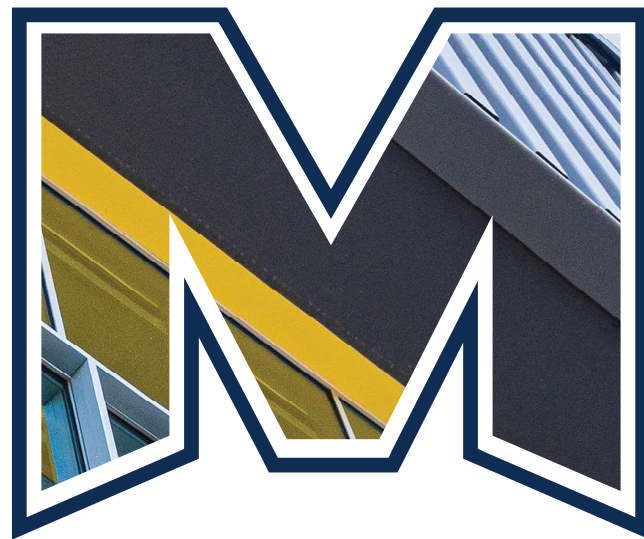# UCMERCED

INTERNAL AUDIT AND ADVISORY SERVICES

Project Portfolio Financial Management Invoicing Audit

Report No. M24A003

Internal Audit and Advisory Services Team:
Randy Schwantes, Internal Audit Director
Eduardo Perez Ruiz, Senior Internal Auditor

Project Portfolio Financial Management Invoicing Audit
Report No. M24A003
April 24, 2024

Distribution List

University of California, Office of the President
Alexander Bustamante Senior Vice President and Chief Audit and Compliance Officer

Ethics and Compliance Program (ECP) Executive Committee/Audit Committee

Juan Sánchez Muñoz	Chancellor
Betsy Dumont	Executive Vice Chancellor and Provost
Charles Nies	Vice Chancellor, Student Affairs
Daniel T. Okoli	Vice Chancellor and Chief Operating Officer
Delia Saenz	Vice Chancellor and Chief Diversity Officer
E. Edward Klotzbier	Vice Chancellor, Chief External Relations Officer
Gillian Wilson	Vice Chancellor, Research, Innovation, and Economic Development
Nick Dugan	Vice Chancellor and Chief Information Officer
Kurt Schnier	Vice Chancellor and Chief Financial Officer
Brenda Amenson-Hill	Interim Vice Chancellor, Enrollment Management
Luanna Putney	Associate Chancellor and Chief of Staff to the Chancellor
Cesar Alvarado-Gil	Chief Campus Counsel
Heather Bortfeld	Interim Dean, School of Social Sciences, Humanities and Arts
Rakesh Goel	Dean, School of Engineering
Michael Findlater	Interim Dean, School of Natural Sciences
Hrant Hratchian	Vice Provost and Dean of Graduate Education
Brian Utter	Interim Vice Provost and Dean of Undergraduate Education
Annette Roberts Webb	Dean of University Extension
Lela Dennis	Associate Vice Chancellor and Chief Human Resources Officer
Viola Kinsman	Chief Ethics & Compliance Officer and Locally Designated Official
Cindi Zimmerman	Risk Manager

University of California, Merced

Amanda Preston-Nelson	Controller
Kelli Maxey	Assistant Controller
Devan Hinojosa	PPFM Director
Jue Sun	Executive Director of Research Administration
Denise Cardenas	PPFM Supervisor
Fernando Alvarez	Associate Director, Research Administration
Melissa Tatham	Chief Administrative Office, Sierra Nevada Research Institute
Leann Nascimento	Chief Administrative Officer, Health Sciences Research Institute

Project Portfolio Financial Management Invoicing Audit

EXECUTIVE SUMMARY

Internal Audit and Advisory Services (Internal Audit) has conducted an audit of UC Merced's Project Portfolio Financial Management (PPFM) invoicing process. This audit was performed in accordance with Internal Audit's fiscal year 2024 audit plan. The primary objective of the audit was to evaluate and assess the effectiveness of controls related to invoicing processes for sponsored projects.

