

RIVERSIDE: AUDIT & ADVISORY SERVICES

December 4, 2014

To: Gerhard Gierz, Chair
Department of Mathematics

Beverly McNeil
Interim Financial & Administrative Officer
Department of Mathematics

Subject: Internal Audit – Department of Mathematics

Ref: R2013-I

We have completed our audit of the Department of Mathematics in accordance with the University of California, Riverside Audit Plan. Specifically, our concerns include:

- Lack of audit trail on graduate student appointments in Summers 2011 and 2012
- Duplicate payments to a lecturer for a class in Summer 2012
- Incorrect title code used for graduate students handling qualifying exam preparation seminars during Summers 2011 and 2012
- Process and procedures in the procurement and selection of an independent consultant
- Misreported initial complement balances to the Dean's office, extension of expiration dates without proper authorization, and expenditures after fund expiration dates.

Our report is attached for your review. We will perform audit follow-up procedures in the future to review the status of management action. This follow-up may take the form of a discussion or perhaps a limited review. Audit R2013-I will remain open until we have evaluated the actions taken.

We appreciate the cooperation and assistance provided by your staff. Should you have any questions concerning the report, please do not hesitate to contact me.

Gregory Moore
Director

Attachment

Xc: Audit Committee Members
Jennifer Farias, Chief Financial & Administrative Officer

UNIVERSITY OF CALIFORNIA AT RIVERSIDE
AUDIT & ADVISORY SERVICES
MEMBER OF ASSOCIATION OF COLLEGE & UNIVERSITY AUDITORS

INTERNAL AUDIT REPORT R2013-I
DEPARTMENT OF MATHEMATICS
DECEMBER 2014

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**UC RIVERSIDE
DEPARTMENT OF MATHEMATICS
INTERNAL AUDIT REPORT R2013-I
DECEMBER 2014**

I. MANAGEMENT SUMMARY

Based upon the results of work performed within the scope of the limited review, it is our opinion that, overall, the Department of Mathematics' (Math) system of internal controls is operating satisfactorily and generally in compliance with University policies and procedures.

Positive observations include:

- Prior to this audit, the then incumbent Financial & Administrative Officer (FAO) identified a questionable contract on the development and maintenance of the department's shadow systems. Working with the Purchasing Department, the FAO immediately initiated the termination of the contract.
- Prior to this audit, the FAO also identified erroneous payments to lecturers primarily due to incorrect salary rates entered in the Payroll/Personnel System. Subsequently, the FAO made the corresponding adjustments to correct prior wages paid to lecturers.

We observed some areas that need enhancement to strengthen internal controls and/or effect compliance with University policy:

1. Incorrect title codes were used for graduate students assigned to handle Math qualifying exam preparation seminars. Appointment letters for graduate students who handled summer qualifying exam seminars and the corresponding calculation of their lump-sum wages were not provided. Likewise, a Lecturer was paid twice for the same class in Summer 2012. (Observation III.C)
2. The procurement and selection of an independent consultant for the purpose of developing a FileMaker Pro database was not in accordance with University policies and federal regulations. (Observation III.D)
3. The Math department misreported Initial Complement balances to the Dean's office, extended expiration dates without proper authorization, and authorized expenditures after fund expiration dates. (Observation III.F)

These items are discussed in Section III. Minor items that were not of a magnitude to warrant inclusion in the report were discussed verbally with management.

II. INTRODUCTION

A. PURPOSE

University of California, Riverside Audit & Advisory Services (A&AS), as part of its Audit Plan, performed a limited review of Math's system of internal controls to evaluate compliance with certain University policies and procedures, efficiency and effectiveness of selected operations and adequacy of certain internal controls.

The specific audit objectives were to:

1. Review and evaluate internal controls and administrative procedures.
2. Determine that procedures resulted in operational efficiency and effectiveness, as well as adequately providing accounting control.
3. Evaluate the reasonableness, validity, and propriety of selected expenditures including whether expenditures incurred result in the achievement of program objectives.
4. Determine compliance with selected University policies and procedures.

B. BACKGROUND

Math is a department under the supervision of the College of Natural and Agricultural Sciences (CNAS). In Spring 2013, there were 64 graduate students and 275 undergraduate students in Math. Math has a faculty complement of 22 ladder faculty, seven lecturers, and 14 visiting appointees.

