

December 6, 2018

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Dean and Associate Vice Chancellor for Clinical and Translational Medicine
0990

Subject:*Altman Clinical and Translational Research Institute
Report 2018-22*

The final audit report for *Altman Clinical and Translational Research Institute, Report 2018-22*, is attached. We would like to thank all members of the department for their cooperation and assistance during the review.

Because we were able to reach agreement regarding management action plans in response to the audit recommendations, a formal response to the report is not requested. The findings included in this report will be added to our follow-up system. We will contact you at the appropriate time to evaluate the status of the management action plans.

UC wide policy requires that all draft reports be destroyed after the final report is issued. We also request that draft reports not be photocopied or otherwise redistributed.

David Meier
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Attachment

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AUDIT & MANAGEMENT ADVISORY SERVICES

Altman Clinical and Translational Research Institute
Report No. 2018-22
December 2018

FINAL REPORT

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I. EXECUTIVE SUMMARY

Audit & Management Advisory Services (AMAS) has completed a review of the Altman Clinical and Translational Research Institute as part of the approved audit plan for Fiscal Year 2017-18. The objective of our audit was to evaluate whether ACTRI internal controls provided reasonable assurance that business processes and financial oversight were effective, conducted in compliance with University policy, federal regulations and terms of the federal award, and resulted in accurate financial reporting.

We concluded that ACTRI internal controls were generally adequate and provided reasonable assurance that business processes were effective, resulted in accurate financial reporting, and were conducted in compliance with University policies and procedures, and federal award terms and conditions. We observed that ACTRI Administration had established standard operating procedures and practices to ensure appropriate controls and financial monitoring were in place. However, frequent staff turn-over affected the administrative and financial oversight for the CTSA grant and other ACTRI activities, requiring significant effort and impacting the consistency with which standard operating procedures were applied. We understand that over the last two years efforts were focused on bringing stability to various core units' funding and operations, including monitoring fund balances and addressing any projected budget deficits, updating financial reports, and reviewing activities that were coordinated with or initiated through the ACTRI Administration. These efforts were instrumental to a successful transition, however, it can be further refined with consistency, adequate staff training and supervision, as well as effective communication and coordination within and outside of the ACTRI Administration.

We identified opportunities for improvement in award compliance, recharge billing, and business processes to maintain effective internal controls, particularly for pilot awards for which award management are delegated to the recipient home departments. Timely and consistent communication and coordination with home departments could help ensure strong administrative controls for this process. Management action plans to address these observations are summarized briefly below:

A. Award Compliance

1. ACTRI Administration will re-evaluate effort for the two key personnel to determine the correct percentage of effort for this period, and based on that review either make the required payroll cost transfers, or notify the NIH to obtain approval for effort reductions of 25% or more.
2. ACTRI Administration has transferred unallowable salary expenses above the NIH cap to an alternative funding source.
3. ACTRI Administration will implement procedures to frequently review payroll reports for any rate adjustments and effort changes, including prior periods to ensure compliance with NIH policy, and require fund manager evaluation of requested reductions in Key Personnel effort to ensure that prior agency approval is sought as needed for reductions of 25% or more than the approved effort level.

B. Recharge Billing

ACTRI Administration implemented a new third-party application to support recharge time tracking and billing, eliminating duplicate entries and manual revisions to original data input, thereby producing clean and supported data for recharge billing. The new system also requires appropriate sign-off on any subsequent revisions to ensure hours reported and billed are

properly authorized, which allows ACTRI Administration to adequately support actual hours billed.

C. Non-Payroll Expenditures

ACTRI Administration will:

1. Require monthly review of charges and other activities on CTSA funds, and communicate with home departments to ensure that cost transfers are reviewed and coordinated with ACTRI Administration in a timely manner.
2. Implement procedures that will initiate timely communication and coordination with PI home department administrators including those of junior investigators and researchers receiving support from ACTRI.
3. Perform periodic examination of Express Card charges and travel expenditures to ensure expenses are valid, authorized, and in compliance with policy and regulatory requirements.

D. Financial Oversight

ACTRI Administration will:

1. Implement procedures requiring fund manager review and approval of ledger reconciliation. The review should include consideration of whether the transaction is properly documented, allowable, and/or additional review is required. Frequent review of UCSD Bookstore and online purchases, and frequent charges under the same expense categories should also assist in timely discovery of errors or irregularities.
2. Implement Control Tracker, and evaluate whether the Transaction Sampling tool meets the unit's needs for ledger review. If Transaction Sampling will not be used, ACTRI should discontinue participation in the program.
3. Update the electronic approval hierarchies to ensure proper authority for approving transactions and expenditure so that approval authority is either at peer or supervisory level.

