

STATE OF FLORIDA AUDITOR GENERAL

Information Technology Operational Audit

Report No. 2016-071
January 2016

**AGENCY FOR PERSONS
WITH DISABILITIES**

iBudget System



Sherrill F. Norman, CPA
Auditor General

Director of Agency for Persons with Disabilities

The Agency for Persons with Disabilities is created by Section 20.197, Florida Statutes, and is housed within the Department of Children and Families for administrative purposes only. The Agency is a separate budget entity not subject to control, supervision, or direction by the Department of Children and Families in any manner. The head of the Agency is the Director who is appointed by the Governor subject to confirmation by the Senate. Barbara Palmer served as the Director during the period of our audit.

The team leader was Arthur Wahl, CPA, CISA, and the audit was supervised by Tina Greene, CPA, CISA.

Please address inquiries regarding this report to Arthur Hart, CPA, Audit Manager, by e-mail at arthart@aud.state.fl.us or by telephone at (850) 412-2923.

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AGENCY FOR PERSONS WITH DISABILITIES

iBudget System

SUMMARY

This operational audit of the Agency for Persons with Disabilities (Agency) focused on evaluating selected information technology (IT) controls applicable to the iBudget System and included a follow-up on a finding disclosed in our report No. 2014-056 that was applicable to the scope of this audit. As summarized below, our audit disclosed areas in which improvements in iBudget System IT controls and operational processes were needed.

Finding 1: The Agency did not have business process controls in place to ensure that valid Florida Developmental Disabilities Individual Budgeting Waiver program (iBudget Waiver) paid claims data was appropriately interfaced with the iBudget System and that the paid claims data recorded in the Florida Medicaid Management Information System (FMMIS); the Allocation, Budget, and Contract Control (ABC) System; and the iBudget System was reconciled to ensure the completeness, accuracy, and availability of iBudget Waiver paid claims data in the iBudget System. A similar finding was noted in our report No. 2014-056.

Finding 2: Some access privileges defined for the network and IT resources used to support the iBudget System did not promote an appropriate separation of duties and did not restrict users to only those functions appropriate and necessary for their assigned job duties.

Finding 3: Agency program change management controls for the iBudget System needed improvement to ensure that all program changes moved into the production environment were properly authorized, tested, and approved and that a post-implementation mechanism was in place to provide reasonable assurance that all program changes moved into the production environment were appropriately authorized, tested, and approved.

Finding 4: The Agency's Continuity of Operations Plan and related iBudget System disaster recovery procedures needed improvement to provide greater assurance that critical Agency operations would continue in the event of a disaster.

Finding 5: Certain security controls related to user authentication needed improvement to ensure the continued confidentiality, integrity, and availability of iBudget System data and related IT resources.

BACKGROUND

Pursuant to State law,¹ the Agency for Persons with Disabilities (Agency) is responsible for providing all services to persons with developmental disabilities under State law² including the programmatic management of Medicaid waivers established to provide services to persons with developmental disabilities. Within the Florida Medicaid home and community-based services (HCBS) waiver programs,

¹ Section 20.197(3), Florida Statutes.

² Chapter 393, Florida Statutes.

the Florida Developmental Disabilities Individual Budgeting Waiver program (iBudget Waiver) provides home and community-based supports and services to eligible persons with developmental disabilities (clients) living at home or in a home-like setting. The Agency uses the iBudget System to manage the iBudget Waiver. The iBudget System is designed to give clients control and flexibility to choose services that are important to them while helping the Agency to stay within its Medicaid HCBS waiver programs appropriation. The iBudget System is used by waiver support coordinators and Agency staff to develop and track individual cost plans, paid claims, and other related client information for iBudget Waiver clients. Additionally, the iBudget System interfaces with the Agency's Allocation, Budget, and Contract Control (ABC) System that is used by the Agency to plan and manage Medicaid waiver and nonwaiver program client services.

Medicaid provider claims for services provided to clients are paid through the Florida Medicaid Management Information System (FMMIS) maintained by the Agency for Health Care Administration (AHCA). On a weekly basis, the FMMIS Medicaid paid claims file is interfaced with the ABC System and the paid claims applicable to the iBudget Waiver that pass various validation edits (e.g., valid client, valid cost plan, and valid date of service) in the ABC System are then interfaced with the iBudget System.

