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**INTERNAL AUDIT AND ADVISORY SERVICES**

UCPath Separation of Duties and Processes Audit

Report No. M23A001

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## UCPath Separation of Duties and Processes Audit

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### EXECUTIVE SUMMARY

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Internal Audit and Advisory Services (Internal Audit) has conducted an audit of the Oracle PeopleSoft Human Capital Management UCPath system (UCPath) separation of duties (SOD) and processes at UC Merced. This audit was performed as part of Internal Audit's fiscal year 2023 audit plan due to a request from the University of California (UC), Office of the President (UCOP). The request stems from a UCOP cybersecurity audit finding. All campuses are tasked with performing this audit; however unlike other systemwide audits, they are performed asynchronously and are not using a common audit program. The primary objective of the audit was to evaluate processes and controls in place to mitigate identified UCPath SOD conflicts. In addition, based on risk, Internal Audit added an additional objective to review departmental SOD.

Overall, Internal Audit noted several challenges impacting the implementation of effective SODs in UC Merced's Payroll Services that need improvement in order to provide reasonable assurance that risks are being mitigated and objectives are being met. Payroll Services has been proactive in identifying some of the issues noted in this report prior to the commencement of the audit and is receptive to creative solutions for effecting proper SODs.

The following observations need improvement to strengthen internal controls and/or effect compliance:

**Departmental SODs.** Internal Audit recommends executive leadership develop a strategic plan to effectively implement SODs in Payroll Services. Executive leadership should consider implementing interdepartmental SODs between HR offices and Payroll Services.

**Undergraduate Student Employment.** Internal Audit recommends executive leadership restructure undergraduate student employment to ensure appropriate SODs. Executive leadership should consider moving the student recruitment function to the Career Services Center to create synergies for undergraduate student employment and career development.

**SOD Mitigating Controls.** Internal Audit recommends UC Merced reassign the AWE administrator role outside Payroll Services.

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## BACKGROUND

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### Separation of Duties

Separation of duties (SOD) is a critical function for effective risk management. Per the American Institute of Certified Public Accountants (AICPA), “the principles of SOD is based on shared responsibilities of a key process that disperses the critical functions of that process to more than one person or department. Without this separation in key processes, fraud and error risks are far less manageable.”

Effective SOD controls ensure that no one individual is assigned job functions in more than one of the following categories:

- Asset custody – Handling and disposition of assets.
- Authorization and Approval – Approving and authorizing transactions.
- Recordkeeping – Recordkeeping, creating, and maintaining departmental records.
- Reconciliation – Reconciliation and verifying the process of recording transactions.

Proper SOD can be further categorized at the individual and unit level. Per the Information Systems Audit and Control Association (ISACA):

- SOD by individuals (individual-level SOD) – This is the most basic level of segregation. Using individual SOD, individual employees would have access to only one portion of the transaction limiting the risk of fraud or error. In addition, no individual should be able to modify their own record, and no individual should be able to approve transactions that they initiated. To preserve proper governance, approvers should be senior to initiators. For example, a supervisor should not initiate a transaction and their subordinate be the approver given the power differential between the two individuals.
- SOD by function or organizational units (unit-level SOD) – At this level, different functions perform the separated duties. For example, the AP department prepares payments to vendors while procurement maintains the vendor database. This is to ensure an AP clerk could not divert a payment from a vendor to themselves.

Generally, in a payroll process, the following functions are incompatible with each other and should be segregated:

- Hiring and authorizing the pay rates of employees.
- Updating the employee record, including: creating an employee record, updating pay rates, funding the position, and expected hours worked for exempt employees.

- Preparing the payroll, including reviewing timecards, calculations of overtime, withholding of deductions, processing additional pay and final pay, and reviewing for reasonableness.
- Reconciling the payroll accounts.

Effective SOD in a payroll function can be accomplished by individual SOD, departmental SOD, or a combination of both. Traditionally, due to their specialized training and knowledge, HR is responsible for:

- Hiring employees and authorizing pay rates
- Maintaining the employee records

A payroll function, on the other hand, is responsible for:

- Preparing university payroll
- Reconciling the payroll accounts

A payroll function generally does not have the expertise to perform the traditional HR functions.

