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December 21, 2022

Marc Fisher  
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Vice Chancellor Fisher and Vice Chancellor Rae:

We have completed our audits of *Timekeeping and Time Reporting* and *Payroll – Missed Pay* as per our annual service plan in accordance with the Institute of Internal Auditors' *Standards for the Professional Practice of Internal Auditing* and the University of California Internal Audit Charter.

Our observations with management action plans are expounded upon in the accompanying report. Please destroy all copies of draft reports and related documents. Thank you to the staff of Central Payroll and Berkeley Regional Services for their cooperative efforts throughout the audit process. Please do not hesitate to call on Audit and Advisory Services if we can be of further assistance in this or other matters.

Respectfully reported,

*Jaime Jue*

Jaime Jue  
Director

cc: Associate Vice Chancellor Eugene Whitlock  
Associate Vice Chancellor and Controller Michael Riley  
Assistant Vice Chancellor Seamus Wilmot  
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Associate Chancellor Khira Griscavage



# AUDIT AND ADVISORY SERVICES

## Timekeeping and Time Reporting and Payroll – Missed Pay Audits Project Nos. 22-762 and 22-761

December 21, 2022

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**University of California, Berkeley**  
**Audit and Advisory Services**  
**Timekeeping and Time Reporting and Payroll – Missed Pay**

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# OVERVIEW

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## Executive Summary

Our audits of *Timekeeping and Time Reporting* and *Payroll – Missed Pay* were performed as part of our fiscal year 2022 audit plan. Because of the interrelated nature of these two audits, our work and results for both projects are addressed in this single combined report. Our audit scope included an assessment of the design of end-to-end campus processes and key internal controls related to timekeeping and missed pay processing for employees who are paid on a biweekly basis.

Our internal audit procedures entailed an assessment of selected policies, procedures, and internal controls in effect during spring 2022 pertaining to the end-to-end timekeeping process, including the reporting and approval of hours worked for biweekly employees, the transfer of this data to UCPath, and procedures for correcting errors. We also assessed internal controls related to the processing of biweekly employee missed pay (hours that were worked, but that were not paid in the corresponding payroll cycle).

The primary campus timekeeping system is CalTime, which was implemented in 2012 as part of a campuswide initiative to replace various outdated departmental timekeeping processes and tools with a single system. Responsibility for ensuring the completeness and accuracy of timekeeping data primarily resides with each individual employee and supervisor; however, limited data validation is also performed by both the Berkeley Regional Services (BRS) timekeeping staff and the Central Payroll team. Missed pay occurs for a variety of reasons, including delays or omissions in timesheet submission and approval, or delays in resolving data errors that prevent pay processing in UCPath. BRS monitors for potential missed pay situations to help identify trends and root causes, and as a general rule, BRS timekeeping staff prioritize processing pay as quickly as possible to avoid or mitigate late pay situations as soon as missed hours are reported.

Based on our work performed, we note that the campus has undergone meaningful progress in its adoption of a single timekeeping platform since the implementation of CalTime. We note, however, certain ongoing opportunities to improve internal controls and efficiency in the timekeeping process. In particular, we note opportunities to:

- shift the emphasis of internal controls to prevention versus detection of errors through the increased engagement of employees and supervisors in ensuring the completeness and accuracy of timekeeping data submitted;
- reassess selected CalTime design decisions made at implementation that appear to add complexity and potentially risk to the timekeeping process, especially in the current UCPath environment; and
- develop or expand campus-wide guidance and/or policies to ensure greater consistency and appropriate risk mitigation across disparate BRS timekeeping processes.

Management agrees with the observations and has provided management responses that we believe will adequately mitigate the noted risks.

