

#### National Science Foundation • Office of Inspector General

4201 Wilson Boulevard, Suite I-1135, Arlington, Virginia 22230

#### **MEMORANDUM**

Date: September 25, 2014

To: Mary F. Santonastasso, Director

Division of Institution and Award Support

Karen Tiplady, Director

Division of Grants and Agreements

From: Dr. Brett M. Baker

Assistant Inspector General for Audit

Subject: Audit Report No. 14-1-006

University of Illinois at Urbana-Champaign

This memo transmits Cotton & Company's report for the audit of costs totaling \$435.2 million charged by the University of Illinois at Urbana-Champaign (UIUC) to its sponsored agreements with NSF during the period January 1, 2010 through December 31, 2012. The objectives of the audit were to (1) identify and report on instances of unallowable, unallocable, and unreasonable costs from the transactions tested; (2) to identify and report on instances of noncompliance with regulations, federal financial assistance requirements, and provisions of the NSF award agreements as they relate to the transactions tested; and (3) determine the reasonableness, accuracy, and timeliness of the awardee's ARRA quarterly reporting, including reporting of jobs created under ARRA and grant expenditures for the most recent quarters.

The auditors determined that costs that UIUC charged to its NSF sponsored agreements did not always comply with applicable Federal requirements. Specifically, the auditors determined that claimed costs totaling \$173,290 were questioned for reasons relating to over allocated salaries (\$52,584), unreasonable expenses incurred at the end of the award (\$41,734), unsupported expenses (\$39,296), unreasonable foreign travel expenses (\$13,196), unallocable travel and conference expenses (\$11,233), inappropriately allocated indirect expenses (\$9,784), and unallowable relocation expenses (\$5,463). UIUC incorrectly charged unallocable, unreasonable, and unallowable costs to NSF awards.

The auditors recommended that NSF address and resolve the findings by requiring UIUC to refund the questioned costs of \$173,290 and strengthen administrative and management processes and controls. UIUC did not agree with all of the recommendations; however, they did agree that some of the questioned costs were unallowable. UIUC's response, described in the report, is included in its entirety in Appendix B.

Appendix A contains a summary of the unallowable items that were questioned. Additional information concerning the questioned items was provided separately by the OIG to the Division of Institution and Award Support, Cost Analysis and Audit Resolution Branch. Please coordinate with our office during the six month resolution period, as specified by OMB Circular A-50, to develop a mutually agreeable resolution of the audit findings. Also, the findings should not be closed until NSF determines that all recommendations have been adequately addressed and the proposed corrective actions have been satisfactorily implemented.

#### OIG Oversight of Audit

To fulfill our responsibilities under generally accepted government auditing standards, the Office of Inspector General:

- Reviewed Cotton & Company's approach and planning of the audit;
- Evaluated the qualifications and independence of the auditors;
- Monitored the progress of the audit at key points;
- Coordinated periodic meetings with Cotton & Company officials, as necessary, to discuss audit progress, findings, and recommendations;
- Reviewed the audit report, prepared by Cotton & Company to ensure compliance with generally accepted government auditing standards; and
- Coordinated issuance of the audit report.

Cotton & Company is responsible for the attached auditor's report on UIUC and the conclusions expressed in the report. We do not express any opinion on the conclusions presented in Cotton & Company's audit report.

We thank your staff for the assistance that was extended to our auditors during this audit. If you have any questions regarding this report, please contact Louise Nelson at 303-844-4689 or Ken Lish at 303-844-4738.

#### Attachment

cc: Alex Wynnyk, Branch Chief, CAAR
Michael Van Woert, Executive Officer, NSB
Ruth David, Audit & Oversight Committee Chairperson, NSB

### UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

# PERFORMANCE AUDIT OF INCURRED COSTS FOR NATIONAL SCIENCE FOUNDATION AWARDS FOR THE PERIOD JANUARY 1, 2010, TO DECEMBER 31, 2012 NATIONAL SCIENCE FOUNDATION OFFICE OF INSPECTOR GENERAL





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Office of Inspector General National Science Foundation Arlington, VA

Subject: Performance Audit of the University of Illinois at Urbana-Champaign

Cotton & Company LLP (referred to as "we" in this letter) conducted a performance audit of expenditures that the University of Illinois at Urbana-Champaign (UIUC) reported on the Federal Financial Reports that it filed with the National Science Foundation (NSF), for cost reimbursement under its grant awards. We evaluated whether the costs claimed were allocable, allowable, reasonable, and in conformity with NSF award terms and conditions, as well as with applicable federal financial assistance requirements. We also evaluated the accuracy, reasonableness, and timeliness of UIUC's quarterly American Recovery and Reinvestment Act reporting. This performance audit, conducted under Contract No. D13PD00390, was designed to meet the objectives identified in the "Objectives, Scope, and Methodology" section of this report.

We conducted this performance audit in accordance with generally accepted government auditing standards, issued by the Government Accountability Office. We communicated the results of our audit and the related findings and recommendations to UIUC and the NSF Office of Inspector General.

COTTON & COMPANY LLP

Partner

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# NATIONAL SCIENCE FOUNDATION PERFORMANCE AUDIT OF INCURRED COSTS UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

#### I. BACKGROUND

The National Science Foundation (NSF) is an independent federal agency whose mission is "to promote the progress of science; to advance the national health, prosperity, and welfare; and to secure the national defense." Through grant awards, cooperative agreements, and contracts, NSF enters into relationships with non-Federal organizations to fund research and education initiatives and to assist NSF in supporting its internal financial, administrative, and programmatic operations.

Every federal agency has an Office of Inspector General (OIG) that provides independent oversight of the agency's programs and operations. Part of the NSF OIG's mission is to conduct audits and investigations to prevent and detect fraud, waste, and abuse. In support of this mission, the NSF OIG may conduct independent and objective audits, investigations, and other reviews to promote the economy, efficiency, and effectiveness of NSF programs and operations, as well as to safeguard their integrity. The NSF OIG may also hire a contractor to provide these audit services.

The NSF OIG issued a solicitation to engage a contractor to conduct a performance audit of incurred costs for the University of Illinois at Urbana-Champaign (UIUC). This performance audit entailed evaluating UIUC's quarterly American Recovery and Reinvestment Act (ARRA) reporting, as well as testing a sample of expenditures that UIUC allocated to NSF Awards during the audit period. Our audit of UIUC, which covered the period from January 1, 2010, through December 31, 2012, encompassed more than \$435 million of expenditures that UIUC claimed on Federal Financial Reports (FFRs) related to 1,294 NSF awards.

#### II. AUDIT RESULTS

The objectives of this audit included determining the reasonableness, accuracy, and timeliness of the awardee's quarterly ARRA reporting, as well as identifying and reporting on instances of unallowable, unallocable, and unreasonable costs charged to various NSF awards through transaction-based testing.

While evaluating the reasonableness, accuracy, and timeliness of UIUC's ARRA reporting, we found that the universe of NSF ARRA-funded awards included approximately \$26 million in expenditures across 76 NSF awards. We determined that UIUC properly accounted for and segregated NSF ARRA-funded awards in their accounting system, and that the ARRA reports were reasonable, accurate, and timely. For the quarters ending September 30 and December 31, 2012, we verified expenditures and jobs creation without exception. We also tested the allowability of expenditures reported for ARRA awards in conjunction with the other NSF awards, and found no exceptions related to costs charged to ARRA-funded awards.

