



At a Glance

Performance Audit of Incurred Costs — Pennsylvania State University

Report No. 17-1-001, March 6, 2017

Audit Objective

The National Science Foundation (NSF) Office of Inspector General (OIG) engaged Cotton & Company LLP (C&C) to conduct a performance audit of incurred costs at Pennsylvania State University (PSU) for the period April 1, 2012, to March 31, 2015. The audit encompassed more than \$182 million in expenditures that PSU claimed on Federal Financial Reports and through the Award Cash Management Service (ACMS). The objective of the audit was to determine if costs claimed by PSU during this period were allocable, allowable, reasonable, and in conformity with NSF award terms and conditions and applicable Federal financial assistance requirements.

C&C is responsible for the attached auditor's report and the conclusions expressed in this report. NSF OIG does not express any opinion on the conclusions presented in C&C's audit report.

Recommendations

The auditors included five findings in the report with associated recommendations for NSF to resolve the questioned costs and to ensure PSU strengthens administrative and management controls.

Contact Information

For further information, contact NSF OIG at (703) 292-7100 or oig@nsf.gov.

Audit Results

Costs PSU charged to its NSF-sponsored agreements did not always comply with applicable Federal, NSF, and university-specific award requirements. The auditors questioned \$135,695 of costs claimed by PSU during the audit period. Specifically, auditors found:

- \$63,472 in salary costs that exceeded NSF's allowable limits;
- \$57,600 in indirect costs improperly claimed on equipment expenses;
- \$8,112 for an unallowable pre-award computer purchase;
- \$3,409 in unallowable relocation expenses; and
- \$3,102 in expenses that were improperly allocated to NSF awards.

Agency Response

PSU disagreed with the first four findings of the report. PSU contends that the costs within the findings are allowable and disagreed with the auditors' interpretation of the Federal guidance. After taking PSU's comments into consideration, the auditors continue to question the costs and left the findings unchanged.

PSU agreed with the fifth finding and committed to removing the costs from the impacted awards.

PSU's response is attached in its entirety to the report as Appendix B.



National Science Foundation • Office of Inspector General
4201 Wilson Boulevard, Suite I-1135, Arlington, Virginia 22230

MEMORANDUM

Date: March 6, 2017

To: Dale Bell
Director, Division of Institution and Award Support

Jamie French
Director, Division of Grants and Agreements

From: Mark Bell
Assistant Inspector General, Office of Audits

Subject: Audit Report No. 17-1-001,
Pennsylvania State University

This memo transmits the Cotton & Company LLP (C&C) report for the audit of costs totaling approximately \$182 million charged by Pennsylvania State University (PSU) to its sponsored agreements with the National Science Foundation (NSF) during the period April 1, 2012, to March 31, 2015. The objective of the audit was to determine if costs claimed by PSU during this period were allocable, allowable, reasonable, and in conformity with NSF award terms and conditions and applicable federal financial assistance requirements.

In accordance with Office of Management and Budget Circular A-50, Audit Followup, please provide a written corrective action plan to address the report recommendations. In addressing the report's recommendations, this corrective action plan should detail specific actions and associated milestone dates. Please provide the action plan within 60 calendar days of the date of this report.

OIG Oversight of Audit

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

- reviewed C&C'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 C&C and NSF officials, as necessary, to discuss audit progress, findings, and recommendations;

- reviewed the audit report prepared by C&C to ensure compliance with generally accepted government auditing standards; and
- coordinated issuance of the audit report.

We thank your staff for the assistance that was extended to the auditors during this audit. If you have any questions regarding this report, please contact Billy McCain at 703-292-4989.

Attachment

cc: Alex Wynnyk, Staff Associate for Oversight, DIAS
Rochelle Ray, Branch Chief, Resolution and Advanced Monitoring Branch, DIAS
John Anderson, Chair, Oversight Committee, NSB
Christina Sarris, Assistant General Counsel, OD
Ken Chason, Counsel to the Inspector General, OIG

PENNSYLVANIA STATE UNIVERSITY

**PERFORMANCE AUDIT OF INCURRED COSTS FOR
NATIONAL SCIENCE FOUNDATION AWARDS
FOR THE PERIOD APRIL 1, 2012, TO MARCH 31, 2015**

**NATIONAL SCIENCE FOUNDATION
OFFICE OF INSPECTOR GENERAL**

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**NATIONAL SCIENCE FOUNDATION
PERFORMANCE AUDIT OF INCURRED COSTS
PENNSYLVANIA STATE UNIVERSITY**

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 in supporting its internal financial, administrative, and programmatic operations.

