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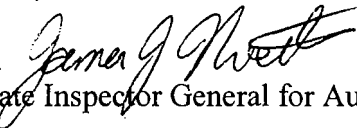
OFFICE OF  
INSPECTOR GENERAL

**MEMORANDUM**

Date: March 3, 2008

To: Mary F. Santonastasso  
Division Director, Division of Institution and Award Support  
(BFA/DIAS)

Karen Tiplady  
Division Director, Division of Grants and Agreements (BFA/DGA)

From: James J. Noeth   
Deputy Associate Inspector General for Audits

Subject: OIG Report Number 08-1-004  
Audit of Effort Reporting System, University of California - Berkeley

Attached is the final report prepared by M. D. Oppenheim & Company, P. C., an independent public accounting firm, on the audit of the payroll distribution and effort reporting system used by the University of California, Berkeley (UCB) to support salary and wages charged to NSF grants. The University's comments to the draft report have been summarized after the recommendations for each audit finding and the auditor's response has been provided to these comments. The full text of the University's comments is included as Appendix B to the audit report.

The audit found that UCB generally has a well established Federal grants management program. However, because the University has decentralized many of its grants management functions to the Academic Departments, UCB needs to improve its internal controls to ensure proper implementation and oversight of its labor effort reporting system. Without timely or appropriate controls for certifying labor effort reports, UCB has less assurance that the certifications are reliable and reasonably support salaries and wages charged to NSF's sponsored projects.

We consider UCB's internal control procedural weaknesses identified in the audit findings to be significant. Accordingly, we request that your office work with the University and the cognizant audit agency, the Department of Health and Human

Services (DHHS), to develop a written Corrective Action Plan detailing specific actions taken and/or planned to address each audit recommendation. Milestone dates should be provided for corrective actions not yet completed.

To help ensure the recommendations are resolved within six months of issuance of the audit report pursuant to Office of Management and Budget Circular A-50, please coordinate the development of the Corrective Action Plan with our office during the resolution period. Each audit recommendation should not be closed until NSF, in coordination with DHHS, determines that UCB has adequately addressed the recommendation and proposed corrective actions have been satisfactorily implemented. Please note that we have sent a copy of the audit report under separate cover to Jon D. Crowder of DHHS-OIG.

#### OIG Oversight of Audit

To fulfill our responsibilities under Generally Accepted Government Auditing Standards, the Office of Inspector General:

- Provided a detailed audit program for the performance review and ensured M.D. Oppenheim's approach and planning for the audit was appropriate;
- Evaluated the qualifications and independence of the auditors;
- Monitored progress of the audit at key points by accompanying M.D. Oppenheim auditors onsite at the grantee;
- Held periodic meetings with M.D. Oppenheim to discuss audit progress, findings, and recommendations;
- Reviewed the audit report, prepared by M.D. Oppenheim, to ensure compliance with Generally Accepted Government Auditing Standards and the NSF Audit Program; and
- Coordinated issuance of the audit report.

M.D. Oppenheim is responsible for the attached audit report on UCB's payroll distribution and effort reporting system and the conclusions expressed in the audit report. The NSF OIG does not express an opinion on the audit report's conclusions.

We appreciate the cooperation that was extended to us during our review. If you have any questions, please feel free to call me at 703-292-5005 or Jerel Silver at 703-292-8461.

Enclosure

cc: Gilbert Tran, Technical Manager, Office of Management and Budget  
Thomas Cooley, Director and Chief Financial Officer, BFA/OAD  
Alexander Wynnyk, Branch Chief, BFA/DIAS  
Charles Zeigler, Special Assistant, BFA/DIAS

# **Audit of Effort Reporting System**

**University of California, Berkeley  
Berkeley, California**

**National Science Foundation  
Office of Inspector General**

**February 29, 2008  
OIG 08-1-004**

Audit Performed by:  
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## EXECUTIVE SUMMARY

This audit report provides the results of our review of the Payroll Activity Report (PAR) system used by the University of California, Berkeley (UCB) to support salaries and wages charged to National Science Foundation (NSF) awards. In fiscal year 2006, UCB had total Federal sponsored projects of approximately \$310 million, of which \$89 million or 29 percent were funded by NSF. Of this amount, over \$26 million or 29 percent were for labor costs directly charged to NSF awards. This audit is one of a series of Office of Inspector General (OIG) reviews of the labor effort distribution systems being conducted at NSF's top-funded universities to assess the adequacy of internal controls to ensure salary and wage costs claimed on NSF grants are properly managed, accounted for, and monitored.

Our review disclosed that UCB generally has a well established Federal grants management program. However, because the University has decentralized many of its grants management functions to the Academic Departments, UCB needs to improve its internal controls to ensure proper implementation and oversight of its PAR system. Our review of a sample of 30 employees,<sup>1</sup> with total FY 2006 NSF salary charges of \$850,781, found that the PAR system did not always ensure that salary and wages charged to NSF awards reasonably reflected actual work performed on the sponsored projects. Without sufficient internal controls, we found that for 8 of the 30 employees tested, representing 14 percent of the NSF salary charges reviewed, UCB (1) did not have appointment letters documenting employee institutional base salary rates, (2) improperly charged employee work activities not directly benefiting NSF grants, and/or (3) did not have "suitable means of verification" documenting that the work effort charged was actually performed.

Furthermore, UCB needs to take aggressive actions to emphasize the importance of timely and appropriate PAR certifications. The significant number of PARs not certified until requested during the audit and reports with incorrect or missing approval dates demonstrate the lack of priority UCB certifying officials have given to certification of labor charges to Federally sponsored projects. Of the 56 PARs reviewed, 44 reports (78 percent) were either certified late or had inadequate documentation to determine the approval dates. Specifically, 16 reports (29 percent) were approved by UCB officials only after being requested during the audit, (b) four reports (7 percent) were incorrectly dated since the certification date was earlier than the PAR distribution date, and (c) eight reports (14 percent) were missing approval dates.

Without timely or appropriate controls for certifying labor effort reports, UCB has less assurance that the certifications are reliable and reasonably support labor costs charged to NSF's sponsored projects. As a result, we identified that 12 percent (\$103,637) of NSF salary charges were not supported by adequate documentation to validate the reasonableness of actual employee labor effort devoted. Furthermore, UCB inappropriately charged \$15,543 (2 percent) for employee activities not directly

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<sup>1</sup> The sample of 30 employees was statistically selected by a statistician engaged by the NSF-OIG.

benefiting the sponsored projects. The systemic nature of these control weaknesses raises concerns about the reasonableness and allowability of the remaining \$25 million in FY 2006 labor costs UCB charged to NSF grants and the labor portion of the University's \$221 million of other Federal awards.

These weaknesses occurred because UCB has not established adequate internal controls for its PAR system given the University's decentralized organizational structure for grants management. UCB has not established detailed written guidance for all PAR processes to ensure full compliance with Federal requirements, provided adequate training to all staff involved in the PAR process, and performed adequate monitoring to ensure all UCB Departments were complying with established PAR policies and procedures. Furthermore, contrary to Federal standards, UCB has not performed an independent internal evaluation to ensure that the PAR system was effective, forfeiting an opportunity to identify and address needed improvements.

To address these weaknesses, recommendations were made to improve UCB's internal control structure for PAR management and oversight. The recommendations were primarily directed at the need for employee training to ensure that cognizant Department and Academic staff fully understood their PAR responsibilities so that established procedures were accurately and consistently implemented. Also, we recommended enhanced UCB centralized monitoring of PAR processes be performed on an ongoing basis to ensure Departments comply with established campus policies and procedure. Finally, UCB needs to perform an independent evaluation of the PAR system, as required by Federal regulations, to assess the quality of the system's overall effectiveness.

A draft audit report requesting comments on the findings and recommendations was issued to UCB. In general, the University agreed to implement the audit recommendations and believed its new web-based Effort Reporting System will address many of the control weaknesses identified in the audit findings.