To identify and report on instances of unallowable, unallocable, and unreasonable costs, we performed transaction-based testing on the entire universe of expenditures that UIUC claimed on its FFRs during our audit period. This universe encompassed \$435,164,529 in costs claimed on 1,294 NSF awards. Based on the results of our testing, we found a number of instances in which UIUC did not comply with all federal, NSF, and university-specific award requirements. As a result, we questioned \$173,290 of costs claimed by UIUC during the audit period. Specifically, we found:

- \$52,584 of over allocated salaries for senior personnel.
- \$41,734 of unreasonable expenses incurred at the end of the grant period.
- \$39,296 of unsupported expenses.
- \$13,196 of unreasonable foreign travel expenses.
- \$11,233 of unallocable travel and conference expenses.
- \$9,784 of inappropriately allocated indirect expenses.
- \$5,463 of unallowable relocation expenses.

Exhibit A of this report provides a breakdown of the questioned costs by finding. We include a summary of UIUC's responses to each finding in the appropriate sections of the report, and provide UIUC's response to the findings in its entirety in Appendix B.

#### Finding 1: Salary Costs for Senior Personnel Exceeded NSF's Two-Month Maximum

Salary costs charged to NSF awards for senior personnel exceeded two months of their academic-year salaries. The excess charges were not disclosed in the grant proposal budgets, justified in the budget support documentation, nor specifically approved by NSF, and were therefore unallowable grant expenditures, per NSF policies and procedures.

The NSF Award & Administration Guidelines, Chapter V, Section B.1.a.(ii)(a) states that NSF normally limits salary compensation for senior project personnel on awards to no more than two months of their regular salary in any one year, and specifically states that if excess allocation is anticipated, any compensation for such personnel in excess of two months must be disclosed in the proposal budget, justified in the budget support documentation, and must be specifically approved by NSF in the award notice.

UIUC does not have university-wide policies to prevent more than two months of salary costs for senior personnel from being charged to NSF awards. Instead it relies on each individual department to monitor its employees' salary allocations to prevent a violation of this policy. As a result, we found eight instances in which an employee was permitted to inappropriately allocate more than two months of their academic-year (AY) salary to NSF awards.

UIUC was not able to provide any documentation to support that NSF had given express permission for the identified employees to allocate more than two months of their salary to NSF, either through grant budgets or through subsequent approvals. We are therefore questioning all salary expenses charged to NSF that exceed the two months of AY salary allowable, as well as all associated fringe and indirect costs applied to the over-allocated salary.

				Q	sts	
Employee Reference	NSF Award No.	Two Months of AY Salary	Salary Charged to NSF Awards	Direct Salary	Fringe Benefits and Indirects <sup>1</sup>	Total
1		\$27,089				\$669
2		38,545	38,738			396
3		47,650	49,623			2,571
4		39,788	48,497			17,040
5		37,629	38,005			853
6		25,789	26,789			2,000
6		29,544	41,231			24,651
7		29,447	31,368			4,404
<b>Questioned Costs</b>						<u>\$52,584</u>

<sup>&</sup>lt;sup>1</sup>The indirect costs and fringe benefit amounts applied to each transaction varied based on the fiscal year, the NSF award, and the account types where the expenses were allocated. The total indirect and fringe benefit expenses applicable to each unallowable cost were determined by analyzing the University's general ledger.

UIUC agreed with our calculation of the excessive salary amounts charged to the NSF Awards for these individuals; however, it stated that the Frequently Asked Questions (FAQs) document on Proposal Preparation and Award Administration available on NSF's website indicates that grantees are not required to obtain NSF's approval to exceed the two-month salary limitation. It therefore does not agree with the questioned costs. While the responses to the FAQ's indicate that prior approval is not required from NSF to exceed the 2 month salary rule, the FAQ responses do not represent authoritative guidance and therefore do not overrule NSF's Award and Administration Guidelines that require specific approval to allocate greater than 2 months of salary to NSF during a one year period. As the FAQ's do not override NSF policies, we have not changed our opinion on this finding and the questioned costs remain the same.

#### Recommendations

We recommend that NSF's Director of the Division of Institution and Award Support request that UIUC:

- 1. Repay NSF the \$52,584 of questioned costs.
- 2. Strengthen the administrative and management controls and processes over the allocation of senior personnel salaries onto NSF Awards.
- 3. Implement university-wide procedures to ensure that all departments are monitoring the allocation of senior personnel salaries in the same manner.

University of Illinois at Urbana Champaign Response: UIUC agreed to the calculation of salaries charged to NSF grants that exceeded two months; however, it believes that the FAQ guidance posted on the NSF website clarifying the 2-month salary policy leaves room for interpretation. FAQ guidance states that salary support for senior personnel exceeding the 2-month salary does not need to be approved by NSF; therefore the University believes that the \$52,584 of questioned costs should be allowable.

**Auditors' Additional Comments:** Our position regarding the finding does not change. As stated above, while we agree that the response to the FAQ's provided on NSF's website does express that NSF approval is not necessary for senior personnel to exceed the 2-month salary limitation, the FAQ's do not represent authoritative guidance, and therefore do not overrule NSF's Award and Administration Guidelines that require specific approval to allocate greater than 2 months of salary to NSF during a 1-year period. In addition, the response provided in the FAQ's that the University sites in their response was not issued until January of 2013, which was after the effective date of all NSF awards included within the scope of our audit period.

#### Finding 2: Expenses Charged at the End of NSF Award Periods were Unreasonable

UIUC charged \$41,734 of unreasonable expenses to 3 expiring NSF awards. The benefits provided by these expenses were not reasonable or necessary for accomplishing the award objectives and did not benefit the NSF programs that they were charged to, and therefore should not have been charged to the expiring NSF awards.

NSF Award No. 0715499, titled "REVSYS: Revisionary Synthesis of the Leafhopper Tribe Empoascini (Hemiptera, Cicadellidae)," had an effective period of performance (POP) of 4 years, from August 1, 2007, to July 31, 2011. On August 10, 2011, 10 days after the award period had expired, the principal investigator (PI) of this award charged for a camera to the grant through the university's ibuy system. The PI stated that the purchase of the camera, which was ordered on July 1, 2011, 30 days before the grant period expired, was necessary for the purpose of this NSF-funded project, and that the camera would also be available for similar future projects. As this camera was available for less than 30 days of the award's 4-year POP, and as the PI stated that the camera was going to be used on other projects, we requested a justification for why the full amount of the expense was allocable to this NSF award. In response to our question, the Grants and Contracts Office re-evaluated the supporting documentation provided by the PI and stated that it would remove all expenses related to this purchase.

