# MEMORANDUM

November 17, 2021

To:     Ronald C. Flom
        Chief Procurement Officer, N

        Beth A. Niblock
        Chief Information Officer, Q

From:   Brian T. Pattison
        Assistant Inspector General for Evaluation, Office of Inspector General, G

Subject: Final Report – HUD's Processes for Managing IT Acquisitions, 2020-OE-0004

We have completed our evaluation of the U.S. Department of Housing and Urban Development's (HUD) processes for managing information technology (IT) acquisitions. The attached report summarizes our findings and conclusions. It contains one result, and five recommendations.

HUD's IT systems and its modernization plans depend heavily on contractors, yet HUD has historically faced significant challenges with implementing effective acquisition processes. Therefore, HUD's acquisition capacity represents a key potential risk within HUD's IT environment. We found that a lack of staffing capacity, implementation of effective coordination and communication practices, and effective oversight of management controls over acquisition processing. HUD officials acknowledged that IT acquisition process improvements are needed and have taken steps toward addressing deficiencies.

In response to our draft report, HUD provided technical comments, some of which we incorporated into the final report. HUD did not provide formal comments to the final draft report.

We encourage HUD to develop a corrective action plan for each new recommendation and allocate the personnel and resources needed to make the recommended improvements to address and continue to modernize its information systems. We look forward to working with HUD to reach a management decision on the unresolved, open recommendations in this report.

I appreciate the assistance you and your staff provided throughout the evaluation.  Please contact Director John Garceau at 202-603-8410 or jgarceau@hudoig.gov if you have any questions.

Enclosures:
  HUD's Processes for Managing IT Acquisitions Evaluation Report (2020-OE-0004)

cc:  Jimmy Scott, Deputy Chief Procurement Officer, N
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**U.S. Department of Housing and Urban Development**

# Office of Inspector General
## Office of Evaluation



# HUD's Processes for Managing IT Acquisitions Evaluation Report

Information Technology Evaluations Division

## Why We Did This Evaluation

The U.S. Department of Housing and Urban Development (HUD) has an important role in supporting community development and housing nationwide. HUD programs benefit millions of individuals annually through programs that offer mortgage insurance for home purchases, rental assistance for low-income individuals, community grants, and other types of assistance.

HUD's programs and related administrative operations depend heavily on information technology (IT) systems to function, and many of these systems are developed, maintained, and operated by contractors. Because of this substantial reliance on contractors for IT functions, HUD's ability to effectively complete IT acquisitions is a significant potential risk for the agency.

We conducted this evaluation to determine whether HUD had processes in place to conduct IT acquisitions efficiently and effectively.

## Results of Evaluation

HUD did not have sufficient processes in place to efficiently and effectively conduct IT acquisitions. Operational weaknesses in key areas resulted in frequent process delays, which ultimately led to IT service lapses and other significant program impacts. Within our evaluation scope, which included contracts above $250,000 that were in place from July 2018 through June 2020, HUD identified 36 new IT contract awards and 101 existing IT contracts. During this 2-year period, HUD IT services were discontinued 18 times after HUD was unable to award timely replacement contracts. In 35[1] instances, to avoid an imminent IT service lapse or restart lapsed services, HUD relied on temporary sole-source contracts with the incumbent contractor to "bridge" the time between expired contracts and a future replacement contract.

HUD's acquisition process weaknesses significantly impacted ongoing operations by introducing risks for critical program functions and placing unnecessary strain on limited staffing resources. For example, frequent IT contract lapses and extensive use of short-term bridge contracts delayed IT modernization efforts or system improvements, limited opportunities to obtain better value through competitive pricing, and wasted limited staff resources on addressing the effects of IT service gaps. These complications detracted from value-added activities that could otherwise benefit HUD's core mission.

These challenges occurred primarily because HUD lacked adequate staffing capacity, did not implement effective coordination and communication practices, and had not established effective oversight of management controls over acquisition processing. HUD officials acknowledged that IT acquisition process improvements are needed and have taken steps toward addressing deficiencies. Although these planned changes have the potential to improve HUD's acquisition efforts, additional actions are needed. HUD's acquisition process challenges, if not effectively addressed, could impede HUD's progress toward modernizing its information systems and significantly disrupt IT services and program operations that support HUD programs nationwide.

## Recommendations

Our evaluation report includes five recommendations for HUD to assess its processes and capabilities, implement new process controls, and develop IT acquisition workforce capacity.

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[1] Twenty-five bridge contracts were used to avoid a break in IT services, and 10 bridge contracts were used to resume services after a lapse in services had occurred.

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# Introduction

## Objective

The objective of this evaluation was to determine whether the U.S. Department of Housing and Urban Development (HUD) had processes in place to conduct information technology (IT) acquisitions efficiently and effectively.

## Background

As available technologies continue to advance, HUD has many opportunities to gain efficiency and improve processes to better deliver on its mission and help the most vulnerable individuals it strives to assist.  However, to capitalize on the benefits of new technologies, support its ongoing operations, and appropriately respond to evolving risks, HUD must be able to manage its IT acquisition process efficiently and effectively.  HUD's IT systems and its modernization plans depend heavily on contractors, yet HUD has historically faced significant challenges with implementing effective acquisition processes. Therefore, HUD's acquisition capacity represents a key potential risk within HUD's IT environment.

HUD's annual IT spending has increased significantly in recent years, and IT contracts have accounted for a substantial portion of total IT investments.  Average annual IT spending over the prior 2 fiscal years (2019-2020) was $420.6 million, representing an increase of 41 percent from the preceding 2-year period, underscoring the need for an effective IT acquisition program.



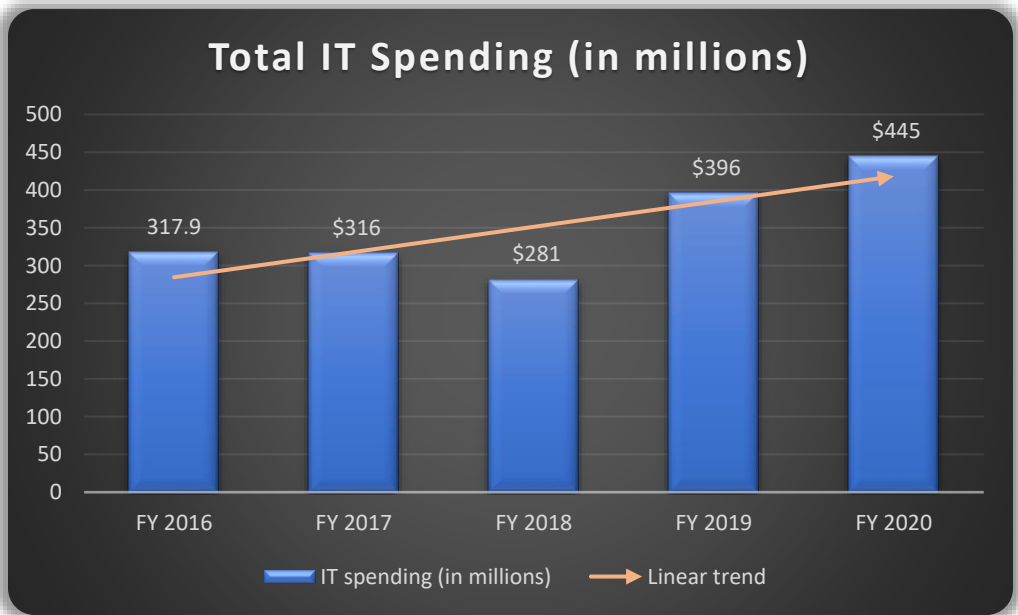*Figure 1.  HUD IT spending for fiscal years (FY) 2016 through 2020*

