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IMPROVEMENTS NEEDED TO DOL'S CAPITAL PLANNING AND INVESTMENT CONTROLS FOR MANAGING INFORMATION TECHNOLOGY INVESTMENTS

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BRIEFLY...

Highlights of Report Number: 23-14-009-07-723, issued to the Chief Information Officer.

WHY READ THE REPORT

DOL spends about \$500 million annually on a portfolio of information technology (IT) investments that support its mission and the delivery of customer services. This level of spending requires DOL to develop and implement a comprehensive approach to responsible management of these IT assets. The report highlights improvements DOL needs to make that would better ensure these investments are properly managed, stay within budget, and meet DOL program needs.

WHY OIG CONDUCTED THE AUDIT

Office of Management and Budget (OMB) A-11 requires the Department of Labor (DOL) to report on all funding for IT investments, including IT security. Fully documenting and properly classifying investments according to DOL policies and procedures is key to establishing complete and accurate information for prioritizing investments based on mission or program needs. Implementing strong controls over IT investments reduces the risks for cost overruns, schedule shortfalls, or outcomes that do not meet business needs or agency mission objectives. Oversight is a critical component of the investment management process that ensures investment risks can be effectively managed, tracked, and mitigated.

Our audit objective was to answer the following question:

Has DOL established effective controls to manage the IT investment process?

READ THE FULL REPORT

To view the report, including the scope, methodology, and full agency response, go to:

<http://www.oig.dol.gov/public/reports/oa/2014/23-14-009-07-723.pdf>.

March 2014

IMPROVEMENTS NEEDED TO DOL'S CAPITAL PLANNING AND INVESTMENT CONTROLS FOR MANAGING INFORMATION TECHNOLOGY INVESTMENTS

AUDIT RESULTS

Our audit concluded DOL can improve management of its IT investments by ensuring controls are timely updated and followed. These actions will provide DOL with better information regarding its IT investments and help it more effectively manage IT investment cost, schedule, and performance.

Of the 15 sampled IT investments we reviewed, 4 investments, costing about \$365 million from FY 2010 through FY 2012, were not classified as major investments consistent with DOL policy and were therefore not subjected to the full range of departmental oversight. Furthermore, 3 of the 15 sampled IT investments were not managed by certified project managers as required by DOL's System Development Life Cycle Management (SDLCM) manual. Finally, we determined the maturity of DOL's investment management process had not surpassed Stage 2 of GAO's ITIM framework due to a number of factors not fully present in DOL's process. Greater maturity within the ITIM framework can strengthen an agency's overall security posture and help ensure that IT security is appropriately planned and funded throughout the investment's life cycle.

WHAT OIG RECOMMENDED

We made 3 recommendations to the CIO to: 1) ensure all IT investments are identified and included as part of a comprehensive investment management process; 2) update DOL IT capital planning and investment control policies, procedures, and documentation; and 3) implement an investment management framework consistent with National Institute of Standards and Technology Special Publication 800-65.

The Office of Assistant Secretary for Administration and Management's Deputy Assistant Secretary for Operations, responding for the Chief Information Officer, stated the Office of the Chief Information Officer accepts the recommendations in the audit report and will take appropriate action to update Department-wide policies, processes, and procedures. These corrective actions are planned for completion in FY 2014.

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U.S. Department of Labor

Office of Inspector General
Washington, D.C. 20210



March 25, 2014

Inspector General's Report

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The Clinger-Cohen Act requires each federal agency to implement processes for maximizing the value and managing the risks of their information technology (IT) investments. The Department of Labor (DOL) guides and supports its IT investment project managers through the Capital Planning and Investment Control (CPIC) process. All IT investments must comply with requirements of CPIC and its select, control, and evaluate phases. To help project managers comply with the CPIC process, the Office of the Chief Information Officer (OCIO) provides requirements and resources through electronic CPIC (eCPIC) and through a CPIC guide.

Additionally, the Government Accountability Office (GAO) developed the Information Technology Investment Management (ITIM) framework, which can be used to analyze investment management processes to determine their level of maturity. For this audit, we used the ITIM framework as a measurement of investment process maturity. This measurement tool was provided within the National Institute of Standards & Technology (NIST) Special Publication (SP) 800-65, which assists federal agencies in integrating IT security into the capital planning process by providing a systematic approach to selecting, managing, and evaluating IT security investments. This publication provided the investment stages of maturity and identified the critical processes of the life cycle of investments (see GAO ITIM chart on page 8).

We conducted an audit to answer the following question:

Has DOL established effective controls to manage the IT investment process?

Our audit covered DOL's portfolio of 113 IT investments (see Exhibit 1), which received \$1.43 billion in funding over Fiscal Years (FY) 2010, 2011, and 2012. For testing, we judgmentally selected 15 IT investments by applying 7 risk factors to all 113 IT investments. These 15 investments represented \$725 million, or 51 percent, of the \$1.43 billion. Our areas of testing included: 1) key controls and performance indicators of the IT investment management control processes; 2) IT investment policies and

procedures; 3) defined phases for select, control, and evaluate, investments; 4) key IT investment classifications not recorded in CPIC documentation for FYs 2010, 2011, and 2012; and 5) DOL's CPIC processes relative to ITIM.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

RESULTS

Objective - Has DOL established effective controls to manage the IT investment process?

DOL's investment management controls were not applied uniformly, resulting in inadequate oversight of IT investments and increased risk of investments not meeting DOL business or program needs.

A. DOL Investment Management Controls Were Not Effective

DOL policy required monitoring of all major investments whose value exceeded the DOL policy specified dollar threshold. However, the selective exclusion of some investments may have resulted in unreliable measurement of total IT investment performance results and provided limited executive visibility to any high risk CPIC investment activities.

Our audit found DOL can improve management of its IT investments by ensuring controls are timely updated and followed, which will result in better information to effectively manage IT investment cost, schedule, and performance. DOL demonstrated a high degree of undocumented discretion in investment oversight and monitoring. This discretion led to the weakening of DOL's IT management process resulting in the exclusion of investments for management under current policies and procedures; the by-passing of controls intended to ensure monitoring took place across all investment phases; non-compliance to provide for full public disclosure within the OMB IT Dashboard; and increased risk that individual investment projects were not being prioritized based on mission needs. Without complete and accurate information on all IT investments, DOL management would not be able to make fully informed decisions or fully consider risks.

In our review of 15 sampled IT investments, we found 4 investments, totaling about \$365 million from FY 2010 through FY 2012, which were not classified as major investments per DOL policy and were therefore not subjected to the full range of oversight by the CPIC process. We also found 3 investments were not managed by

certified project managers as required by DOL's System Development Life Cycle Management (SDLCM) manual.

DOL Classification of Investments

We found 4 investments, totaling about \$365 million from FYs 2010 through 2012 that did not follow existing, written DOL IT investment management controls or DOL policy requirements for monitoring major investments. Those investments were:

- DOL Agency General Support System (AGSS)
- The Office of the Assistant Secretary for Administration and Management (OASAM) DOL IT Infrastructure Modernization (DITIM)
- Bureau of Labor Statistics (BLS) Technical Management & Strategic Activities (TMSA)
- OASAM Acquisition Management System (AMS)

We identified inconsistent IT investment classifications. The DOL policy to identify and classify major IT investments was not followed. Specifically, the IT Capital Planning and Investment Control Guide: *Managing IT Investments, version 2.1, October 2011* (CPIC Guide) required all high-value IT investments be subjected to increased oversight because of their significant cost and potential risk to the government. This policy required monitoring of all major investments more than the DOL CPIC policy-specified dollar threshold. The CPIC Guide stated that any IT investment with annual costs at or above \$5 million each year should be classified as a major investment.