## **Source and Purpose of the Audit**

Our audits were performed as part of our fiscal year 2022 audit plan. The purpose of the Timekeeping and Time Reporting audit was to evaluate the design of internal controls for ensuring the accuracy, completeness, and validity of time entered to UCPATH for biweekly employees. The purpose of the Payroll – Missed Pay audit was similarly focused on biweekly employees and was to evaluate the design of internal controls related to the identification and processing of missed pay. Because of the interrelated nature of these two audits, our work and results for both projects are addressed in this single combined report.

## **Scope of the Audit**

Our audit scope included an assessment of the design of end-to-end campus processes and key internal controls related to timekeeping and missed pay processing for employees who are paid on a biweekly basis. This group of employees largely are in positions that are not exempt from the Fair Labor Standards Act (FLSA) minimum wage and overtime pay requirements, and who are paid on an hourly basis based on time reporting. We note that campus procedures also require the majority of FLSA exempt employees, who are paid on a monthly basis, to submit timesheets, primarily for the purpose of accurate leave accrual and reporting. However, processing pay for employees paid a monthly salary generally is not predicated on the timely submission of a timesheet.

Our internal audit procedures entailed interviews and walkthroughs with staff and management from Central Payroll and Berkeley Regional Services (including both central services and selected regions), as well as an assessment of selected policies, procedures, and internal controls in effect during spring 2022 pertaining to: reporting and approval of hours worked for biweekly employees; extraction and upload of biweekly timekeeping data from CalTime to UCPATH; error identification and correction; and the identification, validation, and processing of missed pay (hours that were worked, but that were not paid in the corresponding payroll cycle).

## **Background Information**

### *Timekeeping and Time Reporting*

At its most basic, any timekeeping process entails the recording of time (hours) worked by employees, the review and approval of that information by supervisors, and the entry of that time to the payroll system. At the time of our audit, the primary campus timekeeping system is CalTime, which was implemented in 2012 as part of a campuswide initiative to replace various outdated departmental timekeeping processes and tools with a single system. Timekeeping data is then uploaded to the systemwide payroll system UCPATH. As it is not a component of PeopleSoft Human Capital Management, CalTime does not directly interface to UCPATH for the inbound transfer for timekeeping data. As a result, timekeeping data is loaded to UCPATH through a standardized batch upload process or through direct user entry into UCPATH for individual time reporting transactions.

Responsibility for ensuring the completeness and accuracy of timekeeping data primarily resides with each individual employee and supervisor; however, some data validation is performed by both the BRS timekeeping staff and the Central Payroll team prior to its batching and upload to UCPATH. Once uploaded, BRS timekeeping staff are also charged with resolving issues detected through UCPATH payroll cycle error checking protocols. The timeframe from timesheet approval to payroll cutoff spans only three days, and if there are a large number of detected data errors (or errors that

require research to resolve), payroll processing for those transactions may be delayed and occur on an off-cycle or next-cycle basis. Prior to the implementation of UCPath, deadlines and protocols for timekeeping data entry for payroll processing were more flexible given access configurations and local control of the predecessor campus payroll system.

### *Missed Pay*

Missed pay occurs for a variety of reasons, including the delays in resolving data errors/exceptions noted above; or delays or omissions in timesheet submission and approval. Under Section 204 of the California Labor Code (as legislated through state senate bill 698), employees are permitted to file a wage claim with the Labor Commissioner (or state court) if the University fails to pay an employee's wages on time. As such, delays in pay can result in fines and penalties. BRS monitors for potential missed pay situations to help identify trends and root causes, and as a general rule, BRS timekeeping staff prioritize processing pay as quickly as possible to avoid or mitigate late pay situations as soon as missed hours are reported.

