



An Audit Report on

**The Office of the Comptroller of Public  
Accounts' Controls Over the Centralized  
Accounting Payroll/Personnel System**

October 2017

Report No. 18-002



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## Overall Conclusion

The Office of the Comptroller of Public Accounts (**Comptroller's Office**) has implemented controls and processes governing the operation of the Centralized Accounting Payroll/Personnel System (CAPPS).<sup>1</sup> As of August 2017, CAPPS was processing payments and payrolls for certain state agencies. Specifically:

- CAPPS was processing payments for 21 state agencies and, according to the **Comptroller's Office**, processed \$1.2 billion in vouchered payments in fiscal year 2016.
- CAPPS was processing payroll for 43 state agencies and, according to the **Comptroller's Office**, processed \$170.1 million in payroll expenses for fiscal year 2016.

While auditors noted that both the Financials and HR/Payroll systems in CAPPS are processing payments, the **Comptroller's Office** should improve certain controls to help ensure that CAPPS is secure and that system **changes do not adversely affect the system's** operations.

To minimize the risks associated with public disclosure, auditors provided the details about the control weaknesses related to logical access and recommendations **separately to the Comptroller's Office, which** agreed to implement the recommendations.

### Background Information

In fiscal year 2012, the Office of the Comptroller of Public Accounts (**Comptroller's Office**) began implementation of the Centralized Accounting Payroll/Personnel System (CAPPS), which is a PeopleSoft-based system. The goal for CAPPS is to be a statewide enterprise resource planning system that meets the requirements outlined in Texas Government Code, Chapter 2101.

Texas Government Code, Chapter 2101, defined an enterprise resource planning system as including the administration of the following 12 areas: general ledger, accounts payable, accounts receivable, budgeting, inventory, asset management, billing, payroll, projects, grants, human resources (including time keeping), and purchasing.

The **Comptroller's Office** began the CAPPS implementation process in fiscal year 2012 and migrated six state agencies onto the centralized **CAPPS' Financials system. The implementation of the centralized CAPPS' HR/Payroll system** began in fiscal year 2015, when four state agencies migrated to that system. Other state agencies migrate onto the centralized systems in a phased schedule that the **Comptroller's Office** estimates will be completed for both the CAPPS Financials and CAPPS HR/Payroll systems in fiscal year 2023. In December 2014, the **Comptroller's Office** contracted with a vendor to assist with the process of migrating state agencies onto CAPPS, including developing, securing, and maintaining CAPPS.

According to current **Comptroller's Office** plans, when implementation of CAPPS is complete, a total of 117 state agencies will use either a **Comptroller's Office-maintained** or a state agency-maintained version of CAPPS. The **Comptroller's Office's** estimated portion of the project costs totals \$529.6 million through 2023 (excluding state agency-specific implementation costs).

Sources: Texas Government Code, Chapter 2101, and the **Comptroller's Office**.

<sup>1</sup> The Comptroller's Office has allowed some state agencies to operate their own versions of CAPPS. This audit covered the CAPPS system that is operated and maintained, with vendor assistance, by the Comptroller's Office and excludes the separate CAPPS systems either implemented or approved for implementation at other state agencies.

**Pursuant to Standard 7.41 of the U.S. Government Accountability Office's** *Government Auditing Standards*, the findings identified in the limited-use report discussed above were deemed to present potential risks to public safety and the security of critical network infrastructure and private or confidential data. As such, the detailed findings and recommendations are considered confidential and will be excluded from this publicly available report. Under the provisions of Texas Government Code, Section 552.139, the confidential findings in this report are exempt from the requirements of the Public Information Act.

Change Management. The **Comptroller's Office** implemented controls and processes governing the management of code changes to CAPPs. However, it should strengthen its change management controls to help ensure that changes are properly controlled and tested before implementation of those changes into the production environment (see text box for a definition of change management). Auditors identified instances in which the **Comptroller's Office** did not always follow the designed change management process, which in certain cases resulted in the implementation of incorrect changes to CAPPs. The **Comptroller's Office's processes subsequently** identified and corrected the errors.

Key Application Controls. The **Comptroller's Office** has implemented controls in both the CAPPs HR/Payroll system and CAPPs Financials system that help to provide assurance that data is accurate and complete. Auditors noted certain areas in which the **Comptroller's Office** could improve the application controls to help provide additional assurance that CAPPs Financials system data is accurate and complete. Additionally, auditors noted that the controls in CAPPs are highly configurable by the individual state agencies, which could result in state agencies choosing to deploy CAPPs without fully implementing key financial transaction controls.

Auditors communicated other, less significant issues to the **Comptroller's Office** separately in writing.

Change Management

ISACA, an independent association that certifies information technology governance professionals, defines change management as follows:

"All changes, including emergency maintenance and patches, relating to infrastructure and applications within the production environment are formally managed in a controlled manner. Changes are logged, assessed and authorized prior to implementation and reviewed against planned outcomes following the implementation. This assures mitigation of the risks of negatively impacting the stability or integrity of the production environment."

Source: ISACA's Control Objectives for Information and Related Technology (COBIT), version 4.1.

Table 1 presents a summary of the findings in this report and the related issue ratings. (See Appendix 2 for more information about the issue rating classifications and descriptions.)