UCB's comments were generally responsive to the audit recommendations. NSF should work with the cognizant audit agency and/or UCB to ensure the University develops an acceptable corrective action plan to resolve each recommendation. It is essential for UCB to establish comprehensive written policies and procedures to clearly define the role and responsibilities of all campus personnel involved in its new web-based Effort Reporting System. Written policies and procedures are a critical element to a sound UCB internal control structure.

# Table of Contents

<b>EXECUTIVE SUMMARY</b>	i
<b>INTRODUCTION</b>	
Background	1
Objectives, Scope, and Methodology	2
<b>FINDINGS AND RECOMMENDATIONS</b>	
1. Improvements Needed in the Payroll Distribution And Effort Reporting System	5
2. Improvements Needed In Accurately Completing the Grant Proposal's Current and Pending Support Section	19
<b>APPENDICES</b>	
Appendix A-1 Schedule of FY 2006 Questioned Salaries and Wages	21
Appendix A-2 Schedule of FY 2006 Salary Charges Not Supported By Adequate Documentation	22
Appendix B: Berkeley Response to Draft Audit Report	23
<b>ACRONYMS</b>	
EFA	Extramural Funds Accounting Office
NSF	National Science Foundation
OIG	NSF Office of Inspector General
OMB	U.S. Office of Management and Budget
PAR	Personnel Activity Report
PDS	Payroll Distribution System
SPO	Sponsored Projects Office
UCB	University of California, Berkeley

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## INTRODUCTION

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### BACKGROUND

Approximately one third of the National Science Foundation (NSF) award funds are provided for salary and wages, amounting to about \$1.3 billion annually at universities. Also, in recent years, there have been several civil settlements involving overcharges of labor costs to Federal grants, amounting to millions of dollars at several major universities, including some funded by NSF. Because of these legal actions and the material amounts of labor costs paid from NSF awards, the Office of Inspector General (OIG) is undertaking a series of reviews of the labor effort distribution systems at NSF's top-funded universities in order to assess the adequacy of internal controls to ensure salary and wage costs claimed on NSF grants are properly managed, accounted for, and monitored. This audit, involving the University of California, Berkeley, is one of the planned reviews of such labor effort distribution systems.

The University of California, Berkeley's (UCB) fundamental missions are teaching, research, and public service. Teaching and educating students occurs at all levels, from undergraduate to the most advanced graduate level. Research is performed by some of the world's best researchers and brightest students in hundreds of disciplines. Furthermore, through its public service programs and industry partnerships, UCB disseminates its research results and translates scientific discoveries into practical knowledge and technological innovations. The University's active involvement in public-school partnerships and professional development institutes help strengthen the expertise of teachers and the academic achievement of students in many communities. UCB's total student enrollment for the fall 2006 semester consisted of 23,863 undergraduate and 10,070 graduate students. The number of University staff included 1,953 faculty members and 6,455 other academic-type staff (includes student assistants, researchers, academic administrators, and librarians).

UCB derives the majority of its funding from sponsored research projects, student tuition, and state subsidies. For fiscal year 2006, the total sponsored projects totaled approximately \$516 million, which included approximately \$310 million from the Federal Government, or 60 percent of total sponsored agreements. In addition, approximately \$89 million, or 29 percent of Federally-sponsored projects awards, were provided by NSF.

The University's management and oversight of Federal grant programs is shared between its Sponsored Projects Office (SPO) and the Extramural Funds Accounting Office (EFA). Primarily, SPO is tasked with pre-award grant activities and ensuring UCB compliance with Federal grant regulations and sponsoring agency requirements. As such, SPO develops UCB policies and procedures for Federal grants management and is charged with implementing appropriate training programs. EFA is responsible for financial administration and monitoring of active Federal awards. Specifically, it is responsible for compiling and distributing the Personnel Activity Reports (PAR) to all Academic Departments to provide for the certification of actual work effort devoted to Federally-sponsored projects.



Within each Academic Department, senior grants administrative officials are tasked with the management and oversight of sponsored projects to ensure compliance with Federal and University policies and procedures. Such officials typically assist and advise faculty members with the management of Federal grants and are responsible for ensuring that awards and their budgets are created accurately in the University's financial system; award expenditures are monitored on a monthly basis; and charges to Federal awards are appropriate. They also ensure PIs confirm the reasonableness of employee salary charges on their PARs. However, PIs have primary responsibility for all aspects of Federally-sponsored projects including approval of all charges and ensuring that the research is conducted in accordance with the award terms and conditions.

## **OBJECTIVES, SCOPE AND METHODOLOGY**

**Audit Objectives.** Our audit objectives were: (a) to evaluate whether UCB internal controls are adequate to properly manage, account for, and monitor, and report salary and wage costs on NSF grants in accordance with OMB and NSF grant requirements and (b) to determine if salaries and wages charged to NSF awards are allowable, allocable, and reasonable in accordance with Federal cost principles and NSF award terms and conditions.

**Scope and Methodology.** The audit focused on UCB's Personnel Activity Report (PAR) system and accordingly reviewed internal controls for ensuring that labor costs charged to NSF (i) were actually incurred, (ii) benefited NSF awards, (iii) were accurately and timely recorded and charged to NSF, and (iv) were for allowable and allocable-type activities as required by Federal and NSF requirements. In addition, we evaluated if the level of PI effort pledged in grant proposal and award documents was actually contributed by the faculty member to accomplish award objectives.

To address each of these control objectives, the NSF-OIG engaged a statistician to provide expert advice in selecting a statistical sample of employee salary records for testing. The use of statistical tools and methodology will enable projecting our audit results to the entire population of universities to be included in the planned reviews of payroll distribution systems nationwide. However, due to the small statistical sample size of 30 employees tested, we are not able to make any projections to the total UCB population of labor costs charged to NSF grants. Specifically, the FY 2006 salary and wage costs for the 30 sample employees tested amounted to \$850,781 and were supported by 56 PARs. Our statistical sample was derived from a total population of 1,994 UCB employees, who charged \$26.1 million of salaries to NSF grants during FY 2006. This population excluded (a) any employee with total salary costs of \$100 or less and (b) all salary charges for undergraduate students. These amounts were excluded because of their small dollar value and the difficulty in locating undergraduate students for personal interviews.

We compared UCB's policies and procedures to Federal and NSF requirements for allocating labor costs to Federal awards and interviewed UCB personnel to gain an understanding of the controls in place to ensure salary and wages charged to NSF awards were

reasonable and allowable. For each statistically selected salary record, we obtained the following documentation to determine whether labor costs UCB charged NSF awards met the control objectives:

- PAR effort reports documenting 100 percent of each employee's compensation allocated to sponsored and non-sponsored projects for each reporting period.
- Appointment letters or other documents supporting the approved annual salary for employees.
- Berkeley Accounting and Information Reporting System reports detailing the actual salary and wages charged to sponsored projects and other activities for each employee during each reporting period.
- Award documents to determine whether the grant had any terms and conditions that would affect allowable labor charges to the award.

To ensure that salary and wage costs charged to NSF awards were incurred and benefited NSF awards, we corroborated the information on PAR reports by interviewing the 30 sampled employees. We inquired whether (a) the labor charges documented were actually incurred on projects and activities, (b) the approximate percentage of effort actually worked on each sponsored project and/or activity was reasonably consistent with NSF labor charges, and (c) the type of work performed on NSF projects was generally consistent with the scope of the awards. We also interviewed selected administrative grants managers in Academic Departments to determine procedures for processing and monitoring employee salary charges to Federal grants. Additionally, we interviewed selected Principal Investigators (PI) to determine the number of projects and personnel they were responsible for and their processes for verifying work performance prior to approving and signing PAR effort reports.

To confirm that faculty effort pledged in grant proposals was actually contributed to accomplish grant objectives, we reviewed processes for reporting and tracking PI effort. We reviewed award documents for all Federal grants that a faculty member worked on during FY 2006 to determine the effort pledged on each project and compared this proposed effort to the approximate percentage of actual effort worked on the project. In addition, we determined whether and how UCB tracked and documented PI effort on sponsored projects when no faculty salary support was requested or reimbursed by the Federal Government.