### **Risks of Inadequate SODs in the Payroll Process**

The primary risk of inadequate SODs is the potential for fraud. Without proper SODs, an employee with excessive access could create ghost employees which they could then direct payments to themselves. In addition, payroll staff could also make unauthorized changes to employee records, unauthorized off-cycle payments, and unauthorized pay rate changes.

Improper SODs adversely impact HR's responsibilities for administering the university's compliance with Affirmative Action and Equal Employment Opportunity (AA/EEO). Furthermore, improper implementation of SODs can weaken the safeguards for wage equity based on regulatory factors such as race and gender.

### **Payroll Processing in the UC System**

#### **UCPath**

UCPath is the UC's systemwide payroll and personnel system. Per the FY20 UCOP UCPath Cybersecurity Audit report: "UCPath was selected to replace UC's aging payroll system to simplify usability and reduce the organization's payroll delivery burden. The UCPath system is built on the Oracle HCM platform and is hosted by Oracle Managed Cloud Services (OMCS), not on UC Information Technology (IT) infrastructure."

**Approval Workflow Engine (AWE)**

UCPath allows for use of an approval workflow engine (AWE), which is a tool for automatic routing transactions for approval prior to them being committed to UCPath. This system is designed to ensure that the initiator of a transaction cannot also approve that transaction. In addition, The AWE Administrator cannot redirect the approval flow back to themselves for transactions that they initiate. The flow of the transactions are dependent on the security tree and predetermined number of approvals for each location. Each location has an AWE administrator role who has administrative rights to manage AWE transactions. Not all pay impacting UCPath transactions require AWE.

**FY20 UCOP UCPath Cybersecurity Audit**

In fiscal year 2020, UCOP Office of Ethics, Compliance, and Audit Services (ECAS) conducted an audit to evaluate the cybersecurity governance controls and processes that support UCPath. One of the observations that resulted from this audit was that UCPath lacked sufficient SOD controls and monitoring. As a result, UCOP responded to the observation stating that UCPath Center and all locations would perform semi-annual SOD audits to:

- Ensure individuals have appropriate access to perform their job.
- Identify individuals that have the ability to perform actions that result in a SOD conflict per established business rules.
- Resolve SOD conflicts or document mitigations and exception requests.

UCOP would be conducting the SOD audits using a cloud based risk and compliance solution called Fastpath Assure, which identified incompatible roles within UC Path. UC locations were then tasked with assessing the incompatible roles noted and either removing access from individuals with incompatible roles or establishing mitigating controls to ensure the fraud risk was minimized. These SOD conflicts only looked at individual SOD conflicting roles and did not analyze the need for departmental SOD.

**UC Merced Undergraduate Student Employment**

Payroll Services administers virtually the entire process for UC Merced's undergraduate student employment. This responsibility includes posting department recruitment requests on the Handshake platform, conducting intake of new student employees, maintaining the employee record, and processing the timesheets or department authorized pay. HR and the Academic Personnel Office (APO) do not have significant roles in the undergraduate student hiring process as they do in the staff and faculty hiring process.

Payroll Services inherited the administration of student employment from Students Affairs after leadership undertook an initiative to create an automated workflow tool that would create efficiencies in the university's employee work life cycle processes. Leadership at the

time concluded that student employment would be best handled by HR<sup>1</sup> since HR handled UCPATH and retained the necessary expertise that would create synergies with the new automated workflow tool. However, efforts to implement the automated workflow tool were abandoned, but the administration of student employment never reverted back to Student Affairs and is currently in Payroll Services after their split from HR.

It is worth mentioning that undergraduate student employment refers to casual/restricted staff positions, and though primarily held by undergraduates, it is possible for graduate students to apply for these positions. If so, this population of graduate students would be subject to Payroll Services' process.

