 1999, and 2000 budget requirements have been developed in 1998 for every BPR project, CCE, LAN/WAN/Voice, Based Data (GIS data), Change Management Training, Customer Satisfaction monitoring, and SCI management and administrative support. USDA is planning on updating estimated out year funding requirements for 2001 – 2011 as well in the validated 1998 Business Case.

Benefit information is not available for each individual project as of this time since in some cases a given set of anticipated benefits requires multiple projects to be implemented. For example, the Common Land Unit, GIS Data Acquisition, Data Management, and GIS Software & Application Training projects are all required before significant savings resulting from GIS applications relating to individual customers will be realized.

USDA intends to obtain and validate benefit data from pilot testing starting during the summer and fall of 1998. Pilot testing has always been the planned mechanism for validating savings and benefits prior to decision for full implementation.

USDA is not systematically controlling and evaluating these IT projects throughout their life cycles. Executives are not reviewing the projects at specific milestones in order to ensure that they continue to be viable investments. The benefits that have been estimated for the projects are not defined in terms of measurable mission-related performance improvements so that actual benefits could be tracked against

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estimates to assess the impact if IT investments (Page 23).

USDA management is receiving information regarding the progress of the investment in the Service Center Initiative by means of monthly Program Management Reviews (PMRs), periodic Management Review Board meetings, and a variety of other management meetings and sessions. Progress against planned milestones is typically discussed in these meetings. It is important to understand that most of these projects are just beginning and consequently the review process is also just beginning. The CIO oversight reviews, IV&Vs, and incremental approval process also provides the necessary controls.

Specific anticipated project benefits relating to mission performance, quantified where possible, were identified in the 1997 Business Case for each BPR project, as well as the SCI Project Summaries (May 18, 1998). They support the performance measures identified in the Service Center Strategic Plan and performance plan. For example, one of the benefits of the Customer Information Management Project is to reduce the time spent gathering cross service center eligibility and compliance information by 70%. Pilot testing will validate these savings.

Now on p. 14.

USDA has not identified and quantified risks for each of the projects (Page 23).

See comment 14.

The 1997 Business Case addresses risks associated with each BPR project. USDA intends to update the analysis of risks in the updated 1998 Business Case as pilot test information becomes available.

Now on p. 14.

C. USDA lacks a comprehensive plan for this IT modernization that specifies dependencies among projects, critical milestones, and resources required (Page 23).

Now on p. 15.

The IT plan is not comprehensive and cannot be used for identifying priorities and where resource shifts must occur among the IT projects to ensure most critical segments are completed (Page 24).

Extensive plans do exist for each of the IT modernization projects, and a high level plan exists for the total service center initiative. However, USDA agrees that much work needs to be done to complete the kind of comprehensive, integrated plan that is needed in order to move forward with new acquisition initiatives. The USDA oversight process highlighted this issue in a recent report and is working with service center personnel to fill this need before any approvals are provided for new acquisitions.

The issue raised regarding the availability of resources to carry out the competing Information Technology activities across the partner agencies is one that is being looked at from a number of aspects. Of course, the convergence of the partner agencies' IT organizations into a single Information Technology Services Bureau (ITSB) will have a significant impact on how these activities are carried out and the resources available for

each project. Until the planning for the implementation of the ITSB is complete, it is not possible to analyze these impacts. Another consideration that was discussed previously is that the "bubble" shown in staffing needs may be less if there is a reduction in the workload due to lessened requirements to migrate and support legacy applications such as NRCS' FOCS. Finally, the acquisition vehicle for the CCE implementation could have a substantial impact on required resources. The recently awarded GSA contract for Seat Management has been investigated as a significant opportunity to mitigate the demand on USDA IT resources. Through the acquisition of computers, software, and network services through this contract, the support for their operation would also be provided. This would free a considerable number of government resources so that other priority activities could be accomplished. Since the contract was awarded on July 3, 1998, we have not completed a full analysis of the costs and benefits of this approach. However, it does offer a solution that would help address the concern raised regarding the availability of IT resources to accomplish critical tasks. Other options for meeting the total IT staffing needs over the next several years are being examined.