To determine whether labor costs were accurately recorded and charged to NSF, we compared the amounts in appointment letters or other documentation supporting salaries and wages paid to the amounts recorded in the Berkeley Accounting and Information Reporting System for each individual in our selected sample. We recalculated salary and wage costs charged to NSF projects by using the salary shown on supporting documentation and

apportioning it by the period of time represented on the PAR effort reports. We also reviewed labor transactions to determine whether UCB followed Federal, NSF, and University requirements on charging labor costs to NSF projects.

The audit determined whether UCB officials approved and signed effort reports in a timely manner by comparing the date the PAR reporting period ended to the date the reports were approved and signed. Timeliness was based on UCB's internal policy requiring (i) a 2-month adjustment period to complete the closing process, (ii) a 1-month period for the Extramural Funds Accounting Office to generate the PARs and distribute to the Academic Departments, and (iii) an additional month for signature by a PI or other certifying official.

Finally, we reviewed prior audit reports on UCB's Federal grants management program performed by OMB Circular A-133 auditors and the University's internal auditors to determine whether there were any audit findings and recommendations on labor effort reporting. Specifically, we interviewed cognizant audit staff and reviewed the working papers, as needed, to gain an understanding of the scope and procedures used in any audits of UCB's payroll distribution reporting system and/or University management of labor costs charged to Federal projects. Review of the A-133 audit working papers is performed to ascertain the actual audit scope and procedures used by the auditors in order to (i) preclude any duplicative audit work and (ii) to determine the specific work performed on the labor effort reporting system. Accordingly, we met with UCB's A-133 auditors to discuss their overall audit scope and procedures used for reviewing salaries and wages charged to Federal awards and the labor effort reporting system.

Onsite audit work at the UCB campus was performed for 2-week periods during February and March 2007. The remainder of the audit work was completed through phone interviews, emails, and documentation requests through October 2007. We were engaged to perform the above audit objectives by the NSF-OIG and the audit was conducted in accordance with the Comptroller General's *Government Auditing Standards* and accordingly included such tests of accounting records and other auditing procedures, as we considered necessary, to fully address the audit objectives.

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## FINDINGS AND RECOMMENDATIONS

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### 1. Improvements Needed in the Payroll Distribution and Effort Reporting System

Federal grant requirements provide that salary and wage charges to sponsored projects be supported by labor effort reports signed and approved by the employee or an official who is in a position to know whether the work was performed. Such reports are required to represent 100 percent of an individual's activity and provide an after-the-fact confirmation or determination that the effort report reasonably represents the actual employee effort expended on sponsored projects. Although Federal requirements do not specify when a labor effort report should be completed, University officials should provide the after-the-fact confirmation as close to the end of the reporting period as possible to ensure its reliability.

Our review of 30 sampled employees, with total FY 2006 NSF salary charges of \$850,781, disclosed that UCB needs to improve its internal controls over its Personnel Activity Report (PAR) system to ensure salary and wages charged to NSF awards reasonably reflect actual work performed on the sponsored projects. Our review disclosed the following control weaknesses:

- Four employees did not have appointment letters or employment contracts documenting the base salary rate used to charge NSF grants or charged the award for more than the amount supported by the appointment letter.
- Thirty-one of 56 PARs reviewed were certified 2 to 412 days late for 20 employees, representing 40 percent of total salaries tested. An additional 13 reports, representing 21 percent of NSF salary charges, were either not dated, dated prior to the PAR distribution date, or were missing.
- Three employees reported 10 to 20 percent less actual effort worked on NSF grants during interviews than the labor effort certified on their PARs.
- Two Department administrative employees inappropriately certified NSF labor charges for two employees without "suitable means of verification" to validate the reasonableness of the actual work performed.

Without timely or appropriate controls for certifying labor effort reports, UCB has less assurance that the certifications are reliable and reasonably support labor costs charged to NSF awards. Specifically, the University did not have adequate documentation to validate the reasonableness of 12 percent (\$103,637) of actual salary costs charged by employees to meet the objectives of the NSF projects (see Appendix A-2). In addition, UCB inappropriately charged \$15,543 (2 percent) for employee activities not directly benefiting the NSF projects (see Appendix A-1). The systemic nature of these control weaknesses raises concerns about the reasonableness and allowability of the remaining \$25 million in FY 2006 labor costs charged to NSF grants and the salary portion of UCB's other \$221 million of Federal awards.

These weaknesses occurred because UCB has not established adequate internal controls to provide for proper administration and oversight of its payroll distribution and labor effort reporting system. Given the decentralized nature of the University's Federal grants management program, it is essential that detailed written PAR procedures be established, adequate training be provided to all staff involved in the PAR process, and better monitoring processes be established to ensure all UCB Departments fully understand and comply with established PAR procedures and processes. Furthermore, contrary to Federal standards, UCB has not performed an independent internal evaluation to ensure that the PAR system was effective, forfeiting an opportunity to identify and address needed improvements.

### OMB Requirements for Labor Effort Reporting

OMB Circular A-21, *Cost Principles for Educational Institutions*, requires certification of labor effort/activity contributed by employees on Federal awards. Specifically, paragraph J10.b. (2) states a payroll distribution system is required that will "...reasonably reflect the activity for which the employee is compensated by the institution; and encompass both sponsored and all other activities on an integrated basis." Such a system must provide for after-the-fact confirmation of employee activity by a responsible person with "suitable means of verification that the work was performed." The Circular also requires that the University provide for periodic independent internal evaluations to ensure the payroll system's effectiveness and compliance with the Federal standards.

Furthermore, Circular A-21 recognizes that each institution "should employ sound management practices" in applying the Federal cost principles for charging costs on sponsored projects and "must provide for adequate documentation to support costs charged to sponsored agreements."<sup>2</sup> Thus, UCB is required to have appointment letters or similar documentation (1) supporting an employee's institutional base salary and (2) defining the various responsibilities and activities for which the individual is being compensated. Procedures need to clearly establish that only employee activities directly benefiting Federally-sponsored agreements are allowed to be charged to such research projects.

Consistent with the Circular A-21 requirement for "sound business management practices," OMB Circular A-110, *Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations*,<sup>3</sup> requires entities receiving Federal awards to establish and maintain internal controls that are designed to reasonably ensure compliance with Federal laws, regulations, and program compliance. Further, OMB Circular A-133, *Audits of States, Local Governments, and Non-Profit Organizations*, defines internal controls as a "process effected by an entity's management and personnel, designed to provide reasonable assurance regarding the achievement of objectives in the following categories: (1) Effectiveness and efficiency of

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<sup>2</sup> Paragraphs A.2.d. and A.2.e of OMB Circular A-21, *Cost Principles for Educational Institutions*.

<sup>3</sup> Section .21 of OMB Circular A-110, requires that a grantee's financial management system provide for "Effective control over and accountability for all funds, property, and assets. . . . Written procedures for determining the reasonableness, allocability and allowability of costs in accordance with the provisions of the applicable cost principles and terms and conditions of the award."

operations; (2) Reliability of financial reporting; and (3) Compliance with applicable laws and regulations.” Internal control is considered a major part of managing an organization and comprises the plans, methods, and procedures used to meet missions, goals, and objectives. Management sets the objectives, puts the control mechanisms in place, and monitors, and evaluates whether the control is operating as intended. People are what make internal control work, thus sufficiently trained personnel in an organization and clear job descriptions and responsibilities are critical elements of a successful internal control program.

### UCB’s Payroll Activity Report System

Pursuant to the OMB requirements, UCB has established the PAR system to provide for reporting and after-the-fact certification of the reasonableness of salaries directly charged on sponsored projects and other activities on which an employee works. There are two 6-month PAR reporting periods and an additional reporting period for academic staff with summer appointments.<sup>4</sup> The Extramural Fund Accounting (EFA) office compiles and distributes the PARs to all UCB Departments. In turn, cognizant Departmental officials distribute the reports to PIs or certifying officials who are responsible for reviewing the PARs for accuracy, making any necessary corrections, and returning signed reports to their Departmental representative. UCB Departments are responsible for timely review and certification of the PARs and maintaining the signed reports.