PPFM leadership has acknowledged existing system and workflow challenges and has proactively addressed past deficiencies. Contracts and Grants Administration (CGA) leadership also recognized on-going issues related to data validation and timeliness of sponsored activity reviews and reporting. In addition, Internal Audit observed several process changes in each aforementioned area aimed at optimizing efficiencies and monitoring invoicing progress and data integrity. However, instances of control weaknesses were noted that require improvement to provide reasonable assurance that risks are mitigated and objectives are met.

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

Late Sponsored Projects Invoices. Internal Audit recommends PPFM, CGA, Organized Research Unit (ORU) RAs, and other relevant stakeholders commit to coordinating timely to get billing issues resolved within the 45-day time frame. PPFM should consider implementing agreed upon deadlines for stakeholders to respond to billing issues with an escalation process to the vice chancellor for research and economic development for instances where the issues are not resolved timely.

Unapplied Receipts Backlog. Internal Audit notes PPFM leadership has acknowledged and is currently addressing the issue. As such, no management corrective action is required.

BACKGROUND

Effective administration of invoicing plays a crucial role in the responsible and efficient oversight of sponsored projects. This process guarantees adherence to project stipulations, financial responsibility, and transparency, all while aiding the university in nurturing positive relationships with sponsors and accomplishing project goals.

According to the PPFM website:

> The mission of PPFM is to the dedicated delivery of professional services to the campus community. As we strive to create innovative practices promoting a positive and successful partnership with stakeholders concerning Contracts & Grants and Capital Projects. We are motivated to exceed expectations in these efforts through timely and transparent reporting.

PPFM is staffed by a director, supervisor, and six analysts; and currently manages the billing for 851 active sponsored projects.

PPFM has historically faced challenges related to staffing shortages and operational inefficiencies resulting from process gaps. The insufficient staffing created administrative burdens that impacted the timely completion of tasks. Simultaneously, operational inefficiencies stemming from process gaps further hindered overall team output.

In FY 23 Internal Audit conducted an advisory service for PPFM that noted significant issues with the accuracy and timeliness of invoicing to sponsors. In addition, the advisory service noted issues with effective use of Oracle financials to bill accurately and apply payment to sponsor accounts. Finally, Internal Audit noted management issues within PPFM whereby issues with Oracle, billing, and applying receipts were not escalated and resolved effectively.

However, recent leadership changes and process enhancements within PPFM have yielded significant improvements in operational efficiencies. The new leadership has played a key role in owning and rectifying errors. Additionally, revised processes have contributed to an increased level of data integrity, ensuring that information and outputs from PPFM are accurate and reliable. The processes changes and leadership in PPFM has made a positive impression on university stakeholders. It is also noted that increased and timely data validations and reviews by CGA and ORU RAs have allowed errors to be identified quickly and addressed prior to the billing cycle. A strong partnership between PPFM, CGA and ORU RAs has been instrumental in improving the overall invoicing process for sponsored projects.

SCOPE AND OBJECTIVES

This audit was selected based on a risk assessment and was performed as part of Internal Audit's responsibility to complete the fiscal year 2024 audit plan. The objectives of the audit were:

- To assess the controls over the accuracy of invoices issued to award sponsors.
- To assess the controls over the timeliness of invoices issued to award sponsors.

- To assess the controls over the accuracy of accounts receivable and matching payments to recorded receivables.
- To assess the controls over the inputs into invoices to be issued.

Internal Audit's primary scope included all PPFM invoicing transactions and controls in place during FY23. The audit included interview 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.

The closeout process for sponsored projects was excluded from the scope because CGA and PPFM are in the process of optimizing this process. Internal Audit plans to conduct an advisory engagement in FY26 to assess the new process.

