AUDIT AND ADVISORY SERVICES

Research Enterprise Services Audit

Project No. 13-607

October 18, 2013

Prepared by:

_____
Jennifer Jones
Auditor-in-Charge

Reviewed by: Approved by:

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Jaime Jue   Wanda Lynn Riley
Associate Director   Chief Audit Executive

UNIVERSITY OF CALIFORNIA, BERKELEY

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AUDIT AND ADVISORY SERVICES   611 UNIVERSITY HALL #1170
Tel: (510) 642-8292   BERKELEY, CALIFORNIA 94720-1170

October 18, 2013

Graham Fleming
Vice Chancellor for Research

Thera Kalmijn
Chief Operating Officer
Campus Shared Services

Vice Chancellor Fleming and Chief Operating Officer Kalmijn:

We have completed our audit of Research Enterprise Services as per our annual audit 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.

Attached please find the referenced audit report. Please destroy all copies of draft reports and related documents. Thank you to the staff of Research Enterprise 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,

Wanda Lynn Riley
Chief Audit Executive

cc: Director Karen Wilson
        Director John Kaso
        Vice Chancellor John Wilton
        Assistant Vice Chancellor Pat Schlesinger
        Senior Vice President and Chief Compliance and Audit Officer Sheryl Vacca
        Associate Chancellor Linda Morris Williams
        Assistant Vice Chancellor and Controller Delphine Regalia

University of California, Berkeley
Audit and Advisory Services
Research Enterprise Services

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OVERVIEW

Executive Summary

Research Enterprise Services (RES) provides centralized administrative and compliance support activities to the majority of campus organized research units (ORUs) that report to the Office of the Vice Chancellor for Research. As of May 23, 2013, the RES organization transitioned into as a standalone team. However, it is not expected that significant changes to organization or process as a result of shared services integration and harmonization will be made in the near-term.

The overall objective of our audit was to evaluate the design of controls across certain business process areas assessed to represent greater potential impact to the campus. The primary areas of audit focus included post-award contract and grant management and recharge rate setting. We also performed limited procedures related to service pricing and quality management, and other service line areas, including purchasing, reimbursements, and receiving.

Audit procedures included (i) the review of documented department policies, procedures, and tools, (ii) interviews with selected RES staff and managers, as well as a limited number of faculty supported by RES, and (iii) on a sample basis, the review of documentation related to identified key controls. We did not perform a detailed review of individual transactions to verify their compliance with policies or contract/grant terms.

We noted positive changes within RES relative to our last audit. From a cultural and organizational perspective, there appears to be increased transparency and collaboration to support the integrity of activities and the open identification and resolution of issues. In addition, there are a number of new initiatives underway that should serve to bring greater consistency to processes and help better ensure that management objectives are being met. Related to contract and grants management, we observed that the design of certain controls may not sufficiently mitigate the risk that errors or anomalies will be prevented or detected. Related to recharge rate-setting and billing, we noted a need for more proactive management of out-of-tolerance deficits and billing issues to ensure their handling and resolution within timeframes established by campus policy. Management has developed action plans that we believe address our observations, including enhancements to management monitoring, changes to contract and grant expenditure review procedures, and improvements to recharge unit billing procedures.

Source and Purpose of the Audit

Audit and Advisory Services (A&AS) completed our audit of Research Enterprise Services (RES) as part of our annual audit plan for FY 2013. The overall objective of our audit was to evaluate the design of controls across certain business process areas assessed by A&AS to represent greater potential impact to the campus. The primary areas of audit focus included post-award contract and grant management and recharge rate setting. The focus on these two areas was based on the significance of sponsored project funds managed by RES (more than $200 million in funding for FY 2012), and the pervasiveness of the potential impact to funding sources across the campus in the event of recharge rate errors or anomalies.

Scope of the Audit

Our audit included procedures and controls in place at the time of the audit. Specific transactions and reports reviewed were processed during fiscal year 2013.

Audit procedures included (i) the review of documented department policies, procedures, and tools, (ii) interviews with selected RES staff and managers, as well as a limited number of faculty supported by RES, and (iii) on a sample basis, the review of documentation related to identified key controls. We did not perform a detailed review of individual transactions to verify their compliance with policies or contract/grant terms.

As described above, the primary areas of audit focus included post-award contract and grant management and recharge rate setting. We also performed limited procedures related to service pricing and quality management, and other service line areas, including purchasing, reimbursements, and receiving.

