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OPM RETIREMENT MODERNIZATION

Longstanding Information Technology Management Weaknesses Need to Be Addressed

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Information Management
and Technology Resources Issues

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Highlights of [GAO-12-226T](#), a testimony before the Subcommittee on Federal Workforce, U.S. Postal Service and Labor Policy, Committee on Oversight and Government Reform, House of Representatives

Why GAO Did This Study

The Office of Personnel Management (OPM) is the central human resources agency for the federal government and, as such, is tasked with ensuring the government has an effective civilian workforce. As part of its mission, OPM defines recruiting and hiring processes and procedures; provides federal employees with various benefits, such as health benefits; and administers the retirement program for federal employees. The use of information technology (IT) is crucial in helping OPM to carry out its responsibilities, and in fiscal year 2011 the agency invested \$79 million in IT systems and services. For over 2 decades, OPM has been attempting to modernize its federal employee retirement process by automating paper-based processes and replacing antiquated information systems. However, these efforts have been unsuccessful, and OPM canceled its most recent retirement modernization effort in February 2011.

GAO was asked to provide a statement summarizing its work on challenges OPM has faced in managing its efforts to modernize federal employee retirement processing. To do this, GAO relied on previously published work as well as a limited review of more recent documentation on OPM's retirement modernization activities.

What GAO Recommends

GAO is not making new recommendations at this time. As noted, GAO has previously made numerous recommendations to address the challenges OPM has faced in carrying out its retirement modernization efforts.

View [GAO-12-226T](#). For more information, contact Valerie C. Melvin at (202) 512-6304 or melvinv@gao.gov.

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What GAO Found

In a series of reviews, GAO found that OPM's efforts to modernize its retirement system have been hindered by weaknesses in several important management disciplines that are essential to successful IT modernization efforts. For example, in 2005, GAO made recommendations to address weaknesses in the following areas:

- **Project management.** While OPM had defined major retirement modernization components, it had not identified the dependencies among them, increasing the risk that delays in one activity could hinder progress in others.
- **Risk management.** OPM did not have a process for identifying and tracking project risks and mitigation strategies on a regular basis. This meant that OPM lacked a mechanism to address potential problems that could adversely impact the retirement modernization effort's cost, schedule, and quality.
- **Organizational change management.** OPM had not developed a detailed plan to help users transition to different job responsibilities in response to the deployment of the new system, which could lead to confusion about roles and responsibilities, hindering effective system implementation.

In 2008, as OPM was on the verge of deploying its automated retirement processing system, GAO reported deficiencies and made recommendations to improve key management capabilities in additional areas:

- **Testing.** Test results 1 month prior to the deployment of a major system component showed that it had not performed as intended. The defects, along with a compressed testing schedule, increased the risk that the deployed system would not work as intended.
- **Cost estimating.** The cost estimate OPM had developed was not supported by documentation necessary to its reliability. This meant that OPM did not have a sound basis for formulating budgets or developing a cost baseline for the program.
- **Earned value management,** which is a tool for measuring program progress. The baseline against which OPM was measuring program progress did not reflect the full scope of the project, meaning that variances from planned performance would not be identified.

In 2009, GAO reported that OPM continued to face challenges in cost estimating, earned value management, and testing and made recommendations to address these deficiencies as well as additional weaknesses in planning and overseeing the retirement modernization effort. Although OPM agreed with GAO's recommendations and had begun to address them, the agency terminated the retirement modernization effort in February 2011. The agency has since stated that it does not plan to undertake another large-scale retirement modernization, but instead plans targeted steps to improve retirement processing, such as hiring new staff and working to improve data quality. Nonetheless, the development and institutionalization of the capabilities GAO recommended to address these weaknesses remains key to the success of any future IT initiatives that OPM undertakes.

Chairman Ross, Ranking Member Lynch, and Members of the Subcommittee:

I am pleased to participate in today's hearing on the Office of Personnel Management's (OPM) efforts to modernize the federal government's hiring and retirement systems. As you are aware, these systems are crucial to helping OPM achieve its mission of recruiting, retaining, and providing services to the federal workforce, with the agency reportedly investing \$79 million for its IT systems and services in fiscal year 2011.