Our evaluation scope included HUD's IT contracting actions that were completed or due for completion during the 2-year period from July 2018 through June 2020 and was limited to
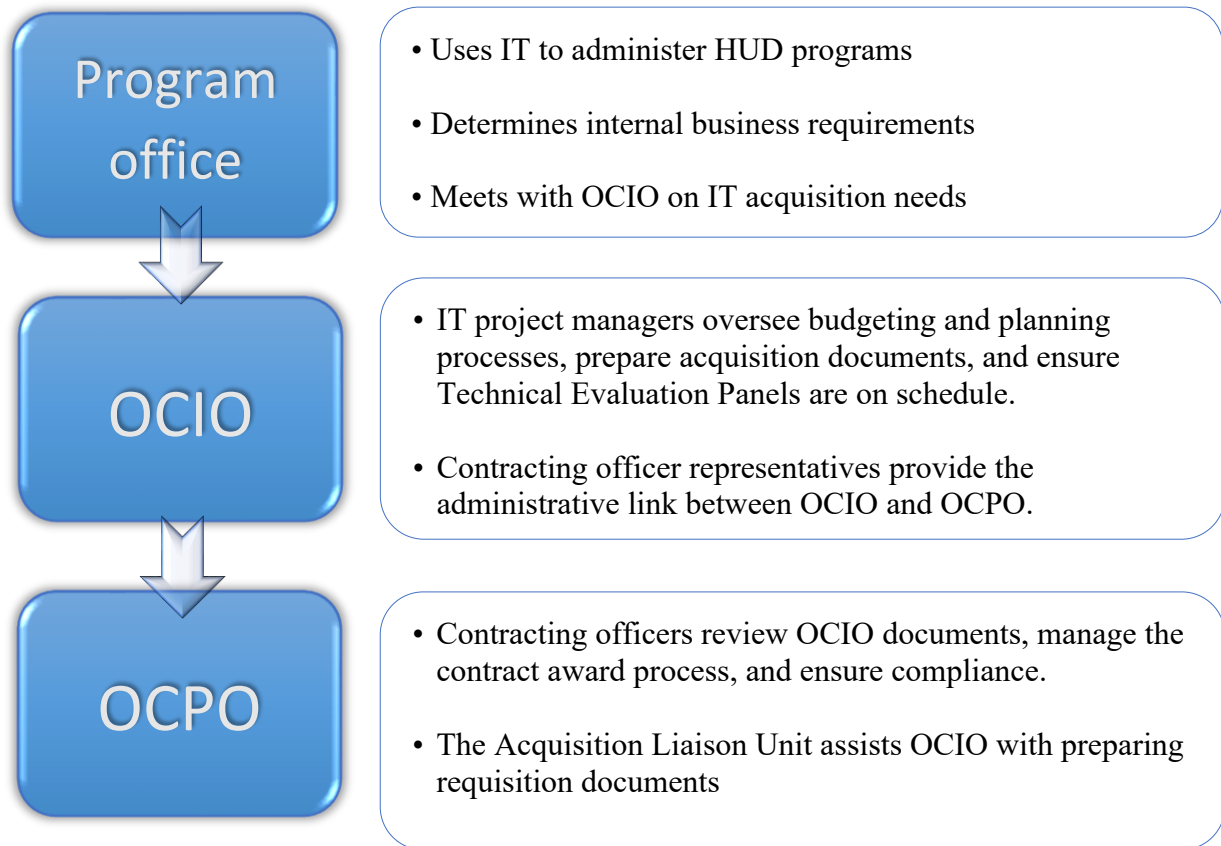
contracts above $250,000.  Within this scope, HUD identified 36 new contract awards and 101 existing contracts, with net IT contract obligations of $704 million.

HUD's Office of the Chief Procurement Officer (OCPO) was created in 1998 to serve as the focal point to reform, streamline, and improve procurement operations.  OCPO is responsible for efficiently and cost-effectively obtaining all contracted goods and services HUD requires to meet its strategic objectives.  OCPO provides procurement logistic support to the HUD's program offices and other support offices in meeting their mission needs.  In addition to its headquarters office in Washington, DC, which is the primary office responsible for managing IT acquisitions, OCPO has five satellite offices located in Atlanta, Chicago, Denver, Fort Worth, and Philadelphia.

HUD's Office of the Chief Information Officer (OCIO) holds key responsibilities for managing HUD's IT resources.  This responsibility includes providing advice and assistance to other senior management of HUD to ensure that IT is properly acquired and information resources are managed efficiently and effectively.  The Chief Information Officer, by delegation of statutory requirements through the HUD Secretary, is responsible for designing and implementing a process for maximizing the value and assessing and managing the risk of the agency's IT acquisitions.  OCIO plays a key role throughout the IT acquisition process, from strategic planning through contract completion.  The figure below is a simplified summary of key IT acquisition process roles performed by program offices, OCIO, and OCPO that administer HUD programs.

# Overview of general acquisition process roles

**Program office**
- Uses IT to administer HUD programs
- Determines internal business requirements
- Meets with OCIO on IT acquisition needs

**OCIO**
- IT project managers oversee budgeting and planning processes, prepare acquisition documents, and ensure Technical Evaluation Panels are on schedule.
- Contracting officer representatives provide the administrative link between OCIO and OCPO.

**OCPO**
- Contracting officers review OCIO documents, manage the contract award process, and ensure compliance.
- The Acquisition Liaison Unit assists OCIO with preparing requisition documents

*Figure 2.  Acquisition process office roles*

Federal standards that apply to both general agency operations and acquisition-specific activities require that HUD implement effective processes and internal controls.  For example,

- **The Federal Managers' Financial Integrity Act of 1982 (FMFIA) (31 U.S.C. (United States Code) 3512)** requires that heads of executive agencies establish internal accounting and administrative controls to reasonably ensure that assets are safeguarded against waste, loss, and misuse.