## **Summary Conclusion**

Based on our work performed, we note that the campus has undergone meaningful progress in its adoption of a single timekeeping platform since the implementation of CalTime in 2012. We note, however, certain ongoing opportunities to improve internal controls and efficiency in the timekeeping process. Specifically:

- *Timekeeping – Hourly Staff*: Employees and supervisors are still not adequately engaged in ensuring the integrity of timekeeping data submitted, as evidenced through relatively low rates of timesheet approval. In those cases where timesheets are not properly reviewed and approved, there is a lesser degree of assurance of the completeness and accuracy of the recorded timekeeping data, potentially giving rise to undetected instances of over- or under-payment to employees.
- *Timekeeping – Student Employees*: In addition to the issues noted above, which pertain to timekeeping for students as well as for staff, we note that the design of certain timekeeping requirements for student employees may further hinder (versus support) the timely detection and correction of omissions in reported time and resulting missed pay.
- *Timekeeping System Lifecycle Development*: CalTime was implemented prior to the campus migration to UCPath and many of the system design decisions were made in view of processes and related systems in place at that time. We note a small number of design elements that appear to add complexity and potentially risk to the timekeeping process, especially in the current UCPath environment, and that warrant review to ensure their continued appropriateness.
- *Regional Variations in Timekeeping Practices*: There are areas of both commonality and difference in timekeeping practices across the regions. Although regional processes generally appear to conform to the broader set of guidelines established by UCPath, there are areas of inconsistency that we believe warrant further campus-wide guidance and/or policy. We also noted that certain procedures related to the handling of hours “missed”, although consistent across the majority of regions, may give rise to inefficiency and processing risk.
- *I-181 Data Fraud Risk*: Given the absence of a direct and secure interface between CalTime and UCPath and the current design of overall controls, we have identified and recommended specific opportunities for fraud risk to be further mitigated.

Opportunities to improve internal controls are further detailed in the next section. Management agrees with the observations and has provided management responses that we believe will adequately mitigate the noted risks.

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## SUMMARY OF OBSERVATIONS & MANAGEMENT RESPONSE AND ACTION PLAN

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### Timekeeping – Hourly Staff

#### Observation

Since the implementation of CalTime in 2012, the campus has undergone meaningful progress in its adoption of a single timekeeping platform. We note, however, certain ongoing opportunities to improve internal controls and efficiency in the timekeeping process related to hourly employees, most notably around the engagement and role of both employees and supervisors in ensuring the completeness and accuracy of timekeeping data.

A key benefit of a common timekeeping platform is the potential to automate and otherwise streamline the validation and transfer of timekeeping data to payroll systems. However, this benefit depends on the underlying integrity of the data entered into the timekeeping system. The campus' business process delineates that timekeeping data recorded in CalTime timesheets should be approved by both the employee and the supervisor; however, in practice, notwithstanding ongoing efforts by both Central Payroll and Berkeley Regional Services to date to educate and engage campus constituents around their timekeeping responsibilities, we note this still often does not occur.

In those cases where timesheets are not properly reviewed and approved, there is a lesser degree of assurance of the completeness and accuracy of the recorded timekeeping data, potentially giving rise to undetected instances of over- or under-payment to employees. In addition, we understand that the absence of consistent supervisor review gives rise to other types of errors that may prevent payroll from processing altogether, such as the use of invalid pay codes. Following the submission of timesheet data, there is only a short window of time (three days) for errors or omissions to be identified and corrected prior to payroll processing. Responsibility for these data corrections largely falls to Berkeley Regional Services timekeeping teams. We note, however, that this assignment of responsibility is likely not optimal in that timekeeping staff have less direct knowledge than supervisors do regarding the circumstances of each employee's hours worked, and there are significant inefficiencies associated with correcting errors downstream versus preventing them at the point of timesheet submission and approval.