Areas not in the scope of our audit were excluded based on the fact that either the related key controls from a compliance perspective reside outside of RES, the potential financial or compliance impact of errors was not judged to be significant, or related processes were recently reviewed through campus-wide audits. While the Human Resources area represents a significant area of potential impact from a compliance and operational perspective, it was not in scope because it is anticipated that harmonization in human resources processes within Campus Shared Services (CSS) will occur more quickly, and because A&AS plans to directly audit various human resources topics as part of our FY 2014 plan.

Background Information

RES Background and Current State

RES provides centralized administrative and compliance support activities to the majority of campus organized research units (ORUs) that report to the Office of the Vice Chancellor for Research. RES was organized in July 2008, but underwent significant expansion in December 2009 with the number of ORUs in the group's purview growing approximately from 10 to 60. At the time of our audit in early 2013, the number of units (including sub-units) supported by RES was approximately 110. Services provided since its inception include those related to sponsored project administration and compliance, finance, human resources, purchasing and reimbursements, and other general services.

As of May 23, 2013, the RES organization transitioned into CSS as an intact team, except for RES purchasing and reimbursements staff who now report directly into central CSS management. For the other service areas, it is not currently expected that changes to organization or processes as a result of shared services integration and harmonization will be made in the near-term. As part of our FY 2014 audit plan, A&AS plans to perform a review of CSS research administration, business and finance, and human resources activities.

A&AS performed an earlier audit of RES in early 2011. At that time, the organization was still working to develop its internal structures and protocols, and to ensure a stable level of service given staffing and ramp-up challenges. RES experienced a significant upheaval related to changes in senior management in 2012 that created temporary setbacks for the organization. Under the leadership of the new director, significant effort has been made to address the related cultural and morale concerns, in addition to continuing to strengthen business processes.

Related Policies

In order to assess the design of procedures and controls, we considered certain general requirements outlined in University policy and federal rules. Specifically, for general principles and definitions related to the allowability of transactions, we referred to Office of Management and Budget Circular (OMB) A-21 (*Cost Principles for Educational Institutions*). In connection with our evaluation of RES practices related to cost sharing and sponsored project close-out, we referred to the campus Extramural Funds Accounting's (EFA) "Cost Sharing Policies and Procedures" and "Award Close Out Procedures" documents. Related to recharge activities, relevant parameters and requirements are established by the *Campus Recharge Definitions and Background* policy.

Summary Conclusion

We noted positive changes within RES relative to our last audit. From a cultural and organizational perspective, there appears to be increased transparency and collaboration to support the integrity of activities and the open identification and resolution of issues. In addition, there are a number of new initiatives underway that should serve to bring greater consistency to processes and help better ensure that management objectives are being met. Related to contracts and grants, these include the development of a new hire boot camp, weekly information sessions for staff, monthly trainings, and the development of a grants support unit that is envisioned to provide reporting and quality assurance services to the contracts and grants organization. Related to recharge, we noted the centralization of support for recharge centers under one manager and the development of new reports to facilitate rate monitoring.

We did, however, identify certain concerns that warrant continued management attention.

Related to contract and grants management, we observed that the design of certain controls may not sufficiently mitigate the risk that errors or anomalies will be prevented or detected. Specifically, procedures related to the review of expenses do not provide sufficient assurance that allowability concerns will be identified, and there are limited monitoring tools or procedures to support analyst and management visibility into operational or compliance metrics.

Related to recharge rate-setting and billing, we noted a need for more proactive management of out-of-tolerance deficits and billing issues to ensure their handling and resolution within timeframes established by campus policy.

Organization-wide, we also noted certain observations that have bearing on the overall effectiveness of operations within RES to achieve management objectives and mitigate related risks. Specifically, we noted that for certain service line areas within RES (other than those areas central to our scope), it does not appear that infrastructure and/or accountabilities have been fully delineated or developed.

SUMMARY OF OBSERVATIONS & MANAGEMENT RESPONSE AND ACTION PLAN

Oversight on Expense Allowability on Sponsored Projects

Observation

We noted three key control design deficiencies related to procedures to ensure the allowability of expenses on sponsored projects. None of these three issues is unique to RES in that they pertain to campus-wide systems and processes; however, there are potential alternative procedures that could be implemented at the department level in each case that would more effectively address the related risks.