In Fiscal Years (FY) 2012-2014, there was significant turnover in Math's administrative and financial management as follows:

- The former FAO who was hired on October 10, 2007 transferred to then Finance and Business Operations (FBO) (now Business and Administrative Services, BAS) on July 9, 2012. The then incumbent FAO was appointed on October 22, 2012 and left to join UC PATH on July 1, 2013, after which the Air Pollution, Earth, and Environmental Sciences (AEE) FAO assumed responsibilities to handle Math's administrative and financial

management. The FAO of the Department of Biology and Cell Biology & Neuroscience and the Natural Reserve System (BNN Administration) currently serves as the Interim Math FAO.

- The former Analyst II who was hired on November 1, 2011 was appointed as interim FAO but she also transferred to then FBO (now BAS) on December 1, 2012. The replacement Analyst II was appointed on January 19, 2013 and transferred to Chemical/Environmental Engineering on June 19, 2013.
- The Student Affairs Officer (SAO) I hired on August 10, 2011 separated on October 11, 2012. A retired UC employee was recalled and appointed as SAO I from November 20, 2012 through April 30, 2013. Responsibilities of the SAO I were centralized under CNAS Dean's Office Biological Sciences Graduate Student Affairs Center (BSGSAC) beginning May 1, 2013.
- Upon centralization of CNAS departments' payroll operations on January 7, 2013, the Math Administrative Assistant III responsible for payroll was transferred to the Non-Academic Payroll Services Unit (NAPSU).

C. **SCOPE**

A&AS reviewed selected records supporting transactions that occurred between July 1, 2011 and March 31, 2013, and examined procedural controls relating to the following major administrative areas:

1. Internal Controls

Reviewed and evaluated Math's control environment, processes, and procedures through an Internal Control Questionnaire (ICQ) completed by the FAO and subsequent interviews, as well as our independent observations.

2. Financial Analytical Review

Performed a financial analytical review of expenditure accounts in FYs 2008-2009, 2009-2010, 2010-2011, 2011-2012, and 2012-through March 2013. The review included identifying unusual trends or fluctuations and explanations for any significant variances.

3. Independent Consultant Agreement

Reviewed the former FAO's process in the procurement and selection of an independent consultant that developed the department's FileMaker Pro (FMP) database that included a Graduate Student Database, Mail Merge & Reports, Textbooks Database, Key Database,

Data Import, and monthly maintenance. The corresponding purchase orders and payments made by the department were also reviewed.

4. Academic and Teaching Assistant Payroll

Using SuperDOPE, reviewed the Teaching Assistant compensation paid by Math during Summers 2011 and 2012. Also, we reviewed their appointments in the Payroll/Personnel System (PPS) and the corresponding salary rates.

5. Initial Complements

Reviewed the initial complements of six faculty members hired between FY 2006 and FY 2011. Specifically, we reviewed appointment letters, documentation supporting Dean's office extension of expiration dates, funding entries, and expenditures. We also recalculated the remaining balances of these initial complements and compared these with balances reported by the Math department.

6. Contracts and Grants

Reviewed the March 31, 2013 active contracts and grants, and determined whether any had deficits.

D. INTERNAL CONTROLS AND COMPLIANCE

As part of the review, internal controls were examined within the scope of the audit.

Internal control is a process designed to provide reasonable, but not absolute, assurance regarding the achievement of objectives in the following categories:

- effectiveness and efficiency of operations
- reliability of financial reporting
- compliance with applicable laws and regulations

Our substantive audit procedures were performed in April and May 2013 (not inclusive). Accordingly, this evaluation of internal controls is based on our knowledge as of that time and should be read with that understanding.

III. OBSERVATIONS, COMMENTS, AND RECOMMENDATIONS

A. Internal Controls

A&AS reviewed and evaluated Math's overall organizational structure and controls to ensure that these are conducive to accomplishing their business objectives through the completion of the ICQ.

Since her appointment to Math, the then incumbent FAO had instituted changes in the department's administrative and financial operations in order to be compliant with the University's policies and procedures. Our review did not disclose any exceptions.

B. Financial Management

Overall expenditures during the last five fiscal years remained, more or less, at the same level, as follows:

- FY 2008-2009 - \$7.0 million
- FY 2009-2010 - \$6.9 million
- FY 2010-2011 - \$7.3 million
- FY 2011-2012 - \$7.4 million
- FY 2012-2013 - \$7.1 million

Approximately 93% of total expenditures were funded by 19900 funds. Increases in expenditures appeared reasonable and no unusual trends in expenditures were detected that could not be explained.