Most Federal agencies have 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 engaged Cotton & Company LLP (referred to as "we") to conduct a performance audit of incurred costs for Pennsylvania State University (PSU). This performance audit included obtaining transaction-level data for all costs that PSU charged to NSF during the audit period and selecting a sample of transactions for testing. Our audit of PSU, which covered the period from April 1, 2012, to March 31, 2015, encompassed more than \$182 million in expenditures that PSU claimed on Federal Financial Reports (FFRs) and through the Award Cash Management Service (ACM\$) during our audit period.

This performance audit, conducted under Contract No. D14PB00549, was designed to meet the objectives identified in the Objectives, Scope, and Methodology (OSM) section of this report and was conducted 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 PSU and the NSF OIG.

II. AUDIT RESULTS

As described in the OSM section of this report, we performed data analytics on the entire universe of expenditures that PSU claimed during the audit period, which included \$182,585,968 in costs claimed on 1,079 NSF awards. Based on the results of our testing, we found that PSU did not always comply with all Federal, NSF, and university-specific award requirements. As a

result, we questioned \$135,695 in costs claimed by PSU during the audit period. Specifically, we found:

- \$63,472 in salary costs that exceeded NSF's allowable limits.
- \$57,600 in indirect costs improperly claimed on equipment expenses.
- \$8,112 for an unallowable pre-award computer purchase.
- \$3,409 in unallowable relocation expenses.
- \$3,102 in expenses that were improperly allocated to NSF awards.

We provide a breakdown of the questioned costs by finding in Appendix A of this report.

Finding 1: Salary Costs Exceeding NSF's Allowable Limits

PSU employees identified as senior personnel inappropriately allocated more than two months (or the maximum number of approved months) of their salaries to NSF within a single year. NSF policies require that awardees obtain specific approval to charge more than two months of a senior personnel member's salary to NSF during a single year; for the employees identified, PSU either did not receive express permission to do so or allocated salaries to NSF awards in excess of the number of months expressly approved by NSF. PSU should not have charged NSF any salary expenses in excess of the approved limits.

NSF's *Award and Administration Guide* (AAG), Chapter V, Section B.1.a.(ii)(a) states that NSF normally limits the amount of salary that senior project personnel may allocate to NSF awards to no more than two months of their regular salary in any one year. The guidelines specifically assert that if the grantee anticipates the need to allocate senior personnel salary in excess of two months, the excess compensation must be requested in the proposal budget, justified in the budget support documentation, and specifically approved by NSF in the award notice. In instances where the grantee specifically requests to allocate more than two months of a senior personnel member's salary to NSF, the total amount of salary allocable is limited to the maximum number of months that NSF specifically approves within the NSF award notice. The table below shows the amount of unallowable salary expense that PSU charged to NSF awards as a result of exceeding these limits:

Instance	Fiscal Year (FY)	Annual Salary ¹	Monthly Salary	Allowable No. of Months	Allowable Salary	Amount Charged to NSF Awards	Unallowable Salary
1	2012-2013			2			\$11,897
2	2012-2013			2			5,317
3	2012-2013			2			15,084
4	2012-2013			2			1,148
5	2013-2014			2			3,364
Total							<u>\$36,810</u>

¹ Annual salary can be based on either a 9-month or a 12-month appointment.

While PSU provides each department with quarterly reports that summarize senior personnel effort allocated to sponsored projects, these reviews are intended to help Principal Investigators (PIs) and other senior personnel ensure that they do not drop **below** the required level of effort established for sponsored projects. PSU does not currently require that either the PI or the research accounting office review these quarterly reports to evaluate whether senior personnel are allocating salary to sponsored projects **in excess** of the amount budgeted on sponsored awards. As a result, senior personnel are able to, and are allowed to, allocate more than the maximum number of approved months of salary to sponsored projects, including NSF awards, during the year.

PSU was unable to provide any documentation to verify that NSF had given express permission, either through the award notice or through subsequent approvals, for the identified employees to allocate more than two months (or the maximum number of months identified) of their salary to NSF. We are therefore questioning \$63,472 of salary, fringe benefits, and related indirect expenses charged to NSF that exceeded the allocation limits.