Management agreed to all corrective actions recommended to address risks identified in these areas. Observations and related management corrective actions are described in greater detail in section V. of this report.

II. BACKGROUND

Audit & Management Advisory Services (AMAS) has completed a review of the Altman Clinical and Translational Research Institute as part of the approved audit plan for Fiscal Year 2017-18. This report summarizes the results of our review.

Founded in 2010, the UC San Diego (UCSD) Altman Clinical and Translational Research Institute (ACTRI) was established to provide infrastructure and support for basic, translational, and clinical research throughout the San Diego region. Its vision is to translate scientific discoveries into improved health, with a mission to provide research resources, training, and collaboration opportunities for ACTRI scientists, health care providers, and the community.

ACTRI currently has 1,400 members, with affiliations that include San Diego State University, Sanford Burnham Prebys Medical Discovery Institute, the Salk Institute, Rady Children's Hospital San Diego, the VA San Diego Health Care System, as well as nonprofit and biotechnological/pharmaceutical companies. ACTRI provides a wide variety of services for nearly 200 clinical trials each year, including assistance with proposal development, study design, regulatory support, clinical trial coordination, biostatistics and informatics, ethics consultation, genomics technologies, and biorepository services. Programs offered also include training for medical students and early career investigators. ACTRI is organized in the following functional units that interact and provide these resources, services and guidance to its members and the community:

- Center for Clinical Research (CCR);
- Education, Training, and Career Development (ETCD);
- Biomedical Informatics (BMI);
- Community Engagement (CE);
- Translational Research Alliance (TRA);
- Translational Research Technology (TRT); and
- Evaluation

The Director of ACTRI has oversight of all the ACTRI functional units. The ACTRI Chief Administrative Officer (CAO) and the Directors for each functional units report to the ACTRI Director. The CAO, with support from the Operations Director and Business Financial Manager, has oversight of the ACTRI Administration that provides fiscal management and operational support to all ACTRI functional areas. All ACTRI units are directed to coordinate financial activities and communications with the ACTRI Administration.

ACTRI Administration manages all fiscal and administrative resources and activities, including management of human resources, management of space and facilities, preparation and coordination of proposal submission, post-award management, and billing and administrative support for its self-supporting activities, namely:

1. Center for Clinical Research
2. Research Pharmacy
3. Informatics
4. Biostatistics
5. Laboratories
6. Regulatory Support

Services for these self-supporting activities are identified with appropriate approved Institutional Review Board (IRB) Protocol Number and charged to the investigators' federal awards via a recharge at rates approved by the Campus Recharge Rate Review Committee. The approved recharge rates for internal and external customers were published on the ACTRI website. At the time of our review, proposal for new rates review was under way.

ACTRI is partially funded by the National Center for Advancing Translational Sciences (NCATS), a center within the National Institutes of Health (NIH), through a competitive, five-year Clinical and Translational Science Award (CTSA), making it part of the national CTSA Consortium. The CTSA award is currently in its fourth year of the renewed five-year funding for a period of project performance that began on Aug. 13, 2015 and ends on March 31, 2020. There are currently three components to the grant:

- the main component (U01) with total federal award¹ of \$8.3 million per year, which includes
 - two sub-awards to SDSU and J. Craig Ventner Institute (JCVI);
 - two pilot grants with funding of \$400 thousand for up to eight grantees per year ranging from \$30 thousand to \$50 thousand for a period of up to two years
- the mentored Career grant (KL2) for eight scholars per year, with \$1.4 million per year in funding, and
- a training grant (TL1) with \$667 thousand per year in funding for 10 predoctoral, two postdoctoral, and eight short-term trainees.

ACTRI also receives funding support from the Vice Chancellor of Health Sciences (VCHS). At the time of our review, the Operations Director, with support from three fund managers, had oversight of CTSA funding and related activities, as well as the ACTRI self-supporting activities.

Over the last few years, ACTRI Administration had undergone organizational changes and experienced high turnover in business operations. In December 2016, new Operations Director was hired to oversee fiscal management and operations. The Business Financial Manager assisted with the transition and managed ACTRI funds outside of the CTSA award. Prior to the conclusion of our review, ACTRI has yet again experienced another turn-over and transitioned to new Administrative staff.