- **Office of Management and Budget (OMB) Circular A-123** implements FMFIA and provides that agency management is responsible for establishing and maintaining internal control to achieve the objectives of effective and efficient operations, reliable financial reporting, and compliance with applicable laws and regulations.

- **The Federal Acquisition Regulation (FAR) subpart 7.102** requires agencies to implement effective acquisition planning that integrates efforts of all personnel responsible for significant aspects of the acquisition process, promotes competition, and ensures that the Government meets its needs in the most effective, economical, and timely manner.

## Scope and Methodology

We conducted this evaluation under the authority of the Inspector General Act of 1978 as amended and in accordance with the Quality Standards for Inspection and Evaluation, issued by the Council of the Inspectors General on Integrity and Efficiency (January 2012). Those standards require that we plan and perform the evaluation to obtain sufficient, appropriate evidence to provide a reasonable basis for our results and conclusions based on our evaluation objectives. We believe the evidence obtained provides a reasonable basis for our results and conclusions.

**Scope**

We reviewed IT contracting actions that were completed or due for completion during the period July 2018 through June 2020 for contracts with total values exceeding the current Federal simplified acquisition threshold of $250,000. Within this scope, HUD identified 36 new contract awards and 101 existing contracts, with net IT contract obligations of $704 million. We assessed HUD's acquisition processes, including all preaward activities that take place from initial planning through the contract award date. As part of our evaluation, we also considered program impacts that stemmed from acquisition process weaknesses.

**Methodology**

To accomplish our objective, we

- Determined criteria applicable to the evaluation objectives, including related Federal internal control standards.

- Obtained and reviewed data provided by HUD officials to identify awarded IT contracts, lapsed contracts, and bridge contracts within the evaluation scope.

- Interviewed HUD employees who had direct knowledge or involvement with HUD's IT acquisition process, including management and staff from OCIO, OCPO, and various HUD program offices.

- Conducted a nonstatistical, web-based survey of IT acquisition process stakeholders from HUD's program offices.

- Reviewed information collected to assess the efficiency and effectiveness of HUD's IT acquisition process.

Our evaluation relied on contract data provided by HUD officials. We did not independently test these data for accuracy. We determined that the data provided were sufficiently reliable to meet the evaluation objective.

Our evaluation report references statements made by HUD employees, including responses collected through an online survey form. The survey results reflect viewpoints from a cross-

section of program office employees yet cannot be statistically projected as a representation of opinions for all program office employees.  The survey included a series of multiple choice and free response questions.  Multiple choice questions that did not indicate an opinion or a response from the employee were excluded from the survey results.  Accordingly, not all of the survey questions had the same response rate, and each question was treated independently for reporting purposes.  The survey results for the multiple choice questions are presented in Appendix A of this report.

To identify program office employees for participation in the survey who may have recent knowledge or experience related to IT acquisitions, a survey notification email was widely distributed to a group of 624 reported HUD IT system owners, program managers, information system security officers, and contracting officer representatives (COR).  Because the survey was designed to obtain the perspective of HUD program offices, the survey was not distributed to HUD's OCPO or OCIO.[2]  Recipients were instructed to respond only if they had knowledge or experience related to at least one IT acquisition that was in process or completed during the prior 2 years.  Sixty-two HUD employees from a variety of HUD program offices responded to the survey.

Because responses were voluntary and the complete universe of HUD employees with relevant involvement in HUD's IT acquisition process was not known, the survey results can provide an indication of program office viewpoints yet cannot be statistically projected.  Additionally, there is a potential for voluntary response bias.  Therefore, the resulting responses could tend to overrepresent those individuals who have strong opinions.  The program office survey responses indicating weaknesses in HUD's acquisition process were generally consistent with observed acquisition process outcomes and information provided by OCIO and OCPO officials interviewed during the evaluation.

In some cases, HUD used acquisition assistance services provided by other agencies, such as the General Services Administration (GSA).  HUD officials noted that reliance on such services has been increasing because HUD offices were pursuing this as an alternative to HUD's internal acquisition process, which was perceived as inefficient.  Our evaluation primarily focused on actions that were processed internally through OCPO, and we did not draw conclusions regarding the effectiveness or risks related to the use of acquisition services provided by third-party agencies.

Our evaluation testing was designed to review HUD's management of the IT acquisition process and was not intended to provide assurance or a determination of compliance with laws, regulations, or policies for individual acquisition actions.  However, the process weaknesses discussed in this report indicate that HUD is at an elevated risk for acquisition compliance violations.  For example, although Federal acquisition regulations generally prohibit the use of sole-source contracts that occur because of inadequate agency planning, HUD officials cited delayed planning actions as a significant factor contributing to HUD's frequent use of bridge contracts.  Limited information obtained from OCPO during the evaluation indicated that some

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[2] Survey results referenced in this report from OCPO's internal acquisition process assessment included responses from OCPO employees.  Our evaluation obtained perspectives from OCIO and OCPO employees primarily through evaluation interviews.

sole-source contracts may not have been appropriately supported with documented justifications as required by Federal regulations.  HUD officials acknowledged that rushed processing efforts for expiring contracts increased the likelihood of compliance violations.  We anticipate that the recommendations made in this report will potentially serve to decrease the risk of compliance violations through increased efficiency, staff capacity improvements, and enhanced process controls.

# Results of Review

## HUD Did Not Efficiently and Effectively Manage IT Acquisitions

**HUD IT Acquisition Actions Were Frequently Delayed, Significantly Impacting Program Operations**

From July 2018 through June 2020, 43 IT contracts expired before HUD was able to complete the acquisition process for a replacement award.[3] For 18 of these expired contracts, the associated IT services were discontinued, creating a strain on HUD operations and in some instances, significantly disrupting or impeding important mission functions. For example,

- A contract supporting the Federal Housing Administration's (FHA) Premiums Collection Subsystem lapsed in March 2020 for approximately one month, and HUD was unable to fix IT system problems, which were preventing external loan servicers from accessing the system to transmit required insurance premium payments. This disruption not only directly impacted key HUD business partners, but also HUD program staff members were forced to address the resulting issues and arrange alternative workarounds until a new contract could be awarded.

- A contract to operate and maintain the Policy and Research Information Server supporting HUD's Office of Policy Development and Research lapsed in May 2020, and HUD was unable to access data needed to support the Federal Government's response in the aftermath of a natural disaster.

- Repeated use of bridge contracts and a lapse in service for the OGC Law Manager system supporting critical HUD legal functions created significant operational limitations and additional work for program staff members in HUD's Office of General Counsel, impacting their ability to focus on other ongoing agency legal work.

- Progress on a major HUD initiative (National Standards for the Physical Inspection of Real Estate) to improve housing inspections and prevent unacceptable health and safety risks was disrupted after HUD offices failed to effectively coordinate and reach consensus regarding contractor performance requirements.[4] Work under the contract to develop a new inspection application was stopped in March 2020, and as of March 2021, HUD had not reached agreement regarding an acquisition strategy for implementing the inspection initiative.