NSF Award No.

year POP from June 1, 2007, through May 31, 2011. The budget for this award includes funding for student stipends to support the Research Experiences for Undergraduates (REU) program and specifically states that students will work on REU projects during the academic year without financial support, but that they will receive support during a 10-week summer session for each of the 3 years. In the final month of the award's POP, five undergraduate students received an REU stipend of \$ each, and the expenses were charged to this NSF award. The university invoice voucher with the request for each REU student's stipend contained the following description of services rendered: "This is a Physics Departmental award to participate in the 'Research

Experience for Undergraduates' program for the Summer, 2011 administered by the Department of Physics at the University of Illinois at Urbana-Champaign." As the summer of 2011 was outside the period of performance for this award, we requested a justification for why this expense was allocable to this NSF award. The PI stated that because REU students are normally at UIUC for the summer, the voucher payment description for these stipends used the standard language and, as a result, erroneously stated that the payment was for the following summer period, when in reality these individuals were "on-campus" undergraduates and that these payments were for work performed during the year. As the award budget specifically states that the REU students will work without financial support during the year, and as these students had not previously been awarded payment for work performed during the academic year; this large lump-sum payout made at the end of the award's POP indicates that UIUC may have been attempting to spend the remaining unobligated funds at the end of the award's POP, which is unallowable. The documentation provided supported that these expenses were intended for REU-related expenses for work that would be performed outside of the award's POP, therefore the costs should not have been charged to this award.

NSF Award No. titled " had a POP of almost 6 years, from January 15, 2005, through December 31, 2010. On January 21, 2011, 21 days after the award's POP expired; UIUC transferred \$10,409 of expenses incurred to install a rack system in December 2010 to this NSF Award. The expenses incurred were originally allocated to the Physics Department's Building Repair/Maintenance account, as this is where the expenses would typically have been charged; however, upon later review, the department determined that these expenses were incurred specifically for the PI of this NSF Award and decided to transfer the expenses to the PI's expiring career grant. Documentation provided to support this transfer stated, "Since this is a Career grant it is supposed to support the PI in furthering his career in research. ... It still seems appropriate since it will enhance his future research and therefore is in line with the purpose of a Career grant." As the grant had an effective period of nearly 6 years and this installation was not completed until, at most, 11 days before the award period expired, the costs for the rack system were not reasonable or necessary to accomplish the award objectives. It appears that these expenses were moved from the general funding source as a matter of convenience because funding was available on the PI's expiring career grant.

The NSF Award & Administration Guide, Chapter V: Section A and 2 CFR 220, Appendix A, Section C state that to be allowable for a federal grant, a cost must be allocable to the federal award and must be necessary and reasonable for the administration and performance of the award. In addition, 2 CFR 220 Appendix A, Section C states that costs may not be shifted to other sponsored agreements in order to meet deficiencies caused by overruns or other fund considerations, to avoid restrictions imposed by law or by terms of the sponsored agreement, or for other reasons of convenience.

As the documentation provided does not support that the expenses incurred were reasonable or necessary for the administration or performance of the NSF awards, and as the expenses appear to have been shifted only as a manner of convenience, we are questioning all direct and indirect costs associated with the unreasonable expenses as follows:

	Fiscal		Questioned Costs			
NSF Award No.	Year	Direct	Indirect <sup>1</sup>	Total		
0715499	2011-2012			\$3,308		
	2010-2011			22,500		
	2010-2011			15,926		
Total Question			<u>\$41,734</u>			

<sup>&</sup>lt;sup>1</sup>The indirect costs applied to each transaction varied based on the NSF award and the account types where the expenses were allocated. The total indirect costs applicable to each unallowable expense were determined by analyzing the University's general ledger.

#### Recommendations

We recommend that NSF's Director of the Division of Institution and Award Support request that UIUC:

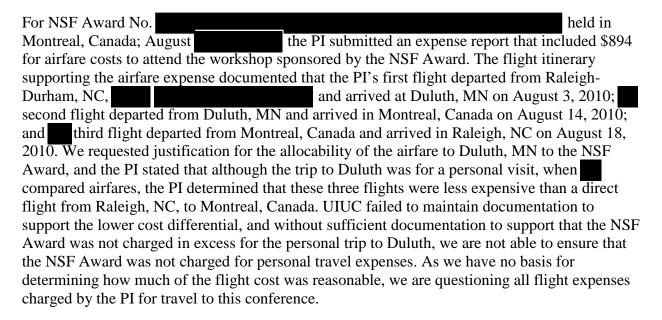
- 1. Repay NSF the \$38,426 of questioned costs that have not already been repaid for NSF Awards Nos.
- 2. Provide support to the Division of Institution and Award Support that it has repaid the \$3,308 of questioned costs for NSF Award No. 0715499.
- 3. Strengthen the administrative and management controls and processes over charging expenses to federal grants within the final 90 days of the grant's POP. Processes could include implementing policies and procedures to ensure that all expenses charged to federal grants within the final 90 days of the grant's POP are reviewed for allowability, allocability, and reasonableness.

University of Illinois at Urbana Champaign Response: UIUC agreed to remove the expenditures charged, at the end of the NSF award periods, to the cited awards. The University also affirmed that it has strengthened its controls in a sufficient manner to address charges at the end of the award period, and believe that future expenses of this type will be removed if they are not found to be allowable, allocable, or reasonable.

**Auditors' Additional Comments:** Our position regarding the finding does not change.

#### Finding 3: Expenses Charged to NSF Awards were Unsupported

UIUC failed to maintain sufficient documentation to support \$39,296 of sampled expenditures. Without documentation to support the purpose and the amount of the expenses claimed by UIUC, we were not able to verify that the expenses were allocable, allowable, reasonable, and in conformity with NSF award terms and conditions, or applicable federal financial assistance requirements.



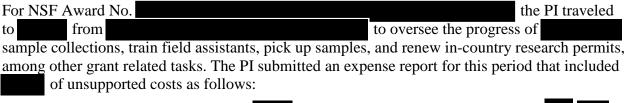
While UIUC grant personnel believe the PI's justification supports the trip as purchased, they stated that because they did not maintain documentation to support the lower cost differential, the UIUC has decided to remove the entire cost of the airfare.

UIUC provided a sediment analysis billing invoice to support a \$19,200 expenditure charged to NSF Award No. 0816610. The invoice was for preparing pollen samples and isotopic analysis of individual grass pollen grains using SPiRAL at an ecology lab on campus. While this analysis was related to the scope of the award, UIUC was unable to provide support for how the billing rate was determined for each sample; therefore, we are questioning all costs associated with the sediment analysis invoice.

UIUC grant personnel stated that while they believe that the rate applied was valid, it has not yet been approved, and therefore the University will move the charges to non-federal funds.

UIUC was unable to provide support for a one-time \$500 annual user fee for usage that was transferred to NSF Award No. 0905175. As UIUC did not have documentation available to support the fee, we are questioning the costs.

UIUC grant personnel stated that while they believe that the fee was valid, it has not yet been approved, and therefore UIUC will move the charge to non-federal funds.



• **Tip Expense:** The PI claimed \$ as a "Tip" expense incurred on August justified as follows: "12 days per diem for field assistant @ \$134/day based on US Department of State established foreign per diem rates." The documentation provided to

support the expense reimbursement did not support what days the assistance was provided, the location in which it was provided, when or if the payments were made, or to whom the tip expenses were provided. While a subsequent justification from the PI stated that this payment was provided to 2 field assistants who worked on logistics, obtained supplies, and began collecting data during the PI's site visit to additional documentation was not available to support this justification. As no documentation was available to support the claimed tip expense's amount, its allocability to the NSF Award, or whether the transaction actually occurred, we are not able to confirm that these expenses were allowable, and we are therefore questioning all tip expenses claimed for this purpose.