ACTRI employed staff supporting its operations, including academic and non-academic appointees. Faculty and other academic staff were appointed within their respective campus and health sciences home departments. ACTRI also coordinates with the UCSD Health Sciences Sponsored Project Pre-Award Office, and the Office of Post Award Financial Services for all contracts and grants matters. Human resource activities were performed centrally by UC San Diego Health Human Resources (HHR), and information system administration was primarily performed by UC San Diego Health Information Systems (IS).

¹ Total Federal Award Amount includes Direct and Indirect Cost.

III. AUDIT OBJECTIVE, SCOPE, AND PROCEDURES

The objective of our audit was to evaluate whether ACTRI internal controls provided reasonable assurance that business processes and financial oversight were effective, conducted in compliance with University policy, federal regulations and terms of the federal award, and resulted in accurate financial reporting. In order to achieve our objective, we performed the following:

- Reviewed applicable University policies and procedures;
- Evaluated ACTRI business documentation and information including ACTRI website, organizational structure, CTSA notice of award, and financial reports;
- Interviewed key administrative personnel including the Chief Administrative Officer, Operations Director, Business and Financial Manager, Associate Director for Evaluations, ACTRI Fund Managers and supporting personnel on key processes and activities;
- Evaluated department internal controls for key business processes with ACTRI Administration;
- Consulted with Office of Contracts and Grants Administration (OCGA), Office of Post Awards Administration (OPAFS), Disbursements, Travel, Express Card Administration, prior ACTRI financial manager, and home department administrators for principal investigators and researchers;
- Reviewed and examined a judgmental sample of transactions, traced to supporting documentation, and evaluated for compliance with University policy and grant requirements in the following areas:
 - Payroll and timekeeping,
 - Pre and Post-award administration including pilot projects, career development training support funds awarded to junior investigators and researchers,
 - Non-payroll transactions including travel and entertainment, express card transactions, bookstore and other supply purchases, and sub-award activities
 - Cost transfers (payroll and non-payroll);
- Reviewed and evaluated the status of effort certifications recorded using Electronic Certification of Effort Reporting Tool (ECERT) for three reporting periods between January 01, 2017 and June 30, 2018; and
- Reviewed and evaluated the following:
 - Approval hierarchies and Marketplace Business Unit Management Tool
 - Control Tracker activities
 - Self-supporting unit fund balances and financial management including detailed review of selected ACTRI recharge billing activities.

Our review focused on CTSA award management, including payroll and non-payroll activities, as well as recharge activities. Our scope did not include clinical research compliance or billing for studies supported by ACTRI services, or of information systems for the ACTRI Integrating Data for Analysis, Anonymization, and Sharing (iDASH) network. In addition, we did not review in detail various ACTRI unit operations, affiliate operations and financial support provided by the Vice Chancellor of Health Sciences (VCHS).

IV. CONCLUSION

Based on our review, we concluded that ACTRI internal controls were generally adequate and provided reasonable assurance that business processes were effective, resulted in accurate financial reporting, and were conducted in compliance with University policies and procedures, and federal award terms and conditions.

We observed that ACTRI Administration had established standard operating procedures and practices to ensure appropriate controls and financial monitoring were in place. However, frequent staff turnover affected the administrative and financial oversight for the CTSA grant and other ACTRI activities, requiring significant effort and impacting the consistency with which standard operating procedures were applied. We understand that over the last two years efforts were focused on bringing stability to various core units' funding and operations, including monitoring fund balances and addressing any projected budget deficits, updating financial reports, and reviewing activities that were coordinated with or initiated through the ACTRI Administration. These efforts were instrumental to a successful transition, however, it can be further refined with consistency, adequate staff training and supervision, as well as effective communication and coordination within and outside of the ACTRI Administration.

Overall, we observed that CTSA award management was conducted in compliance with award terms and conditions. However, prior approval had not been obtained from the award sponsor for significant reductions in effort for two Key Personnel, and the NIH salary limitation was exceeded in selected administrative salary payments. Consideration of effort reductions upon implementing payroll adjustments for Key Personnel performed by home departments and central offices, as well as regular monitoring of salary cap payments, should improve compliance with these award terms and conditions.