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The current plan does not identify all major segments of the four modernization projects. (Example: milestones & dependencies for some major segments are not identified) (Page 24)

The SCI Program Management Plan includes BPR, LAN/WAN/Voice, and CCE. A plan for data acquisition is in the final stages of review and will be incorporated into the overall plan. USDA recognizes that IT planning must continue beyond current projects, and has committed to the formation of a Project Management Staff to work with the SCI project managers to identify and coordinate the interdependencies of the various projects and the overall initiative. The Project Management Staff would develop a project management plan and produce reports as required to improve overall project management.

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D. USDA is not following an incremental approach in acquiring technology using cost justifications and performance measures for each increment to reduce risks associated with large-scale acquisitions or projects (Page 26).

See comments in "Results in Brief" section.

USDA is following a phase incremental approach for the SCI. LAN/WAN/Voice was justified in economic terms as a stand-alone project. An Economic Analysis report was produced in 1997 demonstrating net savings resulting from such things as reduction in the number of phone lines. The project has proceeded in several phases, using a modular approach. At each major milestone, the service center project team, and the USDA CIO – who brought in independent contractors on two occasions to assess the project status - conducted reviews. Initially, the project was rolled out to approximately 25% of the service center sites in order to validate and improve the deployment concept and to implement the RD reengineered DLOS program. The next phase, full roll-out, was subjected to a full milestone review process, including cost/benefit justification and risk

management plan. In addition, each site's implementation is being managed on a modular basis, with required payback and business needs certification.

The current strategy for CCE starts with planning and analysis, followed by testing in the Interoperability Lab, followed by testing in Pilot Sites, and finally implementation nationwide in a three phase process. USDA management is evaluating results after each step, and deciding whether to proceed with subsequent activities. The CCE Implementation Strategy is based on using an incremental approach to the acquisition of the full technology solution to reduce risks and improve the ability of the service center agencies to manage the implementation. The initial phase is planned to build on the telecommunications infrastructure that is being installed by the LAN/WAN/Voice Project. This first set of equipment will have network servers at each service center to provide connectivity, security, file, and basic communications capability for the three agencies. At the same time, the initial third of the desktops and laptops would be acquired (along with associated software and peripheral equipment) to replace current computer equipment that has been identified as not meeting Year 2000 operational requirements. IT equipment and technology to support the implementation of reengineered administrative applications would be provided as part of this first implementation phase. Finally, public access servers would be acquired to allow information on USDA programs and eligibility requirements to be obtained in electronic form by our customers. Another consideration that will be factored into the composition of the initial CCE implementation phase will be connectivity of the legacy systems to the network, particularly the FSA Advanced System 36 computers. Two future phases are planned to address the needs for GIS data and applications, the remaining two-thirds of the desktops and laptops required to equip all Service Center employees, and the custom or business specific applications servers and related software. These clearly are incremental steps toward the implementation of the full CCE that represent stand-alone components that would provide value and benefits to USDA and its customers should no future investments be made.

BPR is being phased as well. The original BPR study in 1997 was followed by development and evaluation of a Business Case. USDA management, after careful consideration, decided to move forward with implementing BPR projects. BPR was broken into 6 Business Areas, e.g., Eligibility and Compliance. A strategy was developed and reviewed for these Business Areas before proceeding with projects. Each project will be included in pilot testing during fiscal years 1998 and 1999, performance will be measured, a Benefit Cost Analysis performed based on pilot test results, and USDA management will decide whether to proceed with full development and implementation. No project will be implemented nationwide without proceeding through these steps. The updated 1998 Business Case will provide USDA management with a tool to make an informed decision as to whether to proceed with the entire SCI.

E. USDA has not established the management structure with the requisite responsibility, accountability, and authority for managing and coordinating the

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separate service center IT modernization projects and ensuring critical tasks are completed on time and within budget (Page 27).

Now on p. 17.

Although overall responsibility for implementing the Service center implementation initiative was given to a subcommittee of the NFAC and an Executive Officer was appointed to coordinate the activities of the subcommittee, USDA still lacks the project management structure needed to manage this type of modernization (Page 28).

Now on p. 17.

USDA has not assigned a senior-level official with overall responsibility, authority, and accountability for managing and coordinating the separate IT projects and other critical tasks (Page 28).

Now on p. 17.

Responsibility, accountability, and authority for control of the four service center projects and resources is fragmented and ineffective (Page 28).

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3 of 4 projects have managers who report to their service center agency, while the fourth reports to the Executive Officer. Because each service center agency controls its own project resources, joint planning and execution of USDA as a whole has not occurred and completion of key tasks has been delayed (Page 28).