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## SCOPE AND OBJECTIVES

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This audit was performed as part of Internal Audit's fiscal year 2023 audit plan due to a request from UCOP. The request stems from a UCOP cybersecurity audit finding. All campuses are tasked with performing this audit; however, unlike other systemwide audits, they are performed asynchronously and are not using a common audit program. The objectives of the audit were to:

- Evaluate campus process for UCPATH SOD conflicts.
- Evaluate design of mitigating controls in place for SOD conflicts.
- Evaluate the design of mitigating controls in place for departmental SOD conflicts.

Internal Audit's primary scope included all UCPATH transactions, controls, and Payroll Services processes in place during fiscal year 2023. The audit included interviews of personnel, review of policies, tests of accounting records and selected transactions, observations and tests of current practices and processing techniques, and other auditing procedures considered necessary.

Internal Audit notes that this engagement was limited to UC Path SODs and there are other functions within Payroll Services and Human Resources that were not in scope but that could be reviewed by management for further SOD analysis.

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<sup>1</sup> Payroll Services was previously under HR and was called Human Resources Payroll Center (HRPC). HRPC was the product of the reconciliation of two payroll offices (administrative and academic) as a result of a recommendation made by a consultant (Huron) that was brought in when UCPATH was first implemented. Leadership decided that no one but HRPC would be able to transact in UCPATH.

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## POSITIVE OBSERVATIONS

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As stated in the university's mission, UC Merced strives for excellence in carrying out the university's mission of teaching, research, and public service. To achieve this mission, UC Merced stakeholders must be committed to the promotion of positive change in the university. As a result, Internal Audit is committed to highlighting practices in the areas audited that promote positive change within their organization and the overall university community.

During the UCPATH Separations of Duties and Processes Audit, Internal Audit noted the following positive observations:

- Payroll Services staff developed skills to perform functions that are not traditionally under the purview of a payroll function.
- Payroll Services has been proactive in identifying some of the issues noted in this report prior to the commencement of the audit and is receptive to creative solutions for effecting proper SODs.
- Payroll Services leadership has been transparent and cooperative during the audit process.
- Payroll Services is dedicated to ensuring all UC Merced employees are paid timely and accurately.

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## OBSERVATIONS

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### 1. DEPARTMENTAL SODs

#### Background

As stated in the background of the audit report, proper SODs are critical for effective risk management.

To ensure effective risk management, the following roles should be bifurcated between Payroll Services and HR (or other areas):

HR roles:

- Performs the new employee intake and creates the employee record.
- Updates the employee record.
- Processes employee separations.

Payroll Services roles:

- Prepares payroll
- Reconciles payroll accounts (currently performed by Financial & Accounting Services)

### **Observation**

During the course of the audit, Internal Audit noted that Payroll Services staff have access to UCPath to transact payroll, and in addition they also have access to create and modify the employee record, creating SOD conflicts. Specifically, Payroll Services employees can:

- create the employee record,
- edit the employee record to include pay rates and expected hours worked, and
- process employee separations.

Currently, Payroll Services is the only department with entry access into UC Path; HR has inquiry access to most UCPath modules.

Per discussions with Payroll Services staff, the entry access to the employee record stems from various organizational restructures that have culminated with UCPath entry access being centralized in Payroll Services. Payroll at UC Merced used to be bifurcated into two offices—administrative and academic. However, the two offices were consolidated into one office under HR when UCPath was implemented. In addition, leadership at the time determined that ownership of UCPath would be housed in HR, specifically under Payroll Services.

However, Business and Financial Services (BFS) was subsequently restructured based on recommendations from a consultant, and it was determined that Payroll Services would be more appropriately housed under BFS. As a result, Payroll Services moved out of HR but still retained the exclusive entry access to UCPath, therefore, maintaining the SOD conflicts that existed while Payroll Services was housed within HR.

As noted in the background of the report, improper SODs can result in fraud as well as hinder HR offices' administration of the university's AA/EEO Program.

### **Recommendation**

Internal Audit recommends executive leadership develop a strategic plan to effectively implement SODs in Payroll Services. Executive leadership should consider implementing interdepartmental SODs between HR and Payroll services.