Table 1

Summary of Chapters/Subchapters and Related Issue Ratings		
Chapter/ Subchapter	Title	Issue Rating <sup>a</sup>
1	<b>The Comptroller's Office Has Implemented Controls Over the Change Management Processes for CAPPS; However, It Should Strengthen Those Controls</b>	Medium
2-A	<b>The Comptroller's Office's Application Controls Over the CAPPS HR/Payroll System Were Operating as Intended to Help Ensure Complete and Accurate Data</b>	Low
2-B	<b>The Comptroller's Office Has Implemented Application Controls Over the CAPPS Financials System; However, It Could Strengthen Those Controls to Help Ensure Complete and Accurate Data</b>	Low
2-C	<b>The Comptroller's Office Should Improve Its Payroll and Accounting Processes to Help Ensure That Payroll Expenditures Are Accurately Recorded</b>	Medium

<sup>a</sup> A chapter or subchapter is rated Priority if the issues identified present risks or effects that if not addressed could critically affect the **audited entity's ability to effectively administer the program(s)/function(s) audited**. **Immediate action is required to address the noted concern and reduce risks to the audited entity.**

A chapter or subchapter is rated High if the issues identified present risks or effects that if not addressed could substantially affect the **audited entity's ability to effectively administer the program(s)/function(s) audited**. Prompt action is essential to address the noted concern and reduce risks to the audited entity.

A chapter or subchapter is rated Medium if the issues identified present risks or effects that if not addressed could moderately affect the **audited entity's ability to effectively administer program(s)/function(s) audited**. **Action is needed to address the noted concern and reduce risks to a more desirable level.**

A chapter or subchapter is rated Low if the audit identified strengths that support the **audited entity's ability to administer the program(s)/functions(s) audited** or the issues identified do not present significant risks or effects that would negatively affect the **audited entity's ability to effectively administer the program(s)/function(s) audited**.

## **Summary of Management's Response**

At the end of certain chapters in this report, auditors made recommendations to address the issues identified during this audit. **The Comptroller's Office generally agreed with the recommendations in this report.**

## *Audit Objective and Scope*

The objective of the audit was to determine whether the **Comptroller's Office's** controls over selected modules of CAPPS and related interfaces are designed and operating as intended to help ensure that data is secure and that data loss, data corruption, and unauthorized changes are prevented or detected in a timely manner.

The scope of this audit covered selected CAPPS general controls and related processes, application controls, selected financial data, and other supporting documentation from September 1, 2015, through August 2017.

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# Detailed Results

Chapter 1

## **The Comptroller's Office Has Implemented Controls Over the Change Management Processes for CAPPs; However, It Should Strengthen Those Controls**

Chapter 1  
Rating:  
Medium <sup>2</sup>

The Office of the Comptroller of Public Accounts (Comptroller's Office) implemented controls and processes governing the management of program code changes to CAPPs. The Comptroller's Office contracted with a vendor in fiscal year 2015 to develop and maintain CAPPs. In its contract for CAPPs with the vendor, the Comptroller's Office included change management requirements that detailed the process for administering system changes,

the supporting systems to be used to manage the changes, and detailed charts indicating who at both the vendor and Comptroller's Office was responsible for completing the tasks associated with implementing changes to the CAPPs application. Additionally, the vendor implemented an automated workflow process for the migration of changes into the production environment that required multiple levels of approval.

However, the Comptroller's Office should strengthen its change management controls to help ensure that code changes are properly controlled as required by the contract. The Comptroller's Office was unable to provide a complete and accurate population of user requests for system changes that resulted in an application code change, implemented changes without proper testing that resulted in errors, and lacked documentation related to a sample of changes that auditors reviewed.

Tracking Change Requests. The Comptroller's Office's change management systems did not effectively track user requests that resulted in changes to the application code. The

Comptroller's Office employs three different, stand-alone systems to track changes to CAPPs that are not integrated with each other (see text box for description of those systems). Specifically, the ASP and Remedy systems track change requests and the Phire system tracks application code changes. However, the Comptroller's Office's systems do not properly track which

### Change Management Systems

The Comptroller's Office uses the three independent systems discussed below to help manage changes to CAPPs.

ASP - This is a Comptroller's Office-designed system that is used to record details about and help manage 10 different types of CAPPs change requests. Types of CAPPs changes include data changes, application fixes, configuration changes, enhancements, and six other categories. From September 1, 2015, through December 31, 2016, ASP contained 4,534 different requests for changes.

Remedy - This is a vendor-provided system that is used to record details about and help manage seven types of CAPPs-related incidents such as break/fixes, batch job failures, and degradation of performance issues. Additionally, Remedy helps manage 15 different types of change requests that include patches, enhancements, ID administration, configuration changes, and 11 other types of changes. From September 1, 2015, through December 31, 2016, Remedy contained 30,816 different incidents and requests for changes.

Phire - This is a vendor-provided system that is used to help control and manage changes to the CAPPs application code.

Source: The Comptroller's Office.

<sup>2</sup> Chapter 1 is rated Medium because the issues identified present risks or effects that if not addressed could moderately affect the audited entity's ability to effectively administer program(s)/function(s) audited. Action is needed to address the noted concern and reduce risks to a more desirable level.

change requests resulted in a code change. As a result, the Comptroller's Office cannot:

- Ensure that all code changes are the result of a change request. ISACA, an independent association that certifies information technology governance professionals, states that effective change management processes should ensure that all system changes should arise only through a change request management process. Otherwise, there is an increased risk that the vendor could implement changes that are not authorized.
- Verify that requests for changes in one system are properly carried forward to and recorded in the other system(s) and appropriately handled by the vendor.

The Comptroller's Office's ability to provide a complete population of changes requested and/or made to CAPPs is also limited. Specifically, the Comptroller's Office was unable to provide auditors a complete and accurate population of Remedy user requests to make changes to CAPPs that resulted in application code changes. The vendor's Phire application code versioning system maintains the application code, but it does not include detailed information about the requests by users to make changes. The vendor's Remedy system did not include the Phire identifier number used to process the application code changes. The Comptroller's Office noted that the unique number for each change was recorded in documents stored on the network; however, in that format, the information could not be efficiently analyzed and reported to help the Comptroller's Office effectively manage the change process.