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[3] 27 separate IT requirements (i.e., IT systems or services) were impacted by contact lapses or bridge contracts during the 2-year evaluation period and some requirements had multiple lapses or bridge contracts. Eight IT requirements had two separate contract lapses or bridge contracts, and four IT requirements had three separate lapses or bridge contracts. Additional contract lapses or bridge contracts may have occurred for the involved IT requirements prior to or after the evaluation period.

[4] Although the contract did not technically expire in this case, services under the contract were discontinued after questions arose over contract performance requirements and related disagreements that ensued between HUD's Office of Public and Indian Housing and OCIO.

Although HUD's internal IT operations staff was able to assume some of the discontinued IT functions after contracts lapsed, staff was not able to replace the full services provided by contractors, and HUD was generally unable to provide the subject-matter expertise and troubleshooting capabilities that contractors possessed for specific systems. For example, HUD management noted that in some cases, HUD's IT operations staff was able to perform limited system maintenance during contract service gaps; however, staff was not able to perform system patching or upgrades or address system failures. The need for OCIO staff to temporarily assume contractor functions can also strain staffing resources and take focus away from ongoing program operations or other potential value-added processes.

**Frequent Use of Bridge Contracts Introduced Potential for Compliance Risks and Adverse Impacts to Ongoing or Planned IT Initiatives**

For 35 of HUD's 43 expired IT contracts during the 2-year evaluation period, HUD relied on short-term, sole-source bridge contracts[5] to keep IT services functioning. These contracts included 25 bridge contracts used to avoid a break in IT services for contracts that were about to expire and 10 bridge contracts used to resume services under contracts that had already expired. Bridge contracts can be appropriate in limited circumstances pursuant to the FAR. However, required justifications for using sole-source bridge contracts cannot be based on lack of adequate planning.[6] Although the evaluation did not test individual contracts for compliance with Federal acquisition requirements, acquisition process weaknesses discussed in this report indicate that HUD is at an increased risk for compliance violations associated with bridge contracts.[7]

In addition to the increased risk of noncompliance with the FAR, HUD's reliance on bridge contracts had several negative operational and program impacts. For example, bridge contracts must be processed separately from any ongoing replacement contract and, therefore, increased HUD's already significant acquisition workloads and further strained its ability to process other planned acquisitions. Also, because bridge contracts are awarded on a sole-source basis, their use can reduce the value normally achieved through competition and can ultimately increase HUD's overall costs. In addition, acquisition process delays and the related use of bridge contracts stall progress toward IT improvements by postponing longer term contract awards. This situation can limit or delay opportunities to modernize systems, add functionality, improve system security, or generate operational efficiencies for HUD programs.

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[5] Bridge contracts effectively extend the existing contract with an incumbent contractor and therefore, do not include a competitive process to achieve more favorable contract pricing or value. Bridge contracts can include both new contract awards and extensions or modifications to existing contracts.

[6] FAR subpart 6.301 provides that contracting without providing for full and open competition shall not be justified on the basis of a lack of advance planning.

[7] In 2017, OCPO issued a notice to its employees acknowledging a concern regarding timely acquisition planning and the potential for related FAR violations when using sole source contracts. The acquisition timeliness issues discussed in this report, which covered the period from July 2018 through June 2020, indicate that HUD remains at increased risk in this area.

HUD's frequent use of bridge contracts raises significant concerns regarding the overall effectiveness of its IT acquisition processes. Within our evaluation scope, from July 2018 through June 2020, the number of lapsed and bridge contracts (43) exceeded the total number of successfully awarded new contracts (36), including many that were primarily processed by other agencies or awarded as task orders through existing government contracts.

> **Contract lapses and bridges outnumbered successfully awarded large contracts.**

HUD has made progress as part of recent IT modernization efforts; however, the prevalence of expired contracts for continuing IT requirements and HUD's related inability to consistently execute contracts in a timely manner could present challenges for HUD's IT modernization plans and pose ongoing risks for program operations nationwide that depend heavily on IT contracts.

## Acquisition Processing Was Not Always Timely

Several factors contributed to HUD's IT contract service lapses and the need for bridge contracts, such as budget uncertainty, contract award protests, or evolving IT strategies. However, HUD managers and staff members interviewed during the evaluation repeatedly expressed significant dissatisfaction with HUD's IT acquisition process. They attributed the relatively high number of lapsed and bridge contracts to longstanding operational weaknesses.

Performance metrics calculated by OCPO also confirmed that untimely internal processing and related delays impacted HUD's ability to effectively complete IT acquisitions. Performance metrics collected and calculated by OCPO showed that HUD was unable to consistently complete required "requisition" documents within established timeframes. Program offices prepare a package of requisition documents for each acquisition, which typically includes a statement of work describing the IT products or services needed, a cost estimate, and other information that may be required based on the applicable acquisition method. In the case of IT acquisitions, OCIO has primary responsibility for preparing requisitions. Once completed, OCIO submits requisitions to OCPO, which reviews them for completeness and compliance with applicable agency and Federal requirements. OCPO then either rejects or approves the documents and, if approved, proceeds with the contract solicitation and award process.

The number of late requisitions reported in 2020 had increased from the prior year, indicating that HUD's inability to complete IT requisition documents in a timely manner was a persistent weakness. For a 1-year period ending in October 2020, 79 percent of IT requisitions from OCIO were not completed on time based on established target dates. HUD-wide, 59 percent of all requisitions were late, indicating that acquisition process weaknesses were not limited strictly to IT-related contracts. Comparatively, for the 1-year period ending in October 2019, 68 percent of IT requisitions from OCIO and 54 percent of requisitions HUD-wide were late.

> **79 percent of IT requisitions missed target completion dates.**

In addition to delays during the requisition development stage, HUD officials cited the timeliness of OCPO's document review and contract award processes as a significant cause of further delays. Officials reported that OCPO rejected documents for inconsistent or very minor reasons, necessitating additional document submission and review steps. OCPO's processing was also reportedly delayed because OCPO policies required most acquisitions to undergo multiple levels of management review. OCPO policy required that a division director review all acquisitions exceeding $1 million even though contracting officers performing initial reviews had sufficient warrant[8] authority to approve actions above this threshold. HUD's requirements for higher level management review may serve as an appropriate internal control; however, without sufficient staffing resources to conduct the additional reviews in a timely manner, this policy can significantly impact acquisition process efficiency.