POSITIVE OBSERVATIONS

UC Merced is dedicated to upholding excellence in fulfilling its core objectives of teaching, research, and public service. To fulfill this mission, all university stakeholders are expected to demonstrate a strong commitment to driving positive transformations within the institution. As such, Internal Audit is committed to highlighting practices within the audited areas that facilitate changes both within the respective organization and across the university.

During the PPFM invoicing audit, Internal Audit noted the following positive observations:

- University stakeholders have expressed a noticeable improvement in PPFM's invoicing process over the past year and are happy with the customer-centric approach PPFM has adopted.
- CGA, ORU RAs, and PPFM leadership has taken ownership and accountability of challenges faced by the offices and have implemented new processes and controls to resolve deficiencies and errors from the past.
- CGA, ORU RAs, and PPFM staff are open to suggestions for process improvement and efficiencies.
- PPFM has recently implemented a process to address the backlog on receipts that have not been applied to open invoices.

MANAGEMENT ADVICE

While conducting the engagement, Internal Audit identified potential inefficiencies that does not rise to the level of a formal recommendation. These inefficiencies are highlighted

in the management advice section, and management is not required to formally report their response to this advice.

SPONSORED PROJECT CLOSEOUT PROCESS

Background
A robust closeout process ensures the timely and accurate management of termed sponsored projects. It strengthens the sponsor-university relationship, allowing for the potential of future funding opportunities. In addition, the university is subject to federal requirements that govern the management of the federally funded projects. Federal regulation stipulates closeout requirements, including timeframes, the university must adhere to for the federally funded projects.

Observation
During the course of the engagement, Internal Audit noted the university has a significant backlog in expired sponsored projects that need to be closed out.

Per discussion with research administration staff, the backlog of expired sponsored projects is primarily attributed to the transition from the legacy system to Oracle. Instructions on how to set up and invoice projects were unclear, which affected the administration of sponsored projects. The issue was exacerbated by the lack of a formalized billing process—an issue that was identified and addressed by the new PPFM leadership.

An improperly administered closeout process can negatively impact the university in a variety of ways. From a regulatory standpoint, federally funded projects are subject to closeout stipulations, which if not adhered to, can result in temporary withholding of cash payments, suspension or termination of federal awards, and can impact future federal funding opportunities. Internal Audit is aware of concerns with UC Merced losing funding opportunities with NIH due to untimely and ineffective close out processes. Furthermore, Internal Audit was made aware of instances where UC Merced was unable to recover incurred expenses. As such, the backlog exposes the university to potential material loses occurring from unrecoverable incurred expenses. Lastly, ineffective closeout processes can negatively impact sponsor and faculty relations.

Internal Audit notes a closeout process was recently designed and implemented. PPFM staff is actively collaborating with the Contract and Grant Administration and ORU RAs to address the backlog. Moreover, the closeout process was out of scope for this audit, therefore, Internal Audit did not perform any testing in this area. An advisory service of the closeout process is preliminary scheduled to be performed as part of Internal Audit's FY26 Audit Plan.

Recommendation
Internal Audit recommends CGA, ORU RAs and PPFM continue to refine and enforce the closeout process.

TRAVEL EXPENSES

Background
Close collaboration between Principal Investigators (PIs) and research administrators (RAs) is crucial for the successful management of research projects. This collaboration plays a significant role in creating and managing project budgets, which includes effective expense tracking. In order for RAs to effectively manage project budgets, they must be aware of all planned expenses including travel expenses.

Observation
During the course of the engagement, Internal Audit noted varying degrees of collaboration between PIs and RAs for accounting of travel expenses. Some RAs had a high degree of collaboration and were aware of all anticipated travel expenses and incorporated them into the budgets. Other RAs noted that they were not aware of travel expenses until after the travel was completed and posted into the financial system. Thus, the RA was unable to have a current accurate picture of the financial status of the project and could thus run the risk of approving expenses and exceeding the project budget.

Recommendation
Internal Audit recommends CGA and ORU leadership ensure research administrators and PIs foster collaborative relationships.