Contrary to OMB requirements, UCB has not established adequate internal control processes to ensure the PAR procedures and processes adequately document that salary and wages charged to NSF awards reasonably reflected actual work performed. Specifically, (a) the rate of employee compensation charged to Federal grants was not always adequately documented; (b) after-the-fact certification of salary charges were significantly late; (c) work activities not allocable to Federal grants were charged to NSF awards; and (d) documentary evidence was missing to verify that “suitable means of verification” was used to validate the reasonableness of Federal salary charges.

### Institutional Base Salary for Employees Not Adequately Documented

UCB did not have adequate controls to ensure that salary rates used for charging labor costs to sponsored projects was appropriate and supported by adequate documentation. Our review found that 4 of 30 sampled employees (13 percent) were either missing appointment letters supporting their institutional base salary rates or charged NSF awards for more than the amount supported by such appointment letters. Specifically, UCB was missing the appointment letters for three employees, who charged \$59,305 or 7 percent of their total FY 2006 salaries tested of \$850,781. In addition, the institutional base salary recorded in the PAR system was higher than the amount shown in supporting documentation for one other employee, which resulted in NSF salary overcharges of \$5,565. These four individuals consisted of two faculty members, one post-doctorate scholar, and one graduate student; who worked in three separate UCB Departments. The following table summarizes our results.

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<sup>4</sup> UCB has a 6-month fall effort reporting period from July 1 thru December 31 and a 6-month spring effort reporting period from January 1 thru June 30. In addition, there is a 4-month summer effort reporting period for academic year professionals working on sponsored projects.

<b>Employee Institutional Base Salary Not Supported</b>			
<b>Position</b>	<b>NSF Salary Charges</b>	<b>Salaries Charged Without Appointment Letters</b>	<b>Salary Charges In Excess of Appointment Letters</b>
Post Doctorate	\$37,077		\$5,565
Graduate Student	19,772	\$19,772	
Faculty or PI	33,395	33,395	
Faculty or PI	6,138	6,138	
<b>Total</b>	<b>\$96,382</b>	<b>\$59,305</b>	<b>\$5,565</b>

For example, a [REDACTED] split [REDACTED] time in FY 2006 working on two NSF grants. The PAR allocated \$ 37,077 to the two NSF grants, but this amount exceeded the \$31,512 institutional base salary specified in the individual’s appointment letter by \$5,565.<sup>5</sup> Furthermore, UCB was missing appointment letters for two faculty members with NSF salary charges of \$33,395 and \$6,138. While the annual salary amounts used to compute the NSF salary charges appeared consistent with documented salary amounts for other faculty members reviewed, the documentation of each faculty member’s salary rate is essential because UCB pay scales include several rates for faculty pay based on academic title, number of years in the position, and the individual’s pay rate negotiated at the time of hire.

#### Certification of PARs Needs To Be More Timely

Although Federal regulations do not specify when labor effort reports should be reviewed and certified, UCB has established timeframes for PAR’s review and approval to ensure a timely and reliable certification process. From the end of a reporting period, the University has (i) a 2-month adjustment period for completing the closing process, (ii) a 1-month period to prepare and distribute the PARs to Departments, and (iii) an additional month for certifying officials to review and sign the reports. Therefore, the PARs are required to be certified within 4 months after a reporting period ends.

However, for 31 of 56 PARs tested, representing \$340,850 (40 percent) of labor costs charged to NSF grants, UCB certifying officials did not approve the PARs within the 4-month certification period, and in 6 instances, took 11 to 14 months after the distribution date to complete the certification. Furthermore, 16 of the 31 late PARs were certified only after being requested during the audit, raising questions on whether these labor effort reports would have ever been certified. For another 13 of the 56 PARs tested, representing \$181,234 (21 percent) of labor charges to NSF awards, we could not determine whether the reports were completed on time because eight reports were not dated, four reports were incorrectly dated since the certification date was earlier than the date the reports were distributed to certifying

<sup>5</sup> The employee was not overpaid because only the annual salary amount in the PAR system used to allocate labor charges to sponsored projects was overstated, not the salary rate in UCB’s payroll system.

officials, and one report could not be located. The following table summarizes the number of days beyond the UCB 4-month certification period that officials took to review and approve the PARs.

<b>Number of Days Late Beyond Certification Period</b>				
<b>Days Late</b>	<b># PARs</b>	<b>% of Late PARs</b>	<b>Total Salaries</b>	<b>% Late Salaries</b>
2 -100	12	21%	\$104,918	12%
101-200	11	20%	133,998	16%
201-300	2	4%	10,399	1%
301-400	3	5%	40,785	5%
401-412	3	5%	50,750	6%
<b>Not Certified Timely</b>	<b>31</b>	<b>55%</b>	<b>340,850</b>	<b>40%</b>
Timeliness not determinable <sup>6</sup>	13	23%	181,234	21%
<b>Subtotal</b>	<b>44</b>	<b>78%</b>	<b>522,084</b>	<b>61%</b>
PARS Certified On-Time	12	22%	328,697	39%
<b>Total</b>	<b>56</b>	<b>100%</b>	<b>\$850,781</b>	<b>100%</b>

Timely approval of PARs is essential to ensure labor charges to NSF grants are reliable because certifying officials are generally relying on their memory when approving reported work activity for themselves and the individuals that work for them. UBC officials must remember as far back as 10 months<sup>7</sup> to confirm such employee activity. Many PIs have multiple awards and many employees for whom they are responsible, which increases the risk that the PI's memory of the amount and type of activities performed will be less reliable as time increases past the established certification period. Thus, limiting the review and certification of PARs to the shortest amount of time possible helps ensure a more reliable certification of labor costs associated with such activities on Federal awards.

#### PARs Certified for More Labor Effort Than Worked on NSF Awards

Interviews of the 30 sampled employees found that the actual FY 2006 labor effort for three employees on NSF sponsored projects was less than what was reported and certified on their PARs, with deviations ranging from 10 to 20 percent. These differences were for employee activities that did not directly benefit the NSF grants and totaled \$9,978 of the NSF salary charges reviewed. Specifically, while three employees charged 100 percent of their salaries to NSF grants, (1) two employees stated that 10 percent of their effort was devoted to

<sup>6</sup> Of the 13 PARs, eight reports were not dated, one was missing, and four reports were dated prior to the distribution date.

<sup>7</sup> For the semi-annual PARs, the amount of time certifying officials have to recall work activities is 10 months because the report covers 6 months; adjustments take 2 months, compilation and distribution takes about 1 month, and return is 1 month.



writing grant proposals and (2) the third person, a [REDACTED], stated that [REDACTED] devoted 20 percent of [REDACTED] effort to mentoring students that was not directly associated with NSF grant objectives.

<b>Incorrect PAR Labor Effort Percentage</b>		
<b>Position</b>	<b>Number Of Individuals</b>	<b>Questioned Salary Costs</b>
Graduate Student	1	\$ 2,721
Other Professional	1	3,171
Post Doctorate	1	4,086
<b>Total</b>	<b>3</b>	<b>\$ 9,978</b>

Certifying Official Had Insufficient Means of Verification

UCB officials inappropriately approved the PARs for 2 of 30 sampled employees tested without “suitable means of verification” to validate the reasonableness of the NSF salary charges. Specifically, two Department administrative officials certified the PARs for two employees, representing \$64,104 (8 percent) of the total salaries reviewed, without having any first hand knowledge of the work performed or obtaining any documentary evidence to validate the NSF charges were for actual work performed on the sponsored projects.