**Change Testing.** The Comptroller's Office had a documented process for making changes to the CAPPs application but did not always follow that process. From a population of 261 vendor-identified changes made to CAPPs (excluding HR/Payroll enhancements), auditors tested 22 changes that involved a code change; those items consisted of 5 enhancements (adding new functionality) and 17 break/fix (problem) items. One change had not yet been implemented as of May 2017 and auditors did not test that change for final approval by the Change Approval Board. The review of the 22 changes identified the following (one change may have more than one of the weaknesses listed below):

- One of 22 changes reviewed lacked documentation of approval from the Comptroller's Office's Quality Assurance Team to make the changes.

- Five of the 21 changes that were implemented lacked required documentation from the Change Approval Board to implement the change.
- Two of the 22 changes were not properly tested.
- Eight of the 22 changes were tested in the development environment instead of the test environment. Because the developers could continue to make changes to the development environment, changes tested in the development environment could generate invalid test results.
- Six of 22 changes had inaccurate documentation and references to the wrong supporting documentation.

Application Code Changes. The Comptroller’s Office’s process for developing application code changes did not ensure that only requested changes are implemented in CAPPs. Specifically, when developing application code changes, the Comptroller’s Office did not verify that the code being modified is the same as the code currently used in the CAPPs production system. The Comptroller’s Office instead began the process by using the code stored in the CAPPs development environments that can be modified by 109 user accounts in the Financials environment and 115 user accounts in the HR/Payroll environment. Without a verification process to ensure that the development environment users have not made changes to the code, the Comptroller’s Office could implement unauthorized changes to CAPPs Financials and HR/Payroll and/or implement changes to the production system that will not work as intended.

Change Implementation. The Comptroller’s Office did not consistently follow its documented change management process and used incorrect procedures when implementing some CAPPs system changes in the production environment. As a result, the Comptroller’s Office implemented some changes that contained errors because it did not ensure that certain CAPPs changes were sufficiently researched, developed, and tested prior to their implementation into the production environment. Auditors identified the following:

- The Comptroller’s Office generated an incorrect federal Form W-2 (Wage and Tax Statement) for 2016 for some employees as a result of inadequate change management controls. Improper configuration changes made to the application (see text box), as well as the use of incorrect procedures to generate the forms, caused the printing of the incorrect forms. The Comptroller’s Office

Configuration Changes

Configuration changes are changes to information stored with the application that govern how an application operates. For example, in CAPPs, configuration changes would include changes to the federal tax withholding information that determines how much taxes are withheld from an employee’s salary.

Source: Microsoft.

subsequently identified and corrected the errors, including notifying employees to login to a state portal and print new copies of their W-2s.

- The Comptroller's Office had to uninstall and subsequently reinstall a significant CAPPs Financial system upgrade because it used a CAPPs testing hardware environment that was different from the CAPPs production hardware environment. As a result, the Comptroller's Office did not identify an application error until after the application was migrated to the production environment. While Comptroller's Office identified the error prior to providing the upgrade to end users, the error would have been identified earlier if the Comptroller's Office had used the correct testing environment.

#### Recommendations

The Comptroller's Office should:

- Ensure that the change management systems in use effectively track user requests to make changes to the CAPPs system.
- Ensure that the application code used in the process of developing CAPPs system changes to existing production code begins with a copy that mirrors that used in the current production system.
- Ensure that all CAPPs system changes are properly researched, documented, approved, and tested before implementing the changes in the production environment.

#### Management's Response

*The Comptroller's Office generally agrees with the recommendations and the recent implementation of a new service desk tool for managed services functions will provide more detailed tracking and monitoring capabilities. The new service desk tool will contain the ASP and Phire numbers for all service requests thus providing enhanced integration between the three tools. The Comptroller's Office will also implement additional monitoring activities to ensure appropriate controls over CAPPs system changes.*

*The Phire system is used to help control and manage changes to the CAPPs application code. Phire is one of two products widely used in the industry for this purpose. Coupled with the established migration paths noted in the CAPPs Environment Management Approach document, Phire effectively and accurately tracks application code changes. The development process for each production (steady-state) change request is being modified to begin*

*with a fresh copy of the necessary objects from the production environment. The development process for changes that are part of CAPPs deployment activities follow a slightly different process to account for upgraded environments, but include a code merge process to sync up the deployment changes with other changes processed through the steady-state route. As part of the current development process, the code is locked to prevent other concurrent changes from being made. This ensures the starting point for production (steady-state) changes is a mirror image of the production environment.*

*Additionally, the CAPPs Quality Assurance team currently verifies, through a code comparison, the version set that is created in development matches the Production environment and only includes changes noted in the Technical Design Document. Furthermore, the Comptroller's Office will amend this process to verify the version set that is created in development matches the production code when migrating to UAT and also implement a second comparison review of the final Phire version set migrating to Production to confirm it matches what was approved in UAT. This second comparison review will validate that the development code only contains requested changes being migrated to production.*

*Additionally, the CAPPs system testing environments were modified to include the same environment configurations as used in production for load balancing. This will allow the Comptroller's Office to identify issues earlier in the test process.*

*For the federal form W-2 configuration system changes that were not properly researched, documented, approved and tested prior to production migration, staff were counseled and reminded of established procedures. Written procedures were also reviewed and edited to include additional steps on how to properly restart the job that produces W-2s.*

*Responsible Party: Statewide Fiscal Systems Manager*

*Implementation Date: January 31, 2018*

## **CAPPS Contains Application Controls; However, the Comptroller's Office Could Strengthen Selected Controls Over Data Accuracy and Completeness**

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### CAPPS Application

As of August 31, 2017, 43 state agencies used the centralized version of the CAPPS HR/Payroll system, and 21 state agencies used the centralized version of the CAPPS Financials system.