OPM has, however, experienced challenges in managing its modernization initiatives. Reports that we issued in 2005, 2008, and 2009 on the agency's efforts toward planning and implementing a modernized retirement system highlighted its long history of undertaking retirement modernization projects that have not yielded the intended outcomes. At your request, my testimony today summarizes the findings from reports that we have issued on challenges the agency has faced in managing its efforts to modernize federal employee retirement processing.¹

The information in my testimony is based primarily on our previous work at OPM. We also obtained and conducted a limited review of more recent documentation pertaining to the agency's current retirement system modernization activities. We conducted our work in support of this testimony during November 2011 at OPM headquarters in Washington, D.C. All work on which this testimony is based was conducted in accordance with generally accepted government auditing standards.

Background

As the central human resources agency for the federal government, OPM is tasked with ensuring that the government has an effective civilian workforce. To carry out this mission, OPM delivers human resources products and services including policies and procedures for recruiting and

¹GAO, *Office of Personnel Management: Retirement Modernization Planning and Management Shortcomings Need to Be Addressed*, [GAO-09-529](#) (Washington, D.C.: Apr 21, 2009); *Office of Personnel Management: Improvements Needed to Ensure Successful Retirement Systems Modernization*, [GAO-08-345](#) (Washington, D.C.: Jan 31, 2008); *Comments on the Office of Personnel Management's February 20, 2008 Report to Congress Regarding the Retirement Systems Modernization*, [GAO-08-576R](#) (Washington, D.C.: Mar 28, 2008); and *Office of Personnel Management: Retirement Systems Modernization Program Faces Numerous Challenges*, [GAO-05-237](#) (Washington, D.C.: Feb 28, 2005).

hiring, provides health and training benefit programs, and administers the retirement program for federal employees. According to the agency, approximately 2.7 million active federal employees and nearly 2.5 million retired federal employees rely on its services.² The agency's March 2008 analysis of federal employment retirement data estimates that nearly 1 million active federal employees will be eligible to retire and almost 600,000 will most likely retire by 2016.³

According to OPM, the retirement program serves current and former federal employees by providing (1) tools and options for retirement planning and (2) retirement compensation. Two defined-benefit retirement plans that provide retirement, disability, and survivor benefits to federal employees are administered by the agency. The first plan, the Civil Service Retirement System (CSRS), provides retirement benefits for most federal employees hired before 1984. The second plan, the Federal Employees Retirement System (FERS), covers most employees hired in or after 1984 and provides benefits that include Social Security and a defined contribution system.⁴

OPM and employing agencies' human resources and payroll offices are responsible for processing federal employees' retirement applications. The process begins when an employee submits a paper retirement application to his or her employer's human resources office and is completed when the individual begins receiving regular monthly benefit payments as calculated by OPM.

Processing retirement claims includes functions such as determining retirement eligibility, inputting data into benefit calculators, and providing customer service. To do so, the agency uses over 500 different procedures, laws, and regulations, which are documented on its internal website. For example, the site contains memorandums that outline new

²OPM, Fiscal Year 2010 Annual Performance Report (January 2011).

³OPM, *An Analysis of Federal Employee Retirement Data: Predicting Future Retirements and Examining Factors Relevant to Retiring from the Federal Service* (March 2008).

⁴The Social Security Administration is responsible for administering Social Security, and the Federal Retirement Thrift Investment Board administers the defined-contribution system known as the Thrift Savings Plan. Defined-benefit plans calculate benefit amounts in advance of retirement based on factors such as salary level and years of service, and defined-contribution plans calculate benefit amounts based on how the amount is invested by the employee and employer.

procedures for handling special retirement applications, such as those for disability or court orders. In addition, OPM's retirement processing involves the use of over 80 information systems that have approximately 400 interfaces with other internal and external systems.