Instance No.	NSF Award No.	FY	Questioned Costs			
			Direct	Fringe	Indirect*	Total
1		2012-2013			\$3,812	\$11,592
		2012-2013			3,970	12,072
2				3,517	10,695	
3				0	20,137	
4				751	2,284	
5				2,201	6,692	
Total Questioned Costs			\$36,810	\$12,411	\$14,251	\$63,472

*We calculated indirect costs by multiplying the questioned direct and fringe benefit costs by the actual indirect cost rate applied to the incurred costs per PSU's general ledger.

Recommendations

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

1. Repay NSF the \$63,472 of questioned costs.
2. Strengthen the administrative and management controls and processes over the allocation of senior personnel salary to ensure compliance with NSF policies. Processes could include requiring senior personnel to review the quarterly reports and verify that they are meeting, but not exceeding, award level-of-effort requirements.
3. Implement university-wide procedures to ensure that all departments appropriately monitor the allocation of senior personnel salaries.

Pennsylvania State University Response: PSU disagrees with the finding, as it believes that it complied with NSF policies and guidance with respect to senior personnel salaries. Specifically, PSU cited NSF's January 2013 *Frequently Asked Questions (FAQs) on Proposal Preparation*

and Award Administration document and its December 2014 *Proposal and Award Policies and Procedures Guide* (PAPPG), which both state that an awardee may internally approve an increase in the number of person-months devoted by senior personnel to the project without approval from NSF under NSF's normal re-budgeting authority, even if the increase results in salary support for senior personnel exceeding the two-month salary rule.

Auditors' Additional Comments: Although we agree that the 2013 FAQ response provided on NSF's website allows an awardee to increase the number of person-months that senior personnel devote to a project without NSF approval, the FAQs do not represent authoritative guidance and therefore do not overrule NSF's PAPPG. The versions of NSF's PAPPG that were effective from the beginning of the audit period until December 24, 2014, required specific approval to allocate more than two months of salary to NSF during a one-year period. The December 2014 revision to the PAPPG permitted PSU to internally approve an increase in the number of months that senior personnel dedicate to a project; as a result, our audit report does not note any instances of non-compliance with this policy after December 2014. Because all instances of non-compliance identified in this finding occurred before December 2014, our position regarding this finding does not change.

Finding 2: Unallowable Indirect Expenses

PSU incorrectly allocated \$57,600 of indirect costs to NSF Award No. [REDACTED]. These indirect costs were related to direct costs incurred for data storage space rental; however, rental costs are excluded from the allocation base for indirect costs. PSU therefore should not have applied indirect costs associated with rental costs to the NSF award.

In September 2013, NSF granted an amendment to NSF Award No. [REDACTED] to provide an additional \$223,697 of funding, \$124,000 of which was budgeted for equipment to support a data-supercell to communicate with the Pittsburgh Supercomputing Center (PSC) infrastructure. Because equipment costs are not included in the indirect cost allocation base, PSU did not include any indirect costs related to the data-supercell in the grant budget.

PSU entered into an agreement with PSC to rent [REDACTED] terabytes of storage for the period from July 1, 2013, to June 30, 2014, at a cost of \$120,000. The agreement stated that PSC would not provide any technical support or service, and that PSU was only contracting for storage space.

Although PSU's award budget included funding for this expense under the category of equipment, PSU accounted for the expense as a purchased service. Unlike equipment, purchased services are included within the Modified Total Direct Cost (MTDC) base per PSU's Negotiated Indirect Cost Rate Agreement (NICRA).² Classifying the rental of IT storage equipment as a purchased service therefore caused PSU to charge \$57,600 of indirect costs to the NSF award.

Per 2 Code of Federal Regulations (CFR) 220, Section G.2, the MTDC base excludes equipment, capital expenditures, and rental costs; PSU's application of indirect expenses therefore appears to

² Per PSU's NICRA, the MTDC base consists of all direct salaries and wages, applicable fringe benefits, materials and supplies, services, travel, and up to the first \$25,000 of each sub-award. It excludes equipment, capital expenditures, charges for patient care, rental costs, tuition remission, scholarships and fellowships, participant support costs, and the portion of each sub-award exceeding the first \$25,000.

be unreasonable. In addition, we noted that, as a result of classifying the budgeted equipment as a purchased service, PSU shifted \$57,600, or 25.75 percent of the budget, to support indirect expenses rather than salary and fringe benefit expenses, as originally budgeted.