To address these dual concerns, we believe there is a process improvement opportunity for management that is involved in timekeeping and payroll activities (in both the Controller's Office and Berkeley Regional Services) to explore further options to increase employee and supervisor compliance with timekeeping requirements and responsibilities, including collaborating with People & Culture to drive awareness and monitoring of non-compliance. There is an additional opportunity for management to reassess end-to-end procedures and accountabilities for timesheet review and error-checking across Central Payroll, regional timekeeping staff, and supervisors to ensure the appropriateness of role and responsibility assignment. Also, although CalTime review procedures and accountabilities have been previously documented by the Controller's Office and are available on the CalTime website, we note a potential benefit in further detailing each review step, with particular focus on supervisor versus regional responsibilities including approval responsibilities and including minimum standards and related resources, to promote consistency

and effectiveness in the implementation of procedures. Management may also wish to develop a corresponding policy to drive compliance. As a point of additional context, we note that prior to the implementation of UCPath in 2019, campuses had greater flexibility in both timing and system access to fix timekeeping errors prior to payroll processing cutoffs. In the UCPath environment, however, there are greater complexities and time constraints associated with error correction that further underscore the need to seek ways to reduce the occurrence of data entry errors.

### **Management Response and Action Plan**

Controller's Office and People & Culture leadership will partner to identify and implement approaches to promoting employee and supervisor compliance with timekeeping activities for implementation in fiscal year 2024.

## **Timekeeping – Student Employees**

### **Observation**

In addition to the issues noted above, all of which pertain to timekeeping for students as well as for staff, there are additional special considerations for student employees that further complicate timekeeping entry and approval objectives:

- Student work schedules are often more variable and flexible than staff schedules are, and there is currently no requirement for employees to submit timesheets for pay periods when there are no hours worked. Similarly, there is no requirement for zero hours to be affirmatively recorded/approved for individual days within a pay period with no hours worked. These factors combined potentially hinders the timely detection of omissions in reported time and resulting missed pay.
- Student employees are all required to report their time on a “real time” versus “any time” basis regardless of the type of work they perform, a decision that was made by the campus when CalTime was first implemented. We understand that students in particular may not be timely in their time reporting, and as “real time” employees, they do not have the system access/capability for reporting or correcting time in arrears even within an open pay period. Although supervisors have the ability to edit real time employee timesheet data, corrections must be performed prior to CalTime cutoffs, which allows only a small period of time. Consequently, data corrections may be shifted further downstream to regional timekeepers to identify and record time manually, which is burdensome to timekeeping staff and may result in delays in processing and late pay.

We believe there is a process improvement opportunity for management to reevaluate certain historical decisions for timekeeping practices made with respect to student employees given the move to the UCPath environment, including but not limited to the classification of student employees as real-time time reporters by default and the observed current prevalence of student employees not completing biweekly timesheets if they have no hours to report. This latter practice makes it challenging for management to differentiate between situations where the student had no reportable hours for the biweekly cycle versus periods in which the employee did work but failed to report time. We observed that many biweekly timesheets that lack employee and/or supervisor approval are for student employees.

### **Management Response and Action Plan**

As part of the future replacement of CalTime, management is already considering potential opportunities to streamline processes, while maintaining optimal internal control. There are trade-offs inherent in each of the areas noted in the audit observation, but Controller's Office will further study the recommendations to determine the feasibility and cost/benefit of incorporating these changes into replacement design.

## Timekeeping System Lifecycle Development

### Observation

CalTime was implemented prior to the campus migration to UCPATH and many of the system design decisions were made in view of processes and related systems in place at that time. Because of the subsequent transition to UCPATH, the campus has necessarily focused its system development efforts on aligning with UCPATH end-to-end process requirements, and has not had the opportunity to holistically and formally perform a post-UCPATH implementation review of CalTime. Such a review could assess how well CalTime continues to meet the timekeeping needs and goals of the campus in the UCPATH environment, and whether any post-implementation changes to CalTime itself or related processes may be warranted to further enhance efficiency and internal controls.

We understand that CalTime will need to be replaced due to the software vendor, formerly Kronos, discontinuing support for our current version; we note the following opportunities for management to assess and consider in selecting and implementing CalTime's replacement system, if not before.