We also identified opportunities for improvement in recharge activities, and business processes to maintain effective internal controls, particularly for pilot awards for which award management are delegated to the recipient home departments. Timely and consistent communication and coordination with home departments could help ensure strong administrative controls for this process.

V. OBSERVATIONS REQUIRING MANAGEMENT ACTION

A.	Award Compliance
Payroll charges and effort reduction in key personnel did not always conform with federal award requirements. We noted salaries paid at a rate in excess of the NIH salary cap, and significant reductions in effort for two key personnel were implemented without the required written prior approval from NIH.	
Risk Statement/Effect	
Non-compliance with award terms and conditions increases the risk of disallowances or funding delays, and may negatively impact future year awards.	

Management Action Plans	
A.1	ACTRI Administration will re-evaluate effort for the two key personnel to determine the correct percentage of effort for this period, and based on that review either make the required payroll cost transfers, or notify the NIH to obtain approval for effort reductions of 25% or more.
A.2	ACTRI Administration has transferred unallowable salary expenses above the NIH cap to an alternative funding source.
A.3	ACTRI Administration will implement procedures to frequently review payroll reports for any rate adjustments and effort changes, including prior periods to ensure compliance with NIH policy, and require fund manager evaluation of requested reductions in Key Personnel effort to ensure that prior agency approval is sought as needed for reductions of 25% or more than the approved effort level.

A. Award Compliance – Detailed Discussion

ACTRI has cumulative amount of \$23.5 million associated expenditures on the CTSA award for the budget end date, March 31, 2018. In most cases, transactions we reviewed were compliant with award terms. However, we noted a limited number of instances of noncompliance with award terms and conditions.

Effort Reductions

Awards funded by the NIH require prior agency approval if the Principal Investigator (PI) or Other Senior/Key Personnel reduce time devoted to the project by 25% or more from the level that was approved at the time of award. We evaluated Key Personnel effort on the CTSA grant and determined that two Key Personnel had a reduction in effort of 25% or more without the required prior approval in writing from the agency. One of the challenges for ACTRI Administration in monitoring changes in effort was that those changes initiated by the key personnel's home department were not always coordinated with ACTRI Administration. Periodic monitoring and timely communication and coordination with the departments and VCHS Core units responsible for processing changes in PI and Key Personnel effort should be performed to ensure that prior approval is obtained as needed for reductions in effort meeting this criteria. Monitoring of payroll reports will also help detect changes that were implemented without ACTRI Administration's knowledge, so that appropriate action can be taken.

Salary Limitations

NIH and the CTSA award require that the salary rate of the individuals paid on the grant does not exceed the current salary cap². During our review, we noted that an ACTRI Administrator was paid at a salary rate in excess of NIH salary cap for two months in the Year 3 budget period ending March 31, 2018 due to an oversight in implementing a salary adjustment resulting from merit review. The error was discovered and an adjustment was made on the 3rd month of payment. The same error was made and was not corrected in prior years. In addition, four other personnel were paid above cap during the first year of the award, and three during the second year of the award. The errors in prior budget

² Guidance on Salary Limitation for Grants and Cooperative Agreements:
<https://grants.nih.gov/grants/guide/notice-files/NOT-OD-18-137.html>

periods had not been corrected. Details have been provided to ACTRI Administration under separate cover.

Fund manager awareness and periodic review of payroll charges, adjustments and rate changes should help in ensuring compliance with NIH requirements on salary limitations. However, we observed that new fund managers at ACTRI lacked familiarity with the payroll process and federal award requirements to identify these issues. Additional training and supervision should also help ensure proper monitoring of payroll charges.

B.	Recharge Billing
Data obtained from the Service TRacker application was not reconciled with the billing file to support the accuracy and completeness of hours billed, and revisions to service provider billable hours were not adequately documented.	
Risk Statement/Effect	
Lack of reconciliation may result in incomplete or inaccurate hours billed. Inadequate documentation may also result in disallowance of charges to federal grants.	
Management Action Plan	
B.1	ACTRI Administration implemented a new third-party application to support recharge time tracking and billing, eliminating duplicate entries and manual revisions to original data input, thereby producing clean and supported data for recharge billing. The new system also requires appropriate sign-off on any subsequent revisions to ensure hours reported and billed are properly authorized, which allows ACTRI Administration to adequately support actual hours billed.