DOL's portfolio of investments was annually reported to OMB within DOL's submission of the OMB Exhibit 53. The Exhibit 53 must demonstrate the agency's management of IT investments and how governance processes were used to plan, select, develop, implement, and operate IT investments. This documentation was used to manage the planning, development, implementation, and operation of IT investments and documents that demonstrate the outcomes of agency, branch, and bureau governance decisions and should be maintained and be available on request. For the IT investment portfolio reported in the Exhibit 53, the OMB Exhibit 300 described the justification, planning, and implementation of an individual capital asset included in the agency IT investment portfolio and served as a key artifact of the agency's EA and IT capital planning processes. The Exhibit 300 was comprised of two components--300A and 300B. The Exhibit 300A provided key high-level investment information to inform budget decisions, including general information and planning for resources, such as staffing and personnel. The Exhibit 300B provided temporal information, related to tracking management of an investment, such as projects and activities, risks, and operational performance of the investment. We compared DOL's OMB Exhibit 53 reports to its investment portfolio listings for FYs 2010 through 2012 and identified discrepancies for 9 investments within specific FYs that were classified as non-major in DOL's IT portfolio (see Exhibit 2).

Also, financial management systems were classified as non-major investments. According to the CPIC Guide, all investments for financial management systems¹ costing \$500,000 or more each year are required to be classified as major. We reviewed all 15 of DOL's financial management investments² and identified investments more than \$500,000 that should have been classified as major, but were not. We determined that 5 investments, valued at \$50.3 million, had been classified as non-major in DOL's IT portfolio (see Exhibit 3).

Specifically, there were two investments,³ totaling \$293.9 million, which were not always managed using CPIC and did not always use eCPIC per DOL's policies and guidance (see Exhibit 4). These two investments were not categorized in the select, control, or evaluate phases, but were instead identified as *not applicable*. The OCIO stated an alternative process to CPIC was used for these investments, but this alternative process was not documented. The OCIO also stated these investments were not subject to a full level of CPIC processes and oversight because they were not categorized as major investments. Not following the existing DOL IT investment management controls, such as documenting the select, control, and evaluate phases, resulted in inconsistent application of existing IT portfolio management policies and processes.

CPIC officials also stated:

For the President's Budget, EA [Enterprise Architecture], IT capital planning, and CIO function investments are not categorized as major investments and an Exhibit 300 is not required for them. ...TMSA is an EA and/or Capital Planning investment and therefore was not subject to the full Exhibit 300 level of CPIC processes and oversight.

CPIC officials explained that since OMB reporting instructions did not include EA investments, these types of investments were not to be included in the established CPIC process or subjected to CPIC controls. The OMB instructions provided by CPIC officials stated external reporting for CPIC activities was not required with Exhibit 300 reporting for major investments for FY 2013 and following FYs. However, according to OMB A-11 instructions, DOL was required to monitor the performance of these activities through internal monitoring and internal documentation. Exclusion from OMB reporting was permitted for FY 2013 due to the 2012 published FY2013 OMB Guidance on Exhibits 53 and 300s, which stated:

... EA, IT capital planning, and CIO function investments are not categorized as major investments and an Exhibit 300 is not required for

¹ OMB Circular A-127 defines a financial system as an information system that may perform all financial functions including general ledger management, funds management, payment management, receivable management, and cost management. Other uses include supporting financial planning, budgeting activities, and preparing financial statements.

² DOL OCIO listed 15 financial management systems in the Cyber Security Assessment and Management (CSAM) tool between FY2010 and FY2013.

³ DOL AGSS is a sub-agency individually managed general support systems and IT Infrastructure investment. BLS TMSA is an investment that provides administrative support to the various IT offices within BLS.

them. Any capital planning and investment control process investments may be reported separately in this section.

We believe DOL misinterpreted the reporting exclusion for monitoring EA investments in FY2013. OMB did not instruct to exclude investments within FY 2011 and FY 2010, but did instruct to exclude external EA reporting in FY 2013. OMB did not provide instruction excluding the performance of monitoring or continued use of internal investment controls on EA investments covering this three year period.

OMB Circular A-11 requires IT investment reports to be provided in accordance with the Clinger-Cohen Act. OMB A-11 states:

Investment costs and performance benefits must be formulated and reported in order to support the Clinger-Cohen Act's requirement that the OMB Director shall submit to Congress a report on the net program performance benefits achieved as a result of major capital investments made by executive agencies in information systems and how the benefits relate to the accomplishment of the goals of the executive agencies.

More specifically, the Guide to OMB Circular A-11 also states:

As agencies continue to utilize EA to model performance, business processes and services, decision makers must create clear line-of-sight relationships between investments in capital assets and specific components in the EA. For example, the business case for a capital asset must document the specific performance measures that are affected by the investment and how those measures are affected. The same clarity should exist for business processes, services delivered and data managed by a capital asset.

Additionally, DOL policy required monitoring of all major investments whose value exceeded the DOL policy-specified dollar threshold. However, the DOL CPIC policies did not include the updated FY 2013 OMB-instructed exclusions to EA investments. DOL's CPIC Guide required management of the full IT portfolio. OMB's updated instructions did not instruct DOL to exclude management of EA activities; rather, OMB instructed not to report on EA in FY 2013. Selectively excluded investments may result in not effectively measuring the total investment performance results against the EA and provide limited executive visibility to any high risk CPIC investment activities.

Another two investments were missing OCIO-required CPIC documentation (see Exhibit 5). Significant portions and projects within OASAM DITIM and OASAM AMS investments remained undocumented. In our tested investments, the three control phases were not timely updated within documentation and did not correctly document changes to investment select, control, or evaluate phases. The parts missing from these investments were:

1) *OASAM DITIM* – The investment totaled \$59.8 million between FY 2010 and FY 2012. The project management plan described this investment as having 9 major IT infrastructure silos⁴ with a shared information environment. Three of the 9 silos were identified as support functions. For these 3 silos, management did not provide documentation to support critical CPIC activities, such as quarterly, annual, and scorecard reviews performed at any time between FY 2010 through Quarter 1 of FY 2013. The 3 silos were:

- IT Modernization Program Management (ITMPM)
- IT Modernization Change Management (ITMCMP)
- IT Modernization Enterprise Architecture (ITMEA)

2) *OASAM AMS* – The investment totaled \$11.4 million between FYs 2010 and 2012, with the baseline⁵ being reported to OMB in FY 2012. DOL's select phase policies stated that baseline documentation and artifacts should have been provided in eCPIC in order to create the baseline reported and included in OMB Exhibit 53 and OMB Exhibit 300 materials.⁶ No baseline documentation was in eCPIC and limited documentation was provided for FY 2011 for planning the baseline. The final DOL-approved baseline documentation did not occur until June 2013. The select phase for this investment lasted through the duration of 3 fiscal years with minimal select phase oversight on IT spending. The DOL OCIO CPIC group explained that the AMS acquisition contract was contested through the identified years; however, development-related spending was not suspended or tracked with a defined baseline to provide investment risk management. Delays from the contested contract award were not documented either within the risk registry documentation or within the WBS documentation.⁷ Also, significant funding adjustments were not documented within eCPIC or associated select phase documentation, as required. This lack of documentation resulted in a misstatement to

⁴ A silo is an information system that is unable to freely communicate with other information management systems. Communication within an information silo is always vertical, making it difficult or impossible for the system to work with unrelated systems. Information silos may also exist because managers control the flow of information and access to the silo indicating an incentive exists for maintaining status quo.