OPM has stated that the federal employee retirement process does not provide prompt and complete benefit payments upon retirement, and that customer service expectations for more timely payments are increasing. The agency also reports that a greater workload is expected due to an anticipated increase in the number of retirement applications over the next decade, although current retirement processing operations are at full capacity. Further, the agency has identified several factors that limit its ability to process retirement benefits in an efficient and timely manner. Specifically, OPM noted that:

- current processes are paper-based and manually intensive, resulting in a higher number of errors and delays in providing benefit payments;
- the high costs, limited capabilities, and other problems with the existing information systems and processes pose increasing risks to the accuracy of benefit payments;
- current manual capabilities restrict customer service;
- federal employees have limited access to retirement records, making planning for retirement difficult; and
- attracting qualified personnel to operate and maintain the antiquated retirement systems, which have about 3 million lines of custom programming, is challenging.⁵

OPM Has a Long History of Unsuccessful Retirement Modernization Initiatives

Recognizing the need to modernize its retirement processing, in the late 1980s OPM began initiatives that have called for automating its antiquated paper-based processes. Initial modernization visions called for developing an integrated system and automated processes to provide prompt and complete benefit payments. However, following attempts over

⁵[GAO-09-529](#).

more than two decades, the agency has not yet been successful in achieving the modernized retirement system that it envisioned.

- In early 1987, OPM began a program called the FERS Automated Processing System (FAPS). However, after 8 years of planning, the agency decided to reevaluate the program and the Office of Management and Budget requested an independent review of the program that identified various management weaknesses. The independent review suggested areas for improvement and recommended terminating the program if immediate action was not taken. In mid-1996, OPM terminated the program.
- In 1997, OPM began planning a second modernization initiative, called the Retirement Systems Modernization (RSM) program. The agency originally intended to structure the program as an acquisition of commercially available hardware and software that would be modified in-house to meet its needs. From 1997 to 2001, OPM developed plans and analyses and began developing business and security requirements for the program. However, in June 2001, it decided to change the direction of the retirement modernization initiative.
- In late 2001, retaining the name RSM, the agency embarked upon its third initiative to modernize the retirement process and examined the possibility of privately sourced technologies and tools. Toward this end, the agency determined that contracting was a viable alternative and, in 2006, awarded three contracts for the automation of the retirement process, to include the conversion of paper records to electronic files and consulting services to redesign its retirement operations.
- In February 2008, OPM renamed the program RetireEZ and deployed an automated retirement processing system. However, by May 2008 the agency determined that the system was not working as expected and suspended system operation. In October 2008, after 5 months of attempting to address quality issues, the agency terminated the contract for the system. In November 2008, OPM began restructuring the program and reported that its efforts to modernize retirement processing would continue. However, after several years of trying to revitalize the program, the agency terminated retirement system modernization in February 2011.

IT Management Weaknesses Have Repeatedly Hindered OPM's Retirement Modernization Efforts

OPM's efforts to modernize its retirement system have been hindered by weaknesses in several key project management disciplines. Our experience with major modernization initiatives has shown that having sound IT management capabilities is essential to achieving successful outcomes. Among others, these capabilities include project management, risk management, organizational change management, system testing, cost estimating, progress reporting, planning, and oversight. However, we found that many of the capabilities in these areas were not sufficiently developed. For example, in reporting on RSM in February 2005, we noted weaknesses in key management capabilities, such as project management, risk management, and organizational change management.⁶

- Project management is the process for planning and managing all project-related activities, including defining how project components are interrelated. Effective project management allows the performance, cost, and schedule of the overall project to be measured and controlled in comparison to planned objectives. Although OPM had defined major retirement modernization project components, it had not defined the dependencies among them. Specifically, the agency had not identified critical tasks and their impact on the completion of other tasks. By not identifying critical dependencies among retirement modernization components, OPM increased the risk that unforeseen delays in one activity could hinder progress in other activities.
- Risk management is the process for identifying potential problems before they occur. Risks should be identified as early as possible, analyzed, mitigated, and tracked to closure. OPM officials acknowledged that they did not have a process for identifying and tracking retirement modernization project risks and mitigation strategies on a regular basis but stated that the agency's project management consultant would assist it in implementing a risk management process. Without such a process, OPM did not have a mechanism to address potential problems that could adversely impact the cost, schedule, and quality of the retirement modernization project.

⁶[GAO-05-237](#).

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- Organizational change management is the process of preparing users for the changes to how their work will be performed as a result of a new system implementation. Effective organizational change management includes plans to prepare users for impacts the new system might have on their roles and responsibilities, and a process to manage those changes. Although OPM officials stated that change management posed a substantial challenge to the success of retirement modernization, they had not developed a detailed plan to help users transition to different job responsibilities. Without having and implementing such a plan, confusion about user roles and responsibilities could have hindered effective implementation of new retirement systems.