- Project for expenses incurred by project staff between

  The documentation provided to support this expense was a single piece of paper, dated

  which states, "This is an invoice for expenses incurred for project staff between 1

  "This invoice does not contain any support for what expenses were incurred by the project staff, nor how they related to the NSF Award. As no documentation was provided to support allocability of these expenses, and as no evidence exists of the cash payment provided to the Project, we were not able to confirm that this transaction occurred, or if the expenses were allowable in terms of the grant's scope, and we are therefore questioning all tip expenses incurred for this purpose.
- **Per Diem Expenses**: The PI's expense report requested reimbursement for meals and incidentals expenses (M&IE) for 9 days and lodging expenses for 8 days. The PI requested lodging at two different per diem rates, the , for , for 7 days. The PI also requested M&IE at 1 day, and the two different per diem rates, the , for 4.5 days, and the , for 4.5 days. The justification for this allocation stated that the PI "wanted to claim five days meal per diem for and five days per diem . She also wanted to claim one day lodging per diem for days per lodging per diem for "." The PI's request resulted in 3.75 days of M&IE being reimbursed at the higher per diem rate when the PI appeared to have been staying in . As no documentation was provided to support that the higher rate was appropriate, we are questioning the \$139 of additional expenses for the 3.75 days claimed at M&IE rate rather than the rate.

The budget for NSF Award No. 0947184, titled "CMMI Workshop on Neuromechanical Engineering" included funding for participants to travel to the CMMI workshop, which was held at NSF's headquarters in Arlington, VA, from Monday, September 14 through Tuesday, September 15, 2009. Twenty-five participants attended this conference and submitted expense reimbursement forms to UIUC for travel expenses incurred. Insufficient documentation was provided to support \$1,297 of expenses reimbursed to three of the conference participants, as follows:

• The airline receipt provided to support one participant's airfare expense of \$936 did not include an itinerary, but rather only included an invoice total. As insufficient

documentation was provided to support when the flight was taken, who took the flight, where the flight arrived or departed from, or whether the flight was economy or first class, we were not able to ensure the allowability and reasonableness of the flight expense.

- The expense report submitted for reimbursement by one participant did not contain documentation to support the \$301 airfare expense claimed. As documentation was not provided to support the price of the flight, when the flight was taken, who took the flight, where the flight arrived or departed from, or whether the flight was economy or first class, we were not able to ensure the allowability and reasonableness of the flight expense.
- The expense report submitted for reimbursement by one participant did not contain support for \$60 claimed for parking expenses. As documentation was not provided to support the amount of the expense, nor when, or where the expense was incurred, we were not able to ensure that the expense was reasonable or allowable.

The 2 Code of Federal Regulations (CFR) Part 220, Appendix A, Section C.2 states that for costs to be allowable they must be reasonable and they must be allocable to sponsored agreements under the principles and methods provided within the code. Section C.4.d.(1) also states that the recipient institution is responsible for ensuring that costs charged to a sponsored agreement are allowable, allocable, and reasonable under these cost principles. Additionally, the NSF Award and Administration Guide, Chapter V: Section A, states that grantees should ensure that costs claimed under NSF grants are necessary, reasonable, allocable, and allowable under the applicable cost principles, NSF policy and/or the program solicitation. Without source documentation available to support the incurred expenses it is not possible to ensure that costs are allowable as required by NSF and federal policies. We are questioning \$39,296 of unsupported expenses as follows:

NSF Award   Fiscal Year		Questioned Costs				
No	riscai i ear	Direct	Indirect <sup>1</sup>	Total		
	2010-2011					
0816610	2012-2013			29,760		
0905175	2010-2011			793		
	2012-2013					
0947184	2009-2010			1,297		
<b>Total Ques</b>	tioned Costs			<u>\$39,296</u>		

The indirect costs applied to each transaction varied based on the NSF award and the account types where the expenses were allocated. The total indirect costs applicable to each unallowable expense were determined by analyzing the University's general ledger.

#### Recommendations

We recommend that NSF's Director of the Division of Institution and Award Support request that UIUC:

1. Repay NSF the \$7,849 of questioned costs for NSF Award Nos.

- 2. Provide support to the Division of Institution and Award Support that it has repaid the \$31,447 of questioned costs for NSF Award Nos. , 0816610, and 0905175.
- 3. Strengthen the administrative and management controls and processes over retaining supporting documentation for costs charged to its federal awards. Processes could include reviewing UIUC's policies and procedures, including performing periodic reviews of individual departments and divisions for compliance with, and proper implementation of, established cost documentation requirements.

University of Illinois at Urbana Champaign Response: UIUC believes that each of these costs were valid charges against the NSF awards; however, as documentation supporting the validity of the costs was not available, it has agreed to move the charges to departmental funds.

The Co-PI on NSF Award No. submitted an expense report to request \$10,761 for per

**Auditors' Additional Comments:** Our position regarding the finding does not change.

#### **Finding 4: Unreasonable Foreign Travel**

diem expenses related to a trip to A large portion of the foreign travel taken was not blanned for within the award's budget, did not appear to benefit the NSF Award, and therefore
should not have been charged to the NSF grant.
The Co-PI traveled to
he expense report, the purpose of the travel was to "Continue collaborations at the University o
with experts on
needed for our project." The grant budget included funding for the Co-PI to
collaborate with an identified expert, who was working at the University of at the time thi
ravel was taken; however, while the Co-PI did visit this professor in for a portion of this
rip, he spent the majority of the trip in The Co-PI purportedly spent this time at the
University of collaborating with another individual, who was not identified in the award
budget. The annual/final reports submitted to NSF did not mention any work at the University of
nor any collaborations with the individual the Co-PI met with in
documentation was available to justify that the work performed in was related to the
scope of this NSF Award, therefore these expenses were not reasonable for the purpose of this
NSF award.

The NSF Award and Administration Guide, Chapter V, Section B states that grantees should ensure that costs claimed under NSF grants are necessary, reasonable, allocable, and allowable under the applicable cost principles, NSF policy, and/or the program solicitation.

The 2 CFR 220, Appendix A, Section C.3 states that a cost may be considered reasonable if the nature of the goods or services acquired or applied, and the amount involved therefore, reflect the action that a prudent person would have taken under the circumstances prevailing at the time the decision to incur the cost was made. It also states that a major consideration involved in determining the reasonableness of a cost is whether or not the cost is of a type generally

recognized as necessary for the performance of the sponsored agreement. Section C4 of the CFR states that a cost is only allocable to a particular cost objective if the goods or services involved are chargeable or assignable to such cost objective in accordance with relative benefits received or other equitable relationship.

For the 6 days spent in the Co-PI was entitled to \$2,136 of per diem. As no documentation was provided to support that the trip to benefited an objective of this NSF grant, we are questioning \$ of per diem related to the time spent in Indirect costs were applied at to these costs; therefore, our total questioned costs are \$13,196.

#### **Recommendations**

We recommend that NSF's Director of the Division of Institution and Award Support request UIUC to:

- 1. Repay to NSF the \$13,196 of questioned costs.
- 2. Strengthen the administrative and management controls and processes over its foreign travels costs charged to federal awards.

University of Illinois at Urbana Champaign Response: UIUC explained that the original proposal and project budget included collaborative visits with the named collaborator who, at the time, was located in This collaborator subsequently accepted a position in and consequently the planned travel was shifted from domestic to foreign travel to continue collaboration with this individual.