The **Comptroller's Office** has allowed some state agencies to operate their own versions of CAPPS Financials and/or CAPPS HR/Payroll. Those state agencies include the Health and Human Services Commission (both), the Department of Transportation (both), the Texas Workforce Commission (both), the Department of Housing and Community Affairs (Financials), and the Texas Education Agency (Financials). CAPPS will consist of six separate Financials (one central and five others) and four separate HR/Payroll systems (one central and three others), based on the **Comptroller's Office's** current CAPPS implementation plan.

Source: The **Comptroller's Office**.

The **Comptroller's Office** has implemented controls in both the CAPPS Financials and HR/Payroll systems that help to ensure that the data is complete and accurate. Selected data elements were accurate within the centralized version of CAPPS HR/Payroll and certain controls were operating as intended. However, the **Comptroller's Office** could improve certain controls within the CAPPS Financials system to help ensure the accuracy and completeness of the data in that system.

The **Comptroller's Office** has implemented controls in the centralized version of CAPPS, but some of those controls are customizable and state agencies may choose to either enable or disable them during system implementation. In addition, some state agencies operate their own versions of CAPPS (see text box for more information).

### Chapter 2-A

## **The Comptroller's Office's Application Controls Over the CAPPS HR/Payroll System Were Operating as Intended to Help Ensure Complete and Accurate Data**

Chapter 2-A  
Rating:  
Low<sup>3</sup>

The **Comptroller's Office** had controls in place to help ensure that CAPPS HR/Payroll generates and processes payrolls in a complete and accurate manner. Selected data elements reviewed, including state salary schedules and federal tax deduction information, were accurately recorded in the system. Additionally, CAPPS HR/Payroll will not process payrolls if required key information is not loaded in the system.

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<sup>3</sup> Chapter 2-A is rated Low because the audit identified strengths that support the audited entity's ability to administer the program(s)/function(s) audited or the issues identified do not present significant risks or effects that would negatively affect the audited entity's ability to effectively administer the program(s)/function(s) audited.

State of Texas  
Salary Schedules

The State of Texas has three salary schedules (A, B, and C) that cover all classified positions. Each job classification in the **State's Position Classification Plan** corresponds to a salary schedule and salary group that provides the minimum and maximum salary rate. The salary schedules are established by the Legislature during the biennial budget process.

Source: State Auditor's Office  
State Classification Team.

**Salary Data.** The Comptroller's Office accurately recorded in CAPPs the salary amounts associated with 52 job classifications as of May 2017 in the state salary schedules (see text box for more information about the salary schedules). The minimum and maximum salary amounts recorded in CAPPs for each of the job classifications reviewed accurately matched the amounts in the fiscal years 2016-2017 state salary schedules. Additionally, the 21 exempt position salary amounts tested in CAPPs either matched or were less than the maximum amounts authorized in the General Appropriations Act. The salary amounts tested were used to limit the allowable salaries paid to state employees in CAPPs, and the Comptroller's Office asserted that other state agency users lacked the system access rights needed to adjust those amounts.

**Tax Deductions.** The Comptroller's Office accurately recorded in CAPPs selected federal income tax and Social Security tax withholding data that CAPPs used to calculate payroll tax amounts. Auditors reviewed 14 withholding tax rates for both single and married filers; withholding allowance amounts; supplemental wage deduction rates; Social Security Old-Age, Survivors, and Disability Insurance (OASDI) tax class amounts/rates; and selected special amounts and rates. For the data selected for testing, the information recorded in CAPPs was accurately recorded and matched the withholding schedule information for calendar year 2017. The Comptroller's Office asserted that other state agency users lacked the system access rights needed to adjust the tax withholding amounts.

**Payroll Process.** The Comptroller's Office implemented application controls to help ensure the proper and accurate processing of payrolls in CAPPs. The Comptroller's Office had controls in CAPPs that (1) ensured that only individuals defined as employees were eligible for inclusion in CAPPs payrolls, (2) ensured that an employee's regular salary did not exceed the limit defined in the state salary schedule, (3) ensured that time sheets were loaded into the payroll module before the payroll could be calculated, (4) required users to run the calculation process before they could process a payroll, (5) required employees to have tax withholding information to calculate a payroll amount, and (6) required commitment accounting information (funding information) to process the payroll.

## The Comptroller's Office Has Implemented Application Controls Over the CAPPS Financials System; However, It Could Strengthen Those Controls to Help Ensure Complete and Accurate Data

Chapter 2-B  
Rating:  
Low<sup>4</sup>

The Comptroller's Office implemented controls within CAPPS Financials to help transactions process accurately through the system. CAPPS can automatically match transactions that process in both CAPPS and the Uniform Statewide Accounting System (USAS) and generate errors when those transactions are different (see details below on matching).

Additionally, CAPPS can generate error messages when transactions exceed the budgets established in the system and when users attempt to pay an invoice twice.

### State Agency Deployment Process

State agencies implement CAPPS Financials and/or HR/Payroll following an annual schedule established by the Comptroller's Office. Beginning a year prior to a state agency's planned deployment date, the Comptroller's Office will send a questionnaire to the state agency about its current information technology environment and specific business processes. The Comptroller's Office meets and works with the state agency throughout the year prior to the deployment date to define/refine the controls in CAPPS based on the specific business processes of that state agency. Prior to implementation, the Comptroller's Office implements selected state agency configurable controls in CAPPS as specified by the state agency. The Comptroller's Office does not maintain a minimum set of CAPPS controls that must be implemented by a state agency.

Source: The Comptroller's Office.

While certain controls that auditors reviewed were operational, those controls were customizable and state agencies may choose during system implementation to either enable or disable them (see text box for more information about the state agency deployment process for CAPPS). Management at each of the state agencies that implement CAPPS is responsible for establishing proper system controls. However, if state agencies choose not to enable the controls, the integrity of the data could be adversely affected. For example, state agencies can choose not to use the CAPPS voucher approval workflow, which could result in a lack of segregation of duties when processing payments. Specifically, one user could process a payment voucher in the system without another staff member's involvement, increasing the risk of improper payments.