B. Recharge Billing – Detailed Discussion

ACTRI Biostatistics utilized Service TRacker, a program developed by ACTRI for purposes of tracking time spent on a specific project to support the recharge of those hours to the appropriate fund source. The program was built to run on any device, and was developed in-house using a database of IRB protocol numbers, PI names, types of services and staff approved to perform such services, as well as approved recharge rates. Biostatisticians, coordinators, and Principal Investigators enter billable hours spent on a specific service for a specific project. Service TRacker was rolled out to Biostatistics in January 2018. Version 2 was released and implemented in May 2018.

ACTRI Administration processed the recharge service billing based on the data obtained from the Service TRacker application. A file containing Service TRacker data was sent monthly to the Fund Manager. The Fund Manager prepared billing calculations and the related accounting journal entries based on this data. The Fund Manager also processed accounting journal based on pre-calculated billing information obtained from other self-supporting activities that did not utilize the Service TRacker. The accounting entries were reviewed and approved by the ACTRI Operations Director before being processed by the Fund Manager.

During our review, we noted that the file containing data obtained from the units utilizing Service TRacker application required additional work by the ACTRI fund manager before it could be processed, including updating and revising billable hours, and identifying appropriate index and IRB protocol number for the recharge. The data file obtained from Service TRacker was first copied to an Excel file formula sheet for calculation of the amount for billing. Revisions to the data were then made on the formula sheet. After calculating the amount of services provided, a billing notice was sent to the PI via email, and the billing data uploaded in Access database to generate an accounting journal. However, no notations were made in the billing file to indicate which hours were revised, and how the new information was received.

We sampled ten recharge transactions, we noted variances in half of them related to hours on source data and billing calculation worksheets. The Fund Manager was able to provide copies of the emails from coordinators, and their supervisor's approval, to support the revisions for two out of the five variances. The source data was not available for one of the sample, and the other two variances were due to subsequent revisions to the source data worksheet. We also observed that while the recharge billing sheets supported calculation of amounts billed, the original Service TRacker data file and the hours logged in Service Tracker were not reconciled with the billing file to document and ensure hours billed and revisions made were accurate and authorized.

Sample No.	Service	Ledger Amount	Total Hours on Data Worksheet	Total Hours on Billing Worksheet	Variance*	% Variance
1	Biostatistics	\$4,620	(not available)	132.92	(not determined)	(not determined)
3	Biostatistics	\$1,575	21.75	26.25	4.5	21%
6	Coordinator	\$53,415	939	979	40	4%

**Variance due to incomplete information on source data which required additional work by the fund manager.*

Because the original data received by the Fund Manager did not appear reliable, we were unable to verify the percentage of actual hours billed against reported billable hours. ACTRI administration relied on the revised data on the billing calculation worksheet as the more accurate data for tracking billable hours. We did not identify any variance between the amounts in the accounting journal and the billing worksheet. The rates used were consistent with published rates, and the amounts calculated and charged to each project index were accurate.

We were advised that in the older version of Service TRacker, various parameters were left open and generic to allow for flexibility and to identify additional opportunities for improvement. However, this resulted in incomplete and inconsistent data that created additional work for the Fund Manager to process the recharges. Coordinators contacted the Fund Manager directly to change the hours or make corrections, or bypassed the system or the supervisors. The Fund Manager then contacted the unit supervisors via email for validation and approval.

To address those issues, the newer version of the Service TRacker required that all changes be entered in Service TRacker by the supervisor and must be made within a specific time frame prior to data analyses and submission to ACTRI Administration. Only the supervisor was provided override capability. Any change or override was tracked and reported to the Recharge PI in order to ensure responsibility for data accuracy and reliability. However, we noted that the Fund Manager continued to send the Service TRacker report to Coordinators to verify their hours as the service providers continued to express lack of confidence in Service TRacker data accuracy. We were advised that

revisions were monitored closely and began to decline, and overrides and revisions have been approved by the supervisor. Further, any recurring issues were being addressed in the succeeding Service TRacker update.

In the event of a federal audit, detailed records to support recharge transactions are required to support the hours billed. Inconsistencies or the absence of documentation to support revisions could result in disallowances.

At the conclusion of our review, we were advised that Service TRacker was replaced by a third-party application, Harvest, which was implemented as of October 1, 2018. However, ACTRI will continue maintaining the Service TRacker application to be marketed as one of ACTRI products and services available for use by internal and external customers.