USDA oversight reviews and reports have also identified weaknesses in this area and a number of corrective actions are underway to address this. Examples of actions are as follows:

- The Chair of the NFAC has restructured the NFAC Management Review Board to make it more effective, and has clearly assigned management decision-making authority and oversight functions to that group.
- The Secretary shall mandate that service center implementation performance standards be put in place for all personnel involved in the initiative.
- An overall IT initiatives manager position is being advertised to ensure the coordination of all IT projects and to monitor and report on progress, problems and needs.
- A proposal for a project management staff has been developed and is in final clearance within the Department.
- A project management plan has been drafted that is intended to give the managers additional tools to better manage their projects.
- The service center budget process has been brought under the same timelines as the overall Department budget process.
- The CIO has clearly stated that a sound management structure will be one of the criteria to be met before new modernization activities will be approved.

These and other steps being taken will help to address the concerns expressed in the GAO draft report and previously raised in USDA internal reports. Continual adjustments to our approach will be made as necessary, but our basic approach of placing leadership and

accountability with the agency leadership, coupled with an aggressive oversight and evaluation program will continue.

CONCLUSIONS

USDA has addressed the specific issues resulting in the GAO draft report conclusions in the previous sections of this response.

MATTERS FOR CONGRESSIONAL CONSIDERATION

Based on facts presented in this statement of response, GAO should modify its draft conclusions.

RECOMMENDATIONS

Now on p. 18.

1. Develop and document a concept of operations and the new mission-critical business processes necessary to provide one-stop service at all sites (Page 30).

USDA has no issue with this recommendation since it is already in the process of updating the existing Concept of Operations to reflect the current service center effort and environment. Business area strategies for the BPR Program have been completed, and will be approved this month. These strategies define which mission critical process must be reengineered. Priorities are being set for the BPR Program in areas that have been defined but are not underway. All projects are being managed from a service center enterprise perspective - e.g. processes are being evaluated in the context of all other processes within the enterprise that they impact. Additional BPR areas may be defined once the results of the county-based study are known.

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2. Integrate the service center BPR project with the county-based study (Page 30).

USDA has no issue with this recommendation since it has already planned to do so. As part of its charge, the county-based study will provide an assessment of many Service Center activities. The results will be useful to Department leadership in determining the future directions of the SCI as well as other initiatives aimed at improving program delivery. When the independent study is done, these initiatives will come together for review and decisions.

3. One approach for ensuring completion of these actions would be to assign responsibility to the Deputy Secretary who would work with the Under Secretaries and Assistant secretaries of the service center agencies and the CIO.

USDA has no issue with this approach because the Deputy Secretary already has leadership for reorganization and management initiatives in the Department and is the Chair of the Policy Oversight Board for Service Center Implementation and the Department's EITIRB.

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4. The Secretary hold the CIO accountable and provide her requisite authority and responsibility for managing and implementing the service center IT modernization, and direct that she complete the following additional tasks:

Identify, assess, and document the risks, costs, benefits, and performance measures for each service center IT project before providing additional funding to ongoing projects and approving any new projects, then use this information to review, control, and evaluate these projects at specific milestones of the lifecycle (Page 31).

Develop a comprehensive plan for the service center IT modernization that documents and tracks all critical milestones, dependencies among major segments, and resources needed to complete them, taking in to account resources that will be needed to make the service center agency systems Year 2000 compliant (Page 31).

Develop an acquisition strategy that focuses on buying technology in manageable increments, where cost-justification and performance measures are developed and documented for each increment (Page 32).

USDA is in complete disagreement with the recommendation to have the USDA CIO take over the management and implementation of service center IT modernization. This recommendation seems to be a complete reversal of earlier GAO recommendations related to Infoshare that pointed out as one of the major weaknesses of that effort the fact that it was being driven by IT personnel and not program personnel.

USDA's strategy has been to assign the responsibility and accountability for service center initiatives, including the IT enablers, to the program leadership of the agencies. To separate out IT modernization from the program change initiatives is a recipe for repeating the mistakes of the past. USDA will continue to implement this initiative under the current approach of assigning day-to-day leadership and accountability to agency heads, acting collectively as the NFAC, and assigning the IT policy and oversight function to the CIO to ensure the effort is successful.