Auditors' Additional Comments: UIUC's response to this finding justifies the PI's travel to which we determined was allowable, but does not address why this employee's travel to was necessary, reasonable, or allocable to the NSF grant. The PI's travel to was not to work with the named collaborator, nor was any documentation available to support that the travel to was related to the NSF grant, therefore our position regarding this finding does not change.

#### Finding 5: Unallocable Travel and Conference Expenses

UIUC charged \$11,233 of unreasonable travel and conference expenses to 6 NSF awards. The benefits provided by these expenses were not reasonable or necessary for accomplishing the award objectives, did not benefit the NSF programs to which they were charged, and therefore, should not have been charged to the NSF awards.

NSF Award No. 1044307 provided funding to support the "Sustaining Competitiveness through Lifelong Learning" workshop, held in Washington, DC, on September 11 and September 12, 2011. A receipt provided from the Palomar Hotel in Washington, DC, supported the expenses claimed for lodging, banquet room rentals, and meal expenses to host the sponsored workshop. The receipt documented \$1,053 of claimed expenses that were not allocable to the NSF Award, as follows:

• Additional lodging expenses: The lodging receipt shows that room fee expenses were incurred for 46 conference participants, 43 of which stayed for 1 night, 1 stayed for 2 nights, and 2 stayed for 3 nights. The University was able to provide a reasonable business purpose for the expenses incurred for the two additional nights for one of the participants, but was not able to justify the business purpose of the additional nights for the other two participants. Without documentation to support the business purpose of the additional night stays, we are not able to verify that the expenses, which amounted to \$773, related to the purpose of the grant, and therefore they should not have been allocated to it.

UIUC stated that, as they did not maintain documentation to justify the additional nights, it agreed to remove the extra two nights for one participant, and one extra night for the other participant.

Room Upgrade Fee. One participant's room fee was \$30 higher than all other
conference participants. UIUC stated that the fee was incurred for a room upgrade to
accommodate a participant who had their son with them. As this upgrade was not
necessary for the purpose of the NSF Award, the expenses should not have been
allocated to the award.

UIUC agreed to remove this upgrade fee from the award.

• Additional Banquet Expenses: A bartender fee of \$125 and a cashier fee of \$125 were included in the meal expenses incurred for one of the conference meals. "A cash bar was available for the dinner on September 11th only. Attendees could purchase nonalcoholic and alcoholic beverages. The University did not cover the cost of beverages, but the hotel required that we pay a fee for the bartender and cashier that collected payments." As these expenses were incurred to allow conference participants to purchase alcohol, which is unallowable per 2 CFR 220 Appendix A, Section J.3, the associated fees should not have been allocated to the NSF award.

UIUC agreed to remove the entire cost of the bartender and cashier from the award.

NSF Award No. 1243438 provided funding to support participant attendance at a workshop titled "Towards in Silico Biological Cells: Bridging Experiments and Simulations," which was held in Switzerland from July 9-12, 2012. A hotel receipt from the Lausanne Palace included expenses for room fees for seven conference participants. The receipt showed that 1 participant stayed for 3 nights, 4 participants stayed for 4 nights, and 2 participants stayed for 5 nights. UIUC was not able to provide documentation that supported why the additional night was necessary for the two participants who stayed 5 nights. Without documentation to support the business purpose of the additional night stays, we are not able to verify that the expenses related to the purpose of the grant, and therefore the additional costs of \$356 should not have been allocated to the NSF award.

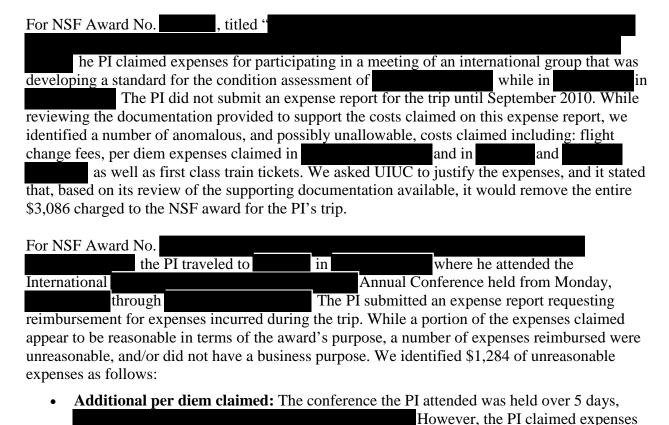
UIUC stated that, as they did not maintain documentation to justify the additional nights, they decided to remove the additional night for the two participants who stayed five nights.

NSF Award No. 1256163 provided funding to support a workshop titled "Envisioning Success: A workshop for Next Generation EarthCube Scholars and Scientists," which was held in

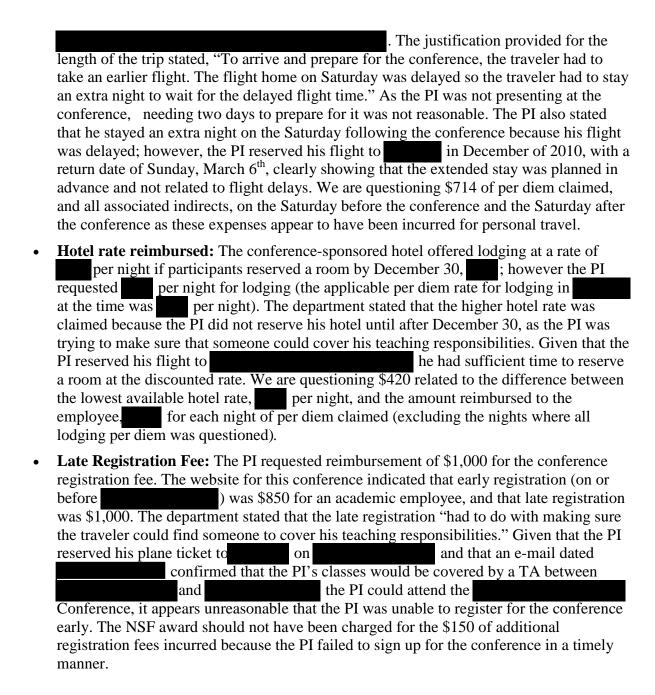
Bethesda, MD, from October 15 - October 17, 2012. A hotel receipt from the Hilton Garden Inn supported that room fees were incurred for 61 individuals. Most conference participants arrived the first day of the conference, October 15, 2012, and checked out the last day conference, October 17, 2012, which resulted in room fees for two nights at the hotel being charged to the award. However, the receipt also showed nine individuals who did not arrive until October 16 but were charged for a room on October 15, because the hotel charged no-show room fees for the first night of the conference. As the no-show room fees of \$2,487 did not benefit the grant, they should not have been allocated to the NSF award.

UIUC stated that they would remove the no-show expenses as they did not directly benefit the NSF award.