C.	Non-Payroll Expenditures
We noted that business processes for non-payroll expenditures could be improved to ensure compliance with policy and regulatory requirements.	
Risk Statement/Effect	
The absence of effective controls could result in non-compliance with award requirements, disallowance of costs charged, and may place future grant funding at risk.	
Management Action Plans	
ACTRI Administration will:	
C.1	Require monthly review of charges and other activities on CTSA funds, and communicate with home departments to ensure that cost transfers are reviewed and coordinated with ACTRI Administration in a timely manner.
C.2	Implement procedures that will initiate timely communication and coordination with PI home department administrators including those of junior investigators and researchers receiving support from ACTRI.
C.3	Perform periodic examination of Express Card charges and travel expenditures to ensure expenses are valid, authorized, and in compliance with policy and regulatory requirements.

C. Non-Payroll Expenditures – Detailed Discussion

The following areas were identified as opportunities for improvement toward business office processes to ensure effective internal control and best practice:

Cost Transfers

NIH policy statement 7.5 *Cost Transfers, Overruns, and Accelerated and Delayed Expenditures* indicates that cost transfers to NIH grants should be accomplished within 90 days of when the error was discovered. It also indicates that transfers must be supported by documentation that fully explains how the error occurred and a certification of the correctness of the new charge by a responsible

organizational official of the recipient, consortium participant, or contractor. An explanation merely stating that the transfer was made "to correct error" or "to transfer to correct project" is not sufficient. The policy also indicates that "untimely discovery of errors could be an indication of poor internal controls. Frequent errors in recording costs may indicate the need for accounting system improvements, enhanced internal controls, or both." Similarly, University policy (*Business Finance Bulletin or BFB Section A-47 - Direct Costing Procedures*) requires cost transfers involving NIH funds be completed within 90 days of the end of the ledger review period in order to comply with NIH requirement of 90 days of the discovery of error.

We reviewed 26 electronic non-payroll expense transfers (ENPET) involving CTSA funds, and noted the ENPETs were due to the following reasons:

- 65% was due to lack of timeliness in identification of appropriate funds to charge expenditures,
- 35% was due to lack of timeliness in detection or identification of the errors, and
- 27% were due to ineffective monitoring process

For the ENPETS we reviewed, we noted 23% were initiated and processed by home departments and not coordinated with ACTRI. ACTRI Administration awards pilot project funds to qualified investigators to support developmental or early stage clinical and translational research projects. These awards are a one-year competitive awards up to \$30,000 per award, renewable up to two years. ACTRI Administration creates a sub-index to allocate funds to each award. The sub-index is provided to the investigator's home department for management of expenditures. While ACTRI Administration monitors balances on each sub-index, expenses charged and other activities were not reviewed in detail, nor were coordinated by the home department with ACTRI Administration resulting in little to no visibility on such activities.

We also reviewed 17 selected electronic payroll expense cost transfers (EPETs), and noted 10 were considered high-risk. Those transfers were completed more than 90 days from the date of the original payroll charges. In addition, we noted the adjusted payroll expenses after the EPET took effect were not always consistent with the information reflected in the payroll system. It appeared that the personnel payroll system (PPS) was not updated timely when an EPET was completed.

Effective and timely coordination and communication with other departments, as well as periodic review of activities on all CTSA indexes should help in strengthening controls and identifying and correcting errors in a timely manner.

Travel Expenditures

In addition to proper routing of expenditures to authorized individuals, expenditure approvals require review to ensure conformance to policy prior to approval. We selected 14 transactions for travel expenditures for the period April 01, 2017 through March 31, 2018 totaling \$48,560 and analyzed for compliance with University travel policy (G-28 Travel Regulations). In general, University policy governing travel requires all official UCSD travel to be preauthorized, submitted timely (within 21 days of travel), and to be properly supported. Expenses should be submitted within 21 days, and expenses submitted after 45 days may be treated as taxable income to the employee.

Of the 14 transactions sampled, 10 transactions totaling to \$34,926 were charged to CTSA funds, and the rest charged to self-supporting activities and other ACTRI funds. During our review, we noted the following instances of noncompliance with policy:

- Four transactions (29%) did not include adequate documentation:
 - One included payment for one extra day prior to conference start date with no justification provided,
 - Actual airfare receipt was not provided for two transactions, instead, a flight reservation was attached which does not fully substantiate the airfare paid,
 - One did not include a detailed receipt for meal expenses claimed to effectively evaluate the costs associated with the meal charged,
- Three transactions (21%) were not submitted/reconciled timely, increasing risk for tax liability for the traveler,
- In three or 21% of the sample, the approver reported to the traveler, which is precluded by University policy (G28, Travel Regulations),
- One was not pre-authorized, and
- One travel expense was not coded correctly.