While PSU was required to rent data storage space to achieve the award objectives, applying indirect costs to this expense was not allowable, as rental costs should not be included within the MTDC base. In addition, the indirect costs charged to the equipment as a result of the unallowable expense caused a significant shift of funds between budget categories that left little funding available for the salaries and fringe benefits that had originally been budgeted to support the award. We are therefore questioning the indirect costs associated with the data storage costs, as follows:

NSF Award No.	FY	Questioned Costs		
		Direct	Indirect	Total
	2013-2014	\$0	\$57,600	\$57,600

Recommendations

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

1. Repay NSF the \$57,600 of questioned costs.
2. Strengthen the administrative and management controls and processes over the classification of rental and equipment costs. Processes could include:
 - a. Developing new policies and procedures that require PSU to use an account that does not apply indirect costs in classifying all contracts in which it is neither purchasing nor receiving any service or any technical support for the rental of storage space.
 - b. Updating PSU's policies and procedures to require an annual review of all costs allocated to Federal awards in comparison to the Federal award budget.

Pennsylvania State University Response: PSU disagrees with this finding, as it believes that the audit report is incorrect in classifying PSC as a rental expense, rather than as a purchased service. PSU stated that by its nature, high-performance computing capacity includes a component of database administration, programming, and hardware/software/helpdesk support, and the expense should therefore be classified as a purchased service.

Auditors' Additional Comments: Our position regarding this finding does not change. While PSU's response states that high-performance computing capacity by nature includes a support service component, the agreement between PSU and PSC specifically states, "PSC is not providing any technical support or service." Classifying the data storage expense as a rental expense rather than as a service expense is therefore consistent with the manner in which PSU budgeted the expense. As a result, our conclusion that the data storage expense should be

classified as a rental expense rather than as a service expense has not changed, and accordingly, our position that indirect expenses should not be applied to the expense also has not changed.

Finding 3: Unallowable Pre-Award Computer Purchase

On February 12, 2014, PSU ordered an Apple MacBook Pro for a total cost of \$5,337 and allocated this amount to NSF Award No. [REDACTED], which did not begin its period of performance (POP) until July 1, 2014. NSF policies allow awardees to incur allowable costs on an award beginning 90 days before the effective date of the award; however, the PI incurred this expense 139 days before the effective date of NSF Award No. [REDACTED]. The PI stated that PSU placed the equipment order outside of the 90-day pre-award period because there was a 6-to-12-week delay on the shipment of Apple MacBooks, and they wanted to ensure that the computer arrived before the effective date for the award. In addition to exceeding the 90-day pre-award period, PSU inappropriately charged NSF for indirect expenses related to the purchased equipment.³

NSF AAG Chapter V, Section A.2.b states that grantees may incur allowable pre-award costs within the 90-day period immediately preceding the effective date of the grant; grantees must request permission from NSF to incur pre-award costs prior to this period.

As PSU purchased the computer before the 90-day pre-award period began and did not obtain NSF's approval to do so, it did not charge the computer to NSF in compliance with NSF award terms and conditions. We are therefore questioning \$8,112 associated with the computer purchase, as follows:

NSF Award No.	FY	Questioned Costs		
		Direct	Indirect*	Total
[REDACTED]	2014-2015	\$5,337	\$2,775	\$8,112

**We calculated indirect costs by multiplying the questioned direct costs by the actual indirect cost rate applied to the incurred cost per PSU's general ledger.*

Recommendations

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

1. Repay NSF the \$8,112 of questioned costs.
2. Strengthen the administrative and management controls and processes over the purchase of computers. Processes could include:
 - a. Implementing a new policy or procedure that requires all materials and supplies transactions greater than \$5,000 to undergo a secondary department-level review

³ PSU's NICRA states that NSF defines equipment as property charged directly to the grant, having a useful life of more than one year and an acquisition cost of \$5,000 or more per unit. Because the computer purchase meets the definition of equipment and PSU's NICRA states that the MTDC base excludes equipment, PSU should not have charged indirect costs for the purchased equipment.

to ensure that the purchase should not be identified as equipment before charging the cost to a sponsored project.