- Pay codes within CalTime are limited for employees according to their job position; however both supervisors and timekeepers have access to a broader set of pay codes that is not similarly limited. As a result, when correcting or recording time for employees, supervisors and timekeepers must manually select the appropriate code from a drop-down menu that includes options that are not applicable to the employee. This increases the risk that pay code errors may occur and that timekeeping data may be rejected by UCPATH for processing.
- A decision was made at implementation to allow certain departments to leverage CalTime to track management accounting information for hours worked – for example, a Cal Dining employee may have only one job, but may work at multiple locations across campus and be paid from different chartstrings associated with the location. To accommodate the assignment of hours worked to these different locations and chartstrings, a separate application (“Friendly Name”) was developed to track this additional level of data and override the default funding in UCPATH once uploaded. This additional customization adds complexity to the timekeeping process, however, requiring additional data mapping and maintenance; if mapping is not updated timely, this may give rise to errors that UCPATH cannot accept and process. In addition, as with the pay codes noted above, supervisors have access to all “friendly names”, and therefore, if needing to correct the friendly name selected by their employee, may inadvertently select one that is not applicable to the employee at hand.
- Lastly, although used by the vast majority of employees across the campus who are required to report hours worked and/or taken as leave, there are a small number of employees whose time is collected through a second timekeeping system (time.berkeley.edu) due to the unique characteristics of their time reporting requirements. To the extent that future timekeeping systems can encompass all employees, this will further simplify the end-to-end process and incrementally alleviate the administrative work tasked to timekeeping teams.

### Management Response and Action Plan

(Please see the management response to the prior observation.)

## Regional Variations in Biweekly Timekeeping Practices

### Observation

Berkeley Regional Services timekeeping teams play a critical role in the end-to-end timekeeping process. Processes within each region largely have evolved on a region-by-region basis based on the needs of the employee populations that each region supports, and there are areas of both commonality and difference across the regions.

Although regional processes appear generally to conform to the broader set of systemwide guidelines established for UCPath, we note an opportunity for the campus to develop and document campus-wide guidelines and/or policies for adoption by all regions in order to ensure the alignment of practices with leadership's assessment of related risks and cost/benefit trade-offs. In addition, even within regions, it appears that there may be some variation in how similar circumstances may be handled; having a more formal framework for timekeeping procedures will help support an appropriate level of consistency in areas where it is warranted.

Examples of areas of inconsistency that we believe warrant further campus-wide guidance and/or policy include the following.

- *Whether to process missed pay on an off-cycle basis or as part of the next on-cycle payroll run:* Off-cycle payroll requires a significant amount of manual effort on the part of timekeepers, and, as outlined in the observation below, may introduce fraud risk in the payroll process. Based on our inquiry with regions, decision-making regarding missed pay processing appears to be made on a case-by-case basis based on their assessment of the circumstances, including the root cause and potential burden to the individual, particularly in the case of student employees. Although we acknowledge that there is an overall framework in place to help guide decision-making, to further ensure consistency and the appropriate balancing of risk mitigation (such as SB698 compliance) and use of campus resources, we believe there is a process improvement opportunity for management to formalize and document this guidance.
- *Which manual time entry methodology to use for missed pay or for late processing of in-period time:* UCPath enables five different methodologies for loading hours for pay processing: (1) via CalTime, (2) the I-181 batch upload file on-cycle, (3) the use of the same off-cycle, (4) data entry to the “manage accruals” screen (although designed for leave balance management versus time entry), and (5) data entry to the E-078 screen (for missed pay only). We understand that regions have selected which option to use based on what aligns best with their region's operational demands, and that there may even be variability within each region. This approach is reasonable, but each option entails different risks and benefits. A standard decision framework as to which option should be used under different circumstances would likely improve consistency in practice across service regions. We also note a broader risk related to monitoring manual time entry as a whole. Given the multiple options for inputting time to UCPath, and the fact that there is no overall reconciliation of hours in UCPath to time approved, there is a theoretical risk that hours could be entered and paid without approval or detection. Accordingly, we believe it is in management's interest to also consider assessing and formally delineating required review and monitoring protocols across the different time entry methods.