One measure of OCPO's timeliness is the procurement action lead time (PALT) metric, which assesses whether OCPO completed procurement actions within established timeframes after receiving an actionable requisition package. For a 1-year period ending in October 2020, OCPO exceeded the PALT timeframes for 25 percent of OCIO requisitions. However, OCPO's method for calculating the PALT understated the actual number of delayed acquisitions, indicating that the metric may not be a complete or useful measure of OCPO timeliness. For example, OCPO's PALT metric can be an incomplete performance indicator because

- The PALT metric summary results do not distinguish between actions based on their complexity. For example, modifications and acquisitions assisted by other agencies are given the same weight in the summary results as actions that require far more effort, such as competitive acquisitions. Because most OCPO actions are less complex, with target timeframes of 30 days or less, processing delays that occur with more difficult acquisition actions can effectively be masked by the greater frequency of other, less resource-intensive actions.

- The PALT metric summary results excluded incomplete acquisitions, many of which were late. The metric excluded 29 ongoing acquisitions, which were already late by an average of approximately 8 months. As a result, the PALT summary results reflected that only 25 percent of IT acquisitions were late, when in reality, 34 percent had already exceeded the established timeframes.

A separate measure of OCPO's processing timeliness, the target award date (TAD), also reported that 25 percent of IT acquisitions received from OCIO as of October 2020 were late for completion as of October 2020. However, HUD's methodology for calculating the TAD metric excluded most reported IT acquisitions and was, therefore, an incomplete measure of OCPO's acquisition processing timeliness. The TAD metric did not reflect all acquisition delays because it excluded IT acquisitions when requisition documents were not received and accepted by OCPO within established target dates. Therefore, while OCPO reported that 25 percent of IT acquisitions were late based on the TAD metric, when considering all requisitions listed by OCPO, 82 percent actually missed the target award date. Although the intent of the TAD metric

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[8] The Chief Procurement Officer delegates contracting authority in writing to qualified personnel via a certificate of appointment, commonly referred to as a "warrant." Each such delegation of contracting authority specifies the limits (for example, dollar threshold on contract obligations) on the individual's authority as a contracting officer.

may be to measure OCPO's processing timeliness, because it excludes most IT acquisitions, it can produce potentially incomplete results and, therefore, may not be an effective measure of actual performance.

**Limited Staffing Capacity Impeded Acquisitions**

Business processes worldwide have become increasingly dependent on IT services, and the technology supporting these processes requires continuous modernization.  In this evolving environment, IT security risks have increased, and acquisitions in general have become increasingly complex, creating a need for Federal agencies to adapt and respond.  The increasing complexity of IT acquisitions has led to governmentwide acquisition workforce challenges and resource shortfalls.  Within HUD, acquisition staffing limitations have been a longstanding and persistent impediment.  For example, in its 2019 Enterprise Risk List, HUD acknowledged that workloads and improper training of CORs were ongoing risks.  Based on a survey completed by HUD in 2019 as part of an acquisition process assessment, 44 percent of HUD employees surveyed stated that OCPO personnel did not have the right skills, knowledge, or training.  Responses for this issue were notably worse than in the same survey from the previous year,[9] indicating a persistent weakness.  OCIO recently concluded that additional contract office capacity will be needed to maintain existing service levels and mitigate breaks in service for HUD's mission-critical applications.  The Office of Inspector General's (OIG) IT Evaluations Division has also previously concluded from interviews and its annual Federal Information Security Modernization Act evaluation work that many program offices continue to have difficulty in awarding contracts due to HUD's acquisition staffing capacity.

> Staffing limitations hindered acquisition processing.

Throughout the evaluation, officials from OCIO, OCPO, and program offices consistently cited staffing-related weaknesses, including skill deficiencies, employee turnover, imbalanced workloads, and insufficient management oversight capacity, as major acquisition process challenges.  For example, 55 percent of respondents for our evaluation survey concluded that staff members in one or more involved offices lacked adequate training, experience, and technical knowledge to effectively perform their role in IT acquisitions.

Although the knowledge, skills, and abilities of individual employees can vary widely, HUD officials reported a widespread lack of acquisition expertise and a need for additional training within OCIO's COR and information technology project manager (ITPM) roles.  They indicated that ITPMs, in some cases, lacked experience and capabilities necessary to consistently prepare acceptable requisition documents and had not fully implemented program and project management procedures in accordance with HUD policies.  ITPMs reported that they faced particular difficulty in managing projects because they were responsible for coordinating efforts of multiple HUD employees in various offices yet did not have the supervisory authority over

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[9] Twenty-nine percent of HUD employees surveyed in 2018 stated that OCPO personnel did not have the right skills, knowledge, or training.  The employee survey results from 2018 and 2019 were reported as part of an internal procurement management review conducted by OCPO.

that staff to enforce participation or timely cooperation. CORs also reportedly lacked IT and acquisition experience necessary to effectively review requisition documents before transmitting them to OCPO. Without proper training and experience, they were effectively limited to providing administrative functions. HUD managers acknowledged that staffing limitations posed significant challenges for acquisitions and had started weekly training sessions for CORs and ITPMs to improve their expertise and capabilities.

OCIO, OCPO, and program office officials also reported that imbalanced or excessive staff workloads have historically limited HUD's ability to effectively processes acquisitions. Sixty-five percent of respondents for our evaluation survey indicated that personnel in program offices, OCPO, or OCIO did not have sufficient work time available for acquisition processing. HUD management also reported that although the OCPO Acquisition Liaison Unit (ALU) had skilled staff and provided valuable assistance, this division also did not have enough staff available to sufficiently support program offices in developing compliant requisition documents during the acquisition planning phase. Limited staffing availability for technical evaluation panels also reportedly hindered acquisitions during the vendor selection process.

As noted earlier in this report, HUD's contract lapses and extensive use of bridge contracts created additional work that made staffing capacity problems even worse. Bridge contracts required additional work for staff members who were already struggling to keep up with their other acquisitions and projects. When bridge contracts were needed, HUD staff in the program office, OCIO, and OCPO had to process these as separate contract actions in addition to working on the full-term replacement contracts that were incomplete.

> Contract lapses and bridge contracts made staffing capacity problems worse.

During interviews and in response to our evaluation survey, HUD acquisition process stakeholders expressed significant frustration with HUD's acquisition processes. For example, comments made expressed frustration with process and personnel delays and cumbersome procedures that did not seem to be addressed. Additionally, others interviewed perceived the presence of acquisition inefficiencies and a lack of capacity, leading some contracts to move to GSA for action. Without effective improvements, HUD risks related employee morale problems which could further negatively impact existing staffing capacity limitations.

**Inconsistent Communication Impeded Acquisitions**

IT acquisition processes require a variety of technical, management, and administrative skills from staff across multiple offices. Therefore, effective collaboration and resource coordination across offices are essential for ensuring that acquisitions can be completed efficiently. HUD program offices, OCIO, and OCPO did not consistently collaborate and often operated in silos. HUD officials acknowledged some capacity limitations in their own offices yet frequently blamed acquisition process problems and delays on other offices. For example, program offices stated that they were often left in the dark regarding acquisition progress or were notified of acquisition process problems or delays at the last minute before contracts were set to expire. The

following are examples of noted acquisition process breakdowns related to communication that limited the efficiency and effectiveness of HUD IT acquisitions:

- Key stakeholders did not always attend integrated project team (IPT) or integrated acquisition team (IAT) planning meetings.[10] In some cases, these required meetings were not held at all. Accordingly, HUD missed opportunities to collaborate and ensure that planning occurred early in the acquisition life cycle.