- Contract and grant analysts are not in the approval chain for purchases and do not have upfront visibility into purchase activity although the system used can accommodate a second approval. We understand that the reviews performed by purchasing/reimbursements personnel do not include an evaluation of contract and grant compliance issues such as whether purchases are authorized by the principal investigator or whether purchases are allowable under the terms of the contract/grant or OMB Circular A-21. Examples of procedures developed by other units on campus to help ensure that purchases are reviewed from a contract/grant allowability perspective include the inclusion of the research analyst in the purchase request/approval chain, or alternatively, specific training and reliance on purchasing staff to verify contract/grant terms before processing the requisition.

- Campus practice allows for principal investigators (PIs) to direct that all or a portion of their award be managed by a co-PI or collaborator. In such circumstances, primary accountability for fund expenditures still resides with the primary PI; however, RES research analysts (RAs) are not currently monitoring or reporting to the PI expenses on budget amounts transferred to non-RES department codes. Under the campus key financial controls program, all departments are responsible for verifying charges associated with their department codes. However, given PI accountability for overall award activity, ensuring PI visibility into expenses is warranted. In addition, RES analyst responsibilities related to these funds should be evaluated to ensure a proper level of PI support and coordination.

- We understand that expenses for local/base telephone charges, which would normally be considered a facilities and administrative cost, are sometimes charged directly to non-major project federal contracts and grants in cases where no discretionary funding exists. RES management has instructed staff to ensure that a justification for such expenses is prepared and that expenses are allocated according to a reasonable methodology. However, these criteria alone may not be sufficient to support the charging of such expenses to a fund unless the administrative support provided is above and beyond the normal support provided by the PI's department.

Management Response and Action Plan

Transaction approval: RES will change its process to place an evaluation of contract and grant compliance issues at the front end of the purchasing/reimbursements process. We will review other CSS groups (i.e. Biology Division Services and Engineering Resource Support Office) processes, make any necessary adjustments, conduct training, and pilot the new process in November 2013. The new process will be implemented unit-wide by February 1, 2014.

Full fund monitoring: CSS is working with the campus to request global reporting access in BAIRS to all contract and grant funds for CSS RAs. RES RAs will be required to review all expenses on assigned funds on a monthly basis and include them in the monthly reporting to the PI. These actions are expected to be completed by December 1, 2013. In addition, the new PI Portfolio, which is planned to be released in September 2013, will allow all CSS research analysts global access to funds.

Telephone charges: RES will identify PIs who are charging phones to sponsored research funds and will contact each PI in writing to explain the risk and identify alternative funds. If none exist, RES will work with PIs to use the Faculty Salary Research Exchange Program to create discretionary fund pools where telephone costs may be charged. In addition, related guidance will be issued to all analysts. The analysis of charges and funding sources and issuance of guidance to analysts are expected to be completed by January 1, 2014.

Monitoring and Oversight

Observation

Monitoring and oversight tools and procedures within RES are not yet sufficiently well developed to ensure consistent contract and grant compliance with University and sponsor policies. At present, there is significant reliance placed on the efforts of individual analysts and team leads to ensure that instances of non-compliance or other fund issues are identified and addressed. Based on our limited interview and document review procedures, it appears that analysts and team leads are diligent in their efforts to review portfolio activity and to process transactions accurately and according to required timelines. However, due to on-going staff turnover, shifting portfolios, pre-award and post-award workload balancing issues, and the fact that standard on-boarding and fund management tools and guidance are still in progress of being developed, a risk exists that issues may not be identified or addressed on a timely basis. As an example, we noted one instance in which fund expense reports had not been reviewed for a six month period.

Examples of areas that are not currently being monitored by RES management that we believe are critical to ensuring an effectively managed contract and grant organization as potential indicators of fund or performance issues include (i) the timeliness and accuracy of close-out and (ii) the allowability and timing of expenses. Management has recently begun to monitor fund overdrafts, also a key indicator of the effectiveness of fund management.

We also observed opportunities to more directly engage the team supervisor in specific fund review activities to help ensure an appropriate level of follow-up and support in resolving

specific fund issues or analyst portfolio management concerns. At present, primary responsibility for ensuring analyst portfolio compliance resides with the team leads who are also responsible for direct management of their own portfolios and who do not have supervisory responsibility for the analysts.