ORACLE EXPENSE CATEGORIZATION

Background
Accurate expense categorization is crucial for the effective administration of sponsored projects as it aids in compliance with invoicing requirements, promotes financial transparency, and streamlines project reconciliation and reporting processes.

Observation
Internal Audit was unable to validate the consistency in expense categorization during the testing of invoice accuracy. PPFM staff confirmed that the office experienced challenges with the categorization of expenses as the same expenditure type can be assigned to varying invoicing categories across different sponsors. Internal Audit did not note material exceptions during testing that would violate sponsored project agreements. However, if

reviewed by sponsors with recurring projects like NIH and NSF, there could be audit findings if similar expenses were not categorized consistently.

Inaccurate expense categorization can negatively impact the invoicing process, resulting in potentially inaccurately classified invoices being sent out to sponsors, and would lead to additional administrative burden for PPFM staff.

Recommendation
Internal Audit recommends PPFM develop and communicate clear, standardized expense categorization guidelines that align with applicable sponsor requirements and industry best practices.

PPFM should consider using standard expense classification lists for major vendors which can be used with the excel XLOOKUP and SUMIFS functions to automate the classification process. In order for the classification lists to be effective, PIs and RAs must ensure that all transactions are coded to the correct expense type to allow those transactions to flow to the proper expense category.

SPONSORED PROJECT RECONCILIATIONS

Background
Clearly articulated processes and procedures should be developed and disseminated to educate RAs on the reconciliation process, ensuring consistency. In addition, automating the reconciliation process enhances efficiency, minimizes human errors, and enables real-time monitoring to support objectives of sponsored projects. Ultimately, automating the reconciliation process, wherever feasible, fosters consistency across projects and eases the workload for RAs.

Observation
Internal Audit noted a lack of uniformity in the sponsored projects reconciliation process. The reconciliation process varies by RA and has significantly different levels of automation and effectiveness.

Per discussions with RAs, there is no effective, prescriptive reconciliation process at UC Merced. There are tools available to RAs, but these tools are highly manual, resulting in RAs being discouraged from using them.

The lack of efficiency and automation in some of the reconciliation processes result in an increased administrative burden to the RA, as well as a delay in accurate information to the PI which could impact decision making.

Recommendation
Internal Audit recommends CGA, ORU RAs and other relevant leadership consolidate the best practices for reconciliations from the RAs and create an automated reconciliation template to be used by all RAs. Internal Audit also recommends that CGA and ORU RAs conduct regular continuous improvement meetings to improve the recon process and continue to train RAs.

<div align="center">

OBSERVATIONS

</div>

---

1. LATE PROJECT INVOICES

Background
Timely submission of invoices is essential for ensuring a smooth financial flow and fostering positive relationships with sponsors. When UC Merced submits invoices promptly, sponsors can efficiently process payments, eliminating unnecessary delays and ensuring that the university receives funds when required. Achieving this requires effective internal coordination among relevant teams, contributing to the successful meeting of invoicing deadlines.

Observation
During the assessment of the controls over timeliness of invoices, Internal Audit noted six projects, out of a sample of 34, that had instances of invoices/draws being sent out/processed after the 45-day reasonable timeframe.

The assessment identified multiple reasons why invoices were not processed within the 45 days, which included challenges with validating recharges and cost transfers in sponsored projects. While some delay is to be expected, from an invoicing perspective, the invoices were late due to a lack of timely internal coordination to resolve those challenges.

Late invoicing may lead to increased administrative efforts to resolve payment issues, answer inquiries from sponsors, and address any concerns. This places an additional burden on resources. In addition, late invoicing may create a lack of transparency in financial transactions. Sponsors might raise concerns about the financial management practices of the university, causing a breakdown in communication and trust. This, in turn, could lead to reputational harm for the university. Lastly, late invoicing can lead to cash flow gaps, hindering the university's ability to cover expenses and operate projects efficiently. This may result in financial strain and potential disruptions to projects or activities.