- Offices did not always contact OCPO's ALU for needed assistance when preparing requisition documents.

- Breakdowns occurred in the requisition submission and review process. OCPO requisition reviews were not always timely and generated inconsistent results, which caused confusion and frustration by OCIO staff members who were responsible for creating the documents and addressing OCPO's review comments. OCIO reported that seemingly minor technical comments often significantly delayed acquisition processing. OCIO officials also reported that HUD's Acquisition Requirements Roadmap Tool (ARRT) used to generate requisition documents was difficult to use and further contributed to process delays.

- OCPO officials used technical language that was not always understood by ITPMs and CORs, creating a communication barrier and limiting opportunities for efficient and effective coordination.

- OCIO was unaware of changes that OCPO made to required requisition document templates. Requisitions that used outdated templates were rejected by OCPO, and delays occurred because OCIO had to recreate documents using the revised templates.

- Inefficient communication channels between offices created process challenges. For example, ITPMs reported that they were required to communicate with OCPO through assigned CORs[11]. These indirect communication practices were not always efficient and resulted in process delays.

- Acquisition process performance metrics tracked by OCPO were not well communicated to process stakeholders. Staff members were not aware of the metric results and were not clear on how the metrics were calculated. This condition limited the effectiveness of these tools as a means to improve performance.

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[10] IPT meetings are led by the OCIO ITPM and held to promote effective and early collaboration between acquisition process stakeholders, ensure that requirements are defined early in the acquisition process, and that necessary procurement documents are completed. IAT meetings are led by the OCPO contracting officer and are convened later in the acquisition process. The IAT should include the IPT along with other stakeholders as necessary.

[11] OCPO management indicated that this understanding by ITPMs was incorrect and that ITPM's are allowed to communicate with the contracting office directly as long as they have been appointed in writing by the principal of the program office. This apparent difference in understanding between offices highlights the need for improved communication across offices and the need to clearly communicate acquisition process roles and responsibilities.

In response to our acquisition survey, HUD program office employees cited ineffective coordination and communication between offices as a major obstacle in the acquisition process. Seventy two percent of respondents stated that communication and coordination between the program office and OCIO had a significant or moderately significant negative impact on IT acquisitions, while 67 percent cited communication or coordination with OCPO as having a significant or moderately significant negative impact on IT acquisitions.

**Ineffective Management Oversight Impeded Acquisitions**

Given the inherent complexity of IT acquisition processes and the need for effective coordination across offices, well designed and consistently implemented management controls are essential for achieving consistent process outcomes. Further, in accordance with Federal law and related guidance[12], HUD managers are required to implement, monitor, and improve internal controls to achieve the objectives of effective and efficient operations. Despite the importance of such controls and Federal requirements mandating their implementation, HUD did not have effective procedures in place to oversee and monitor the IT acquisition process at an enterprise level and ensure that acquisition functions operated efficiently.

HUD lacked an enterprise tracking tool that would allow for uniform transparency into the full acquisition process life cycle by all stakeholders. For example, HUD was not able to readily monitor project planning start dates or consistently track acquisition progress to identify acquisitions that were off track before final due dates were missed. Each program office (to include OCPO and OCIO) had some form of tracking method but was generally limited to internal office functions. This siloed approach was not well suited to track HUD's IT acquisition process, which requires coordination across multiple offices. Because HUD lacked an effective means to consistently track progress throughout the acquisition life cycle, stakeholders had limited visibility into project statuses, and management lacked information necessary to effectively oversee the acquisition process. This weakness resulted in its limited ability to take timely remedial action when projects were delayed.

> HUD lacked an enterprise tracking tool that would allow for uniform transparency into the full acquisition process life cycle by all stakeholders.

Without an effective data-driven approach to consistently track IT acquisitions from start to finish, HUD missed opportunities to gain insight into acquisition problems occurring throughout the process. HUD management was generally aware of acquisition process weakness areas in some cases yet did not have visibility into detailed project timelines, which could be used to monitor overall process effectiveness and develop targeted process improvements.

As noted previously in this evaluation report, HUD's OCPO implemented acquisition process metrics that could potentially be used as a tool for monitoring acquisition process performance and effectiveness. However, these metrics were not always a complete measure of actual performance and had not been used effectively as a tool to overcome process weaknesses. Further, OCPO did not always communicate the metric results to stakeholders in other offices,

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[12] Related Federal law and guidance are noted above in the background section of this report.

limiting their utility for management to use as a mechanism to maintain accountability for performance.

Acquisition process stakeholders in program offices and OCIO stated that some staff members lacked a clear understanding of acquisition process roles and responsibilities, indicating that management had not effectively communicated or reinforced process standards and expectations. In response to our evaluation survey of HUD program offices, 46 percent of respondents said that HUD lacked clearly defined roles and responsibilities for IT acquisitions.  Another 55 percent said that employees within the process did not fully understand their assigned roles and responsibilities.  OCIO personnel we interviewed also noted a lack of understanding regarding roles and responsibilities as an ongoing concern.

HUD staff members responsible for IT acquisition processing were frequently unaware of important acquisition process guidance.  For instance, management officials and staff members who play critical roles in the IT acquisition process stated that they had never seen or were unfamiliar with key acquisition guidance from OCPO.  Further, staff members acknowledged that related standards for managing acquisition projects, such as those for scheduling and attending cross-functional team meetings, had not been consistently implemented as required under the issued guidance.  Management oversight and process controls had not been effective in addressing this pervasive gap in compliance and staff awareness.  Seventy-four percent of respondents for the evaluation survey also stated that HUD's formal standards for managing IT acquisition projects had not been consistently implemented as described in HUD policies.  The gap between HUD's official policies and understanding and application of those policies indicated a significant breakdown in process oversight, communication, and internal control. Limited management staffing resources also contributed to a lack of effective acquisition process oversight.  For example, despite significant staffing capacity issues with requisition quality and timeliness, only one direct supervisor within the OCIO Project Management Branch was available to support 24 ITPMs.  HUD officials noted that staff members did not always take necessary ownership of processes and without effective oversight, there was limited accountability for improving performance and achieving successful outcomes.  Turnover in HUD leadership positions also reportedly contributed to a lack of consistent oversight, accountability, and office support.