<b>No Verification that Work was Performed</b>		
<b>Position</b>	<b>Number of Individuals</b>	<b>Salaries Charged to NSF Grants</b>
Graduate Student	1	\$ 19,772
Other Professional	1	44,332
<b>Total</b>	<b>2</b>	<b>\$ 64,104</b>

Specifically, one administrative official stated that until [REDACTED] completed a training class in recent months, [REDACTED] was not aware that Federal regulations required documentary evidence to validate that “suitable means of verification” was used to certify the reasonableness of salary charges to Federally-sponsored projects reported on PARs. Therefore, subsequent to the training, she had the [REDACTED] re-certify the PAR for the FY 2006 labor charges of \$44,332 for the professional staff member. The re-certification was the appropriate action to take, however, there is less reliance placed on such actions when the [REDACTED] certification was performed over a year later.

## Potential Excess Labor Charges

Without timely or appropriate controls for certifying labor effort reports, UCB can provide less assurance to sponsoring agencies that PARs are reliable in reasonably supporting salary and wages charged to sponsored projects. As discussed in the above report sections, control weaknesses resulted in the University (1) not having adequate documentation to support 12 percent (\$103,637) of NSF salary charges for 4 of 30 sampled employees (see Appendix A-2) and (2) overcharging \$15,543 (2 percent) of salary charges to NSF awards for activities of four employees not directly benefiting the sponsored projects (see Appendix A-1). In addition, late PAR certification or inadequate documentation to determine PAR approval dates for 61 percent of NSF salary charges reviewed increases the risk that such certifications are not reliable, particularly given that 11 percent of such labor costs were certified more than 10 months late. The systemic nature of these control weaknesses raises concerns about the reasonableness and allowability of the remaining \$25 million of FY 2006 labor charges to NSF grants as well as the salary portion of UCB's other \$221 million of Federal awards.

## Factors Contributing to Effort Reporting Weaknesses

These weaknesses occurred because the UCB has not established adequate internal controls to provide for proper management and oversight of its payroll distribution and labor effort reporting system to mitigate the risk of the University's decentralized organizational structure for Federal grants management. With each UCB Department primarily responsible for management of its own portfolio of Federal grants, it is imperative for the University to ensure that (i) detailed written PAR policies, procedures, and implementing guidance are established, (ii) adequate training is provided to all cognizant personnel to ensure full understanding of PAR processes, and (iii) monitoring of campus compliance is enhanced to ensure proper implementation of the PAR policies and procedures. Furthermore, contrary to Federal standards, UCB has not performed an independent internal evaluation to ensure that the PAR system was effective and in compliance with Federal standards, thereby forfeiting an opportunity to identify and address needed improvements.

- *Lack of Adequate Supporting Documentation for Institution Base Salary* – UCB Department staff are responsible for data entry into the PAR system to distribute employee effort to sponsored agreements and to validate the institutional base salary amount used for such allocations. However, UCB officials realized that due to the complexity of the academic personnel compensation program, such data entry processes are not always clearly understood by Department individuals. As such, the personnel office performs periodic checks throughout the year to ensure the PAR data is correct. When ongoing data entry problems are identified in specific Units/Departments, individualized instruction is provided.

However, the lack of adequate UCB documentation to support the institutional base salary rate used for charging labor costs to NSF grants for 4 of 30 (13 percent) sampled employees suggests that employees at both the Departments and the personnel office are not complying with established PAR procedures. As such, UCB needs to provide appropriate training to all personnel involved in the PAR process (1) to emphasize the

importance of maintaining appointment letters or similar documentation to support employee compensation rates used for charging labor costs to Federal awards and (2) explaining the process for correctly entering such salary amounts in the PAR system. Furthermore, the University needs to enhance its monitoring procedures to ensure the salary documentation issue is properly addressed and resolved, particularly given that UCB had already recognized this as an area in need of improvement.

- *Enhanced Monitoring And Clear Accountability Required to Improve Timeliness of PAR Certification* – While the Extramural Funds Accounting (EFA) office has issued appropriate UCB policies establishing timeframes for the various phases of compiling, distributing, and certifying PARs, it has not established any monitoring processes or controls to ensure PAR certifications are timely and/or actually completed. This occurred because UCB has decentralized many of its Federal grants management functions to the Departmental level. As such, after EFA compiles and distributes the PARs, each Department is responsible for timely review and approval and for maintaining the certified reports. However, EFA has not established any reporting or monitoring processes for ensuring that the Departments are complying with the 1-month turnaround time for PAR review and approval and/or whether all PAR certifications are actually being completed. While UCB's Internal Audit Office has reported PAR timeliness issues over the years, such audit reports are directed only to Department officials for corrective action. Thus, EFA has not been made fully aware of the pervasiveness of the PAR timeliness issues on the UCB campus.

In addition, UCB did not hold senior management officials, such as Department Chairs, accountable for timely completion of PARs. Such senior officials (i.e. Department Chairs) would have more leverage than Department grant administrative staff or EFA personnel in ensuring PIs review and certify PARs in a timely manner. Because such senior officials would have the responsibility for securing and retaining staff and faculty members and recommending tenure and promotions, they would have more influence in getting PIs to respond positively to the requirement for completing PARs within the certification period.

Currently, UCB is in the process of developing a new automated payroll distribution system to improve its PAR process. The new system will allow certifying officials to review and certify the PARs online. Therefore, UCB officials believe the time period to certify the reports should be shortened since the PARs will no longer be required to be physically distributed to the Departments. Also, officials noted that the new automated system should assist the University in monitoring the timely certification of the PARs because the system will be more transparent for both Department and central staff, and timeliness issues can be more readily identified for prompt resolution.

While we agree that the automated system should allow for easier monitoring of PAR timeliness, it is essential that UCB assign monitoring responsibility to a specific central University office and ensure that formal monitoring processes and procedures be established. Such a monitoring process should include periodic reminder notices for late PARs using an increasingly graduated scale to higher levels of UCB management officials,

such as the Department Chair, the Dean, and the Provost, as the period of delinquency increases. Also, senior management needs to explicitly notify all employees involved with the PAR process of the magnitude of the PAR timeliness issues and emphasize the importance of timely certification. Furthermore, we do not see the issue being resolved until UCB holds senior management officials accountable for timely PAR completion. Even though University internal auditors have repeatedly identified untimely PAR certifications in audit reports, the problem continues unresolved largely because of the lack of clear and enforceable accountability.

- *Better Understanding of Certification Responsibilities Will Preclude Salary Overcharges to Federal Awards* - Certifying officials approved PARs reflecting more labor effort than actually worked on NSF awards because they did not have a clear understanding of employee activities not directly benefiting NSF projects. Due to the lack of detailed UCB guidance delineating work activities included in employees' institutional base salary and the lack of training to ensure that certifying officials clearly understood PAR certification responsibilities, certifying officials did not appropriately consider all of an employee's work activities and whether such activities were allowed to be directly charged to Federal grants. Explicit written guidance and training classes are essential to delineate the various classes of employees charging salaries to sponsored projects, their different job activities related to instruction, research, and general administration; and which of those activities should be charged to University funds versus Federal grant funds. Without such guidance and knowledge, certifying officials did not take the necessary steps to carefully consider all employee activities, particularly administrative type tasks, when approving PARs for their employees

Similarly, the lack of appropriate training also resulted in two administrative officials inappropriately certifying PARs because they were not aware that documentary evidence was required to provide "suitable means of verification" that the reported labor effort was actually performed. Without proper training, these individuals did not know that Federal regulations required a certifying official to have first hand knowledge of the employee's actual research activities in order to properly validate the reported labor effort. Discussions with six Department administrative employees disclosed that only one individual had received any UCB labor effort training. Furthermore, UCB policy did not define the specific steps an administrative official should take to obtain adequate documentation to demonstrate that "suitable means of verification" was used to certify the PAR's reported labor effort.