In addition, CAPPS Financials lacked certain functionality to help ensure that expenditures were accurate and transactions recorded in the system were complete.

CAPPS Financials has controls to help ensure that transactions are accurate if state agencies using the system properly implement those controls.

CAPPS to USAS Interface. The Comptroller's Office implemented controls in CAPPS Financials to help ensure that certain transactions processed in CAPPS were transferred to and successfully process in USAS. Specifically, CAPPS Financials will identify (1) transactions that were processed in only one of the systems and (2) mismatches of selected data elements for transactions that processed in both systems. For example, auditors determined that CAPPS Financials properly identified accounts payable transactions for which the

<sup>4</sup> Chapter 2-B is rated Low because the audit identified strengths that support the audited entity's ability to administer the program(s)/function(s) audited or the issues identified do not present significant risks or effects that would negatively affect the audited entity's ability to effectively administer the program(s)/function(s) audited.

account number for the CAPPs transaction differed from the account number for the same transaction processed in USAS. CAPPs stored those transactions as errors for resolution by state agency employees. The Comptroller's Office allows state agencies to choose how to or whether to implement the matching control, as well as select which transaction types will be subjected to the matching process.

**Budget Processing.** CAPPs Financials contains controls that can limit the expenditure of funds to the amounts defined in system-established budgets.

#### CAPPs Budget Types

CAPPs has multiple budgets. Those include (1) appropriation, (2) organization, and (3) revenue estimate budgets. The organization budget is set up to control expenditures by account, fund, class, department, and appropriation year.

Source: The Comptroller's Office.

In CAPPs Financials, the transactions tested by auditors that exceeded the amounts in the organization budget (see text box) did not process without a budget revision. That control would prevent a state agency from processing a transaction that exceeded the budgeted amount. A state agency can set the control for the organization budget to generate an error that either (1) prevents a transaction that exceeds the budgeted amount from processing or (2) warns the user that the transaction exceeds the budgeted amount but allows the transaction to process.

**Duplicate Invoices.** CAPPs Financials contains controls that can produce a system error when a user attempts to make a payment for a previously invoiced and paid purchase. CAPPs produced an error for the payment voucher transactions tested by auditors that attempted to make a payment using an invoice number that had already been paid in CAPPs. Resolution of the duplicate invoice number allowed the voucher to continue processing in the system. That control can help prevent processing of duplicate voucher payments. The system can look for invoice matches using as many as five different predefined criteria. State agencies can choose whether to implement that control. The control can be configured to have the system ignore an identified duplicate invoice number and continue processing the transaction, save the transaction but halt processing until the transaction no longer matches the duplicate invoice criteria, or delete the payment transaction.

**The Comptroller's Office could improve certain CAPPs Financials controls to help ensure that the system contains complete and accurate information.**

**Transaction Completeness.** Although the CAPPs Financials system assigns unique, sequential transaction numbers for accounts payable vouchers, journal vouchers, and purchase orders, users can override those assigned numbers with numbers of their own choosing. Additionally, CAPPs does not automatically assign sequential numbers for assets recorded in the CAPPs asset module. The lack of a sequentially assigned transaction number for some transactions, such as assets, and the ability of users to change the

system-assigned number may make it difficult for system users to determine whether certain transaction populations in CAPPs are complete. Auditors identified the following issues related to data completeness in CAPPs for selected transactions:

- For accounts payable vouchers, journal vouchers, and purchase orders, users of CAPPs Financials may have difficulty determining whether the transactions reported in the system represent all transaction data. Auditors identified numbering gaps both between and within the series of transaction numbers used for all three transaction types because users had overridden the system-assigned numbers. The Comptroller's Office did not identify any other unique system-assigned sequential numbers in CAPPs that users could not change and would allow users to easily verify that all payable voucher, journal voucher, and purchase order transactions are properly recorded in the system and the data is complete.
- For recording assets, CAPPs Financials does not use system-assigned numbers. Instead, users must enter an identifier number of their choice. Depending on the numbering scheme used, a state agency may have difficulty in determining the population of its asset holdings and the accuracy of its reported asset balances. As discussed above, the Comptroller's Office did not identify any other field in CAPPs that would allow users to easily verify that all asset transactions are properly recorded in the system and the data is complete.

Resolving CAPPs and USAS Transaction Differences. The Comptroller's Office did not have a process in place to ensure that state agencies that use CAPPs Financials resolve transaction differences between CAPPs and USAS. For example, state agencies' financial reports were due to the Comptroller's Office by November 2016. However, as of April 2017, there were 4,816 (\$389.4 million) fiscal year 2016 CAPPs-related transactions that either (1) processed only in CAPPs or (2) processed in both USAS and in CAPPs but with different transaction data elements. Of those 4,816 transactions, auditors identified 541 transactions totaling \$149.7 million that processed differently in USAS and in CAPPs. The state agencies may have properly resolved those 541 transactions; however, auditors could not determine the disposition of those transactions because they were not resolved and archived in CAPPs. Ensuring that those transactions are properly resolved in CAPPs or USAS and archived in CAPPs in a timely manner would help provide additional assurance regarding the accuracy and completeness of financial data.

In addition, CAPPs contained 33,401 fiscal year 2016 transactions that, according to CAPPs, processed only in USAS. As of April 2017, state agencies

had not archived those transactions to help show that they were properly recorded in both systems.

**Asset Classification.** CAPPs Financials did not ensure that users entered accurate asset class codes and account codes when recording the purchase of assets in CAPPs. If the accuracy of an account code and class code combination is not validated, assets could be improperly depreciated and/or incorrectly reported on financial statements. Asset purchases use a Comptroller's Office coding system and are assigned a code called a "class code." That class code includes an item description, the asset's useful life, and the capitalization threshold amount that is used to calculate depreciation. The transaction also requires an account code (also referred to as a "Comptroller Object code") that is used to classify the type of asset in a state agency's financial reports. During audit testing, CAPPs processed a capitalized asset purchase using a correct account code but an incorrect class code.