FINDINGS AND RECOMMENDATIONS

Finding 1: Claims Payment Data

Business process controls are the automated and manual controls applied to business transaction flows and relate to the completeness, accuracy, and availability of data during application processing. Completeness controls provide reasonable assurance that all transactions that occurred are input into the system, that valid transactions are accepted by the system and invalid transactions are rejected by the system, and that rejected transactions are identified, corrected, and reprocessed.

As stated in the **BACKGROUND** section of this report, on a weekly basis, the FMMIS Medicaid paid claims file is interfaced with the ABC System. Paid claims applicable to the iBudget Waiver that pass various validation edits in the ABC System are then interfaced with the iBudget System. Paid claims that do not pass validation edits in the ABC System are identified as error records in the ABC System. Agency staff perform additional manual procedures related to the error records to identify additional valid iBudget Waiver paid claims. Our audit procedures disclosed that error records in the ABC System that were subsequently identified and determined to be valid iBudget Waiver paid claims were not interfaced with the iBudget System once the error records were determined to be valid claims. Additionally, the Agency did not have business process controls in place to reconcile the paid claims data recorded in FMMIS, the ABC System, and the iBudget System to help ensure the completeness of the iBudget System paid claims data. A similar finding was noted in our report No. 2014-056.

Without effective business process controls to ensure that valid iBudget Waiver paid claims data is appropriately interfaced with the iBudget System and that the paid claims data recorded in FMMIS, the ABC System, and the iBudget System is reconciled, the risk is increased that iBudget Waiver paid claims data may not be complete, accurate, and available in the iBudget System and may result in inaccurate information being used by waiver support coordinators and Agency staff for decision making.

Recommendation: Agency management should establish business process controls to ensure that valid iBudget Waiver paid claims data is appropriately interfaced with the iBudget System and that the paid claims data recorded in FMMIS, the ABC System, and the iBudget System is reconciled to help ensure the completeness, accuracy, and availability of the iBudget Waiver paid claims data in the iBudget System.

Finding 2: Appropriateness of Access Privileges

Effective access controls include measures that restrict user access privileges to data and IT resources to only those functions that promote an appropriate separation of duties and are appropriate and necessary for the user's assigned job duties. Appropriately restricted access privileges help protect data and IT resources from unauthorized modification, loss, or disclosure.

Our audit procedures disclosed the existence of some inappropriate and unnecessary access privileges to the network and IT resources used to support the iBudget System. Specifically, we noted that:

- Two service accounts (i.e., nonuser system accounts) were included in the domain administrators group that allowed for inappropriate and unnecessary access privileges. Subsequent to our audit inquiry, Agency management provided documentation indicating that the two service accounts had been removed from the domain administrators group.
- One Agency IT program developer had assigned access privileges that allowed the program developer to perform the incompatible functions of developing program changes and moving the program changes into the production environment.

Inappropriate or unnecessary access privileges to the network and IT resources used to support the iBudget System increase the risk of unauthorized modification, loss, or disclosure of iBudget System data and IT resources.

Recommendation: Agency management should restrict user access privileges to the network and IT resources used to support the iBudget System to only those access privileges that promote an appropriate separation of duties and are appropriate and necessary for users to perform their assigned job duties.

Finding 3: Program Change Management

Effective program change management controls are intended to ensure that all program changes are properly authorized, tested, and approved for movement into the production environment. The effectiveness of program change management controls is enhanced through a post-implementation mechanism that provides reasonable assurance that all program changes moved into the production environment have been processed through appropriate authorization, testing, and approval controls.

We reviewed seven iBudget System program changes moved into the production environment during the period January 2014 through July 2015. For one of the seven changes, our audit procedures disclosed that the Agency did not have documentation to evidence that the change was authorized, tested, and approved for movement into the production environment by the appropriate end-user functional area. Additionally, the program change was not moved into the production environment by someone independent of the person who developed the program change as the change was moved into the production environment by the Agency IT program developer mentioned in Finding 2. Also, Agency management had not established a post-implementation mechanism, such as system-generated logs or

a reconciliation process, to provide reasonable assurance that all program changes moved into the production environment were appropriately authorized, tested, and approved.

Without appropriate program change management controls to ensure that all program changes to be moved into the production environment are authorized, tested, and approved, and a post-implementation mechanism to provide reasonable assurance that all program changes moved into the production environment were appropriately authorized, tested, and approved, the risk is increased that erroneous or unauthorized program changes may be moved into the production environment and not be timely detected.