⁵ Per FAR Subpart 34.2 and OMB's Capital Programming Guide, a supplement to Circular A-11, Part 7, agencies shall implement an Integrated Baseline Review (IBR) or baseline validation process as part of an overall investment risk management strategy. As part of this process, requested adjustments to an existing investment baseline (i.e. "rebaselining") should only be made if the program manager can demonstrate a high probability of success and a benefit-cost result that justifies continued funding after comparison with the other alternatives in the portfolio and budget limitations.

⁶ The information contained within Exhibit 53 and 300 reports over multiple reporting periods is used by OMB to continually provide the U.S. public government-wide investment information through the website: <http://www.itdashboard.gov>.

⁷ OMB A-11 Capital Planning Guide states the Work Breakdown Structure (WBS) is an integrated family tree that defines all the products and services comprising the investment program. The WBS provides the framework for estimating the program's cost and risk during the pre-systems acquisition planning and for developing the program schedule.

OMB for reporting the baseline status, and in June of 2013 a revision to the OMB IT Dashboard was made to reflect the DOL-approved baseline.

CPIC officials stated the CIO had discretion in managing the investments and this discretion allowed for the removal of investments from the CPIC process and classifying investments outside the documented policy and procedures. Discretion may have been used by the CIO to remove investments from the existing CPIC process and to classify investments contrary to policy and procedures. However, there were no existing policies or procedures that permitted and guided unilateral or coordinated discretion by the CIO.

This high degree of undocumented discretion has led to the weakening of DOL's IT management process, which resulted in: the exclusion of investments for management under current policies and procedures; the by-passing of controls intended to ensure monitoring took place across all investment phases; non-compliance to provide for full public disclosure within the OMB IT Dashboard; increased risk that individual investment projects were not being prioritized based on mission needs and improvement priorities; the use of uncertified project managers; and potential risks of DOL not meeting business or program needs.

IT Investments Identified With Non-Certified Project Managers

We found three DOL IT Investments, EFAST2, AGSS, and TMSA, which were not managed by certified project managers. Without use of certified project management, DOL did not ensure that investments were consistently monitored and that investment risks were fully reported by trained personnel.

The Employment Benefits and Security Administration's (EBSA) project manager was not certified as required by DOL's SDLC Management (SDLCM) manual. The project manager's investment was classified as major and funded for \$42.5 million from FYs 2010 to 2012. While the project manager attempted to obtain a waiver in 2009, no response was received from the OCIO and no program agency follow-up was ever conducted on the status of the waiver with OCIO. Additionally, there were two investments improperly classified that had non-certified project management professionals. Due to DOL AGSS (\$276.2 million) and TMSA (\$17.7 million) not being properly classified, management did not apply the major investment requirement to have a certified project management professional overseeing these investments. If these investments had been managed within the CPIC process, they would have been required to be managed by certified project management professionals.

OMB Memorandum for Chief Acquisition Officers on April 25, 2007, *The Federal Acquisition Certification for Program and Project Managers*, states:

Well-trained and experienced program and project managers are critical to the acquisition process and the successful accomplishment of mission

goals. A strong partnership between program and project managers and contracting professionals requires a common understanding of how to meet the government's needs through acquisitions that deliver quality goods and services in an effective and efficient manner.

Ensuring well-trained and experienced program managers lead IT investment oversight reduces potential risks for cost overruns, schedule shortfalls, or outcomes that do not meet business needs or agency mission objectives.

NIST SP 800-65, *Integrating IT Security into the Capital Planning and Investment Control Process*, required the adherence to GAO's best practices, three-phased investment life-cycle model for federal IT investments. NIST SP 800-65 included the GAO ITIM five-stage framework maturity model in section 2.4 *Information Technology Investment Management*. These required critical processes⁸ were used in testing DOL's investment management processes for maturity.

B. Maturity of DOL's Investment Management at Stage 2

We assessed DOL's CPIC and investment management processes against GAO's ITIM framework and found DOL's CPIC processes were at Stage 2, Building the Investment Foundation. A fully utilized investment management framework can produce more consistent IT investment results. These results include: minimizing the risk of not meeting mission needs, reducing cost-overruns, and may consistently produce more timely results. The use of an effective maturity framework can mature an organization's investment planning and management decision making capabilities.

NIST SP 800-65 provides methodology for managing investments through GAO's ITIM maturity framework. This framework presented in NIST guidance is referred to as a model methodology. Agencies should work within their investment planning environments to adapt and incorporate the pieces of this process into their own unique processes to develop workable approaches for CPIC. If incorporated into an agency's processes, the methodology can help ensure that IT security is appropriately planned for and funded throughout the investment's life cycle, thus strengthening the agency's overall security posture. The maturity stages of ITIM are shown in the following chart.

⁸ NIST SP 800-56 provided the ITIM framework for defining the critical processes and key practices for investment management. NIST directed agencies to use GAO-04-394-G, *Information Technology Investment Management, A Framework for Assessing and Improving Process Maturity*, Version 1.1, March 2004.

Maturity stages	Critical processes
Stage 5: Leveraging IT for strategic outcomes	<ul style="list-style-type: none"> - Optimizing the investment process - Using IT to drive strategic business change
Stage 4: Improving the investment process	<ul style="list-style-type: none"> - Improving the portfolio's performance - Managing the succession of information systems
Stage 3: Developing a complete investment portfolio	<ul style="list-style-type: none"> - Defining the portfolio criteria - Creating the portfolio - Evaluating the portfolio - Conducting postimplementation reviews
Stage 2: Building the investment foundation	<ul style="list-style-type: none"> - Instituting the investment board - Meeting business needs - Selecting an investment - Providing investment oversight - Capturing investment information
Stage 1: Creating investment awareness	<ul style="list-style-type: none"> - IT spending without disciplined investment processes

Source: GAO.

Each stage of maturity builds upon the lower stages and enhances an organization’s ability to manage its IT investments. According to the GAO framework, the organization assessed cannot achieve the next stage of maturity should there be weaknesses identified in the previous stage. Although we identified weaknesses in CPIC and eCPIC controls, we determined the maturity of DOL’s CPIC process for IT investments was consistent with Stage 2 maturity, Building the Investment Foundation. We made this determination because of insufficient monitoring to ensure the CPIC and eCPIC controls were applied to all IT investments. Adequate monitoring would have provided increased completeness of the information and accuracy of the data and adherence to established policies and procedures. WBSs were either not documented or not fully documented, such as security cost information not being included.

Further, because DOL investment management had not developed a complete investment portfolio and instead used other alternative, non-documented processes, advancement to higher stages within the ITIM framework was also prohibited. Additionally, program agency investment managers’ WBSs were either not documented or were not fully documented in 7 of 15 investments reviewed.⁹ Finally, DOL’s Enterprise Implementation Committee did not document any results of their IT investment-related meetings and decisions for FY 2012.

At Stage 1 maturity, Creating Investment Awareness, DOL had a defined and disciplined investment processes. DOL created a specified group, the OCIO CPIC group, tasked to assist agencies and project managers in performing investment management activities and to assist in reporting investment performance results to

⁹ Investments’ Work breakdown Structure (WBS) were not provided or were missing vital information from these investments: EBSA EFAST2, OCFO PeoplePower, DOL IT Infrastructure Modernization, DOL AGSS, Mine Safety and Health Administration (MSHA) Mine Safety Information System (MSIS), SOL IT Modernization, and OASAM AMS.