#### Recommendations

The Comptroller's Office should:

- Communicate to state agencies that they should:
  - ♦ Develop a process to determine that data recorded in CAPPs Financials, including journal entries, accounts payable transactions, purchase orders, and asset transactions, is complete.
  - ♦ Resolve and archive identified transaction differences and errors between CAPPs and USAS in a timely manner.
- Ensure that capital asset procurement transactions are properly recorded in CAPPs Financials.

#### Management's Response

*The Comptroller's Office generally agrees with the recommendations and will communicate to state agencies that they should develop a process to determine that data recorded in CAPPs Financials is complete and to resolve and archive identified transaction differences and errors between CAPPs and USAS in a timely manner. The Comptroller's Office will increase monitoring efforts to ensure agencies promptly resolve discrepancies and/or errors between CAPPs and USAS. The Comptroller's Office will also implement edits where possible to ensure account code and asset class code combinations are*

*accurate. There are valid business/operational reasons for allowing agencies the flexibility to use other appropriate numbering schemes.*

*As noted in this report, CAPPs has controls that are highly configurable by individual agencies. CAPPs provides flexibility so that agencies can configure the system to meet their business needs, while adhering to payroll and accounting policies, and applicable laws. Unless prohibited by law, agencies may choose to implement manual controls rather than automated controls, similar to what is allowed today with the current statewide financial systems.*

*Responsible Party: Statewide Fiscal Systems Manager*

*Implementation Date: August 31, 2018*

Chapter 2-C

### **The Comptroller's Office Should Improve Its Payroll and Accounting Processes to Help Ensure That Payroll Expenditures Are Accurately Recorded**

Chapter 2-C  
Rating:  
Medium <sup>5</sup>

The payroll process as implemented in CAPPs did not ensure that payroll expenditure transactions were recorded using an employee's actual time and effort information. Specifically, CAPPs calculated payroll expenditure transactions using a predetermined estimated revenue source (fund, project/grant number) for either the employee or the department in which the employee worked. Those predetermined estimates were recorded in the HR/Payroll system, which processed the payroll as intended. However, there is not an automated process to ensure that payroll expenditures are properly adjusted and recorded in a state agency's financial system based on the actual time and effort that each employee worked.

As a result, for each employee who is funded using varied revenue sources, state agencies should implement additional processes to properly capture, calculate, and adjust the initial expenditures when that employee's actual work time differs from the predetermined estimates. If state agencies do not properly adjust/allocate the payroll amounts, those state agencies' financial reporting may not accurately reflect payroll expenditures. In addition, state agencies that receive federal funds may not comply with the Code of Federal Regulations, which requires charges of salaries and wages made to federal funds to be based on records that accurately reflect the work performed.

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<sup>5</sup> Chapter 2-C is rated Medium because the issues identified present risks or effects that if not addressed could moderately affect the audited entity's ability to effectively administer program(s)/function(s) audited. Action is needed to address the noted concern and reduce risks to a more desirable level.

## Recommendation

The Comptroller's Office should ensure that state agencies using CAPPs HR/Payroll properly adjust and record payroll expenditures based on the actual time and effort that each state agency employee worked.

## Management's Response

*The Comptroller's Office generally agrees with the recommendation. CAPPs provides flexibility so that agencies can configure the system to meet their business needs, while adhering to payroll policies, and applicable laws. This flexibility allows agencies to establish commitment accounting entries that reflect the planned labor distribution for employees and provides a process by which agencies can adjust those allocations as needed. Through the established CAPPs Governance process, the recommendation to automate allocation adjustments was considered by the CAPPs HR/Payroll User Group and the automation of the allocation adjustment process was not approved. Agencies expressed their business need to process adjustments on a case by case basis. Therefore, existing functionality to run reports and make adjustments will remain available for agency use. However, the Comptroller's Office is adding an indicator in CAPPs to identify employees whose funding source is federal funds and adding an edit that will require positive time reporting for these employees. Positive time reporting by these employees will capture the actual time spent working for each federal program. Employees with this indicator will also be required to certify their time reported at intervals set by individual agency policy. Procedurally, agencies will be instructed to use the functionality described above for federally funded employees. However, it is still an agency's responsibility to appropriately identify these employees and follow the business processes outlined above.*

# Appendices

Appendix 1

## *Objective, Scope, and Methodology*

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### Objective

The objective of this audit was to determine whether the Office of the Comptroller of Public Accounts' (Comptroller's Office) controls over selected modules of the Centralized Accounting and Payroll/Personnel System (CAPPS) and related interfaces are designed and operating as intended to help ensure that data is secure and that data loss, data corruption, and authorized changes are prevented or detected in a timely manner.

### Scope

The scope of this audit covered selected CAPPS general controls and related processes, application controls, selected financial data, and other supporting documentation from September 1, 2015, through August 2017.

### Methodology

The audit methodology included gaining an understanding of the Comptroller's Office's change management processes and logical access controls. The audit methodology also consisted of collecting and reviewing policies and procedures related to the Comptroller's Office's information technology systems, reviewing documentation related to logical access lists, reviewing selected interfaces, and assessing selected application controls related to the CAPPS Financials and CAPPS HR/Payroll systems.

The CAPPS application control test work was conducted in one of the CAPPS test environments for the CAPPS Financials system and in a maintenance environment for CAPP HR/Payroll system that the Comptroller's Office asserted was a mirror of the production environments. The Comptroller's Office did not provide certain timely information needed to allow auditors to confirm that assertion during this audit. Auditors were provided database and code comparisons that compared the testing environments to the production environments. However, the comparisons were done approximately two months after auditors conducted the application tests. As a result, auditors were unable to verify that the environments used for testing did not change during those two months, which could alter test results.