- b. Updating PSU's policies and procedures to require a more stringent review of the invoice date for all equipment charged to sponsored projects to ensure that the timing of the purchase is reasonable and allowable.

Pennsylvania State University Response: PSU agrees that it should not have allocated the indirect costs to the identified computer expense; however, PSU disagrees with questioning the direct costs incurred for the purchase of the computer. Specifically, PSU emphasizes that the PI ordered the computer outside of the 90-day award period due to a 6-to-12-week delay on the shipment of Apple MacBook Pro computers, and that, while the PI ordered the computer before the 90-day pre-award period, PSU did not incur the cost on the award until the "correct 90 day window."

Auditors' Additional Comments: Our position regarding this finding does not change. Although PSU did not charge this expense to the NSF award prior to the 90-day pre-award period, PSU did submit a purchase order prior to this period, and a purchase order represents a valid commitment to expend funds. As PSU committed to incurring the expense 139 days prior to the grant's effective period, the fact that PSU did not charge the expense to the NSF award until the "correct 90 day window" is not relevant.

Finding 4: Unallowable Relocation Expenses

PSU inappropriately charged \$3,409 to NSF Award No. [REDACTED] for relocation expenses incurred in [REDACTED] for a postdoctoral scholar who relocated to [REDACTED], to take a research position on the award. Although NSF policies allow awardees to directly charge relocation expenses to NSF awards, the awardee must incur these expenses for specific individuals named in the award proposal. PSU's proposal for NSF Award No. [REDACTED] included a postdoctoral research position in its budget, and PSU identified this postdoctoral scholar as a participant on the award in multiple annual reports submitted to NSF; however, PSU's proposal did not specifically identify the postdoctoral scholar by name, nor did it indicate that PSU intended to incur relocation expenses to hire an employee to fill this position.

NSF AAG, 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 indicates that the grantee intends to hire a specific, named individual to perform full-time work on the project, and that such recruitment action is not disapproved by the grant terms.

As the relocation expenses charged to this NSF award were not related to a named individual identified in the award proposal, and as PSU did not obtain specific permission from NSF to allocate relocation expenses for this employee to the NSF award, the relocation expenses are not allowable per the NSF AAG. We are therefore questioning all costs associated with the relocation expenses, as follows:

NSF Award No.	FY	Questioned Costs		
		Direct	Indirect*	Total
	2013-2014	\$2,288	\$1,121	\$3,409

*We calculated indirect costs by multiplying the questioned direct costs by the actual indirect cost rate applied to the incurred cost per PSU's general ledger.

Recommendations

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

1. Repay NSF the \$3,409 of questioned costs.
2. Strengthen the administrative and management controls and processes over allocating relocation expenses to sponsored projects. Processes could include strengthening internal procedures to ensure that PSU does not charge NSF awards for relocation expenses for employees who were not identified as key personnel in the proposals submitted.

Pennsylvania State University Response: PSU disagrees with this finding, as it incurred the questioned relocation expenses to support the relocation of a postdoctoral scholar to fill a position that PSU included as a budget line item in its approved proposal to NSF. Specifically, PSU stated that it has re-budgeting authority to cover relocation expenses and that the expense should therefore be allowable.

Auditors' Additional Comments: Although we agree that PSU has re-budgeting authority to shift funding among NSF budget categories, the NSF PAPPG effective at the time PSU incurred the relocation expenses included specific requirements that must be met for relocation expenses to be allowable, and PSU did not meet these requirements. As a result, our position regarding this finding does not change.

Finding 5: Expenses Inappropriately Allocated to NSF Awards

PSU inappropriately charged three NSF awards a total of \$3,102 for expenses that were not allocable to those awards. Specifically:

- In [REDACTED], PSU charged \$1,100 to NSF Award No. [REDACTED] for two one-year online subscriptions to the Federal and Congressional Yellow Book Directories. When we requested a justification for how this purchase benefited Award No. [REDACTED], PSU determined that the expense should not have been charged to this NSF award; rather, it should have been charged to another sponsored project the PI was working on at the time.
- In [REDACTED], the PI on NSF Award No. [REDACTED] purchased both research materials for this award and a \$170 computer monitor. When we requested a justification for how the new computer monitor benefited Award No. [REDACTED], the PI acknowledged that he should only have charged the research material kits to this award.
- In [REDACTED], the PI on NSF Award No. [REDACTED] traveled from PSU to [REDACTED] to present a paper at a conference and charged \$820 in travel expenses to the [REDACTED]

award. This paper was not included in the annual report to NSF, and we therefore requested justification regarding how the presentation benefitted this award. Upon our inquiry, PSU stated that the conference organizers requested that the PI present on a different topic that was not covered by the award.