The specific tasks that the GAO draft recommendations suggest the CIO perform are legitimate tasks and we agree they need to be done. However, they are already underway and will continue to be performed by the service center agencies.

If the GAO draft recommendation wording were changed to the following, USDA would be in agreement:

"We recommend that the Secretary continue to hold the Under Secretaries and agency heads accountable for service center modernization. We also recommend that the Secretary hold the CIO accountable, and provide her with the requisite authority, responsibility and resources to ensure that the service center agencies complete the following tasks:

- Identify, assess, and document the risks, costs, benefits, and performance measures for each service center IT project before providing additional funding to ongoing projects and approving any new projects, then use this information to review, control, and evaluate these projects at specific milestones of the life-cycle.

- Develop a comprehensive plan for the service center IT modernization that documents and tracks all critical milestones, dependencies among major segments, and resources needed to complete them, taking in to account resources that will be needed to make the service center agency systems Year 2000 compliant.

- Develop an acquisition strategy that focuses on buying technology in manageable increments, where cost-justification and performance measures are developed and documented for each increment.

Now on p. 19.

6. **The Deputy Secretary should report on a regular basis to the Secretary on the progress the Department is making to implement each of these recommendations, and notify the Secretary when all the identified weaknesses have been fully addressed and resolved (Page 32).**

USDA has no issue with this recommendation since the Deputy Secretary already provides updates to the Secretary. USDA believes that the Deputy Secretary should continue to keep the Secretary fully informed of progress in Service Center implementation, providing a balanced assessment of accomplishments, problem areas, and actions required to keep this important initiative on track.

The following are GAO's comments on the Department of Agriculture's letter dated July 21, 1998.

GAO Comments

1. Reporting USDA's $3 billion life-cycle estimate figure is not misleading. We explain on page 8 that personnel costs are included in the $3 billion life-cycle figure. In addition, appendix III provides a detailed breakout of the life-cycle costs estimated by USDA for each of the major projects and the cost elements for the business process reengineering and common computing environment projects.

2. Our report clearly states that the new technology we are referring to is technology that USDA acquired as part of the nearly $145 million the department spent on its service center IT modernization in fiscal years 1996 and 1997. In contrast, the "moderate investment" that USDA discusses refers to the nearly $100 million that FSA, NRCS, and RD reported spending over this same time period on hardware and software within each agency and independent of the modernization.

3. We clarified the report to emphasize that configuration and integration problems were not the only cause of the delays. However, the department's characterization of the configuration and integration problems is misleading. A major reason for these problems was a failure by the department to properly test and pilot the telecommunications equipment and promptly correct the problems that were identified as early as October 1996 in the first two pilot sites. Instead, the department began installing equipment with known problems nationwide, thus complicating, delaying, and increasing the cost of correction.

4. USDA's position that the overall cost of the project remains under budget is misleading. The department originally set a budget of $132.5 million, but it was revised to $111.3 million, according to USDA's records, once the actual cost of the telecommunications equipment was determined. At the time of our review, however, the department expected the costs of the overall project to reach $128.8 million.

5. The report recognized that the 38,000 personal computers included not only workstations and laptops but also personal data assistants. Nevertheless, we modified the report to specify the number of workstations (7,000), laptops (21,000), and personal data assistants (10,000) making up the overall figure. We included the number of personal data assistants because these are computers.

6. Our statement is accurate. The estimated billions of dollars in productivity gains discussed refers to gains USDA said it expects to achieve by reengineering program processes, not gains achieved by reengineering administrative processes or consolidating administration. Our report makes this clear by noting that USDA currently has no plans to make additional staff reductions (i.e., beyond those already planned as part of the administrative consolidation) on the basis of expected productivity gains. In addition, USDA agrees that it has no plans to further reduce staff.

7. The statement accurately reflects information provided to us by the department on the number of computers RD and NRCS acquired and the reported costs of those computers.

8. While IT purchases that are not part of the service center IT modernization are reviewed by agency administrators, Office of the Chief Information Officer (OCIO) staff, and "other reviewers," neither the agencies nor the department has the process, the information, or the continual, substantive involvement of senior executives needed to ensure that the investments are judicious. Further, since the department has not formulated its concept of operations and has not yet reengineered its business processes to support "one-stop" service, it does not know what its new environment will be and has no analytical basis for determining whether interim purchases will "fit into it."