OMB. Furthermore, DOL defined critical ITIM processes through the following policies and procedures, which program agencies were to follow and consistently apply:

- eCPIC Guide v 2.1 Oct 2011
- SDLCM Manual
- DLMS 9 – Chapter 200
- Earned Valued Management Policy
- DOL Exhibit 53 Instructions
- DOL Exhibit 300 Guide
- Baseline Management Guide v.1
- Investment Review Requirement

However, for Stage 2, we found DOL's ITIM processes were only partially completed, contained significant gaps, or were not fully implemented. Specific examples of weaknesses in critical DOL CPIC processes included the following:

Post Implementation Review (PIR) not performed and overlooked – Of the investments tested by OIG, a PIR for one of two investments in the evaluate phase was not performed by program agency investment management. PIRs were to be performed to document effective IT investment management practices, to ensure continuous improvement in IT Investment decision and management processes, and to help avoid repeating mistakes in future IT projects. For example, DOL's FY 2013 IT Investment Review Requirements, dated February 20, 2013, required PIRs to be performed within 12-18 months of full system implementation. Once the OCIO approved PIRs, as well as other control phase requirements, the investments were to change from the control phase to the evaluate phase. We found that a PIR had not been performed for one of two¹⁰ investments in the evaluate phase. Specifically, the Office of Public Affairs (OPA) was not able to provide a completed PIR for the Enterprise Communications Initiative (ECI) Investment. At the time of OIG testing, the ECI investment had been in the evaluate phase for over 18 months. According to CPIC policies, this investment should not have been moved to the evaluate phase until the PIR had been submitted and approved by the OCIO.

Non-performance of Cost Benefit Analysis and Incomplete Analysis of Alternatives– Of the investments tested, 7 of 15 were found to be deficient. DOL guidance requires each investment to have a Cost Benefit Analysis (CBA) that requires at least 3 viable alternatives be evaluated and compared consistently, detail the cost and benefits for each alternative, and provide a detailed justification for the selected alternative.

Of the seven investments reviewed, three did not have a CBA in place.¹¹ Four other investments had CBAs, but were outdated to the extent the documented alternatives

¹⁰ We selected 15 investments to review for compliance with Departmental Capital Planning policies and procedures. Of the 15 investments selected for review, two investments were in the Evaluate phase.

¹¹ Investments without a CBA included DOL AGSS, BLS TMSA, and OASAM AMS.

could no longer be relied upon.¹² For example, the CBA for the Office of the Chief Financial Officer's (OCFO) New Core Financial Management System (NCFMS) referred to retired information systems, such as the DOL Accounting and Related System and NCFMS Lean, retired in 2010 and 2006, respectively, which were no longer considered realistic or reasonable alternatives.

Furthermore, three¹³ CBAs did not consider disposition costs or inconsistently included disposition costs for some of the presented alternatives. This resulted in inconsistent comparison of the documented alternatives and potentially resulted in the selection of a less cost effective alternative. As a result of these CBA deficiencies, decision makers were not provided with a complete analysis of alternatives, requirements, costs, and benefits. Without a complete and accurate analysis of the project, senior management was hampered in their ability to make an informed decision to continue funding these specific projects and the overall investments. Furthermore, incorrect analysis may have lead senior management to approve projects at risk for cost overruns, not meeting goals, or not being completed within schedule.

Risk management activities not performed and incomplete – Of the investments tested, 8 of 15 had poorly documented and inconsistently maintained investment risk management processes. The DOL risk management process required a risk register to be developed for each investment in order to capture, track, and prioritize the individual project risks based on the probability and impact of risk materialization. The risk register should include a list of lessons learned that was required to be actively managed and updated on an ongoing basis.

Of the 8 investments with deficiencies, 2¹⁴ did not have required, documented risk registers. Furthermore, we found 5 investments¹⁵ that had risk registers that were not being updated on a consistent basis. OPA's ECI did not address all 19 required risk areas.¹⁶

Not documenting risks impacted DOL's risk management process and capability to monitor defined risks to the point that risks may not have been effectively identified, managed, tracked, or mitigated. Also, without a complete risk register that identifies how project staff will respond to specific risks, DOL may not be able to properly respond to unplanned incidents or to remediate project risks, which may contribute to cost overruns, schedule shortfalls, and an investment's inability to perform as expected.

¹² Investments that had a CBA, but whose CBA was so outdated the documented alternatives could no longer be relied upon, included: OCFO NCFMS, MSHA MSIS, SOL IT Modernization Investment, and DOL DITIM.

¹³ Investments with inconsistent consideration of disposition costs included: OCFO NCFMS, SOL IT Modernization Investment, and OASAM AMS.

¹⁴ Investments that did not provide documented risk registers included: BLS TMSA and DOL AGSS.

¹⁵ The five investments whose risk registers were not updated on a consistent basis, including not updating the lessons learned portion of the risk register, included: Occupational Safety and Health Administration OSHA Information System, SOL IT Modernization, OASAM AMS, WHD WDS, and OCFO NCFMS.

¹⁶ Review of OPA ECI investment's risk register resulted in 7 of 19 risk areas not being documented or considered. Those 7 risk areas not considered were asset protection consideration, overall risk of project failure, project resources/financial, technical, business/operational, organizational and change management, and strategic risks.

Earned Value Management (EVM) or Operational Analysis was not performed on tested investments – In 2004, the OCIO issued guidance on its EVM policy establishing dollar thresholds for which major IT projects must implement EVM or, if not required to implement EVM, should perform an Operational Analysis.¹⁷ We reviewed all investments to determine if EVM had been implemented or if an Operational Analysis had been performed and determined 3 of 15 investments could not provide evidence of having implemented EVM or performed an Operational Analysis.¹⁸ Furthermore, we noted one of the investments, the OCFO PeoplePower investment, provided an Operational Analysis, but no cost or schedule variances were included in the analysis. The OCFO stated no variances had been calculated since FY 2011 because the investment is in a steady state and is due to be decommissioned in FY 2014. While the OIG agrees the investment’s spending has been consistent for the last few years and it will soon be decommissioned, OCIO guidance requires an Operational Analysis to be performed until the investment is decommissioned or no longer meets the EVM dollar threshold. Improperly recording the project’s cost and schedule variances hamper management’s ability to take corrective actions against cost and schedule overruns before tasks are completed.

Capital Planning resources were inconsistently tracked or documented – DOL’s Computer Security Handbook contains policies and procedures to ensure information security is addressed in the capital planning and investment process. OCIO required program agencies to record information security resource funding allocations within the individual investment’s Project Plan, or Work Breakdown Structure (WBS). We identified 4 of 15 investments¹⁹ that did not contain verifiable information or a discrete line item for information security. This was mostly due to incomplete information provided by the program agencies in completion of its Project Plans or WBS. Without properly tracking IT security funding, DOL is unable to ensure funding for critical security needs remains cost effective, is well-planned, and adequately considered for making critical investment decisions.

As DOL strives to improve critical CPIC processes to higher levels of maturity, the weaknesses identified in earlier stages of the ITIM framework must be resolved. Also, not fully performing and following required CPIC activities resulted in incomplete or incorrect information for investment decision-making and oversight.