C. Academic and Teaching Assistant Payroll

Incorrect title codes were used for graduate students assigned to handle Math qualifying exam preparation seminars. Appointment letters for graduate students who handled summer qualifying exam seminars and the corresponding calculation of their lump-sum wages were not prepared. Likewise, a Lecturer was paid twice for the same class in Summer 2012.

COMMENTS

A review of Math's Distribution of Payroll Expense (DOPE) for Summers 2011 and 2012 (July through September) disclosed the following:

1. Graduate students were paid under the following Title Codes (TC):
 - 2310 Teaching Assistant (TA) – Graduate Student Health Insurance Premium (GSHIP)
 - 2300 Teaching Fellow - GSHIP
 - 1501 Lecturer in Summer Session

Generally, summer classes are handled by Summer Session and therefore, TA appointments during the summer should only occur at Summer Session. In Summers 2011 and 2012, Math had two and six graduate students, respectively, given TC 2310. The appointments appear to be for handling the Math Qualifying Seminars.

The Graduate Student Employment Manual enumerates the TA responsibilities including consulting with the professor in charge of the course on grading, course content, procedures, and proctoring. It was not clear whether the Math TAs handling the Qualifying Seminars worked under any faculty members.

An inquiry with Academic Personnel disclosed that TC 2310 TA-GSHIP cannot be used during the summer because there is no GSHIP given during the summer. Likewise, unless they teach under the direction of a faculty member, graduate students cannot be given the TA appointment. For graduate students doing the Math Qualifier Exam Seminars, their actual duties should be determined and communicated to Academic Personnel so that the appropriate title code and corresponding salary rate can be used by Math. In General, there was no audit trail on the lump sum amounts paid by Math to its summer TAs. There were no appointment letters in the students' personnel files and the calculations to support the amounts were not available.

2. There was no audit trail on the lump sum amounts paid by Math to its summer TAs. There were no appointment letters as well as documented calculations of the lump sum payment amounts in the students' personnel files.

The Academic Student Employee (ASE) Union contract requires departments to provide a written notice of appointment to individuals offered an ASE appointment and the individual must sign the notice signifying acceptance of the offer.

3. A Lecturer assigned the Topology Qualifying Seminar in Summer 2012 was paid twice for the same class. The Lecturer was paid two lump sum amounts of \$4,836 each on July 31, 2012. One payment was made during the Monthly Current (MO) payroll processing and the other payment was made through a payroll adjustment (LX) in the Monthly Arrears (MA) payroll processing. Electronic mail (email) messages between the former FAO, former Student Affairs Officer, and PPS preparer showed the appointment was for 12 meetings in six weeks, from June 26, 2012 to August 2, 2012.

The appointment was entered in PPS but did not have the required appointment letter. Likewise, the calculation supporting the lump sum amount was not in the Lecturer's personnel file.

The Lecturer who obtained his doctorate degree on June 15, 2012 was given TC 1550, Lecturer in Summer Session. Generally, title codes with Summer Session are for use by Summer Session which offers summer classes.

Such overpayment should have been detected during the DOPE review by the interim FAO who would have also been the PPS mandatory reviewer on July 31, 2012.

4. Four graduate students were paid specific amounts ranging from \$1,000 to \$1,500 with funding coming from a National Science Foundation (NSF) grant. The payments were based on a July 2012 email from a Math Professor to the former Math Analyst II. The payments were made using TC 2310, TA – GSHIP.

The reason for the payments was not specified by the professor in his email. Since funding came from a federal research grant, it is unlikely that the payments were for teaching. If the payments were for research work, it would have been appropriate to use Title Code 3266 Graduate Student Researcher.

RECOMMENDATIONS

- Management should consult with Academic Personnel on the correct title code that should be used for graduate student appointees who handle the Math Qualifying Exam Seminars.
- In compliance with the ASE Union contract, the Math Department should provide an appointment letter to each graduate student appointed to an ASE-covered title. Graduate students accepting the offers should sign the appointment letters and a copy of the signed appointment letters should be retained in the graduate students' personnel files.
- The calculation of the lump-sum amount paid to appointees should be documented and retained in the graduate student's personnel file for audit purposes.
- Management, in coordination with the Payroll Office, should require the Lecturer involved to refund the wage overpayment of \$4,856.