Recommendation

Internal Audit recommends PPFM, CGA, ORU RAs and other relevant stakeholders commit to coordinating timely to get billing issues resolved within the 45-day time frame. PPFM should consider implementing agreed upon deadlines for stakeholders to respond to billing issues with an escalation process to the vice chancellor for research, innovation and economic development, the EVC/Provost, and the vice chancellor/CFO for instances where the issues are not resolved timely.

Management Corrective Action (MCA)

The Division of Finance and Administration (DFA) acknowledges that sponsored billing invoices were not always issued within the required 45-day timeframe and have determined, through a root cause analysis, that two primary drivers were contributing to the deficiency:

> First, the Project Portfolio Financial Management (PPFM) team lacked a comprehensive tool which would allow for oversight and progress tracking of all sponsored billing deliverables. In response to PPFM's review of this root cause deficiency, PPFM leadership refined existing internal processes guides and enhanced invoice tracking tools in September 2023. The enhancements to both the process guide and tracking tool allow for more precise reporting on invoicing deliverables that were at-risk of being completed late. Since the implementation of the enhancements, the PPFM leadership team has been better able to plan and allocate resources in support of completing billing deliverables timely.

> Second, PPFM lacked consistent procedures needed to support invoice escalations to senior leadership within the areas of research, innovation and economic development, the EVC/Provost, and the VC/CFO. In response to this deficiency, leadership within DFA will draft agreed-upon procedures to ensure a timely review of sponsored invoice discrepancies with appropriate campus stakeholders within the 45-day time frame. The procedures will include a formal process related to invoice escalations to the Vice Chancellor for Research, Innovation and Economic Development, the EVC/Provost, and the VC/CFO for instances where billing discrepancies are not able to be resolved timely. These procedures will be established for use on or before December 31, 2024.

The effectiveness of the corrective action plan will be measured by the Project Portfolio Financial Management team in August 2025. A report will be given to the AVC/Controller for review of the effectiveness of the action plan at producing timely invoicing deliverables by September 30, 2025.

2. UNAPPLIED RECEIPTS BACKLOG

Background
Timely application of cash receipts is essential for maintaining accurate financial records. Precision in financial records is attained through robust reconciliation procedures, prompt receipt processing, and consistent reporting. Regular reconciliation of sponsor customer accounts is imperative to verify the accurate allocation of payments to corresponding invoices. Additionally, routine reporting on accounts receivables and payment statuses facilitates the detection of overdue payments.

Observation
UC Merced has a significant backlog of unapplied receipts.

As previously noted in the FY23 PPFM Invoicing Advisory Service, the backlog issue resulted from inadequate accounting practices, encompassing several key aspects. Campus Cashiering Services routinely deposited receipts into a holding account for the PPFM staff to manually apply to corresponding invoices. The application of payments was applied towards the oldest outstanding invoices in a sponsored billing account rather than the appropriate invoice. Additionally, due to issues with auto-generated invoices in Oracle, PPFM staff manually altered invoices external to the financial system to rectify errors; however, Oracle was not updated to reflect these corrections. Consequently, this inconsistency posed challenges for PPFM staff when they attempted to match receipts to invoices.

The backlog of unapplied receipts exposes the university to a variety of risks. Unapplied receipts obscure the financial standing of a given sponsored project. The university would not be in a position to know if there are uncollected balances, or if money is owed to the sponsors. Lastly, unapplied receipts can potentially lead to unintended reputational damage with sponsors by eroding the sponsor's trust in the university's ability to be effective stewards of extramural funding.

During the course of the engagement, Internal Audit noted PPFM identified this issue and took corrective actions to address the backlog. Currently, PPFM staff are reviewing all sponsor billing accounts and performing needed reconciliations. The PPFM director implemented process changes which included a formalized billing tool to ensure adherence to sponsored project stipulations and a monitoring tool for timely assessment of billing progress. These process changes have aided staff in completing project reconciliations.

Recommendation
Internal Audit notes PPFM leadership has acknowledged and is currently addressing the issue. As such, no management corrective action is required.