¹⁷ OCIO Guidance for the DOL Earned Value Management System Methodology, dated September 27, 2004, requires major investments in the operational or “steady state” phase where EVMS is not required to use operational analysis to determine how close the investment is to meeting its operational cost, schedule and performance goals.

¹⁸ The OCFO NCFMS investment could not provide evidence of performing EVM or Operational Analysis; the WHD WDS investment could not provide evidence of Operational Analysis from FY 2010 to FY 2012; and the MSHA MSIS investment could not provide evidence of performing an Operational Analysis in 2010.

¹⁹ Those investments in which we were unable to verify that a discrete line item for IT security testing had been established included: OASAM AMS, BLS TMSA, DOL AGSS, and DOL DITIM.

RECOMMENDATIONS

We recommend the CIO:

1. Perform a DOL-wide review of the IT Portfolio and the Investment Management Process to verify classification of all IT investments meets DOL's policies and procedures.
2. Update IT capital planning and investment control policies, procedures, and documentation to reflect and clarify: (a) use of the capital planning tool, and (b) the comprehensiveness of the investment management process and enforcement to maintain required eCPIC documentation for critical processes involving select, control, and evaluate phases.
3. Implement an investment management framework consistent with NIST SP 800-65 and which aligns with GAO's ITIM maturity framework to strengthen DOL's approach to IT investment management.

CIO'S RESPONSE

The Office of Assistant Secretary for Administration and Management's Deputy Assistant Secretary for Operations, responding for the Chief Information Officer, stated that the Office of the Chief Information Officer accepts the recommendations in the audit report and will take appropriate action to update Department-wide policies, processes and procedures. These corrective actions are planned for completion in FY 2014. See Appendix D for the CIO's entire response.

We appreciate the cooperation and courtesies OCIO personnel extended to the OIG during this audit. OIG personnel who made major contributions to this report are listed in Appendix E.



Elliot P. Lewis
Assistant Inspector General
for Audit

Exhibits

Exhibit 1

DOL's 113 Investments

All costs were extracted as reported from DOL's OMB Exhibit 53 and rounded to two decimal places.²⁰

	Agency	CPIC Investment	FY 2010 Actual Cost (millions)	FY 2011 Actual Cost (millions)	FY 2012 Actual Cost (millions)	Total FY 2010 to FY 2012 Actual Costs (millions)
1	ALJ	ALJ Case Tracking System (CTS)	\$1.58	\$1.87	\$1.61	\$5.06
2	BLS	American Time Use Survey Systems	0.32	0.78	0.79	1.89
3	BLS	Compensation and Working Conditions Activities & Systems	0.17	0.18	0.19	0.54
4	BLS	Consumer Expenditure and Information Systems	3.4	3.35	3.38	10.13
5	BLS	Consumer Price Index (CPI) Maintenance	12.73	12.47	15.08	40.27
6	BLS	Current Employment Statistics (CES) Maintenance	7.07	5.71	5.71	18.49
7	BLS	Current Population Survey (CPS) Maintenance	1.06	1.15	1.16	3.38
8	BLS	Employment Projections Systems	0.15	0.15	0.15	0.46
9	BLS	Employment and Unemployment Statistics Cross-Cutting Activities	0.81	0.21	0.21	1.24
10	BLS	Executive Direction Activities	0.20	0.15	0.16	0.51
11	BLS	Industrial Prices Systems (IPS)	15.87	16.03	16.15	48.04
12	BLS	Internet Data Collection Facility (IDCF)	1.25	1.78	1.79	4.82
13	BLS	Job Openings and Labor Turnover Statistics Systems	0.07	0.17	0.17	0.41

²⁰ All funding was based on OMB Exhibit 53s from: Budget Year (BY) 2014 submitted on September 10, 2012, BY 2013 submitted on May 2, 2012, and BY 2012 submitted on May 24, 2011. The BY occurred from October 1 to September 30 of the following year and was submitted by each federal agency to OMB prior to October. The May submissions also contained approved budget passback information provided from OMB to DOL. The May submissions updated the original proposed budgets submitted to OMB in September of the previous year. BY 2014 did not include May passback information in the list of 113 investment information provided.

	Agency	CPIC Investment	FY 2010 Actual Cost (millions)	FY 2011 Actual Cost (millions)	FY 2012 Actual Cost (millions)	Total FY 2010 to FY 2012 Actual Costs (millions)
14	BLS	LABSTAT Maintenance	4.87	5.20	5.23	15.3
15	BLS	Local Area Unemployment Statistics Systems	1.90	2.98	3.01	7.89
16	BLS	Management Information System	2.59	2.69	2.70	7.98
17	BLS	Mass Layoff Statistics Systems	1.08	0.90	0.91	2.89
18	BLS	Measuring Green-Collar Jobs	0.08	0.15	0.22	0.44
19	BLS	National Compensation Survey (NCS) Maintenance	6.44	6.54	5.70	18.68
20	BLS	National Longitudinal Surveys Systems	0.00	0.00	0.00	0.01
21	BLS	Occupational Employment Statistics Systems	2.47	1.13	1.13	4.73
22	BLS	Occupational Safety & Health Statistics (OSHS) Systems	3.29	3.12	3.14	9.55
23	BLS	Planning and Control Activities	4.96	3.61	3.64	12.20
24	BLS	Prices and Cost of Living Cross-Cutting Activities	0.79	0.35	0.36	1.5
25	BLS	Product Research and Certification Activities	1.08	1.46	1.47	4.01
26	BLS	Productivity Maintenance	0.2	0.2	0.63	1.03
27	BLS	Productivity and Technology Activities & Systems	0.26	0.27	0.27	0.8
28	BLS	Quarterly Census of Employment and Wages (QCEW) Systems	5.39	7.12	6.88	19.39
29	BLS	Technology Management & Strategic Activities	6.07	5.86	5.74	17.66
30	DOL	DOL - Agencies' General Support Systems	78.46	98.53	99.22	276.21
31	DOL	DOL - Appeals Management System	0.87	0.46	0.6	1.93
32	DOL	DOL - IT Infrastructure Modernization (DITIM)	19.54	16.23	24.04	59.81

	Agency	CPIC Investment	FY 2010 Actual Cost (millions)	FY 2011 Actual Cost (millions)	FY 2012 Actual Cost (millions)	Total FY 2010 to FY 2012 Actual Costs (millions)
33	DOL	DOL eGrants	5.22	3.1	3.65	11.97
34	DOL	DOL-Wide Enterprise Architecture Program (EAP)	2.3			2.3
35	EBSA	EFAST2	12.82	13.61	16.09	42.52
36	EBSA	Mission Critical Core IT Activities	0.99	0.99	0.99	2.97
37	EBSA	Mission Support Activities (MSA)	4.51	4.73	4.75	13.99
38	ETA	ETA Application Support Services	3.87	3.73	3.84	11.44
39	ETA	ETA General and Customer Support	0.9	0.8	0.89	2.59
40	ETA	ETA Planning and Control	3.09	1.85	1.90	6.84
41	ETA	Enterprise Business Support System (EBSS)	11.63	5.70	6.23	23.56
42	ETA	Foreign Labor Certification Systems (FLCS)	11.30	10.75	9.33	31.38
43	ETA	Job Corps LAN/WAN	20.44	26.04	14.18	60.65
44	ETA	Job Corps Student Pay Allotment Management Information System (SPAMIS)	10.43	11.94	12.21	34.58
45	ETA	Unemployment Insurance Database Management System	3.98	3.69	4.27	11.94
46	MSHA	MSHA Application Support Services	1.01	1.05	1.08	3.14
47	MSHA	MSHA Distance Learning and Web-based Training	0.25	0.25	0.25	0.75
48	MSHA	MSHA Enterprise Architecture/Planning and Control	2.02	2.1	2.19	6.31
49	MSHA	MSHA Internet /Intranet Maintenance	0.2	0.2	0.21	0.61
50	MSHA	MSHA Standardized Information System (MSIS)	6.55	6.98	6.53	20.06