- The department designated PPS mandatory reviewer should ensure the monthly DOPE review is adequately performed so that any errors are identified on a timely basis and any corresponding adjustments are immediately made.
- The justification for graduate students' wages paid out of federal contracts and grants should be clearly communicated to the Math administrative and financial staff so that the correct title codes are used.

MANAGEMENT RESPONSE

Consultation with Academic Personnel and Graduate Division determined an appropriate title code to use for graduate students tutoring for the qualifying exams. The graduate students are spending over 100 hours tutoring for one qualifying exam specialty (in Summer 2013 there were three exam specialties) and are paid an hourly wage based on an agreement letter they sign in order to accept this union covered employment. The signed appointment letter is kept in their personnel file at the CNAS payroll office. Timesheets are signed and submitted to the CNAS payroll office over the approximately 12 week period of employment.

Any research work done by graduate students with the faculty member is detailed in email requests from the faculty member, and clear salary rationale is demonstrated by hiring the student performing research as a grad student researcher (GSR) at an appropriate percentage of the salary which matches the GSR step. The current and future practice of the Mathematics department is that only the GSR and student assistant (for grads on filing fee status) title codes are currently used on any federal funds supporting graduate students.

The department designated PPS mandatory reviewer ensures the monthly DOPE review is adequately performed so that any errors are identified on a timely basis and any corresponding adjustments are immediately made.

The double-paid lecturer made arrangements with UCR's payroll office to pay back the excess wages (excess wages calculated by UCR Payroll office staff in consultation with the former FAO). Repayment has proceeded smoothly according to the knowledge of the then incumbent FAO and Chair.

D. Independent Consultant

The process and procedures followed by the former FAO in the procurement and selection of an independent consultant for the purpose of

developing a department FMP database was not in accordance with University policies and Federal regulation.

COMMENTS

Our observations and comments on the violation of University policy and Federal regulations noted in our investigation of the selection and the corresponding transactions affecting the independent consultant are contained in a separate report (R2013-IA).

Specifically, violations of UCR Campus Policy Numbers (CPN) 750-27, *Independent Consultant Agreements*, CPN 400-36, *Information Systems – Access for Affiliates and Eligible Students*, UC Standards of Ethical Conduct, and Family Educational Rights and Privacy Act (FERPA) were noted, that included the following:

1. UCR CPN 750-27

- a. Failure to prepare a written determination to justify the need for the independent consultant's services.
- b. Failure to submit the written justification to and obtain approval from the CNAS Dean's Office prior to commitment to the independent consultant.
- c. Failure to obtain a proposal or quotation from the independent consultant that includes, among other things, the consultant's qualifications, description of the service, and the total cost of the project.
- d. Failure to coordinate with the Purchasing Department on the preparation of an Independent Consultant Agreement. Using purchase orders when the policy expressly prohibits the use of purchase orders.
- e. Failure to obtain the independent consultant's statement/affirmation that states, to the best of his knowledge, there exists no actual or potential conflict of interest between the consultant's family, business, or financial interests and the services provided.

2. UCR CPN 400-36

- a. Failure to conduct a background check on the vendor.
- b. Failure to have the vendor sign confidentiality and system access documents.

3. FERPA

Failure to give the students the opportunity to “opt out” in disclosing their personal information.

4. UC Standards of Ethical Conduct

- a. Assisting the vendor in the establishment of the maintenance fees relating to the databases.
- b. While on University time, marketed to another department the FMP database.

Upon the initiative of the then incumbent FAO, in coordination with UCR Materiel Management (Purchasing), the contract was terminated in January 2013 because the FMP database was deemed redundant and unnecessary.

RECOMMENDATIONS

Any future need for an independent consultant should follow the requirements of the above policies and regulation.

MANAGEMENT RESPONSE

The incumbent FAO and incumbent Faculty Chair agree to seek CNAS Dean’s office approval in the event that an independent consultant agreement is required. The FAO and Chair also agree to obtain a proposal and coordinate with Purchasing in the preparation of an Independent Consultant Agreement. The FAO and Chair will require the independent consultant to affirm in writing that they have no conflict of interest related to the services provided. The FAO and Chair will require a background check of the vendor and have the vendor sign confidentiality and systems access documents. The FAO and Chair will give students the opportunity to “opt out” in disclosing their personal information, and will handle vendor relations with high ethical standards--for example by not giving a vendor the advantage of “inside information” about appropriate fees to charge or introduction/marketing to contacts/colleagues across UCR.