## Conclusion

HUD officials acknowledged a need for IT acquisition process improvements and have taken steps toward addressing weaknesses.  For example, HUD reported conducting targeted acquisition training, setting goals for early process engagement, adding contractor support to address staffing gaps, implementing strategies to consolidate contracts for similar requirements, and prioritizing more efficient governmentwide and enterprisewide contracting methods. Although these changes have the potential to improve HUD's acquisition efforts, additional actions are needed to fully address the fundamental weakness discussed in the report related to workforce capacity, process coordination, and management oversight.

To improve its IT acquisition function and avoid further process delays, which have significantly impacted HUD program operations, HUD should bring stakeholders together to identify

opportunities for process improvement, establish plans for developing workforce capacity, and strengthen management oversight mechanisms. HUD managers should better communicate defined roles and responsibilities and encourage stakeholder accountability for process outcomes. Additionally, HUD should implement tools that allow for effective management oversight, including mechanisms to monitor processes in real time and identify deficiencies early so that performance issues can be identified and mitigated before they lead to IT service lapses, unnecessary bridge contracts, potential compliance violations, or related impacts to HUD programs and operations. By taking the actions recommended below, HUD can enhance the efficiency and effectiveness of its acquisition function to better support its overall IT environment and ongoing mission requirements.

## Recommendations

We recommend that HUD's Chief Procurement Officer, in collaboration with OCIO, HUD's Office of the Chief Human Capital Officer[13], and HUD program offices, as appropriate,

1. **Conduct a departmentwide comprehensive staff capacity assessment to identify resource and skills gaps of staff involved in IT acquisitions.**

   As noted in this evaluation report, limited staffing resources and skill deficiencies contributed to ineffective and inefficient IT acquisition processes.  As HUD's IT acquisition needs and strategies continue to evolve over time, a detailed assessment of IT acquisition staffing levels and skills across offices can inform agency leaders regarding approaches for aligning workforce capacity with current IT acquisition process needs.

2. **Develop a departmentwide human capital plan or evaluate and revise existing plans to guide the recruitment, retention, and skill development of staff involved in IT acquisitions.  The plan should include related metrics to measure plan implementation and effectiveness.**

   HUD should leverage the results of a detailed management assessment of staff resource and skills gaps to develop a plan for incrementally improving IT acquisition workforce capacity.

3. **Evaluate IT acquisition process workflows and identify ways to simplify processes, facilitate more effective stakeholder coordination across offices, and create efficiencies when possible.**

   Improving workflow efficiency could substantially improve HUD's IT acquisition process effectiveness by focusing resources on value-added activities and avoiding conditions that frequently result in process delays.  Possible steps for simplifying or improving IT acquisition processes include

   - Work collaboratively across offices and actively develop solutions for requisition deficiencies that recur persistently to facilitate related performance improvement and greater process efficiency.
   - Consider methods to increase the consistency of OCPO requisition review results provided to program offices.
   - Consider protocols to improve requisition review process efficiency, such as a risk-based approach for requisition approvals.
   - Evaluate opportunities for automating recurring tasks and improving or replacing tools, such as the Acquisition Requirements Roadmap Tool for requisition templates.
   - Implement improved protocols to ensure that ITPMs and CORs in OCIO are consistently aware of revised OCPO acquisition document templates.

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[13] Recommendations 1 and 2 involve issues related to HUD staffing and may require coordination with HUD's Office of the Chief Human Capital Officer.

- Consider strategies for increasing collaboration across divisions and offices; for example, through cross-division training, collaborative work sessions to address requisition problems, expanded use of assistive services such as those of the ALU, and promoting accountability for IPT and IAT attendance.
- Consider methods to ensure that ITPMs have effective tools to maintain accountability for timely participation by staff members that they do not supervise.

4. **Establish a centralized acquisition tracking system that allows for input and monitoring by all offices involved with the IT acquisition process by:**
    a. **Developing a plan with detailed implementation milestones;**
    b. **Obtaining appropriate approvals and funding; and**
    c. **Implementing a centralized acquisition tracking system, based on the implementation plan and approvals from 4a and 4b.**

To maintain adequate internal controls over IT acquisition processing, OCPO, OCIO, and involved program offices should have a consistent means for tracking acquisition timelines and milestones across offices. This process should allow for systematic performance monitoring and accountability. Management should be able to readily determine whether acquisition processes are on track and required procedures, such cross-functional acquisition team meetings, are implemented consistently. The system should include process milestones and metrics that provide a record of historical performance as well as real-time insight into acquisition status and process delays. Tracking tools should be developed, to include controls that validate data accuracy and completeness. By allowing for increased visibility of acquisition progress across all offices and roles, management would be better positioned to effectively manage ongoing processes and make informed decisions regarding strategies for further process improvement.

5. **Develop a plan for clearly defining, communicating, and enforcing IT acquisition process standards, including acquisition process roles and responsibilities.**

As noted in this evaluation report, HUD staff members responsible for IT acquisition processing were frequently unaware of important acquisition process guidance and did not fully understand process roles and responsibilities. To achieve a stable and effective IT acquisition process, a framework of effective standards for and controls over policy communication is needed.

# Agency Comments and OIG Response

## Summary of HUD Comments

We requested comments on our draft report from agency officials.  They provided technical comments, some of which we incorporated into the report, but they did not provide formal comments.

## OIG Response to HUD Comments

We encourage HUD to develop a corrective action plan for each new recommendation and allocate the personnel and resources needed to make the recommended improvements to address and continue to modernize its information systems.  We look forward to working with HUD to reach a management decision on the unresolved, open recommendations in this report.

# Appendixes

## Appendix A – Survey Results

**Survey Questions and Responses**

Answers for the multiple-choice survey questions are summarized in the table below.

*Figure 3.  IT acquisition process survey results*

| | Strongly disagree | Disagree | Agree | Strongly agree | Response count |
|---|---|---|---|---|---|
| 1. HUD's current policy and procedure documents (i.e., handbooks, acquisition instructions, etc.) are easily accessible, and provide clear and complete guidance for the acquisition process. | 13.33% | 33.33% | 46.67% | 6.67% | 45 |
| 2. For IT acquisitions in your office, contract requirements are consistently well defined within the performance work statements and statements of work so that contracts fully address HUD's mission requirements and vendors can be held accountable for performance. | 9.52% | 23.81% | 54.76% | 11.90% | 42 |
| 3. HUD has clearly defined roles and responsibilities for those involved in the acquisition process. | 23.91% | 21.74% | 43.48% | 10.87% | 46 |
| 4. HUD employees involved in the IT acquisition process fully understand their assigned roles and responsibilities. | 25.00% | 30.00% | 40.00% | 5.00% | 40 |
| 5. HUD's vendor selection processes consistently ensure that IT products and services will meet specified requirements. | 16.22% | 29.73% | 51.35% | 2.70% | 37 |
| 6. Staff within your office, have the necessary training, experience and technical knowledge to efficiently and effectively complete IT acquisitions. | 6.52% | 30.43% | 50.00% | 13.04% | 46 |
| 7. Staff within OCPO, have the necessary training, experience, and technical knowledge to efficiently and effectively complete IT acquisitions. | 21.62% | 18.92% | 54.05% | 5.41% | 37 |
| 8. Staff within OCIO have the necessary training, experience, and technical knowledge to efficiently and effectively complete their role within IT acquisitions. | 13.33% | 36.67% | 43.33% | 6.67% | 30 |
| 9. Staff within your office, OCPO, and OCIO, have sufficient work time available to efficiently and effectively complete IT acquisitions. | 32.35% | 32.35% | 32.35% | 2.94% | 34 |
| 10. Over approximately the past two years, the assistance provided by the OCPO Acquisition Liaison Unit (ALU) has been sufficient. | 17.65% | 26.47% | 41.18% | 14.71% | 34 |