**Management Corrective Action (MCA)**

UC Merced Executive Leadership will work with functional teams in both Payroll Services and Human Resources to implement processes that effectively segregate Payroll and HR related duties. In the interim period, Payroll Services will continue to complete tasks with secondary review of each workstream by the Supervisors within Payroll Services.

Executive Leadership will develop a long-term plan to segregate the duties on a permanent basis moving forward. The revised workstream, with appropriate segregation of HR-like functions, will be completed by July 15, 2024.

**2. UNDERGRADUATE STUDENT EMPLOYMENT****Background**

As stated in the background of the audit report, proper SODs are critical for effective risk management. Therefore, undergraduate student employment, much like staff employment, is subject to the traditional SODs between a payroll function and HR.

To ensure effective risk management in the administration of undergraduate student employment, the following roles should be bifurcated between Payroll Services and HR:

HR roles:

- Hiring employees
- Authorizing pay rates
- Updating the employee record
- Managing employee/labor relations

Payroll Services roles:

- Prepare payroll
- Reconcile payroll accounts (currently performed by Financial & Accounting Services)

**Observation**

The undergraduate student employment process is primarily administered by Payroll Services. This includes managing the student recruitment system which requires specialized HR skills, knowledge, and expertise.

Undergraduate student employment refers to casual/restricted staff or academic positions, and though primarily held by undergraduates, it is possible for graduate students to apply for these positions.

Payroll Services inherited the administration of undergraduate student employment after leadership undertook initiatives to create an automated workflow tool that would create efficiencies in the university's employee work life cycle processes. However, those efforts were abandoned though the administration of undergraduate student employment never reverted to Student Affairs.

Insufficient SOD's can result in increased fraud risk that include ghost employees and unauthorized pay changes. In addition, without HR expertise, the administration of undergraduate employment by Payroll Services could result in increased risks of pay inequities and nepotism. These factors could result in violations of EEO.

### **Recommendation**

Internal Audit recommends executive leadership restructure undergraduate student employment to ensure appropriate SODs. Executive leadership should consider moving the student recruitment function to the Career Services Center to create synergies for undergraduate student employment and career development.

### **Management Corrective Action (MCA)**

UC Merced Executive Leadership will review the current structure with functional teams and propose a revised structure of the undergraduate student employment program to ensure appropriate SODs by June 30, 2024.

## **3. SOD MITIGATING CONTROLS**

### **Background**

As part of their response to the FY20 UCOP UCPATH Cybersecurity Audit, UCOP conducts quarterly UCPATH SOD conflict audits, which identify specific instances of SOD conflicts systemwide as defined by the UCPATH Steering Committee. These conflicts are communicated to locations for resolution. The locations are responsible for either removing roles from individuals to mitigate the SOD conflicts or to identify effective mitigating controls if access is allowed to continue. The location controllers have the responsibility of approving the proposed solutions.

### **Observation**

UC Merced Payroll Services received four SOD conflicts from FastPath in its recent review. To mitigate these conflicts, Payroll Services identified the control that the person with the conflicting role cannot approve their own transaction. However, this control is built into UCPATH and was incorporated into the system of identifying the SOD conflicts within FastPath. Thus, the mitigating control identified would not effectively mitigate the SOD conflicts.

The four SOD conflicts involve the AWE administrator role and three other transacting roles. The AWE administrator is a UCPATH role with administrative rights to manage AWE transactions, which enables the ability to redirect transactions for approval—including self-approvals. Internal Audit did not note any actual instances of self-approvals.

The lack of mitigating controls results in the improper resolution of the SOD conflicts. Payroll Services staff retain the improper level of access in UCPATH, which would expose UC Merced to various levels of payroll fraud.

**Recommendation**

Internal Audit recommends UC Merced reassign the AWE role administrator outside Payroll Services.

**Management Corrective Action (MCA)**

Leadership within the Division of Finance and Administration will evaluate the AWE administrator role and reassign to a non-Payroll Services team member by December 31, 2023.