	Agency	CPIC Investment	FY 2010 Actual Cost (millions)	FY 2011 Actual Cost (millions)	FY 2012 Actual Cost (millions)	Total FY 2010 to FY 2012 Actual Costs (millions)
51	MSHA	Mine Accident, Injury, and Employment System (MAIES)	0.4	0.42	0.43	1.25
52	OASAM	Acquisition Management System (AMS)	2.14	2.14	7.14	11.43
53	OASAM	Application Maintenance and Support	1.45	1.52	1.56	4.53
54	OASAM	Benefits.gov	4.66	3.56	3.2	11.42
55	OASAM	CIO Activities	5.59	5.31	5.2	16.1
56	OASAM	Computer Security Tools	0	0.76	0.93	1.69
57	OASAM	Customer Service Modernization Program (CSMP)		2	4.9	6.9
58	OASAM	Departmental E-Business Suite (DEBS)	1.3	3.08	2.83	7.21
59	OASAM	Disaster Assistance Improvement Plan	0.43	0.41	0.12	0.96
60	OASAM	E-Property Management and Inventory Initiative	0.5	0.51	0.52	1.53
61	OASAM	E-Rulemaking	0.69	0.23	0.27	1.18
62	OASAM	Electronic Capital Planning and Investment Control (eCPIC) System	0.2	0.2	0.23	0.63
63	OASAM	General System and Customer Support	2.98	3.09	3.2	9.27
64	OASAM	Grants.gov	0.18	0.18	0.17	0.53
65	OASAM	HR Line of Business	1.87	1.53	3.9	7.3
66	OASAM	HR Works	1.36	8.7	4.13	14.19
67	OASAM	HSPD-12	5.83	4.62	2.8	13.25
68	OASAM	IAE Loans and Grants	0.07	0.08	0.11	0.26
69	OASAM	ISS LOB FISMA Reporting Tool - DOJ CSAM	0.28	0.27	0.25	0.79

	Agency	CPIC Investment	FY 2010 Actual Cost (millions)	FY 2011 Actual Cost (millions)	FY 2012 Actual Cost (millions)	Total FY 2010 to FY 2012 Actual Costs (millions)
70	OASAM	ISS LOB FISMA Reporting Tool - CyberScope	0	0.04	0.04	0.08
71	OASAM	Integrated Acquisition Environment	0.18	0.15	0.15	0.48
72	OASAM	LOB: Budget Formulation and Execution	0.1	0.11	0.11	0.31
73	OASAM	LOB: Financial Management	0.08	0.08	0.08	0.23
74	OASAM	LOB: Grants Management	0.11	0.08	0.17	0.36
75	OASAM	LOB: Human Resource Management	0.07	0.07	0.07	0.2
76	OASAM	Safety and Health Information Management System (SHIMS)	1.32	1.61	0.78	3.71
77	OASAM	Secretary's Information Management System (SIMS)	1.32	0.4	0.52	2.24
78	OASAM	eProcurement	1.88	1.22	1.22	4.32
79	OASP	ELAWS (Employment Laws Assistance for Workers and Small Businesses)	0.97	0.94	0.97	2.89
80	OCFO	New Core Financial Management System(NCFMS)	15.6	23.06	23.29	61.94
81	OCFO	OCFO - eGov Travel Service	0.8	0.8	1.07	2.66
82	OCFO	PeoplePower	8	8	8	24
83	ODEP	Disability.gov	2.04	2.04	2.05	6.13
84	OFCCP	Federal Contractor Compliance System (FCCS)	0.85	3.73	3.62	8.21
85	OFCCP	OFCCP Information System (OFIS)	3.16	3.25	2.52	8.93
86	OIG	e-OIG Information Systems	0.64	0.83	0.86	2.32
87	OLMS	Electronic Labor Organization Reporting System (e.LORS)	2.07	2.15	2.22	6.45

	Agency	CPIC Investment	FY 2010 Actual Cost (millions)	FY 2011 Actual Cost (millions)	FY 2012 Actual Cost (millions)	Total FY 2010 to FY 2012 Actual Costs (millions)
88	OPA	OPA - DOL- National Contact Center Initiative (DOL-NCC)	3.42	3.08	3.08	9.58
89	OPA	OPA - Enterprise Communications Initiative	7	7.36	7.13	21.49
90	OSHA	OSHA - Applications Support	2.35	2.64	2.50	7.49
91	OSHA	OSHA - Architecture Support	0.43	0.09	1.2	1.72
92	OSHA	OSHA - Expert Advisors (E-Systems/E-Tools)	0.5	0.5	0.5	1.5
93	OSHA	OSHA - Help Desk	1.6	1.21	2.35	5.16
94	OSHA	OSHA - Information System (OIS)	16.16	15.97	10.78	42.91
95	OSHA	OSHA - Internet/Extranet/Intranet Operations and Maintenance	1.35	1.71	1.59	4.65
96	OSHA	OSHA - Measurement and Reporting System (MARS)	0.1	0.1	0.1	0.29
97	OSHA	OSHA - Modernization of Collecting Injuries and Illness Data		0	0	0
98	OSHA	OSHA - Technical Information Management System (TIMS), formerly identified as the Technical Information Retrieval System (TIRS).	0.39	0.44	0.44	1.27
99	OSHA	OSHA - Training, Documentation, and Configuration Management	0.6	0.63	0.6	1.83
100	OWCP	Black Lung Claims System (BLCS)	11.75	11.94	11.94	35.63
101	OWCP	Energy Compensation System (ECS)	18.17	19.26	11.71	49.13
102	OWCP	Integrated Federal Employees' Compensation System (iFECS)	23.97	18.92	18.92	61.81
103	OWCP	Longshore Claims Systems (LCS)	1.43	1.46	1.44	4.32
104	OWCP	OWCP Workers' Compensation System (OWCS)	0	0	0.01	0.01

	Agency	CPIC Investment	FY 2010 Actual Cost (millions)	FY 2011 Actual Cost (millions)	FY 2012 Actual Cost (millions)	Total FY 2010 to FY 2012 Actual Costs (millions)
105	SOL	SOL - IT Modernization	4.64	5.02	4.88	14.53
106	VETS	Information Technology and Research Support	0.73	0.75	0.78	2.25
107	VETS	USERRA Information Management System (UIMS)	0.35	0.75	0.77	1.86
108	VETS	VETS-100 Reporting	0.26	0.63	0.96	1.85
109	WHD	Back Wage Financial System (BWFS)	1.92	1.98	1.73	5.63
110	WHD	Civil Money Penalty System (CMPS)	1.04	1.07	1.1	3.21
111	WHD	Strategic Enforcement Achieves Compliance System (SEACS) & Prevailing Wage System (PWS)			0.47	0.47
112	WHD	Wage Determination System (WDS)	8.01	3.19	4.31	15.51
113	WHD	Wage Hour Investigative Support and Reporting Database (WHISARD)	1.84	1.89	1.76	5.49
Total Costs			\$463.6	\$486.03	\$480.66	\$1,430.28