Management Response and Action Plan

RES has already taken many steps to implement standardizations and controls to address this observation. While historically, the processes and efforts of staff have done a good job of preventing disallowable costs, the observation is correct in that the current processes/standards allow for such a breakdown to occur and additional monitoring/controls need to be established.

There are several control/standard changes being made:

Training
RES is developing a standard training curriculum for new RAs. Since there has been an influx of new staff over the last year, we are going to include all of those newer staff in the first offering of the "RA Boot Camp". This will ensure that staff are getting the same standard of training. We have been coordinating development of the pilot for the Boot Camp with CoRWE and CSS. The first Boot Camp class graduated on August 23. We are planning to offer it again in November 2013.

Monitoring tools/controls
RES created a new contracts and grants (C&G) support team, which has been developing monitoring tools and designing new process controls:
- Overdraft tracking – In late 2012, we implemented a tool to track the occurrence of overdrafts, cause of overdrafts, and the timeliness of resolution.
- Deficit clearing tracking – In late 2012, we implemented a tool to track the occurrence of deficit clearings to general funds and to monitor the clean-up. Both overdrafts and deficits have been reduced by approximately 45% since implementing these tools.
- Effort Reporting System (ERS) certification tracking – In October 2012, RES implemented a unit-wide tracking of all ERS certifications. Through better visibility and communication of certification status, RES research analysts were able to work more closely with PIs and improved on-time certification over the previous reporting cycle by 20%. Additional steps are to be taken to improve process with the September/October 2013 reporting cycle upcoming. This next iteration will be completed November 1, 2013.
- Closeouts of contracts and grants– Currently, RES is piloting a new closeout process with full implementation planned for October 1, 2013 where the C&G Support Team is acting as a focal point for controls on the closeout process.
- Cost allowability monitoring – RES is developing a process where monthly activity on sponsored awards that would be potentially disallowable will be flagged and submitted to the research analysts and supervisors for review and resolution. Implementation date is November 1, 2013.
- New award setup/review – RES is developing a process to assist in the setup of a new award, which will complement upcoming campus changes related to the contract and grant accounting system. Implementation date is July 1, 2014.

- Burn rate tracking – RES has developed a new tool that tracks the burn rate of sponsored awards. The PI Portfolio team is developing a burn-rate tool as well. Implementation date is October 30, 2013 for the RES tool.

In addition, RES will shift primary portfolio review with RAs from team leads to C&G supervisors. Supervisors will meet with each RA at least once a quarter, with a checklist of review items/steps. Presently, RES has two vacant supervisor positions. We expect to fill them by November. Until RES has a full complement of supervisors, the remaining ones will continue to carry a PI portfolio. We will issue guidance and checklists by January 1, 2014.

Recharge Unit Management

Observation

In our review of a limited number of financial reports for recharge units managed by RES, it appears that out-of-tolerance conditions (defined by campus recharge policy as a general ledger balance exceeding one month operating expense) and billing delays, which may in turn give rise to deficits, may not be consistently addressed according to timeframes established by campus recharge policy. Deficits not cleared by fiscal year end are subject to the deficit clearing policy, and may be required to be paid by other sources of recharge unit or research unit funding.

- For units out of tolerance, policy states that units "must take immediate action to establish a plan to rectify the situation and bring the unit within acceptable levels of tolerance". We noted two units operating with deficits significantly outside of tolerance limits for more than a three month period that were not expected to reverse during the course of normal activity during the fiscal year and that did not have approved plans in place.
- Related to billing, policy establishes that recharge amounts must be posted to the general ledger within two ledger cycles after the goods are delivered, services are performed, or a project is completed. For one of the three units reviewed (a storeroom), we noted unprocessed/posted billings that were outstanding longer than this timeframe, including billings that were not processed until up to five months after the goods were received. Billing for the unit in question derives from data provided by an external vendor, which according to management was a contributing factor in these delays. However, it appears that internal procedures to ensure the timely posting of billing data may not be adequate. We understand that management is currently working to resolve this specific billing issue, as well as to improve billing procedures for all recharge units.

In addition, related to this same recharge unit, we noted a risk related to the current practice of allowing open access to the storeroom by users and tracking usage based on manually self-reported data. Whether intentionally or inadvertently, absent monitoring of storeroom activity, there is a risk of theft. These shrinkage amounts are currently paid by RES and are included in recharge rates as a cost of operations.