NSF Award No. 0947184, provided funding to support the "CMMI Workshop on Neuromechanical Engineering," which was held at NSF's headquarters in Arlington, VA from September 14 (Monday) - September 15 (Tuesday), 2009. One participant flew in to Washington, DC on the Saturday before the conference, with family members, and charged the Saturday night hotel stay to the NSF grant. The University was unable to provide support for the business purpose of this additional night stay. This employee also claimed parking expenses each night of his hotel stay, but did not request reimbursement for the costs associated with renting a car for the trip; indicating that the parking fees were not incurred for business purposes, but rather, that the car was rented for personal reasons. We are questioning the \$355 of costs associated with personal travel expenses.



for lodging and M&IE per diem, adjusted for meals provided, for 11 days, from



The 2 Code of Federal Regulations (CFR) 220, and the NSF Award and Administration guide require that all costs claimed under NSF grants are necessary, reasonable, allocable, and allowable. They also state that for a cost to be allocable to a particular cost objective, the goods or services involved must be chargeable or assignable to such cost objective in accordance with relative benefits received or other equitable relationship.

We are questioning a total of \$11,233 of unallocable travel and conference expenses as shown below:

NSF Award	Fiscal Year	Questioned Costs			
No.		Direct	Indirect <sup>1</sup>	Total	
1044307	2011-2012			\$1,217	
1243438	2012-2013			356	
1256163	2012-2013			2,487	
0947184	2009-2010			355	
	2010-2011			4,783	
	2010-2011			<u>2,035</u>	
<b>Total Questioned Costs</b>				<u>\$11,233</u>	

<sup>&</sup>lt;sup>1</sup>The indirect costs applied to each transaction varied based on the NSF award and the account types where the expenses were allocated. The total indirect costs applicable to each unallowable expense were determined by analyzing the University's general ledger.

#### Recommendations

We recommend that NSF's Director of the Division of Institution and Award Support request that UIUC:

1. Repay NSF the \$2,390 of questioned costs for NSF Award Nos. 0947184 and



- 2. Provide support to the Division of Institution and Award Support that it has repaid the \$8,843 of questioned costs for NSF Award Nos. 1044307, 1243438, 1256163 and
- 3. Strengthen the administrative and management controls and processes over retaining supporting documentation related to the business purpose or costs charged to its federal awards. Processes could include reviewing UIUC's policies and procedures, including performing periodic reviews of individual departments and divisions for compliance with, and proper implementation of established cost documentation requirements.
- 4. Strengthen the administrative and management controls and processes over allowing noshow expenses, and other penalty related expenses charged to its federal awards.

**University of Illinois at Urbana Champaign Response:** UIUC affirmed that documentation supporting the additional night stays was not available, and therefore it would remove the costs from the applicable NSF awards. As the other identified expenditures did not benefit the NSF award(s), UIUC stated that it would also remove those expenses.

Auditors' Additional Comments: Our position regarding the finding does not change.

#### Finding 6: Indirect Costs Claimed on Participant Support Costs

UIUC claimed \$ for indirect costs related to participant support costs on NSF Award No. 1044307. Meals and meeting space rental costs incurred to hold a conference were charged to

<sup>&</sup>lt;sup>2</sup>Indirect expenses at 58.5% were only charged to \$280 of the questioned direct expenses.

UIUC accounts to which indirect costs were applied, rather than to general participant support accounts, which do not receive indirect costs.

The NSF Proposal and Award Policies and Procedures Guide, Chapter V, Section D.1.b. states that NSF generally does not provide indirect costs for participant support costs. Therefore, while the budget may indicate that application of indirect costs to the meal expenses was appropriate, we determined that NSF's proposal and award policies and procedures guide represents the authoritative guidance that should have been followed for the participant support costs.

We determined that a total of \$16,724 of allowable participant support costs were charged to a fund that applied indirect expenses at a rate of of direct costs. As a result, \$ of indirect expenses were inappropriately applied to the NSF Award.

#### Recommendations

We recommend that NSF's Director of the Division of Institution and Award Support request that UIUC:

- 1. Repay NSF the \$ of questioned costs.
- 2. Strengthen the administrative and management controls and processes over participant support costs. Processes could include:
  - a. Implementing new policies and procedures that require a more stringent review of all cost allocated for conference expenses to ensure the indirect expenses are not allocated when the conference expenses relate to participant support costs.
  - b. Ensuring that workshop grant expenses are charged to account codes specifically designed to accumulate participant support costs, which would not apply indirect expenses.

University of Illinois at Urbana Champaign Response: UIUC agrees that indirect expenses should not be applied to participant support costs; however, it does not believe that the identified meal expenses represent participant support costs. The grant proposal and budget for NSF Award No. 1044307 classified meal expenditures for this conference as an other direct cost rather than a participant support cost; therefore, UIUC considers the application of indirect costs on the meal expenses appropriate. UIUC explained that it believes that NSF has the ultimate authority to determine which costs should not be applied to participant support, and as NSF awarded under these expenses under the "other direct cost" category, the application of indirect expenses was allowable.

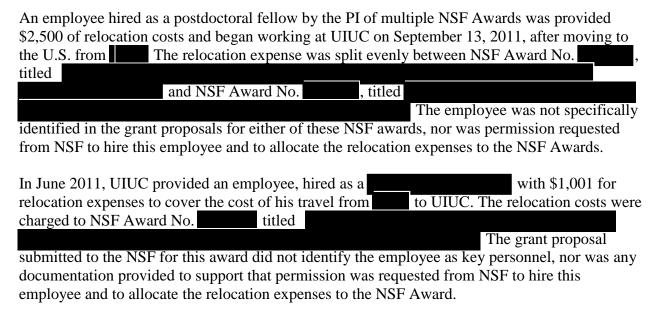
**Auditors' Additional Comments:** While we agree that the budget for this NSF award classifies meals as "other" expenses, it is clear that the meals were provided to conference participants, and therefore should have been budgeted as participant support costs. The NSF awarded budget should serve as guidance for how the funding should be spent, however, the budget does not supersede NSF's Award and Administration Guide which states that participant support costs are direct costs for items paid to on behalf of participants or trainees in connection with meetings, or conferences. As the meal expenses were paid on behalf of conference participants, they should

have been accounted for as participant support expenses, and accordingly should not have had indirect costs applied to them. Therefore, our position regarding this finding has not changed.

#### Finding 7: Unallowable Relocation Expenses

UIUC charged unallowable relocation costs to three NSF awards. While NSF policies do allow directly charging relocation expenses to NSF Awards, the fees must be charged in accordance with NSF's Award and Administration Guide to be considered allowable. The relocation fees charged to these NSF awards were for individuals who were not identified within the grant budget, and as UIUC failed to obtain approval to allocate these expenses to NSF awards, they are unallowable.

The NSF Proposal and Award Policies and Procedures Guide, Chapter V, Section C.4, states that relocation costs may be charged to an NSF Award in accordance with the applicable governing cost principles, provided that the proposal for NSF support specifically indicates that the grantee intends to hire a named individual for full-time work on the project and such recruitment action is not disapproved by the grant terms.



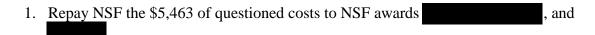
We are questioning a total of \$5,463 charged to the NSF Awards as follows:

NSF Award No.	Fiscal	Questioned Costs				
NSF Awaru No.	Year	Direct	Indirect <sup>1</sup>	Total		
	2011-2012			\$1,938		
	2011-2012			1,938		
	2011-2012			<u>1,587</u>		
Total Questioned				<u>\$5,463</u>		

<sup>1</sup>The indirect costs applied to each transaction varied based on the NSF award and the account types where the expenses were allocated. The total indirect costs applicable to each unallowable expense were determined by analyzing the University's general ledger.