We recommended that the Director of OPM ensure that the retirement modernization program office expeditiously establish processes for effective project management, risk management, and organizational change management. In response, the agency initiated steps toward establishing management processes for retirement modernization and demonstrated activities to address our recommendations.

We again reported on OPM's retirement modernization in January 2008, as the agency was on the verge of deploying a new automated retirement processing system.⁷ We noted weaknesses in additional key management capabilities, including system testing, cost estimating, and progress reporting.

- Effective testing is an essential activity of any project that includes system development. Generally, the purpose of testing is to identify defects or problems in meeting defined system requirements or satisfying system user needs. At the time of our review, 1 month before OPM planned to deploy a major system component, test results showed that the component had not performed as intended. We warned that until actual test results indicated improvement in the system, OPM risked deploying technology that would not accurately calculate retirement benefits. Although the agency planned to perform additional tests to verify that the system would work as intended, the schedule for conducting these tests became compressed from 5 months to 2-1/2 months, with several tests to be performed concurrently rather than in sequence. The agency identified a lack of

⁷[GAO-08-345](#).

testing resources, including the availability of subject matter experts, and the need for further system development as contributing to the delay of planned tests and the need for concurrent testing. The high degree of concurrent testing that OPM planned to meet its February 2008 deployment schedule increased the risk that the agency would not have the resources or time to verify that the planned system worked as expected.

- Cost estimating represents the identification of individual project cost elements, using established methods and valid data to estimate future costs. The establishment of a reliable cost estimate is important for developing a project budget and having a sound basis for measuring performance, including comparing the actual and planned costs of project activities. Although OPM developed a retirement modernization cost estimate, the estimate was not supported by the documentation that is fundamental to a reliable cost estimate. Without a reliable cost estimate, OPM did not have a sound basis for formulating retirement modernization budgets or for developing the cost baseline that is necessary for measuring and predicting project performance.
- Earned value management (EVM) is a tool for measuring program progress by comparing the value of work accomplished with the amount of work expected to be accomplished. Fundamental to reliable EVM is the development of a baseline against which variances are calculated. OPM used EVM to measure and report monthly performance of the retirement modernization system. The reported results provided a favorable view of project performance over time because the variances indicated the project was progressing almost exactly as planned. However, this view of project performance was not reliable because the baseline on which it was based did not reflect the full scope of the project, had not been validated, and was unstable (i.e., subject to frequent changes). This EVM approach in effect ensured that material variances from planned project performance would not be identified and that the state of the project would not be reliably reported.

We recommended that the Director of OPM address these deficiencies by, among other things, conducting effective system tests prior to system deployment, in addition to improving program cost estimation and progress reporting. In response to our report, OPM stated that it concurred with our recommendations and stated that it would take steps to address the weakness we identified. Nevertheless, OPM deployed a limited initial version of the modernized retirement system in February

2008. After unsuccessful efforts to address system quality issues, the agency suspended system operation, terminated the system contract, and began restructuring the modernization effort.

In April 2009, we again reported on OPM's retirement modernization, noting that the agency still remained far from achieving the modernized retirement processing capabilities that it had planned.⁸ Specifically, we noted that significant weaknesses continued to exist in three key management areas that we had previously identified—cost estimating, progress reporting, and testing—while also noting two additional weaknesses related to planning and oversight.

- Despite agreeing with our January 2008 recommendation that OPM develop a revised retirement modernization cost estimate, the agency had not completed initial steps for developing a new cost estimate by the time we reported again in April 2009. At that time, we reported that the agency had not yet fully defined the estimate's purpose, developed an estimating plan, or defined the project's characteristics. By not completing these steps, OPM increased the risk that it would produce an unreliable estimate and not have a sound basis for measuring project performance and formulating retirement modernization budgets.
- Although it agreed with our January 2008 recommendation to establish a basis for effective EVM, OPM had not completed key steps as of the time of our April 2009 report. Specifically, despite planning to begin reporting on the retirement project's progress using EVM, the agency was not prepared to do so because initial steps, including the development of a reliable cost estimate and the validation of a baseline, had not been completed. Engaging in EVM reporting without first performing these fundamental steps could have again rendered the agency's assessments unreliable.
- As previously discussed, effective testing is an essential component of any project that includes developing systems. To be effectively managed, testing should be planned and conducted in a structured and disciplined fashion. Beginning the test planning process in the early stages of a project life cycle can reduce rework later. Early test planning in coordination with requirements development can provide

⁸[GAO-09-529](#).

major benefits. For example, planning for test activities during the development of requirements may reduce the number of defects identified later and the costs related to requirements rework or change requests. OPM's need to compress its testing schedule and conduct tests concurrently, as we reported in January 2008, illustrates the importance of planning test activities early in a project's life cycle. However, at the time of our April 2009 report, the agency had not begun to plan test activities in coordination with developing its requirements for the system it was planning at that time. Consequently, OPM increased the risk that it would again deploy a system that did not satisfy user expectations and meet requirements.