Recommendation: Agency management should improve iBudget System program change management controls to ensure that all program changes moved into the production environment are properly authorized, tested, and approved. Agency management should also ensure that a post-implementation mechanism is in place that provides reasonable assurance that all program changes moved into the production environment were appropriately authorized, tested, and approved.

Finding 4: Continuity of Operations Plan and Disaster Recovery Procedures

Business continuity and disaster recovery planning is intended to facilitate a timely and orderly resumption of critical operations in the event of a disaster or other interruption of service. Agency for Enterprise Information Technology (AEIT) rules³ provide that IT resources identified as critical to the continuity of governmental operations shall have documented disaster recovery plans to provide for the continuation of critical agency functions in the event of a disaster.

As part of our audit, we examined the Agency's policies, procedures, and plans for continuity of operations, including disaster recovery, as well as plans for backup and recovery of critical iBudget System data and IT resources. Our examination disclosed that, while the Agency had developed a Continuity of Operations Plan and *Disaster Recovery Procedures for iBudget Application (iBudget DRP)*, improvements were needed in the Continuity of Operations Plan and related iBudget System disaster recovery procedures. Specifically, we found that:

- The Continuity of Operations Plan was dated 2012, had not been formally approved by the Agency, and was not current.
- Disaster recovery documentation that identified the assignment of iBudget System disaster recovery responsibilities, including the names of individuals authorized to activate the *iBudget DRP*, was not current and included the names of individuals who were no longer employed by the Agency. Subsequent to our audit inquiry, the assignment of iBudget System disaster recovery responsibilities was updated to include the names of individuals currently assigned these duties.

The establishment of a current, approved Continuity of Operations Plan and related iBudget System disaster recovery procedures would provide greater assurance that critical Agency operations will continue in the event of a disaster.

³ AEIT Rule 71A-1.012(4), Florida Administrative Code. Effective July 1, 2014, Chapter 2014-221, Laws of Florida, created the Agency for State Technology (AST) within the Department of Management Services and authorized a type two transfer of all records; property; pending issues and existing contracts; administrative authority; administrative rules in Chapters 71A-1 and 71A-2, Florida Administrative Code, in effect as of November 15, 2010; trust funds; and unexpended balances of appropriations, allocations, and other funds of the AEIT to the AST.

Recommendation: Agency management should ensure that the Continuity of Operations Plan and related iBudget System disaster recovery procedures are approved by Agency management and kept current.

Finding 5: Security Controls – User Authentication

Security controls are intended to protect the confidentiality, integrity, and availability of data and IT resources. Our audit procedures disclosed that certain security controls related to user authentication for the iBudget System and related IT resources needed improvement. We are not disclosing specific details of the issue in this report to avoid the possibility of compromising iBudget System data and related IT resources. However, we have notified appropriate Agency management of the specific issue. Without adequate security controls related to user authentication for the iBudget System and related IT resources, the risk is increased that the confidentiality, integrity, and availability of iBudget System data and related IT resources may be compromised.

Recommendation: Agency management should improve certain security controls related to user authentication for the iBudget System and related IT resources to ensure the continued confidentiality, integrity, and availability of iBudget System data and related IT resources.

PRIOR AUDIT FOLLOW-UP

As discussed in Finding 1, Department management actions were still needed to fully correct the applicable finding included in our report No. 2014-056.

OBJECTIVES, SCOPE, AND METHODOLOGY

The Auditor General conducts operational audits of governmental entities to provide the Legislature, Florida's citizens, public entity management, and other stakeholders unbiased, timely, and relevant information for use in promoting government accountability and stewardship and improving government operations.

We conducted this IT operational audit from July 2015 through August 2015 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 the audit findings and our conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for the audit findings and our conclusions based on our audit objectives.

This IT operational audit focused on evaluating selected IT controls applicable to the iBudget System during the period July 2015 through August 2015 and selected actions from January 1, 2014, and through October 9, 2015. The audit included selected business process application controls over transaction data input, processing, and output and selected application-level general controls over logical access to programs and data, configuration management, and contingency planning. The overall objectives of the audit were:

- To determine the effectiveness of selected IT controls in achieving management's control objectives in the categories of compliance with controlling laws, administrative rules, and other

guidelines; the confidentiality, integrity, availability, relevance, and reliability of data; and the safeguarding of IT resources.