#### Recommendations

We recommend that NSF's Director of the Division of Institution and Award Support request UIUC to:



Strengthen the administrative and management controls and processes over allocating
relocation expenses to sponsored projects. Processes could include strengthening internal
procedures to ensure that NSF Awards are not charged for relocation expenses
reimbursed to employees who were not identified as key personnel in the proposals
submitted.

University of Illinois at Urbana Champaign Response: UIUC agreed that relocation costs must be charged to an NSF award in accordance with the applicable governing principles, but believes that additional alternatives to the identified policy are available. UIUC indicated that under subsection (iv) of the NSF Proposal and Award Policies and Procedures Guide, Chapter V, Section C.4, relocation costs may be charged to an NSF grant if they are fully documented in the grantee's records, and are in accordance with the grantee's established policies and procedures. It also believes that it has met NSF's requirements that the relocation expenses were incurred for staff that were essential to the project on a full-time basis for a continuous period of at least 12 months, and are regularly located at a place sufficiently removed from the project site that necessitated the change.

**Auditors' Additional Comments:** Subsection (iv) referenced in UIUC's response is cited from the current version of NSF's Proposal and Award Policies and Procedures Guide which is effective for awards made on or after February 24, 2014 and would not be applicable to the NSF awards in this finding. The referenced subsection was not in the NSF guide effective during the audit's POP; therefore, our position regarding this finding has not changed.

APPENDIX A: SCHEDULE OF QUESTIONED COSTS BY FINDING

# NATIONAL SCIENCE FOUNDATION ORDER # D13PD00390 PERFORMANCE AUDIT OF COSTS CLAIMED ON NSF AWARDS UNIVERSITY OF CALIFORNIA, LOS ANGELES

#### SCHEDULE OF QUESTIONED COSTS BY FINDING

		Cost Breakdown		Total Questioned Costs		
Finding	Description	Direct Costs	Related Indirect Costs*	Indirect Costs	Unsupported	Unallowable
1	Over allocation of Senior Personnel Salaries					\$52,584
2	Unallocable Expenses Incurred at the End of the Grant's POP					41,734
3	Unsupported Expenses				<u>\$39,296</u>	
4	Unreasonable Foreign Travel Expenses					13,196
5	Unallocable Travel and Conference Expenses					11,233
6	Inappropriately Allocated Indirect Expenses					9,784
7	Unallowable Relocation Expenses					5,463
Total					<u>\$39,296</u>	<u>\$133,994</u>

<sup>\*</sup>Related Indirect Costs include Fringe Benefits for Questioned Salary Expenses

Appendix B: University of Illinois at Urbana-Champaign Response

## UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN · CHICAGO · SPRINGFIELD

September 5, 2014

Cotton & Company, LLP 635 Slaters Lane, 4<sup>th</sup> Floor Alexandria, VA 22314

Dear Mr.

We have reviewed the draft report entitled "University of Illinois, *Performance Audit of Incurred Costs for the National Science Foundation Awards for the Period January 1, 2010, to December 31, 2012 National Science Foundation of Inspector General.*" As requested, we are providing our comments addressing each finding. The University of Illinois (UIUC) believes that the small number of findings with limited questioned costs demonstrate our efforts to ensure the costs incurred are appropriate.

#### Finding 1: Salary Costs for Senior Personnel Exceeded NSF's Two-Month Maximum

UIUC agrees that there were salaries in excess of the two month salary rule. However, we believe that the FAQ guidance posted on the NSF website clarifying the policy cited in the finding (GPG Chapter II.C.2.g.(i)) leaves room for interpretation. The FAQ states "Therefore, under the normal rebudgeting authority, an awardee can internally approve an increase in person months devoted to the project after an award is made, even if doing so results in salary support for senior personnel exceeding the 2 month salary rule. No prior approval from NSF is necessary." The guidance addresses the allowability of the \$52,584 of questioned costs.

The limited number and amount of questioned costs cited in this report for excess of two months does indicate that UIUC has an appropriate level of administrative and management controls and processes over the allocation of senior personnel salaries onto NSF Awards as noted in the recommendation and that the authority to rebudget is not being overused or abused.

FAQ Source: http://www.nsf.gov/bfa/dias/policy/papp/papp13 1/faqs13 1.pdf

## Does the "2 month" salary rule apply to all senior personnel or only to faculty on academic appointments?

While the salary policy contained in GPG Chapter II.C.2.g.(i) does apply to all senior personnel listed on the NSF budget, the policy does allow for flexibility to request more than two months of salary per year. If proposers request more than two months, the needed salary support should be put on the proposal budget and will need to be very well justified in the budget justification. If more than 2 months is approved by NSF, it will be included on the award budget.

Grants and Contracts Office, Post-Award Administration – Office of Business and Financial Services 1901 South First Street, Suite A, MC-685 • Champaign, IL 61820-7406 Phone (217) 333-2186 • Fax (217) 239-6821 • E-mail gcopostuiuc@uillinois.edu Cotton & Company, LLP September 5, 2014 Page 2 of 3

Must awardees request prior NSF approval if making a change post-award to the amount originally budgeted for senior personnel salary?

NSF has not changed the terms and conditions or any of our post-award prior approval requirements. See AAG Exhibit II-1. Therefore, under the normal rebudgeting authority, an awardee can internally approve an increase in person months devoted to the project after an award is made, even if doing so results in salary support for senior personnel exceeding the 2 month salary rule. No prior approval from NSF is necessary. The caveat is if the change would cause the objective or scope of the project to change, then the awardee would have to submit an approval request via FastLane. Since salary can amount to a large part of the budget, there may very well be a scope change with addition of salary, especially if, for example, the PI decided not to hire a grad student in order to have enough money to cover the salary increase.

#### Finding 2: Expenses Charged at the End of NSF Award Periods were Unreasonable

UIUC agrees to remove the expenditures charged at the end of the NSF award periods for the cited awards. We believe that we have strengthened controls sufficient to address charges at the end of the award and believe they would be removed if were not found to be allowable, allocable, and reasonable.

#### Finding 3: Expenses Charged to NSF Awards were Unsupported

UIUC believes the costs and rates were valid charges against the awards. Since documentation supporting the validity of the costs is not available, UIUC will move the charges to departmental funds. We will reinforce the importance of retaining supporting documentation.

#### Finding 4: Unreasonable Foreign Travel

The original proposal and project budget included collaborative visits with the named collaborator in the project proposal. At the time of the proposal writing, the collaborator was in the subsequently accepted a position in the Consequently, the planned travel was shifted from domestic to foreign to continue the collaboration between the PI and the collaborator. This did not result in a significant increase in the total travel budget. The increase in travel was about 13 percent.

UIUC believes its administrative and management controls are strong. This is evidenced by the limited number and amount of questioned costs.

#### Finding 5: Unallocable Travel and Conference Expenses

Due to the time elapsed since the expenditures were originally incurred, documentation supporting additional nights is not available and costs will be removed. The costs noted as unallowable expenditures that did not benefit the award(s) will be removed. We will reinforce the importance of retaining supporting documentation and provide additional training on no-show expenses, and other penalty related expenses charged to federal awards.