## Data Reliability and Completeness

Auditors used CAPPs Financials-related data extracts as part of the audit testing procedures. As discussed in Chapter 2-B, the accounts payable vouchers, journal vouchers, purchase orders, and assets data sets in CAPPs lacked a unique, sequential, system-assigned number that could be used to determine whether the data in the system was complete. Auditors did not do additional procedures to determine the completeness of those populations.

To determine the reliability of requisition- and interface processing-related data from CAPPs Financials, auditors (1) reviewed data extract query language, (2) performed a high-level review of selected data elements for appropriateness, and (3) performed data analysis. Auditors determined that both data sets were reliable for the purposes of this audit.

Auditors used change management request data from the vendor's Remedy system. As discussed in Chapter 1, the Comptroller's Office had not obtained a Statement on Standards for Attestation Engagements (SSAE) 16 report covering the Remedy system, which would have provided an independent review of Remedy's controls to determine whether those controls were properly designed and operating effectively. Additionally, auditors reviewed the population that the Comptroller's Office provided and noted significant gaps in the system-assigned sequential numbers. As a result, auditors could not determine whether the population was complete based on the information provided and did not do additional procedures to determine the completeness of that population. Because of the issues discussed above, auditors determined that the change management data was of undetermined reliability for the purposes of this audit. However, that data was the most complete population available to auditors during the course of this audit; therefore, auditors used that data for testing.

## Sampling Methodology

To assess the Comptroller's Office's change management processes, auditors selected a nonstatistical sample of 25 system changes that appeared to involve a modification to the application code. In some cases, auditors used nonstatistical sampling methodologies to select additional changes for testing. The sample items were not necessarily representative of the population; therefore, it would not be appropriate to project the test results to the population.

Information collected and reviewed included the following:

- Comptroller's Office information security policies, including policies related to logical access, passwords, and change management.
- Logical access lists for the systems reviewed.
- Comptroller's Office automated batch processes related to key interfaces.
- Comptroller's Office change management policies and procedures and documentation for changes made to the CAPPs system.
- Password settings for the CAPPs' network and key applications.
- Comptroller's Office organizational charts and current employment attestations for Comptroller's Office's contracted employees.
- Current contract between the Comptroller's Office and the vendor, and all contract amendments executed through June 2017.
- CAPPs detailed transaction information related to requisitions, purchase orders, accounts payables vouchers, assets, and journal vouchers for the state agencies that use CAPPs.
- Selected payroll-related data sets from CAPPs.

Procedures and tests conducted included the following:

- Interviewed the Comptroller's Office's and vendor's employees to identify operational processes, information technology controls, and the systems used to support CAPPs.
- Reviewed the contract to determine key responsibilities of the Comptroller's Office and the vendor.
- Tested change management documentation to determine whether changes were appropriately documented, authorized, approved, developed, tested, and migrated.
- Tested logical access lists to determine whether user system access permissions were appropriate and managed according to Comptroller's Office policies.
- Tested system password settings to determine compliance with Comptroller's Office policies.

- Reviewed key application input, processing, and output controls in CAPPs related to budgets, duplicate payments, procurement of assets, and payroll.
- Reviewed interface processes between CAPPs and the Uniform Statewide Accounting System.
- Reviewed data sets for requisitions, purchase orders, accounts payables, vouchers, assets, and journal voucher to determine whether CAPPs was capturing complete data for state agencies using CAPPs.

Criteria used included the following:

- Texas Government Code, Chapter 2101.
- Title 1, Texas Administrative Code, Chapter 202.
- The CAPPs and Infrastructure Support Managed Services contract, including amendments, appendices, and exhibits.
- Comptroller's Office policies and procedures.

#### Project Information

Audit fieldwork was conducted from January 2017 through August 2017. We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

The following members of the State Auditor's staff performed the audit:

- Michael Yokie, CISA (Project Manager)
- Isaac A. Barajas (Assistant Project Manager)
- Yue Zhang
- Damian Zorrilla, CPA, CIA, CFE, CGAP
- Dennis Ray Bushnell, CPA (Quality Control Reviewer)
- Michael Owen Clayton, CPA, CISA, CFE, CIDA (Audit Manager)

## Issue Rating Classifications and Descriptions

Auditors used professional judgement and rated the audit findings identified in this report. Those issue ratings are summarized in the report chapters/sub-chapters. The issue ratings were determined based on the degree of risk or effect of the findings in relation to the audit objective(s).

In determining the ratings of audit findings, auditors considered factors such as financial impact; potential failure to meet program/function objectives; noncompliance with state statute(s), rules, regulations, and other requirements or criteria; and the inadequacy of the design and/or operating effectiveness of internal controls. In addition, evidence of potential fraud, waste, or abuse; significant control environment issues; and little to no corrective action for issues previously identified could increase the ratings for audit findings. Auditors also identified and considered other factors when appropriate.

Table 2 provides a description of the issue ratings presented in this report.

Table 2

Summary of Issue Ratings	
Issue Rating	Description of Rating
Low	The audit identified strengths that support the audited entity's ability to administer the program(s)/functions(s) audited <u>or</u> the issues identified do not present significant risks or effects that would negatively affect the audited entity's ability to effectively administer the program(s)/function(s) audited.
Medium	Issues identified present risks or effects that if not addressed could <u>moderately affect</u> the audited entity's ability to effectively administer program(s)/function(s) audited. Action is needed to address the noted concern(s) and reduce risks to a more desirable level.
High	Issues identified present risks or effects that if not addressed could <u>substantially affect</u> the audited entity's ability to effectively administer the program(s)/function(s) audited. Prompt action is essential to address the noted concern(s) and reduce risks to the audited entity.
Priority	Issues identified present risks or effects that if not addressed could <u>critically affect</u> the audited entity's ability to effectively administer the program(s)/function(s) audited. Immediate action is required to address the noted concern(s) and reduce risks to the audited entity.