Observations	CTSA Main (U)	CTSA (KL2)	CTSA (TL1)	Other Non-CTSA	Total
Not adequately supported	1	2		1	4
Not submitted timely		2		1	3
Approver reports to Traveler	2			1	3
Not pre-authorized	1				1
Incorrect Expense Account Code	1				1
# of Samples Reviewed	4	5	1	4	14
Total Amount of Samples Reviewed	\$11,247	\$20,900	\$2,778	\$13,634	\$48,560

Fund managers should ensure that detailed receipts are provided to enable review of these transactions to ensure that unallowable costs are not charged to a federal award. Detailed receipts assist in evaluating whether charges are allowable on the CTSA funds and should be considered in the in the fund manager review of support documents.

Express Card Purchases

UCSD Express Card is a procurement card for faculty and staff who have purchasing authority. Cardholders are required to upload original receipt within 10 days, and each transaction is reviewed by the assigned administrator or reviewer. Express Card purchases are initially charged to a default account code, which should be reclassified to appropriate expense account during review of transaction. To tighten controls in small value purchasing authority, ACTRI previously inactivated several Express Cards issued in past ACTRI administration, resulting in only five active Express Cards in ACTRI. However, the home departments for investigators and award recipients may use their Express Cards for small purchases and charge the expenses to an index assigned to funding support from ACTRI. During our review of 20 judgmentally selected Express Card purchases, we noted that:

- 30% remained in default expense account code,
- 25% did not include adequate documentation uploaded in Express Card Manager tool.

ACTRI administration should remind staff to utilize proper procurement methods and periodically examine Express Card charges not processed through ACTRI to ensure charges are appropriate and adequately supported.

D.	Financial Oversight
Controls for monitoring and oversight of financial activities could be improved to ensure the appropriate use of funds and compliance with University policy.	
Risk Statement/Effect	
The absence of appropriate monitoring controls for financial activity increases the risk of inappropriate use of grant funds and/or the lack of supporting documentation for expenditures. Adequate oversight and monitoring of transactions is necessary to ensure that transaction errors are quickly identified and resolved.	
Management Action Plans	
ACTRI Administration will:	
D.1	Implement procedures requiring fund manager review and approval of ledger reconciliation. The review should include consideration of whether the transaction is properly documented, allowable, and/or additional review is required. Frequent review of UCSD Bookstore and online purchases, and frequent charges under the same expense categories should also assist in timely discovery of errors or irregularities.
D.2	Implement Control Tracker, and evaluate whether the Transaction Sampling tool meets the unit's needs for ledger review. If Transaction Sampling will not be used, ACTRI should discontinue participation in the program.
D.3	Update the electronic approval hierarchies to ensure proper authority for approving transactions and expenditure so that approval authority is either at peer or supervisory level.

D. Financial Oversight – Detailed Discussion

Oversight and monitoring of financial activities is necessary to ensure strong controls over grant and other funds received and distributed to qualified recipients and members of the ACTRI community. Financial management activities could be improved to ensure stronger controls over departmental funds. The absence of appropriate controls for financial activity increases the risk of inappropriate use of department funds and/or the lack of supporting documentation for expenditures.

Ledger Review

University policy (*BFB A-47 Direct Costing Procedures*) requires that monthly reports be reviewed within 30 days of report issuance to verify the accuracy and validity of all revenues and expenditures. Operating ledger review assists in the analyses of an organization's transactions in order to provide reasonable assurance that recorded accounting charges and credits are valid and adequately supported. During the ledger review process, transactions are verified to ensure they are appropriate and compliant with all applicable policies and regulations. As a recipient of funds from a variety of

sources, the University has responsibility to ensure that resources are used as intended and that financial records are complete and accurate. Ledger review provides accurate and information of award spending activities. Examination of transaction records against approved award budget should be performed on a regular basis to verify accuracy, appropriateness, and compliance with federal requirements.

During our review, we noted that while fund balances were regularly monitored, ledger transactions were not consistently reviewed. For example, in reviewing a sample of 19 Bookstore purchases, we noted two of the sample charged to pilot funds were not reviewed in detail by ACTRI administration as the index was managed in the awardee's home department. We also noted Bookstore and other purchases erroneously charged to the pilot award master index which was restricted for any charges.