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Cotton & Company, LLP September 5, 2014 Page 3 of 3

#### Finding 6: Indirect Costs Claimed on Participant Support Costs

UIUC believes that NSF has the ultimate authority to determine which costs are covered by funds provided for participant support. The proposal related to the award's questioned costs explicitly budgeted and justified the meal expenditures in the "other" category, not in participant support. The proposal was awarded and funded, as well as subsequently expended as proposed. We do not believe that the questioned costs are participant support costs.

We agree that the NSF Proposal and Award Policies and Procedures Guide, Chapter V, Section D.1.b. states that NSF generally does not provide indirect costs for participant support costs. However, we note that Chapter V describes under Section C.5 (*Other Direct Costs*) *Meeting and Conferences (C.5)* allowability and differentiates between Meals and Coffee Breaks (C.5.h) and Participant Support Costs (C.5.h). These are separate categories of expense and both are allowable as meeting and conference costs.

#### Finding 7: Unallowable Relocation Expenses

We agree that the NSF Proposal and Award Policies and Procedures Guide, Chapter V, Section C.4, states that relocation costs may be charged to an NSF Award in accordance with the applicable governing cost principles, provided that: the proposal for NSF support specifically indicates that the grantee intends to hire a named individual for full-time work on the project (i) and such recruitment action is not disapproved by the grant terms (subsection (ii)). We believe that there are additional alternatives specified.

Under subsection (iv), alternative procedures are allowed for relocation costs charged to an NSF grant that were not included in the approved budget. They must be fully documented in the grantee's records and be in accordance with the grantee's established policies and procedures. UIUC believes that we have met these requirements. Per the additional requirements outlined in the NSF Proposal and Award Policies and Procedures Guide, we believe they were also met; the staff are essential to the project on a full-time basis for a continuous period of at least twelve months; and are regularly located at a place sufficiently removed from the project site that his/her employment necessitates the change.



APPENDIX C: OBJECTIVES, SCOPE, AND METHODOLOGY

#### **OBJECTIVES, SCOPE, AND METHODOLOGY**

The NSF OIG Office of Audits engaged Cotton & Company LLP (referred to as "we" in this report) to conduct a performance audit of costs that UIUC incurred on NSF awards for the period from January 1, 2010, through December 31, 2012. The objectives of the audit were to (1) identify and report on instances of unallowable, unallocable, and unreasonable costs from the transactions tested; (2) to identify and report on instances of noncompliance with regulations, federal financial assistance requirements, and provisions of the NSF award agreements as they relate to the transactions tested; and (3) determine the reasonableness, accuracy, and timeliness of the awardee's ARRA quarterly reporting, including reporting of jobs created under ARRA and grant expenditures for the most recent quarters.

Our work required reliance on computer-processed data obtained from UIUC and the NSF OIG. We obtained data on each award UIUC reported on their FFRs for the quarters submitted during our audit period directly from the NSF OIG. In addition, we obtained the detailed transaction data for all costs charged to NSF awards during our audit period from UIUC personnel. This provided an audit universe of \$435,164,529 of costs that UIUC claimed on FFR's for 1,294 NSF awards.

We assessed the reliability of the data provided by UIUC by (1) comparing costs charged to NSF award accounts within UIUC's accounting records to reported net expenditures, as reflected in UIUC's quarterly financial reports submitted to NSF for the corresponding periods; (2) reviewing the general ledger to sub-ledger reconciliations of accounting data provided by the University; and (3) reviewing the parameters UIUC used to extract transaction data from its accounting records and systems.

Based on our assessment, we found UIUC's computer-processed data sufficiently reliable for the purposes of this audit. We did not review or test whether the data contained in, or controls over, NSF's databases were accurate or reliable; however, the independent auditors' report on NSF's financial statements for fiscal years 2010 and 2011 found no reportable instances in which NSF's financial management systems did not substantially comply with applicable requirements.

UIUC management is responsible for establishing and maintaining effective internal control to help ensure that federal award funds are used in compliance with laws, regulations, and award terms. In planning and performing our audit, we considered UIUC's internal control solely for the purpose of understanding the policies and procedures relevant to the financial reporting and administration of NSF awards, in order to evaluate UIUC's compliance with laws, regulations, and award terms applicable to the items selected for testing, but not for the purpose of expressing an opinion on the effectiveness of UIUC's internal control over award financial reporting and administration. Accordingly, we do not express an opinion on the effectiveness of UIUC's internal control over its award financial reporting and administration.

We assessed reasonableness, accuracy, and timeliness of the awardee's ARRA quarterly reporting, including reporting of jobs created under ARRA and grant expenditures for the two most recent quarters, by (1) recomputing the number of jobs created or retained in compliance with OMB Memorandum M-10-08, *Updated Guidance on the American Recovery and* 

Reinvestment Act – Data Quality, Non-Reporting Recipients, and Reporting of Job Estimates; (2) reconciled expenditures per the general ledger to the ARRA expenditures; and (3) reviewed the ARRA reporting submission dates. We found that the universe of NSF ARRA-funded awards included approximately \$26 million in expenditures across 76 NSF awards.

To accomplish our objectives of determining reasonableness, allowability, and allocability of costs while identifying and reporting on instances of noncompliance with regulations, federal financial assistance requirements, and provisions of the NSF award, we judgmentally selected and tested a variety of expenses allocated to NSF grants.

After confirming the accuracy of the data provided, but prior to performing any analysis of the data, we reviewed all available accounting and administration policies and procedures, relevant documented management initiatives, previously issued external audit reports, and desk review reports, to ensure we understood the data we were provided, and identified any possible weaknesses within UIUC's system that warranted focus during our testing.

We began our analytics process by reviewing the transaction level data provide by UIUC, and combining it with the data provided from the NSF OIG using software. We conducted data mining and data analytics on the entire universe of data provided, to compile a list of transactions that represented anomalies, outliers, and aberrant transactions. We reviewed the results of each of our data tests and judgmentally selected transactions for testing based on criteria including, but not limited to, transactions of large dollar amounts, possible duplications, indications of unusual trends in spending, descriptions indicating potentially unallowable costs, cost transfers, expenditures outside of a award's period of performance, and unbudgeted expenditures.

We identified 275 transactions for testing, sent the list to UIUC, and requested documentation to support each transaction. We reviewed the supporting documentation that UIUC provided to determine if sufficient appropriate evidence was obtained to support the allowability of the sampled expenditures. When necessary, we requested and reviewed additional supporting documentation and obtained explanations and justifications from PIs, and other knowledgeable UIUC personnel until we were confident that we had sufficient support to assess the allowability, allocability, and reasonableness of each transaction.

We discussed the results of our initial fieldwork testing and our recommendations for expanded testing with the NSF OIG. Based on the results of this discussion, we used software to extract an additional 175 transactions that were identified as anomalies or outliers in the recommended expansion areas.

We sent the list of the additional 175 transactions to UIUC and requested documentation to support each transaction. We reviewed the documentation provided and evaluated each transaction's allowability, allocability, and reasonableness with the same methodology used during initial fieldwork testing.

At the conclusion of our fieldwork, we provided a summary of our results to NSF OIG personnel for review and to UIUC personnel to ensure that they were aware of each of our findings, and did not have any additional documentation available to support the questioned costs identified.

We conducted this performance audit in accordance with generally accepted government auditing standards that require us to obtain reasonable assurance that the evidence provided is sufficient and appropriate to support the auditors' findings and conclusions in relation to the audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.