- To determine whether management had corrected, or was in the process of correcting, a deficiency disclosed in our report No. 2014-056.
- To identify statutory and fiscal changes that may be recommended to the Legislature pursuant to Section 11.45(7)(h), Florida Statutes.

This audit was designed to identify, for the IT system and controls included within the scope of the audit, deficiencies in management's internal controls; instances of noncompliance with applicable governing laws, rules, or contracts; and instances of inefficient or ineffective operational policies, procedures, or practices. The focus of this audit was to identify problems so that they may be corrected in such a way as to improve government accountability and efficiency and the stewardship of management. Professional judgment has been used in determining significance and audit risk and in selecting the particular IT controls, legal compliance matters, and records considered.

As described in more detail below, for the IT system and controls included within the scope of this audit, our audit work included, but was not limited to, communicating to management and those charged with governance the scope, objectives, timing, overall methodology, and reporting of the audit; obtaining an understanding of the IT system and controls; exercising professional judgment in considering significance and audit risk in the design and execution of the research, interviews, tests, analyses, and other procedures included in the audit methodology; obtaining reasonable assurance of the overall sufficiency and appropriateness of the evidence gathered in support of the audit findings and our conclusions; and reporting on the results of the audit as required by governing laws and auditing standards.

This audit included the selection and examination of IT system controls and records. Unless otherwise indicated in this report, these items were not selected with the intent of statistically projecting the results, although we have presented for perspective, where practicable, information concerning relevant population value or size and quantifications relative to the items selected for examination.

An audit by its nature does not include a review of all records and actions of agency management, staff, and contractors and, as a consequence, cannot be relied upon to identify all instances of noncompliance, fraud, abuse, or inefficiency.

In conducting this audit, we:

- Interviewed Agency personnel.
- Obtained an understanding of iBudget System (i.e., application) data and business process flows including key sources of data input, key application transactions and processes, and key types of application data output related to the application.
- Evaluated the effectiveness of selected iBudget System input, processing, and output controls in place to ensure that transaction data was complete, accurate, and available.
- Evaluated selected iBudget System transaction data interface and reconciliation controls in place to ensure the complete and accurate transfer of data.
- Obtained an understanding of the iBudget System IT computing platform including the applicable hardware, operating system, database management system, and security software.
- Evaluated selected access privileges and review procedures related to the iBudget System and supporting IT resources. Specifically, we reviewed:

- Access privileges for 27 of 2,604 iBudget System user identification codes (user IDs) as of July 24, 2015, to determine whether access was restricted to authorized users and whether access to sensitive transactions or activities was appropriately controlled and protected.
- Access privileges to iBudget System production programs for all 9 members of the local administrator groups on two production servers as of July 29, 2015, and one production server as of August 24, 2015, to determine whether access was restricted to authorized and appropriate personnel.
- Access privileges to iBudget System production data for 10 user IDs as of August 24, 2015, to determine whether direct access to data was appropriately restricted and controlled.
- Network administration access privileges assigned to 28 user IDs, service accounts, and groups as of July 27, 2015, to determine whether access to network administration was appropriately restricted.
- Evaluated selected authentication controls for the iBudget System and the supporting network and database.
- Obtained an understanding of the Agency's application configuration management processes applicable to the iBudget System, including identification of policies and procedures for application change control.
- Evaluated selected configuration management controls related to the iBudget System. Specifically, we evaluated 7 of 38 program changes that were moved into the production environment between January 1, 2014, and July 30, 2015, to determine whether the changes were appropriately authorized, tested, approved, documented, and moved into the production environment.
- Evaluated selected application contingency planning controls related to the iBudget System.
- Communicated on an interim basis with applicable officials to ensure the timely resolution of issues involving controls and noncompliance.
- Performed various other auditing procedures, including analytical procedures, as necessary, to accomplish the objectives of the audit.
- Prepared and submitted for management response the findings and recommendations that are included in this report and which describe the matters requiring corrective actions. Management's response is included in this report under the heading **MANAGEMENT'S RESPONSE**.

AUTHORITY

Section 11.45, Florida Statutes, provides that the Auditor General may conduct audits of the IT programs, activities, functions, or systems of any governmental entity created or established by law. Pursuant to the provisions of Section 11.45, Florida Statutes, I have directed that this report be prepared to present the results of our IT operational audit.