#### Independent Internal Evaluation of the Payroll Distribution System Was Not Performed

Contrary to OMB Circular A-21 requirements, UCB did not conduct an independent evaluation of its payroll distribution and effort reporting system. Such evaluations would have likely disclosed the lack of sufficient internal controls for proper management and oversight of its PAR system given the decentralized nature of UCB's Federal grants management program. An evaluation could have identified that there was a lack of adequate campus compliance with essential components of established PAR policies and procedures and recommend development of appropriate corrective actions to address the weaknesses identified. In

particular, it will be essential for UCB to conduct such an independent evaluation of its new automated payroll distribution system when it becomes operational to ensure its effectiveness and compliance with Federal standards.

While UCB officials were aware of the Circular A-21 evaluation requirement, they believed that the annual OMB Circular A-133 audit included such an evaluation and met the requirement. However, we determined that the A-133 audit did not evaluate the PAR system in sufficient detail to fulfill the Federal evaluation standard for ensuring the system's effectiveness in meeting the OMB Circular A-21 requirements. Also, we concluded that reviews of various components of the UCB payroll system performed by its Internal Audit Office also did not fulfill the Federal evaluation requirement. Specifically, the subject audits were not a comprehensive systemically focused review of UCB's payroll distribution and effort reporting system. Rather, one review was based on a questionnaire that identified excessive delays between the required and actual production dates of the PARs, which was corrected prior to our audit. In addition, as previously discussed, the Internal Audit Office also evaluated the timeliness of PAR certifications at various UCB Departments.

## **Recommendations**

We recommend that the NSF Director of the Division of Grants and Agreements and the Director of the Division of Institution and Award Support, coordinate with the cognizant audit agency, as needed, to implement the following recommendations:

- 1.1 Work with the UCB officials to establish an internal control structure that provides for a payroll distribution system that reasonably reflects the actual effort/activity employees devote on sponsored projects. At a minimum, UCB should take the following corrective actions:
  - a. Ensure all appointment letters or similar documents supporting employee institutional base salary are maintained in the official Human Resources files for all employees.

### **UCB Response**

UCB agreed to remind Departments of the requirement to maintain appointment letters or other documentation supporting employee salaries in its files after Departmental Human Resources personnel enter such salary amounts in the campus payroll system.

### **Auditors' Comments**

While it is appropriate for UCB to remind Departments to maintain supporting documentation for employee salaries in its files, each employee should have an official personnel file maintained by UCB's central Human Resources Office. Therefore, we reaffirm our audit recommendation.

- b. Ensure all employee institutional base salaries are accurately recorded in the PAR system.

**UCB Response**

In December 2007, UCB initiated implementation of a new web-based Effort Reporting System (ERS) that uploads employee salaries directly from the campus payroll system (PPS). The PPS salary information is entered by Departmental Human Resources personnel based upon appointment letters or other supporting documents. Mandatory training will be required to be completed by any campus personnel with administrative ERS responsibility in order to gain access to the system.

**Auditors' Comments**

Once implemented, UCB's actions should address our audit recommendation.

- c. Require the University's Departments to monitor the timely completion of PARs by certifying officials within the UCB established 1-month turnaround time.
- d. Require the Extramural Funds Accounting (EFA) office to monitor the PAR certification processes at the Department level to ensure adequate procedures are in place to eliminate or materially reduce the number of PARs completed late. Such monitoring procedures should include periodic reminder notices to follow-up on late PARs using an increasingly graduated scale to higher level management officials.
- e. Assign appropriate UCB senior management officials, such as Department Chairs, specific accountability for timely PAR certifications.

**UCB Response**

UCB noted that the new web-based ERS has added compliance and monitoring capabilities to permit tracking of PAR certifications on a campus-wide basis to ensure more timely review and approval. The system will automatically remind PIs and other certifiers (i) before the end of the certification deadline for any un-certified reports and (ii) after the end of each certification period for overdue reports. Such PAR monitoring information will be accessible to the Effort Report Coordinators in each UCB Department, EFA, Control Units, and Department Heads.

**Auditors' Comments**

Once fully implemented, the enhanced ERS monitoring capabilities should significantly improve the timeliness of PAR certification within the 1-month turnaround time. However, written procedures need to be established to clearly define the monitoring roles and responsibilities of the Effort Report Coordinators in each UCB Department and EFA for timely PAR certification. Additionally, such procedures should clearly

designate a specific senior-level UCB management official to be held responsible for timely PAR certifications.

- f. Develop clear written procedures and guidance defining the typical instructional, research, and administrative work responsibilities included in the institutional base salary for various types of UCB employees and which of those activities do not directly benefit and should not be charged to Federal awards.

**UCB Response**

UCB management will review and update existing guidance defining typical instructional, research, and administrative responsibilities included in the institutional base salary for various types of UCB employees. This guidance will be referenced in future communications and training for faculty and Departmental personnel.

**Auditors' Comments**

Once implemented, UCB's actions should address our audit recommendation.

- g. Define what steps an administrative official should perform to document that "suitable means of verification" was used to certify PARs and require that such documentation be maintained in award files.

**UCB Response**

EFA will work with Departmental representatives to provide guidelines and document that "suitable means of verification" are used to certify employee effort when the authorized PAR certifier does not have first hand knowledge of the work performed. UCB will require such documentation be maintained in Departmental award files.

**Auditors' Comments**

UCB's proposed actions are responsive to the audit recommendation. However, it is important that any EFA guidelines developed be documented as formal written procedures to ensure all campus personnel understand and follow the required steps.

- 1.2 Require UCB to establish a formal requirement and conduct an independent evaluation of the PAR system to ensure its effectiveness and full compliance with Federal, NSF, and University standards. Such a requirement should include procedures to ensure an effective and systemic review that will identify reasons for any deficiencies and make appropriate recommendations, identify the specific office responsible for performing the evaluation, and how often such an evaluation should be conducted.

### **UCB Response**

UCB's Internal Audit will periodically perform independent comprehensive reviews of the ERS to ensure compliance with Federal and NSF requirements. In general, such reviews will be conducted on a three-year cycle and will include evaluating the status of UCB corrective actions taken to implement any prior audit recommendations addressing labor effort reporting.

### **Auditors' Comments**

UCB's proposed actions are responsive to the audit recommendation. However, UCB needs to establish a formal written requirement for the independent internal evaluation as specified in the audit recommendation.

1.3 Work with the UCB officials to ensure that an adequate labor effort training program is established and provided to all officials involved in PAR process. Such training should include a thorough discussion of PAR certification responsibilities/requirements and the various types of employee activities that do not directly benefit and should, therefore, not be charged to Federal awards.

### **UCB Response**

UCB has provided campus-wide training sessions on labor effort reporting for faculty and Department personnel as part of its recent ERS implementation. Any campus personnel with administrative ERS responsibility will be required to successfully complete mandatory training in order to gain access to the system to perform required responsibilities.

### **Auditors' Comments**

When fully implemented, UCB's proposed actions should address the audit recommendation.

1.4 Ensure senior UCB management formally notify all campus staff involved in the PAR certification process of the magnitude of the late certification issue and emphasize the importance of timely PI review and appropriate certification of such reports within the 1-month UCB established time frame.

### **UCB Response**

UCB is updating all training materials and written policies and procedures to ensure all campus personnel involved in the labor effort reporting process are aware of the consequences of late certification and the importance of compliance with Federal regulations.



### **Auditors' Comments**

Once implemented, UCB's proposed actions should address our audit recommendation.

1.5 Resolve the \$15,543 in total questioned salary costs (see Appendix A-1) resulting from improper charges for employee activity not directly benefiting NSF grants and salary rates greater than amounts supported by employee appointment letters.

### **UCB Response**

UCB has requested additional details on the questioned costs by each sampled employee to enable an appropriate evaluation. In addition, UCB has requested an additional 60 days to provide their comments.

### **Auditors' Comments**

Requested details on the \$15,543 of questioned costs by each individual employee have been provided to UCB. NSF's Office on Institution and Award Support will work with UCB to resolve the subject questioned costs.