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Exhibit 2**Investments Classified as Non-Major**

Investment ²¹	FY 2010		FY 2011		FY 2012		FY 2010 to FY 2012
	DME ²² (millions)	O&M ²³ (millions)	DME (millions)	O&M (millions)	DME (millions)	O&M (millions)	Total Costs (millions)
ETA - Enterprise Business Support System (EBSS)	\$0	\$11.63	\$0	\$5.70	\$0	\$6.23	\$23.56
BLS - Current Employment Statistics (CES) Maintenance	0	7.07	0	5.71	0	5.71	18.49
BLS - Technology Management & Strategic Activities	0	6.07	0	5.86	0	5.74	17.66
OASAM - CIO Activities	0	5.59	0	5.31	0	5.20	16.1
BLS - Quarterly Census of Employment and Wages (QCEW) Systems	0	5.39	0	7.12	0	6.88	19.39
DOL - Agencies' General Support Systems			0	98.53	0	99.22	197.76
ETA - Job Corps LAN/WAN			0	26.04	0	14.18	40.21
OWCP - Black Lung Claims System (BLCS)			0	11.94	0	11.94	23.89
BLS - LABSTAT Maintenance			0	5.20	0	5.23	10.43

²¹ All funding based on OMB Exhibit 53s from: September 10, 2012 (BY 2014), May 2, 2012 (BY 2013), and May 24, 2011 (BY 2012).

²² DME- Development, Modernization, and Enhancement

²³ O&M- Operations & Maintenance

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Exhibit 3**Financial Management Investments Classified as Non-major**

Investment ²⁴	FY 2010		FY 2011		FY 2012		FY 2010 to FY 2012
	DME (millions)	O&M (millions)	DME (millions)	O&M (millions)	DME (millions)	O&M (millions)	Total Costs (millions)
OWCP - Black Lung Claims System (BLCS)	\$0	\$11.75	\$0	\$11.94	\$0	\$11.94	\$35.63
WHD - Back Wage Financial System (BWFS)	0	1.92	0	1.98	0	1.73	5.63
WHD - Civil Money Penalty System (CMPS)	0	1.04	0	1.07	0	1.1	3.21
OASAM - E-Property Management and Inventory Initiative	0	0.50	0	0.51	0	0.52	1.53
OWCP - Longshore Claims Systems (LCS)	0	1.43	0	1.46	0	1.44	4.32
Total							\$50.32

²⁴ All funding based on OMB Exhibit 53s from: September 10, 2012 (BY 2014), May 2, 2012 (BY 2013), and May 24, 2011 (BY 2012).

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Exhibit 4

Investments Categorized as Not Applicable

Investments ²⁵	FY 2010		FY 2011		FY 2012		FY 2010 to FY 2012
	DME (millions)	O&M Steady State (millions)	DME (millions)	O&M Steady State (millions)	DME (millions)	O&M Steady State (millions)	Total Costs (millions)
DOL - Agencies' General Support Systems	\$0	\$78.46	\$0	\$98.53	\$0	\$99.22	\$276.21
Technology Management & Strategic Activities	0	6.07	0	5.86	0	5.74	17.66
Total							\$293.87

²⁵ All funding based on OMB Exhibit 53s from: September 10, 2012 (BY 2014), May 2, 2012 (BY 2013), and May 24, 2011 (BY 2012).

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Exhibit 5

Investments Missing Significant Portions of CPIC Documentation

Investments ²⁶	FY 2010		FY 2011		FY 2012		FY 2010 to FY 2012
	DME (millions)	O&M Steady State (millions)	DME (millions)	O&M Steady State (millions)	DME (millions)	O&M Steady State (millions)	Total Costs (millions)
DOL – IT Infrastructure Modernization	\$12.9	\$6.64	\$5.1	\$11.13	\$8.15	\$15.88	\$59.81
OASAM – Acquisition Management System	2.14	0	2.14	0	7.14	0	11.43
Total							\$71.24

²⁶ All funding based on OMB Exhibit 53s from: September 10, 2012 (BY 2014), May 2, 2012 (BY 2013), and May 24, 2011 (BY 2012).

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Appendices

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Background

DOL spends about \$500 million annually on a portfolio of information technology (IT) investments that support its mission and the delivery of customer services. This level of spending requires DOL to develop and implement a comprehensive approach to responsible management of these IT assets.

DOL's integrated IT governance process is supported by the OCIO's IT Capital Planning and Investment Control (CPIC) Program. The CPIC Program uses the "Select-Control-Evaluate" methodology to help program agencies and DOL's executive leadership select the appropriate IT investments for inclusion in the DOL IT portfolio, control the ongoing effective performance of those investments, and evaluate how well those investments achieve their intended results.

In 2000, GAO published an exposure draft of *Information Technology Investment Management: A Framework for Assessing and Improving Process Maturity (ITIM)*. Built around the Select-Control-Evaluate approach described in the Clinger-Cohen Act of 1996, which established statutory requirements for IT management, the framework provides a method for evaluating and assessing how well an agency is selecting and managing its IT resources. The exposure draft reflected accepted or best practices in IT investment management at that time, as well as the reported experience of federal agencies and other organizations in creating their own investment management processes.

In 2004, GAO issued an updated version of this exposure draft to take into account: comments GAO had received; GAO's experiences evaluating several agencies' implementations of investment management processes and the lessons learned by those agencies; and the importance of enterprise architecture (EA) as a critical frame of reference in making IT investment decisions.

GAO asserted that using the framework to analyze an agency's IT investment management processes provides: (1) a rigorous, standardized tool for internal and external evaluations of these processes; (2) a consistent and understandable mechanism for reporting the results of assessments; and (3) a road map that agencies can follow in improving their processes.

In March 2013, we identified inconsistent cost estimating practices that caused a lack of credible capital planning that may negatively affect management's decisions on IT budgets and initiatives in a report titled *Department's Information Technology Security Program is Weakened by Deficiencies*.

Due to the criticality of IT investment management and the finding in the OIG report stated above, the OIG incorporated GAO's ITIM framework in its audit of DOL's IT investment management processes.

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Objectives, Scope, Methodology, and Criteria

Objective

Has DOL established effective controls to manage the IT investment process?

Scope

Our audit included DOL's portfolio of 113²⁷ IT investments reported to OMB for FYs 2010, 2011, and 2012. Additional FY 2013 documentation was considered for revisions and finalization of FY 2012 reporting, corrections, and key investment information that was not recorded for the previous 3 fiscal years. The total funding reported to OMB for FYs 2010, 2011, and 2012 totaled \$1.43 billion.²⁸ In testing the IT investment portfolio, OIG examined the applicable policies, procedures, and process controls DOL had in place and IT capital planning processes, which included the electronic capital planning investment control system (eCPIC). OIG work was performed at DOL's National Office in Washington, DC.

Methodology

To evaluate whether DOL has established effective controls to manage the IT investment process, we reviewed federal laws and regulations, along with DOL policies and procedures applicable to the CPIC process. We then selected a sample of 15 IT investments to use as case studies to determine if critical DOL processes had been implemented in accordance with the OCIO's IT CPIC policy.