Because of the volume of transactions and adjustments required resulting from lack of oversight from prior administrative staff, ACTRI administration focused on ensuring funds are not overspent and that financial projections are monitored as part of deficit management process. In addition, because fund managers were new to the process, the lack of experience and familiarity in award and budget requirements also contributed to the challenge in monitoring ledger activities. As a result, ledgers were not regularly monitored. The Operations Director at the time recognized this weakness and indicated that ledger review was next on the list of training requirement for new fund managers.

Transaction Sampling

On a monthly basis, departments who participate in the Transaction Sampling program are required to validate transactions posted to the operating ledger to ensure expenditures, liens, and revenues are correct, accurate and reasonable. The Transaction Sampling process randomly selects a sample of department financial transactions to be evaluated by department personnel during the ledger reconciliation and account validation process. The evaluation process includes verifying amounts to supporting documentation, resolving exceptions, and ensuring that corrective actions are taken in a timely manner. After the review is completed, transaction processing errors are identified by error type, and corrected. Departments should complete the transaction sampling process on a monthly basis, prior to the closing of the following month's ledger.

We noted that Transaction Sampling had not been performed on a regular basis. ACTRI Administration had not completed a review of all sampled transactions as part of their recurring reconciliation activities.

We reviewed transaction sampling reports for activity that occurred from July 2016 through January 31, 2018. As of March 2018, we noted ACTRI did not complete review of sampled transactions for this time period for each of its five organization numbers. In order for the transaction sampling process to be regarded as a valid method of ledger review, all sampled transactions should be reviewed on a monthly basis. Failure to review the full sample of transactions increases the risk of not detecting erroneous or inappropriate transactions in a timely manner.

Organization #	Population	Sample	Not Reviewed
414828	7227	989	17%
434690	3488	274	20%
614828	231	40	15%
784828	365	133	100%
414829	144	13	100%

Approval Hierarchies

Another key control in monitoring financial activity is the appropriate assignment of approval authority in system hierarchies. We reviewed the department's expense approval hierarchies to determine whether the hierarchies had been assigned in accordance with University policy. We also reviewed approvals as part of detailed testing of selected expenditures and analyzed transaction reviewers for express card holders for compliance with UC policy. We noted that expense approval hierarchies were set up such that transactions could be approved by subordinate employees. Various University policies provide that payments for expenses should be reviewed and approved by an individual who does not report directly or indirectly to the person incurring (claiming) the expenditure (UC Policies *BFB G-28, Travel Regulations; BFB BUS-43, Material Management; BFB BUS-79, Expenditures for Entertainment, Business Meetings, and Other Occasions and; Accounting Manual D224-17, Delegation of Authority – Signature Authority*).

Marketplace shopper, buyer and approver roles for ACTRI were established in the Business Unit Management Tool (BUMT)³, however, those roles were not periodically reviewed and updated. We identified one separated Cancer Center employee listed as a Marketplace shopper for ACTRI. In addition, subordinate positions were assigned approver status for transactions initiated or claimed by their supervisors in MyPayments and MyTravel. We also identified a small volume of transactions and expenditures that were reviewed and approved by subordinates in our detailed review of non-payroll transactions. At the time of our review, we were advised that ACTRI is gradually working on improving their processes, and that the BUMT and approval hierarchy templates are yet to be reviewed and updated. Electronic Proposal Development (EPD) and standard entertainment were also delegated to ACTRI unit managers.

The establishment of appropriate roles in BUMT as well as IFIS approval hierarchies helps ensure segregation of responsibilities within the procurement processes, and increases assurance that purchase transactions are bona fide University expenses that comply with University policy.

Control Tracker and SAS 115 Documentation

UCSD utilizes Control Tracker to document the performance and certification of control activities in compliance with the Statement of Auditing Standards No. 115 (SAS 115). SAS 115 "Communicating Internal Control Related Matters Identified in an Audit" is an accounting standard that establishes guidelines for determining the seriousness of internal control issues.

We noted that ACTRI Administration had not been documenting the performance of key control activities in the Control Tracker tool, or performing regular review of Distribution of Payroll Expense reports, Journal Vouchers, and other transactions.

³ The Business Unit Management Tool (BUMT) works in conjunction with Marketplace, ECManager, MyTravel, MyEvents, and MyPayments to grant and manage certain roles. (Source: *BLINK Guidance*)