## **2. Improvements Needed In Accurately Completing the NSF Grant Proposal's Current and Pending Support Section**

The NSF *Grant Proposal Guide*<sup>8</sup> (GPG) requires identification of all projects and activities requiring a portion of the PI's time. The faculty member must report the person-months committed to each current and pending research project including the proposed award, regardless of the source of funding (e.g. Federal, State, public or private foundations, industrial or other commercial organizations, etc.) or whether any salary support is received from the sponsored projects. Such information is used by NSF in determining the reasonableness of the PIs time to be provided to the proposed NSF project in light of the faculty member's existing commitments to other research activities.

Contrary to the GPG requirements, UCB did not always properly report PI effort actually committed to research projects and activities in the Current and Pending Support information required to be submitted with NSF grant proposals. Specifically, we determined that 3 of 6 PIs included in our sample did not accurately report the person-months committed to NSF projects in their proposal submission. Two PIs did not include the person-months committed for three current NSF grants and the third PI incorrectly reported the committed months for one NSF grant. Without complete and accurate information on all ongoing or pending research projects and activities, NSF officials could not evaluate whether the individual had adequate time to devote to the newly proposed project in relation to the individual's other time commitments.

This occurred because UCB did not have a policy requiring the Sponsored Projects Office (SPO) to review the Current and Pending Support section of the NSF grant proposal prior to submission. Furthermore, there was no specific training provided to SPO grant managers, PIs, and Department grants administrative staff on the NSF requirement and the process to be followed for completing such information for NSF grant proposals.

### Recommendations

We recommend that the NSF Director of the Division of Grants and Agreements and the Director of the Division of Institution and Award Support, implement the following recommendations:

2.1 Require UCB to revise its policy to ensure that PI committed person-months is accurately recorded for all research projects and activities in the Current and Pending Support information submitted in grant proposals as required by the NSF's *Grant Proposal Guide*.

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<sup>8</sup> Chapter II, Paragraph C.2.h of the NSF *Grant Proposal Guide*, (GPG) dated July 2005. In early 2007, NSF incorporated the GPG into its new *Proposal and Award Policies and Procedures Guide*, with the subject provision for "Current and Pending Support" information remaining the same.

### **UCB Response**

UCB will revise its policy to include the review of PI committed person-months in the NSF's Current and Pending Support section as a component of SPO's administrative review of all aspects of UCB proposals prior to submission to Federal sponsoring agencies. Also, in December 2007, UCB revised its software program to start recording PI person-months commitments included in all extramural proposals.

### **Auditors' Comments**

Once UCB's written policies are revised and implemented, the proposed actions should fully address our audit recommendation.

- 2.2 Ensure that UCB provides training to SPO grant managers, PIs, and Department grants administrative personnel on the process to be followed for accurately completing the Current and Pending Support section of NSF grant proposals.

### **UCB Response**

UCB's Office of Research Administration and Compliance (RAC) has prepared an in-depth curriculum to train SPO personnel and Departmental research administrators on the reporting requirements for PI committed effort in Current and Pending Support section of Federal grant proposals. RAC plans to initiate such training during this academic year. In addition, as part of its outreach to UCB faculty and academic units, RAC will similarly focus on discussing such reporting requirements at various faculty meetings.

### **Auditors' Comments**

Once implemented, UCB's actions should address the audit recommendation.

## Appendix A-1

### Schedule of FY 2006 Questioned Salaries and Wages

<b>Actual NSF Labor Effort Less Than Certified PAR Effort</b>					
Sample Number	Award Number	Salary Costs	Fringe Benefits	Indirect Costs	Total
29		\$ 811	\$ 97	\$ 236	\$ 1,144
29		3,275	386	952	4,613
19		265	8	142	415
19		2,456	57	1,307	3,820
14		3,171	1,204	2,275	6,650
<b>Subtotal<sup>9</sup></b>		<b>9,978</b>	<b>1,752</b>	<b>4,912</b>	<b>16,642</b>
<b>NSF Salary Charges Greater Than Salary Documented In Appointment Letters</b>					
Sample Number	Award Number	Salary Costs	Fringe Benefits	Indirect Costs	Total
20		2,796	340	1,454	4,590
20		2,769	337	1,440	4,546
<b>Subtotal<sup>10</sup></b>		<b>5,565</b>	<b>677</b>	<b>2,894</b>	<b>9,136</b>
<b>TOTAL QUESTIONED COSTS</b>		<b>\$15,543</b>	<b>\$ 2,429</b>	<b>\$ 7,806</b>	<b>\$25,778</b>

<sup>9</sup> Employee salaries and wages, fringe benefits and the associated indirect costs due to PARs being certified for more labor effort than actually worked on NSF awards (see pages 9 - 10).

<sup>10</sup> Employee salaries and wages, fringe benefits and the associated indirect costs due to employee's institutional base salary being recorded in the PAR at more than the amount shown on appointment letters or similar support documents (see pages 7 - 8).

**Appendix A-2**

**Schedule of FY 2006 NSF Salary Charges Not Supported  
By Adequate Documentation**

Sample Number	Award Number	A  No Suitable Means of Verification	B  No Suitable Means and No Appointment Letter	C  No Appointment Letter	D  Total For Each Employee
2	[REDACTED]	\$44,332			\$44,332
7	[REDACTED]			\$6,138	\$6,138
10	[REDACTED]		\$17,973		
10	[REDACTED]		\$1,799		\$19,772
21	[REDACTED]			\$7,895	
21	[REDACTED]			\$25,500	\$33,395
<b>Total</b>		\$44,332	\$19,772	\$39,533	\$103,637

**Notes:**

1. No Suitable Means of Verification: Columns A and B total \$64,104 and represent the labor costs supported by PARs for two employees with no “suitable means of verification” to validate that the work charged was actually performed.
  
2. No Appointment Letters: Columns B and C total \$59,305 and represent the labor costs for three employees without appointment letters or other documentation supporting the individual’s annual UCB salary.

## **Appendix B**

### **Berkeley Response to Draft Audit Report**



EXTRAMURAL FUNDS ACCOUNTING  
2195 HEARST AVENUE, ROOM 130, MC 1103  
BERKELEY, CALIFORNIA 94720-1103

January 25, 2008

[REDACTED]  
Withum, Smith & Brown  
210 Lake Drive East, Suite 102  
Cherry Hill, NJ 08002

Dear [REDACTED]

We are in receipt of the draft audit report for the National Science Foundation Audit of UC Berkeley's Effort Reporting System. Our response follows.

**Finding No. 1 – Improvements Needed in the Payroll Distribution and Effort Reporting System**

The Auditors recommend that NSF Division Directors for the Division of Grants and Agreements and the Division of Institution and Award Support, coordinate with the cognizant audit agency as needed to implement the following recommendations:

**Recommendation No. 1.1:** Work with the UCB officials to establish an internal control structure that provides for a payroll distribution system that reasonably reflects the actual effort/activity employees devote on sponsored projects. At a minimum, UCB should take the following corrective action:

- a. Ensure all appointment letters or similar documents supporting employee institutional base salary are maintained in the official Human Resources files for all employees.
- b. Ensure all employee institutional base salaries are accurately recorded in the PAR system.
- c. Require the University's Departments to monitor timely completion of PARs by certifying officials within the UCB established 1-month turnaround time.
- d. Require the Extramural Funds Accounting (EFA) office to monitor the PAR certification processes at the Department level to ensure adequate procedures are in place to eliminate or materially reduce the number of PARs completed late. Such monitoring procedures should include periodic reminder notices to follow-up on late PARs using an increasingly graduated scale to higher level management officials.
- e. Assign appropriate UCB senior management officials, such as Department Chairs, specific accountability for timely PAR certifications.
- f. Develop clear written procedures and guidance defining the typical instructional, research, and administrative work responsibilities included in the institutional base salary for various types of

UCB employees and which of those activities do not directly benefit and should not be charged to Federal awards.

- g Define what steps an administrative official should perform to document that "suitable means of verification" was used to certify PARs and require that such documentation be maintained in award files.