We also noted process improvement opportunities related to certain processes, which although are consistent across the majority of regions, may still give rise to inefficiency and processing risk.

- *Reporting of missed or late hours:* Missed or late hours can be submitted to regions through different channels, including email, phone, or ServiceNow. Regions have opted to allow a variety of options to facilitate the request process for employees and supervisors; however, we note that the use of multiple channels increases the risk of requests being overlooked or of duplicate requests not being detected, and hinders monitoring of missed pay processing status. Management may wish to consider (1) developing a standard procedure for all regions regarding record-keeping related to missed/late pay processing and (2) establishing a single channel/process for supervisors and employees to request late or missed pay to facilitate record-keeping and monitoring of status.
- *Verification of missed/late hours:* Across the regions, procedures are not formally documented for verifying the validity of requested missed/late hours and for ensuring time has not already been paid. Although the procedures described in our interviews appear reasonable, these verification steps are critical to preventing errors and fraud, and should be documented and vetted by management to ensure their adequacy and consistent application.
- *Recording of all hours to CalTime:* For missed or late hours reported, we understand that regions generally have a consistent practice of subsequently recording those hours to CalTime for record-keeping purposes once processed; however, there is not a specific policy to require this and regions are not held accountable for compliance with this best practice. Given the variety of ways that time can be entered to UCPATH, having a consolidated repository of hours at the campus-level could allow for reconciliation with UCPATH hours paid, and provide an important tool for monitoring their completeness and validity.

## **Management Response and Action Plan**

Timekeepers necessarily evaluate missed pay on a case-by-case basis. They must determine the root cause and best way to address that in UCPATH, along with how quickly the person needs to be paid. Individual timekeepers will evaluate similar cases in a consistent way to make the most appropriate decisions, based on a decision tree to be provided by BRS leadership. The decision tree walks through the various common scenarios timekeepers encounter, guiding them to the appropriate application of on- versus off-cycle processing and methodology.

BRS will evaluate and document the missed timesheet process. The documentation will include the details of when CalTime is edited and how missed time is processed. Focus will be on ensuring a consistent process throughout the five BRS regions.

These actions are anticipated to be completed by June 30, 2023.

## **I-181 Data Fraud Risk**

### **Observation**

We understand there is currently no direct application data interface between any campus timekeeping system and UCPATH for the regular transmission of timekeeping data for the processing of biweekly payroll. By design, through the I-181 process, UCPATH receives uploads of files of exported data from campus timekeeping systems (including CalTime). These files must conform to a standardized systemwide data format, must be flat text files, and must not be password protected.<sup>1</sup> Although data privacy risks associated with this data transfer process may be of a lower magnitude, with any unprotected file, there is potential risk that data could be manipulated to generate unauthorized pay such as through adjusting the hours reported or adding additional lines of pay.

We note that the management recognizes the inherent risk associated with I-181 file upload process design<sup>2</sup> and has taken steps to mitigate unauthorized access and potential data manipulation by limiting the number of individuals with system permissions to either upload or approve files submitted to UCPATH. That being said, we did observe an opportunity to document standardized procedures and protocols to minimize risks associated with handling these I-181 data files, particularly within the BRS regions, where multiple individuals may be responsible for entering data to the files, prior to submission to Central Payroll and UCPATH, including procedures and protocols related to file storage and access controls, chain of custody, and second-level review and approval procedures.

### **Management Response and Action Plan**

Based upon requirements provided by Central Payroll for the I-181 process protocol, BRS will document the detailed, standard end-to-end procedure that will be followed by all five BRS regions. These procedures will include how files are generated, processed and stored, access controls and the review, approval and audit process. Procedure development is anticipated to be completed by June 30, 2023.

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<sup>1</sup> We note that there is no personally identifiable information in the data structure for these files other than the employee's ID number.

<sup>2</sup> We further note that this I-181 inbound data file process has existed since the implementation of UCPATH at the campus.