Management Response and Action Plan

RES concurs with the observations and has developed/completed the following plans:

Deficits
- RES has engaged in collaborative discussions with the appropriate facility director, lab director/manager, and the budget director of Vice Chancellor of Research (VCR) to put in place a deficit reduction plan. The plan has been developed and approved by campus.

Billing
- RES has scheduled meetings with each facility director, lab director and/or managers to review the workflow for each facility to address usage, access, internal controls, and billing process flow. The objective is to develop a process map which clearly defines accountability by organization (Campus Shared Services, recharge units, and campus departments), process flows, standards, and cycle times of each activity within the recharge billing process. The expected completion date is January 31, 2014.
- The finance supervisor will coordinate with lab directors and managers to develop an Excel template that can be distributed to the recharge facilities for recording billing. The objective is to develop a universal template that can be uploaded into BFS, thus reducing the risk of manual key entry. In coordination with developing an Excel template we will also working with each facility to develop a process where the chartstring verification can be implemented prior to the work being completed.
- RES is also working with QB3 communications and program manager to implement a financial application system for QB3 labs/users. The system will automate the recording, accounting, and reporting of recharge services provided for customers. This application also assists the labs with calculating costs, quotes, and producing invoices while gathering all data pertaining to customer orders to assist the financial administrators in the validation of accounting data and a more timely billing process.

Storeroom
- Currently RES allows open access to the QB3 Storeroom by users and tracks usage based on manually self-reported data. We are reviewing a solution using direct payment via credit cards. For the processing environment, the options are face-to-face or online. RES has analyzed criteria such as transaction volume, customer type, and the processing environment, and is in the process of consulting with each facility to determine feasibility of using credit cards.

- RES met with the third party vendor to discuss shrinkage and will now collect information about shrinkage in order to determine the causes and amount of shrinkage and then develop an appropriate plan by January 1, 2014. Additionally, RES is consulting with the UC Police Department to review after hours access to the stockroom.

Service Line Development

Observation

RES is responsible for providing a range of services on behalf of the units it supports in addition to the core services of finance, contract and grant administration, and human resources. We observed that infrastructure and accountabilities in these additional areas do not appear to have

been sufficiently well developed or sustained to ensure that objectives are achieved and that related risks are mitigated. Specifically:

- **Equipment management:** RES has been responsible for equipment management activities for the vast majority of the units that it supports, with approximately 2,000 tracked assets, totaling $100 million in value. The activity has been managed by one employee, with student employee support. The responsible employee also has other responsibilities within RES. Given the volume and value of assets acquired and maintained by RES-supported units, we understand that resources have not been sufficient to manage the activity effectively. At the time of our audit, RES was evaluating opportunities to better support the activity, including returning the responsibility to the department.
- **Compliance program:** The compliance program is currently comprised of a manager, and three full-time employees. Services provided by the compliance program pertain to human subjects protocols and are offered to RES-supported faculty on an optional basis. Based on discussions with the manager, metrics regarding department activity and performance are not currently established or tracked.
- **Receiving:** Receiving staff were not aware of, and had not completed, campus training requirements applicable to their position related to hazardous materials handling.

Management Response and Action Plan

Equipment management: RES has already returned equipment inventory responsibility to Energy Bioscience Institute (EBI) and Phoebe A. Hearst Museum of Anthropology, reducing the number of items RES has to inventory annually from 2000 to 1624. We are in discussions with other units to see if they will take back equipment responsibility. Additionally, we have hired an administrative assistant to support the equipment inventory requirement. The new employee starts on October 1, 2013.

We have also temporarily assigned some of the equipment tagging responsibility to the receiving group. RES submitted requests to CSS to hire an additional general service assistant to support equipment management.

Compliance: RES will create a process map by November 30, 2013 delineating the process for submitting a protocol from the PI to Team 9, and to IRB. RES will perform monthly tracking beginning November 2013, including:
- Quantity and dollar value of protocol submissions, by type of protocols (new, amendment, renewal, other), and
- Average days lapsed between submission and IRB approval.
- Number of protocols returned for correction or additional information.

These metrics will be used to determine efficiency of current staffing levels and identify training deficiencies.

Receiving: All required training for receiving staff is now current. A calendar entry to mark the next required re-training has been made, and the lead receiver is aware now that this is an annual requirement. It will also be included in the supervisor's annual goals.