9. At the conclusion of our review, the department could not describe clearly (either orally or in writing) how it would operate and deliver services at all service center sites. The department notes in its comments that it is currently updating a concept of operations document.

10. USDA has misread the clear language of the report which correctly states that the department plans to spend over $200 million in fiscal years 1998 and 1999. The report does not discuss whether the service center agencies have been provided departmental "approval" for specific amounts.

11. We modified the report to recognize that USDA had identified risks for its telecommunications project.

12. USDA's statement is incorrect. The information used in our report was developed independent of any of the department's cited reviews, including the May 15, 1998, OCIO report. Moreover, USDA did not provide us with a copy of its May 15 report until after we had met with departmental

officials to review and discuss a draft copy of our report. While some of the problems identified in the department's reviews are similar to some of our findings, none are the same. For example, USDA's internal review notes that delays in business process reengineering schedules have occurred, whereas we report that USDA is acquiring IT before reengineering its business processes. Further, several of our findings, such as those related to not managing IT projects as investments or not acquiring IT incrementally, were not discussed in USDA's reviews at all.

13. USDA's assertion is not supported by the facts. Information on mission-related performance measures was not used because it had not yet been developed for any of the projects, and risk information has only been developed for the telecommunications project. Also, information on estimated benefits and costs for some projects (e.g., life-cycle costs and benefits for the telecommunications project) was not available. Further, USDA does not dispute the fact that OMB capital asset criteria and worksheets were not used.

14. USDA's statement is not accurate, as the document cited by the department has no information on risks.

Detailed Breakout of Life-Cycle Costs Estimated for Each Major Project

Table III.1: Life-Cycle Costs Estimated for Each Major Project by Year

Dollars in millions

	Major Project[a]				
Fiscal year	**Telecommunications**	**Business process reengineering**	**Common computing environment**	**Geospatial data**	**Total**
1996	$73.2	•	•	•	**$73.2**
1997	7.5	$14.6	•	$45.0	**67.1**
1998	31.3	4.3	•	45.9	**81.5**
1999	16.8	44.7	$238.2	62.3	**362.0**
2000	•	15.6	249.9	71.5	**337.0**
2001	•	11.1	261.5	45.4	**318.0**
2002	•	66.5	183.3	28.4	**278.2**
2003	•	9.5	183.3	29.8	**222.6**
2004	•	10.0	183.3	18.0	**211.3**
2005	•	8.5	183.3	18.0	**209.8**
2006	•	15.3	212.5	18.0	**245.8**
2007	•	9.5	215.3	18.0	**242.8**
2008	•	9.9	229.8	18.0	**257.7**
2009	•	6.9	185.8	18.0	**210.7**
2010	•	16.9	187.2	18.0	**222.1**
2011	•	9.5	174.0	18.0	**201.5**
Total	**$128.8**	**$252.8**	**$2,687.4[b]**	**$472.3**	**$3,541.3**

[a]Costs for the telecommunications project and geospatial data project represent primarily acquisition costs. However, costs for business process reengineering and common computing environment represent several costs and are therefore further broken out in tables III.2 and III.3, respectively.

[b]These figures represent estimates for the lowest cost alternative.

Table III.2: Estimated Life-Cycle Costs for the Business Process Reengineering Project

Dollars in millions

Cost element	**Total**	**Percent of total expenditure**
Personnel	**$55.3**	21.9
Travel	**4.7**	1.9
Contractor support	**64.2**	25.4
Operations and maintenance	**101.6**	40.2
Other items	**27.1**	10.7
Total	**$252.8**	**100.0[a]**

[a]Figures do not add due to rounding.

Table III.3: Life-Cycle Costs Estimated for the Common Computing Environment Project

Dollars in millions

Cost element	Description	Total	Percent of total expenditure
Equipment	Computers, printers, and peripheral and digital phones	**$313.7**	11.7
Software	Office automation, geographic information system, administrative software, and database management system	**84.2**	3.1
Services	Computer and voice and data communications services, voice mail, conference calling, and satellite links	**572.9**	21.3
Support services	Software development, conversion, and maintenance, hardware maintenance, IT technical support, and training	**1,446.5**	53.8
Related costs	Contract administration and field technical support	**240.7**	9.0
Supplies		**29.3**	1.1
Total		**$2,687.3**	**100.0**

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