E. **Contracts and Grants**

As of March, 31, 2013, Math had 13 active contracts and grants with awards totaling \$1.5 million. Inception-to-date reports as of March 31, 2013 showed remaining balances totaling \$780,000. There were no contracts and grants with deficits. The Analyst II monitors expenditures charged to the contracts and grants and provides the Principal Investigators with monthly financial reports.

F. Initial Complements

The Math department misreported initial complement balances to the Dean's office, extended expiration dates without proper authorization, and authorized expenditures after fund expiration dates.

COMMENTS

We reviewed initial complements for six faculty members hired between FY 2005-2006 and FY 2010-2011. Specifically, we reviewed appointment letters, documentation supporting Dean's office extension of expiration dates, funding entries and expenditures. We also recalculated the remaining balances for the initial complement and compared them with balances reported to the Dean's office by the Math department.

Without proper authorization, the Math department extended the initial complement fund balances for two faculty members, with no expiration date, for a 50% fee (50% of the initial complement balance was moved to Activity A01000 – Mathematics for department use and not reported nor remitted to the Dean's office). The department reported a zero initial complement fund balance to the Dean's office for FY 2011-2012 instead of a total of \$18,657 (\$7,557 and \$11,100 respectively for these two faculty members). These balances should have been remitted to the Dean's office in accordance with the appointment letters and guidelines. Instead, the department moved the balances to other Financial Accounting Units (FAUs): 50% of the balances to Activity A01867 - Mathematics Designated Funds, and the 50% fee was moved to Activity A01000 - Mathematics.

Other items noted include:

- a. One faculty member's initial complement balance expired on June 30, 2010 on a Dean's office's one year extension (with 10% fee). However, expenditures of \$1,550 were charged in FY 2010-2011 (after the expiration date) on the faculty member's cost center in the initial complement activity code.
- b. Another faculty member's initial complement balance expired on June 30, 2008. However, expenditures of \$2,235 and \$9,014 were charged in FY 2008-2009 and FY 2009-2010, respectively (after the expiration date) on that faculty member's cost center in the initial complement activity code.
- c. A third faculty member's initial complement balance expired on June 30, 2012. However, expenditures of \$620 were charged in

FY 2012-2013 (after the expiration date) on that faculty member's cost center in the initial complement activity code.

We also noted that initial complement balances for one faculty member were reported to the Dean's office as zero as of June 30, 2010 and June 30, 2011. However, funds in the amount of \$24,637 appeared to be segregated within the initial complement activity code as 'Teaching Buyout'; it appears that these funds were segregated for use after the authorized expiration date.

As of June 30, 2012, initial complement balances were reported to the Dean's office as \$600 and zero respectively for two other faculty members. However, we calculated the balances to be \$11,964 and \$9,722, respectively. We were unable to reconcile the differences.

Expenditures past fund expiration dates were noted for two faculty members not in the original sample as follows:

- \$7,534 in FY 2007-2008
- \$4,056 in FY 2008-2009
- \$1,241 in FY 2009-2010

RECOMMENDATIONS

The Math department should reconcile and accurately report initial complement balances to the Dean's office. The department should not enter into arrangements to extend initial complement funding beyond the expiration date in the appointment letter (the Dean's office is authorized to extend funds for one additional year), nor authorize expenditures after the fund expiration date.

MANAGEMENT RESPONSE

The current FAO and Analyst II both have extensive experience managing initial complements on other units on campus, and are aware of the expiration date limitations and the need for timely and accurate reporting to all interested parties. An additional control was put in place by the CNAS Dean's office. An annual report form for each new faculty member's initial complement is sent to the departments for updating around fiscal close. This annual report form includes all years of the agreed initial complement, and the reporting for subsequent years also includes prior year's data. The report is a comprehensive look at the spending trends for each year, as well as any balance remaining at expiration of the initial complement. Thus there is full accountability between several CNAS Dean's staff and the departmental financial staff regarding the status of any initial complement funds at fiscal close each year.