- Project management principles and effective practices emphasize the importance of having a plan that, among other things, incorporates all the critical areas of system development and is to be used as a means of determining what needs to be done, by whom, and when. Although OPM had developed a variety of informal documents and briefing slides that described retirement modernization activities, the agency did not have a complete plan that described how the program would proceed in the wake of its decision to terminate the system contract. As a result, we concluded that until the agency completed and used a plan that could guide its efforts, it would not be properly positioned to move forward with its restructured retirement modernization initiative.
- Office of Management and Budget and GAO guidance calls for agencies to ensure effective oversight of IT projects throughout all life-cycle phases. Critical to effective oversight are investment management boards made up of key executives who regularly track the progress of IT projects such as system acquisitions or modernizations. OPM's Investment Review Board was established to ensure that major investments are on track by reviewing their progress and determining appropriate actions when investments encounter challenges. Despite meeting regularly and being provided with information that indicated problems with the retirement modernization, the board did not ensure that retirement modernization investments were on track, nor did it determine appropriate actions for course correction when needed. For example, from January 2007 to August 2008, the board met and was presented with reports that described problems the retirement modernization program was facing, such as the lack of an integrated master schedule and earned value data that did not reflect the "reality or current status" of the program. However, meeting minutes indicated that no discussion or action was taken to address these problems. According to a member of the

board, OPM guidance regarding how the board is to communicate recommendations and needed corrective actions for investments it is responsible for overseeing had not been established. Without a fully functioning oversight body, OPM could not monitor the retirement modernization and make the course corrections that effective boards are intended to provide.

Our April 2009 report made new recommendations that OPM address the weaknesses in the retirement modernization project that we identified. Although the agency began taking steps to address them, the recommendations were overtaken by the agency's decision in February 2011 to terminate the retirement modernization project.

In November 2011, agency officials, including the Chief Information Officer, Chief Operating Officer, and Associate Director for Retirement Services, told us that OPM does not plan to initiate another large-scale effort to modernize the retirement process. Rather, the officials said the agency intends to take targeted steps to improve retirement processing that will include

- hiring and training approximately 100 new staff to help improve the timeliness of processing retirement applications and responding to retirement claims;
- demonstrating the capability to automate retirement applications;
- working with other agencies to improve the quality of electronic data they transmit to OPM for use in retirement processing; and
- improving OPM's retirement services website to allow enhanced communication.

Under this approach, OPM does not currently have plans to modernize the existing, antiquated retirement systems that the agency has long identified as necessary to accomplishing retirement modernization and improving the timeliness and accuracy of benefit payments.

In summary, despite OPM's recognition of the need to improve the timeliness and accuracy of retirement processing, the agency has thus far been unsuccessful in several attempts to develop the capabilities it has long sought. For over two decades, the agency's retirement modernization efforts have been plagued by weaknesses in management

capabilities that are critical to the success of such endeavors. Among the management disciplines the agency has struggled with are project management, risk management, organizational change management, cost estimating, system testing, progress reporting, planning, and oversight. Even though the agency is now considering only modest efforts to improve retirement processing, the development and institutionalization of these management capabilities is key to the success of any future retirement modernization or other IT initiative that OPM undertakes.

Mr. Chairman, this concludes my statement today. I would be pleased to answer any questions that you or other members of the Subcommittee may have at this time.

GAO Contact and Acknowledgments

If you have any questions concerning this statement, please contact Valerie C. Melvin, Director, Information Management and Technology Resources Issues, at (202) 512-6304 or melvinv@gao.gov. Other individuals who made key contributions include Mark T. Bird, Assistant Director; Larry E. Crosland; Lee A. McCracken; Teresa M. Neven; and Charles E. Youman.

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