Sherrill F. Norman, CPA
Auditor General

MANAGEMENT'S RESPONSE



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December 22, 2015

Sherrill F. Norman, CPA
Auditor General
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Re: Preliminary and Tentative Audit Findings – Agency for Persons with Disabilities, iBudget System

Dear Ms. Norman:

I appreciate this opportunity to respond to the preliminary and tentative audit findings and recommendations concerning your operational audit on the *iBudget System*. Our response is enclosed as required by section 11.45(4)(d), Florida Statutes.

I appreciate the effort of you and your staff in assisting to improve our operations. If you have any questions or need additional information, please contact Beth Breier, Director of Audit at (850) 414-7008.

Sincerely,

A handwritten signature in blue ink that reads 'Barbara Palmer'.

Barbara Palmer
Director

BP/bb
Enclosure

<http://apdcares.org>

IBUDGET SYSTEM

Finding No. 1: Claims Payment Data

Finding: The Agency did not have business process controls in place to ensure that valid Florida Developmental Disabilities Individual Budgeting Waiver program (iBudget Waiver) paid claims data was appropriately interfaced with the iBudget System and that the paid claims data recorded in the Florida Medicaid Management Information System (FMMIS); the Allocation, Budget, and Contract Control (ABC) System; and the iBudget System was reconciled to ensure the completeness, accuracy, and availability of iBudget Waiver paid claims data in the iBudget System. A similar finding was noted in our report No. 2014-056.

Recommendation: Agency management should establish business process controls to ensure that valid iBudget Waiver paid claims data is appropriately interfaced with the iBudget System and that the paid claims data recorded in FMMIS, the ABC System, and the iBudget System is reconciled to help ensure the completeness, accuracy, and availability of the iBudget Waiver paid claims data in the iBudget System.

Agency Response: The Agency concurs.

The Agency is working to put the business processes and controls in place to ensure that paid claims data initially found to be in error, but subsequently corrected, is interfaced with the iBudget System, and paid claims data is reconciled between the FMMIS, ABC, and iBudget systems.

Finding No. 2: Appropriateness of Access Privileges

Finding: Some access privileges defined for the network and IT resources used to support the iBudget System did not promote an appropriate separation of duties and did not restrict users to only those functions appropriate and necessary for their assigned job duties.

Recommendation: Agency management should restrict user access privileges to the network and IT resources used to support the iBudget System to only those access privileges that promote an appropriate separation of duties and are appropriate and necessary for users to perform their assigned job duties.

Agency Response: The Agency concurs.

The Agency will restrict user access privileges used to support the iBudget system to only those which are appropriate and necessary, and those which ensure appropriate separation of duties.

Finding No. 3: Program Change Management

Finding: Agency program change management controls for the iBudget System needed improvement to ensure that all program changes moved into the production environment were properly authorized, tested, and approved and that a post-implementation mechanism was in place to provide reasonable assurance that all program changes moved into the production environment were appropriately authorized, tested, and approved.

Recommendation: Agency management should improve iBudget System program change management controls to ensure that all program changes moved into the production environment are properly authorized, tested, and approved. Agency management should also ensure that a post-implementation mechanism is in place that provides reasonable assurance that all program changes moved into the production environment were appropriately authorized, tested, and approved.

Agency Response: The Agency concurs.

The Agency will work to improve program change management procedures to ensure all production system deployments have been authorized, tested and approved through the program change management process, including the addition of a post-implementation process which will provide this assurance.

Finding No. 4: Continuity of Operations Plan and Disaster Recovery Procedures

Finding: The Agency's Continuity of Operations Plan and related iBudget System disaster recovery procedures needed improvement to provide greater assurance that critical Agency operations would continue in the event of a disaster.

Recommendation: Agency management should ensure that the Continuity of Operations Plan and related iBudget System disaster recovery procedures are approved by management and kept current.

Agency Response: The Agency concurs.
The Agency will work to ensure the Continuity of Operations Plan, as it relates to Information Technology systems, and disaster recovery procedures are approved by Agency management and kept current.

Finding No. 5: Security Controls – User Authentication

Finding: Certain security controls related to user authentication needed improvement to ensure the continued confidentiality, integrity, and availability of iBudget System data and related IT resources.

Recommendation: Agency management should improve certain security controls related to user authentication for the iBudget System and related IT resources to ensure the continued confidentiality, integrity, and availability of iBudget System data and related IT resources.

Agency Response: The Agency concurs.
The Agency has mitigated the threat detailed in the confidential findings report.