We selected the 15 investments to test using a detailed two-tier, risk-based approach. Specifically, the first 7 investments were selected by applying 7 risk factors to the sample universe of 113 major and non-major IT investments. The 7 investments selected were assigned the most risk factors. These factors included: total FY funding, funding trend increase/decrease/spike, investment phase, descriptions with statements incorporating terms for cloud/re-organization/IT funding, start dates with emphasis on investments over ten years, OCIO scorecard ratings that included more than 25 percent variances, and OCIO scorecards with differing statements between the internal scorecard and OMB Exhibit 300 and 53 statements. The remaining 8 investments were judgmentally selected so that the widest varieties of investments were included in the testing selection. The 15 investments selected represented 51 percent, or \$725 million, of the total \$1.43 billion in IT investments funded during FY 2010 through FY 2012.

We reviewed DOL's process for classifying major investments by obtaining a copy of its IT Portfolio, or Exhibit 53, for FY 2010 through FY 2012. We reviewed each of the investments in the portfolio and identified those investments meeting DOL's definition of a major

²⁷Sources: OMB IT Dashboard and DOL eCPIC investment inventory, <http://www.ITDashboard.gov>.

²⁸ Source: DOL OMB Exhibit 53s for FY 2010, FY 2011, and FY 2012.

investment. Those investments' identified as major were compared to DOL's listing of major investments and any exceptions were identified.

We evaluated DOL's progress in developing a mature investment management process using GAO's ITIM Framework. We applied the framework by comparing all 13 elements of the framework to the DOL's CPIC processes. Our assessment was supported by our review of documentation, discussions with DOL personnel, and our analysis of 15 business cases provided in project management planning and OMB Exhibit 300 materials. Based on the above information, we were able to assess the maturity of DOL's CPIC process for managing information technology investments.

We conducted our audit in accordance with generally accepted government auditing standards for performance audits. Those standards require that we plan and perform the audit to obtain sufficient and appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

Criteria

We used the following criteria to accomplish our audit:

- Clinger-Cohen Act of 1996, Public Law 104-106
- Office of Management and Budget (OMB) Circular A-11
- OMB Circular A-130 Revised, "Management of Federal Information Resources".
- OMB Guidance on Exhibits 53 and 300 – Information Technology and E-Government, 2013
- OMB 25 Point Implementation Plan to Reform Federal Information Technology Management, December 9, 2010
- NIST Special Publication 800-65, Integrating IT Security into the Capital Planning and Investment Control Process
- GAO's Information Technology Investment Management (ITIM): A Framework for Assessing and Improving Process Maturity (GAO-04-394G)
- GAO's Information Technology; A Framework for Assessing and Improving Enterprise Architecture Management, Version 1.1 (GAO-03-584G)
- DOL Computer Security Handbook Edition 4.0
- DOL Guide to Completing the FY 2013 OMB Exhibit 53, Version 1.0
- DOL Guide to Completing the FY 2013 OMB Exhibit 300, Version 1.2
- DOL FY13 IT Investment Review Requirements, 2-20-2013
- OCIO Systems Development Life Cycle Management (SDLCM) Manual, Version 2.3
- OCIO IT CPIC Guide: Managing IT Investments, Version 2.1
- OCIO Earned Value Management Operational Guide, Version 1.7

Acronyms and Abbreviations

AGSS	Agency General Support System
AMS	Acquisition Management System
BLS	Bureau of Labor Statistics
CBA	Cost-Benefit Analysis
CPIC	Capital Planning Investment Control
EA	Enterprise Architecture
ECI	Enterprise Communications Initiative
DME	Development, Modernization, and Enhancement
DITIM	Department of Labor IT Infrastructure Modernization
DLMS	Department of Labor Manual Series
DOL	Department of Labor
EBSA	Employee Benefits Security Administration
ECI	Enterprise Communications Initiative
eCPIC	Electronic Capital Planning Investment Control System
EFAST2	ERISA Filing Acceptance System 2
ERISA	Employee Retirement Income Security Act
ETA	Employment Training Agency
EVM	Earned Value Management
FY	Fiscal Year
GAO	Government Accountability Office
IT	Information Technology

ITIM	Information Technology Investment Management
LOB	Line of Business
MSHA	Mine Safety and Health Administration
MSIS	MSHA Standard Information System
NCFMS	New Core Financial Management System
NIST	National Institute of Standards and Technology
O&M	Operations and Maintenance
OASAM	Office of the Assistant Secretary for Administration and Management
OIG	Office of Inspector General
OCIO	Office of the Chief Information Officer
OCFO	Office of the Chief Financial Officer
OMB	Office of Management and Budget
OPA	Office of Public Affairs
OWCP	Office of Workers' Compensation Programs
PIR	Post Implementation Review
SDLCM	System Development Life Cycle Management
SOL	Department of Labor Office of the Solicitor
SP	Special Publication
TMSA	Technical Management & Strategic Activities
WBS	Work Breakdown Structure
WDS	Wage Determination System
WHD	Wage and Hour Division

CIO Response to Draft Report²⁹

U.S. Department of Labor

Office of the Assistant Secretary
for Administration and Management
Washington, D.C. 20210



DEC - 2 2013

MEMORANDUM FOR ELLIOT P. LEWIS

Assistant Inspector General for Audit

FROM:

EDWARD C. HUGLER
Deputy Assistant Secretary for Operations

A handwritten signature in black ink, appearing to read "E. Hugler", is written over the typed name and title of Edward C. Hugler.

SUBJECT:

Management's Response to the Office of the Inspector General Draft Report entitled: Improvements Needed to DOL's Capital Planning and Investment Controls for Managing Information Technology Investments, Report No. 23-14-009-07-723

This responds to the above-described draft report, dated November 29, 2013. The stated objective of the audit was to determine whether the Department has established effective controls to manage the IT investment process.

At the outset, management acknowledges that any process can be improved and we will take appropriate action to update Department-wide policies, processes and procedures to address the findings outlined in the draft report. During the audit, management expressed concern about the portrayal of IT investment management as a whole – including the nature, severity and ramifications of the findings. For the most part, the auditors have accommodated our input in the draft report. We appreciate the consideration.

With the forgoing in mind, management accepts the recommendations in the audit report and will take the following actions.

Recommendation 1. Perform a DOL-wide review of the IT Portfolio and the Investment Management Process to verify classification of all IT investments.

Response: Management accepts this recommendation and will verify the classification of all DOL IT investments by Q3 FY14.

Recommendation 2. Update IT capital planning and investment control policies, procedures and documentation to reflect and clarify: (a) Use of the capital planning tool and (b) the comprehensiveness of the investment management process and enforcement to maintain required eCPIC documentation for critical processes involving the select, control, and evaluate phases.

Response: Management accepts this recommendation and will update DOL CPIC documentation and clarify the intended usage of eCPIC by Q4 FY14.

²⁹ OASAM's Deputy Assistant Secretary for Operations responded for the CIO.

Recommendation 3. *Implement an investment management framework consistent with NIST SP 800-65 and which aligns with GAO's ITIM maturity framework to strengthen DOL's approach to IT investment management.*

Response: Management accepts this recommendation and will review and consider the key practices specified in GAO's ITIM Maturity Framework for inclusion in DOL's IT investment management processes with emphasis on Stages 2 and 3, as inferred from the discussion of Finding 2 by Q3 FY14.

As always, we appreciate the opportunity to provide input and look forward to the continued collaboration with your office. If you have any questions or comments please contact me at (202) 693-4040 or have your staff contact Pete Sullivan, Director IT Governance, at Sullivan.Peter@dol.gov or (202) 693-4211.

cc: T. Michael Kerr, ASAM, CIO
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Appendix E

Acknowledgements

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