| | | | | | |
|---|---|---|---|---|---|
| 11. Over approximately the past two years, HUD's formal practice of program and project management (as described in HUD Acquisition Instruction 20-01) has been consistently implemented and ensures that acquisitions are completed efficiently and effectively. | Strongly disagree | Disagree | Agree | Strongly agree | Response count |
| | 33.33% | 40.74% | 25.93% | 0.00% | 27 |
| 12. HUD has effective oversight procedures in place to ensure the IT acquisition process stays on-track and that everyone involved in the process is completing required tasks efficiently and effectively. | Strongly disagree | Disagree | Agree | Strongly agree | Response count |
| | 30.77% | 33.33% | 35.90% | 0.00% | 39 |
| 13. From your perspective, approximately what percentage of IT related requisitions from your office are NOT completed on-time (i.e., by the target requisition date)? | 100% (or nearly 100%) are late | 75% are late | 50% are late | 25% or less are late[14] | Response count |
| | 18.37% | 10.20% | 18.37% | 53.06% | 49 |
| 14. From your perspective, approximately what percentage of IT related acquisitions are NOT completed by OCPO on-time (i.e., within the applicable procurement action lead time)? | 100% (or nearly 100%) are late | 75% are late | 50% are late | 25% or less are late[14] | Response count |
| | 20.83% | 8.33% | 14.58% | 56.25% | 48 |
| 15. Over approximately the past two years, how significantly has this issue negatively impacted IT acquisitions for your office:<br><br>Ineffective coordination or communication when dealing with HUD's Office of Chief Procurement Officer (OCPO). | Significant impact | Moderate impact | Slight impact | No impact | Response count |
| | 39.53% | 27.91% | 13.95% | 18.60% | 43 |
| 16. Over approximately the past two years, how significantly has this issue negatively impacted IT acquisitions for your office:<br><br>Ineffective coordination or communication when dealing with HUD's Office of Chief Information Officer (OCIO). | Significant impact | Moderate impact | Slight impact | No impact | Response count |
| | 41.86% | 30.23% | 11.63% | 16.28% | 43 |
| 17. Over approximately the past two years, how significantly has this issue negatively impacted IT acquisitions for your office:<br><br>Insufficient technical knowledge or experience of program office staff involved in the procurement process. | Significant impact | Moderate impact | Slight impact | No impact | Response count |
| | 22.22% | 28.89% | 11.11% | 37.78% | 45 |
| 18. Over approximately the past two years, how significantly has this issue negatively impacted IT acquisitions for your office:<br><br>Insufficient technical knowledge or experience of OCPO staff involved in the procurement process. | Significant impact | Moderate impact | Slight impact | No impact | Response count |
| | 36.59% | 14.63% | 12.20% | 36.59% | 41 |

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[14] Survey responses of "25% are late", "15% are late", and "none are late" were combined in the exhibit.

| 19. Over approximately the past two years, how significantly has this issue negatively impacted IT acquisitions for your office: | Significant impact | Moderate impact | Slight impact | No impact | Response count |
|---|---|---|---|---|---|
| Insufficient technical knowledge or experience of OCIO staff involved in the procurement process. | 32.50% | 22.50% | 15.00% | 30.00% | 40 |
| 20. Over approximately the past two years, how significantly has this issue negatively impacted IT acquisitions for your office: | Significant impact | Moderate impact | Slight impact | No impact | Response count |
| Disagreement or differing priorities between the OCIO and program offices. | 47.62% | 33.33% | 4.76% | 14.29% | 42 |
| 21. Over approximately the past two years, how significantly has this issue negatively impacted IT acquisitions for your office: | Significant impact | Moderate impact | Slight impact | No impact | Response count |
| Ineffective project management or acquisition process oversight | 37.78% | 26.67% | 15.56% | 20.00% | 45 |
| 22. Over approximately the past two years, how significantly has this issue negatively impacted IT acquisitions for your office: | Significant impact | Moderate impact | Slight impact | No impact | Response count |
| IT contracts that failed to provide products or services that met expectations or program office needs. | 30.95% | 19.05% | 21.43% | 28.57% | 42 |
| 23. Over approximately the past two years, how significantly has this issue negatively impacted IT acquisitions for your office: | Significant impact | Moderate impact | Slight impact | No impact | Response count |
| Limited staffing resources available for acquisition processing. | 50.00% | 22.50% | 12.50% | 15.00% | 40 |

| 24. During the period of July 1, 2018 to now, has your office had any information technology related contracts expire resulting in a break in services? | Yes | No | Response count |
|---|---|---|---|
| | 60.53% | 39.47% | 38 |

| 25. During the period of July 1, 2018 to now, has your office used any "bridge contracts" to avoid a lapse in IT related services? (A bridge contract is a short-term contract extension or new contract awarded on a sole-source basis to an incumbent contractor to bridge the time until a new competitive contract can be awarded. Contract option periods from the original contract are not considered bridge contracts.) | Yes | No | Response count |
|---|---|---|---|
| | 71.88% | 28.13% | 32 |

## Appendix B – Acronyms

| ACRONYM | DEFINITION |
|---------|------------|
| ALU | Acquisition Liaison Unit |
| COR | contracting officer representative |
| FAR | Federal Acquisition Regulation |
| FHA | Federal Housing Administration |
| FMFIA | The Federal Managers' Financial Integrity Act of 1982 |
| GSA | General Services Administration |
| HUD | U.S. Department of Housing and Urban Development |
| IAT | integrated acquisition team |
| IPT | integrated project team |
| IT | information technology |
| ITPM | information technology project manager |
| OCIO | Office of the Chief Information Officer |
| OCPO | Office of the Chief Procurement Officer |
| OMB | Office of Management and Budget |
| PALT | procurement action lead time |
| TAD | target award date |

## Appendix C – Acknowledgements

This report was prepared under the direction of Brian T. Pattison, Assistant Inspector General for Evaluation (AIGE); Kathryn Saylor, Deputy AIGE; and John Garceau, Director of the Information Technology Evaluations Division.  The Office of Evaluation staff members who contributed are recognized below.

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