## Contract Amendments

Table 3 summarizes the Office of the Comptroller of Public Accounts' (Comptroller's Office) contract and contract amendments with the vendor for the implementation of the Centralized Accounting Payroll/Personnel System (CAPPS). The information in Table 3 covers the time period from the execution of the initial contract through the eighth contract amendment executed on April 13, 2017. The Comptroller's Office stated that, in addition to the original contract, it signed eight amendments.

Table 3

Amendments to the Office's Contract with Vendor for CAPPS		
Amendment Number	Date	Description
Original Contract	December 30, 2014	<ul style="list-style-type: none"> <li>Contract was executed between the Comptroller's Office and the vendor for CAPPS application and infrastructure support managed services. The contract required the vendor to maintain and develop the application, migrate state agencies onto CAPPS (referred to as "on-boarding"), and manage the infrastructure (hardware and software used to operate the CAPPS application) used to host the system.</li> </ul>
1	August 28, 2015	<ul style="list-style-type: none"> <li>Rescheduled the "Go-Live" date for the CAPPS Financials system.</li> <li>Added a contractor tool for knowledge transfer.</li> <li>Revised the transition-in deliverables.</li> <li>Clarified the Comptroller's Office's and other state agencies' access to contractor delivery tools.</li> <li>Added a historically underutilized business subcontracting plan.</li> </ul>
2	September 29, 2015	<ul style="list-style-type: none"> <li>Rescheduled the "Go-Live" date for the migration to the vendor-operated version of CAPPS for CAPPS HR/Payroll from October 1, 2015, to October 12, 2015.</li> <li>Added to the contract for both CAPPS Financials and CAPPS HR/Payroll (1) an on-boarding statement of services and (2) an associated pricing schedule for each application.</li> <li>Amended the pricing schedule to reflect increased support costs for CAPPS production due to the onboarding noted above.</li> <li>Amended the pricing schedule to clarify the number of full-time equivalents used in the vendor billing process for the state agencies using the centralized version of CAPPS.</li> </ul>
3	April 13, 2016	<ul style="list-style-type: none"> <li>Added initial and fiscal year 2016 baseline infrastructure counts.</li> <li>Added certain production and non-production environments that were excluded from the Comptroller's Office's backup and retention requirements.</li> <li>Amended the pricing schedule for the increased fiscal year 2016 infrastructure required to operate CAPPS (increase of \$445,431) and adjusted the pricing schedule to reflect four additional infrastructure components.</li> <li>Amended the contract to reflect the use of additional vendor services for fiscal year 2016 with an amount not to exceed \$260,149.</li> </ul>
4	August 11, 2016	<ul style="list-style-type: none"> <li>Rescheduled the "Go-Live" date for selected state agencies to implement CAPPS HR/Payroll from July 11, 2016, to August 8, 2016.</li> </ul>

Amendments to the Office's Contract with Vendor for CAPPs		
Amendment Number	Date	Description
5	August 31, 2016	<ul style="list-style-type: none"> <li>▪ Modified fiscal year 2017 baseline infrastructure counts and certain steady-state services for production and non-production environments that were excluded from the <b>Comptroller's Office's backup retention requirements during fiscal year 2017.</b></li> <li>▪ Added onboarding application discretionary hours based on individual state agency size and complexity.</li> <li>▪ Added price schedule for on-boarding statement of services for CAPPs Financials and CAPPs HR/Payroll.</li> <li>▪ Amended the pricing schedule to reflect <b>vendor's</b> increased support for production services and an increase of \$660,504 associated with increased fiscal year 2017 baseline infrastructure to support both applications.</li> <li>▪ Amended the pricing schedule to include one additional infrastructure component.</li> <li>▪ Amended the contract to reflect the use of additional vendor services for fiscal year 2017 with an amount not to exceed \$643,870.</li> <li>▪ <b>Updated the vendor's key personnel, clarified the measurement timeframe for certain service levels.</b></li> </ul>
6	October 19, 2016	<ul style="list-style-type: none"> <li>▪ Amended the contract to add an onboarding statement of services for CAPPs HR/Payroll and added the associated price schedule.</li> <li>▪ Increased the utilization of certain services by \$59,002 during fiscal year 2017 from \$643,870 to an amount not to exceed \$702,872.</li> </ul>
7	March 6, 2017	<ul style="list-style-type: none"> <li>▪ Added an amendment to accommodate a phased deployment schedule for CAPPs HR/Payroll onboarding and included the associated price increase of \$108,336 to support the accelerated deployment time line for two state agencies.</li> <li>▪ Amended the pricing schedule to <b>reflect the contractor's increased support for CAPPs HR/Payroll</b> steady-state services upon the completion of the on-boarding of CAPPs HR/Payroll.</li> </ul>
8	April 13, 2017	<ul style="list-style-type: none"> <li>▪ Delayed the completion date of the CAPPs HR/Payroll on-boarding for selected agencies, for no additional compensation to the contractor, because the time line was affected by the postponement of the March 20, 2017, go-live of the CAPPs upgrade.</li> <li>▪ Amended the fiscal year 2017 baseline of infrastructure counts to decrease the number of certain infrastructure components that were decommissioned as of February 1, 2017.</li> <li>▪ Amended a pricing schedule to decrease the fiscal year 2017 infrastructure cost for CAPPs Financials in the amount of \$23,856 from February 1, 2017, through August 31, 2017.</li> </ul>

Source: Comptroller's Office's contract with vendor for CAPPs and amendments.

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The Honorable Dennis Bonnen, House Ways and Means Committee

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The Honorable Greg Abbott, Governor

### Office of the Comptroller of Public Accounts

The Honorable Glenn Hegar, Comptroller of Public Accounts



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