**UC Berkeley Response:**

In December 2007, UCB Extramural Funds Accounting (EFA) launched Phase 1 of a new web-based Effort Reporting System (ERS) with 6 campus research units. The campus-wide implementation is scheduled for February 28, 2008. This system will replace the current PAR's application.

The ERS system is fed directly from the campus payroll system (PPS), salaries are entered by department HR personnel based on appointment letters or other supporting documents and payroll is determined based on where the employee is working in a given pay period (i.e. which federal project, other sponsored project or other non-sponsored activities). If there is a change to the employee's project, Department personnel are notified by their PI to change the payroll distribution. The ERS system is updated during every payroll cycle.

Campus departments will be reminded of the requirement to have appointment letters or other documentation in support of the employee's salary on file in their department.

With the implementation of ERS, monitoring of the certification will continue to be the responsibility of the department personnel, specifically the Effort Report Coordinator (ERC) as identified in the system. However, with the added compliance and monitoring capabilities of ERS, Control Units, Department Heads and EFA will be reviewing compliance at a Department, Control Unit, Division and Campus-wide level. EFA will have the ongoing responsibility for monitoring completion of certification and notifying Senior Management of non-compliance and late certifications. Additionally, the system automatically reminds PIs and Other Certifiers before the end of the certification deadline for any un-certified reports, and after the end of the certification period for any past due reports.

UCB Management will review and update existing guidance defining typical instructional, research and administrative responsibilities included in the institutional base salary for various types of UCB employees. This guidance will be referenced in future communications and training for Faculty and Department personnel.

As part of the implementation of the ERS, EFA has reminded campus officials that only those individuals with first hand knowledge of the work performed and the benefiting project should certify an effort report. We acknowledge that in rare circumstances this may not be possible and another designated certifier (or Proxy) may be required to certify to ensure timeliness. In these instances, EFA will work with department representatives to document steps for tracking and provide guidelines that "suitable means of verification" was used to certify effort within the ERS when these circumstances arise. We will require that such documentation be maintained in department award files.

**Recommendation No 1.2:** Require UCB to establish a formal requirement and conduct an independent evaluation of the PAR system to ensure its effectiveness and full compliance with Federal, NSF and University standards. Such a requirement should include procedures to ensure an effective and systemic review that will identify reasons for any deficiencies and make appropriate



recommendations, identify the specific office responsible for performing the evaluation, and how often such an evaluation should be conducted.

**UC Berkeley Response:**

The University's Internal Audit will periodically perform independent, comprehensive reviews of the ERS sufficient in scope to meet Federal and NSF requirements. In general, such reviews are conducted on an approximate three year cycle, with the frequency influenced by changes in systems, processes or regulations. As a part of these reviews, the status of corrective actions ensuing from previous internal as well as external reviews will be evaluated and any recommendations for improvement in controls will be made, reported to senior campus management and tracked to ultimate implementation.

**Recommendation No. 1.3:** Work with the UCB officials to ensure that an adequate labor effort training program is established and provided to all officials involved in the PAR process. Such training should include a thorough discussion of PAR certification responsibilities/requirements and the various types of employee activities that do not directly benefit and should, therefore, not be charged to Federal awards.

**UC Berkeley Response:**

In preparation for the implementation of ERS, campus wide training sessions have been conducted with Faculty and Department personnel. In addition, mandatory training for any individual with administrative responsibility within the system is required. Successful completion of the course is required in order to gain access to the system to perform their administrative roles.

Ongoing training in effort reporting is provided to the campus through the Contract & Grant Workshop and Financial Management Certification Program and is also available through our web-based online training program.

In addition, EFA will work with the Controller's Office to identify other opportunities to provide training and/or job aids for department personnel regarding the definition of effort, effort reporting requirements and the ERS.

**Recommendation No. 1.4:** Ensure senior UCB management formally notify all campus staff involved in the PAR certification process of the magnitude of the late certification issue and emphasize the importance of timely PI review and appropriate certification of such reports within the 1-month UCB established time frame.

**UC Berkeley Response:**

All training materials, procedures and policies have been or are being updated to ensure all individuals involved in the effort report process are aware of the consequences of late certification.

In addition to the updated policies and training provided, there has been campus wide communication to both administrative staff and research faculty emphasizing the importance of compliance with federal regulations.

**Recommendation No. 1.5:** Resolve the \$15,543 in total questioned salary costs (per Appendix A-1) resulting from improper charges for employee activity not directly benefiting NSF grants and salary rates greater than amounts supported by employee appointment letters.

**UC Berkeley Response:**

We are requesting you provide us with further information on the questioned cost to enable us to identify the individuals in question. EFA will further research the questioned salary costs where NSF Labor effort was less than the certified PAR effort and where salary charges were more than the documented appointment letters. In any instance where UCB is unable to resolve these discrepancies, we will reverse the charges from the relevant funds and refund the appropriate amount to NSF. We request 60 days from the receipt of the information pertaining to the individuals in question to complete our research and notify NSF of how we will resolve the identified costs from the date of this letter.

**Finding No. 2 – Improvements Needed in Accurately Completing the NSF Grant Proposal's Current and Pending Support System**

The Auditors recommend that NSF Division Directors for the Division of Grants and Agreements and the Division of Institution and Award Support, implement the following recommendations:

**Recommendation No. 2.1:** Require UCB to revise its policy to ensure that PI committed person-months is accurately recorded for all research projects and activities in the Current and Pending Support information submitted in grant proposals as required by the NSF's *Grant Proposal Guide*.

**UC Berkeley Response:**

Within UCB's Office of Research Administration and Compliance (RAC), it is the policy of the Sponsored Projects Office (SPO) to provide administrative review of all aspects of UCB proposals to extramural sponsors before submission to a sponsor. SPO will revise the policy to specifically cite the review of PI committed person-months in Current and Pending Support as a component of the required administrative review.

The UCB SPO uses the Coeus database as the UCB system of record for proposals to and awards from extramural sponsors. In December 2007, the latest version of the Coeus software was implemented which enables collection of PI person-month commitments. SPO will modify the data collection protocol to ensure that PI person-month commitments are recorded for proposals to extramural sponsors in order that this data can be made available to PIs and research administrators and that reports to sponsors can be verified.

**Recommendation No. 2.2:** Ensure that UCB provides training to SPO grant managers, PIs and Department grants administrative personnel on the process to be followed for accurately completing the Current and Pending Support section of NSF grant proposals.

**UC Berkeley Response:**

Beginning in September 2006, the Office of Research Administration and Compliance initiated the "RAC Forum" -- a two-hour monthly meeting focused on presentation, discussion and training in research administration and compliance issues. The Forum is open to research administrators across campus and has been well-attended. A Forum focused on training in the requirements of reporting

Withum, Smith & Brown  
UC Berkeley Response  
January 25, 2008  
Page 5

Current and Pending Support is planned for this academic year. RAC will continue to increase these efforts to train SPO and Department research administrators in this area.

Leadership from RAC and SPO present 3-4 times each year at half-day sessions of the campus's Financial Manager's Certification Program (FMCP). The RAC-prepared curriculum includes in-depth training in the requirements of reporting PI commitments in Current and Pending Support. This curriculum was presented multiple times in the 2006-2007 academic year and is scheduled for multiple sessions in 2007-2008 and thereafter.

Leadership from RAC and SPO are focused on outreach to UCB faculty and academic units. RAC leadership has been invited to present on research administration issues at various faculty meetings. The next session is scheduled for February 2008 and is specifically focused on reporting of PI commitments in Current and Pending Support. Further, SPO staff provides one-on-one training to faculty during the course of their administrative review of proposals. SPO will continue these efforts and work to develop additional written guidance for use by PIs as well as research administration staff in both central and departmental roles.

Thank you for the opportunity to answer the findings that were identified in your audit. If you have any questions related to the response above, please don't hesitate to contact me at [REDACTED]

Sincerely,

[REDACTED]

University of California, Berkeley