NSF AAG Chapter V, Section A states, “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.” In addition, 2 CFR 220 states that a cost is allocable to a particular cost objective if the goods or services involved are chargeable or assignable to such cost objective in accordance with the relative benefits received or other equitable relationship.

As the costs incurred by PSU did not benefit the three NSF awards, PSU should not have charged them to NSF. We are therefore questioning a total of \$3,102, as follows:

NSF Award No.	FY	Questioned Costs		
		Direct	Indirect*	Total
	2011-2012	\$1,100	\$528	\$1,628
	2012-2013	170	82	252
	2013-2014	<u>820</u>	<u>402</u>	<u>1,222</u>
Total Questioned Costs		<u>\$2,090</u>	<u>\$1,012</u>	<u>\$3,102</u>

**We calculated indirect costs by multiplying the questioned direct costs by the actual indirect cost rate applied to the incurred cost per PSU’s general ledger.*

Recommendations

We recommend that NSF’s Director of the Division of Institution and Award Support request that PSU:

1. Repay NSF the \$3,102 of questioned costs.
2. Strengthen the administrative and management controls and processes over reviewing all direct expenses allocated to sponsored projects. Processes could include requiring the PI to review all sponsored project expenditures on a monthly basis to verify that all costs charged to a sponsored project during the month are allocable to the award charged.

Pennsylvania State University Response: PSU agrees that the three expenses identified in this finding were charged to NSF in error, and it will remove these costs from the awards.

Auditors’ Additional Comments: Our position regarding this finding does not change.

COTTON & COMPANY LLP

Michael W. Gillespie, CPA, CFE
Partner

APPENDIX A: SCHEDULE OF QUESTIONED COSTS BY FINDING

NATIONAL SCIENCE FOUNDATION
ORDER # D14PB00549
PERFORMANCE AUDIT OF COSTS CLAIMED ON NSF AWARDS
PENNSYLVANIA STATE UNIVERSITY

SCHEDULE OF QUESTIONED COSTS BY FINDING

Finding	Description	Cost Breakdown			Total Questioned Costs	
		Direct Costs	Related Indirect Costs ⁴	Indirect Costs	Unsupported	Unallowable
1	Salary Costs Exceeding NSF's Allowable Limits	\$36,810	\$26,662			\$63,472
2	Unallowable Indirect Expenses			\$57,600		57,600
3	Unallowable Pre-Award Computer Purchase	5,337	2,775			8,112
4	Unallowable Relocation Expenses	2,288	1,121			3,409
5	Expenses Inappropriately Allocated to NSF Awards	<u>2,090</u>	<u>1,012</u>			<u>3,102</u>
Total		<u>\$46,525</u>	<u>\$31,570</u>	<u>\$57,600</u>	<u>\$0</u>	<u>\$135,695</u>

⁴ Related indirect costs include fringe benefits and indirect expenses that PSU applied to the questioned direct costs.

APPENDIX B: PENNSYLVANIA STATE UNIVERSITY RESPONSE



PennState

Financial Reporting

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210 James M. Elliott Building
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January 20, 2017

Cotton & Company LLP
635 Slaters Lane
4th Floor
Alexandria, VA 22314

Re: *The Pennsylvania State University – Performance Audit of Incurred Costs for National Science Foundation Awards for the Period April 1, 2012 to March 31, 2015*

Dear Ms. Mesko:

On behalf of The Pennsylvania State University (“PSU”), I am submitting these comments in response to the Draft Audit Report issued by Cotton & Co. on December 20, 2016 in the above-referenced audit.

Finding 1: Salary Costs Exceeding NSF’s Allowable Limits

The Pennsylvania State University Response: PSU disagrees with this finding, as we believe that we have complied with NSF policies and guidance with respect to senior personnel salaries. Permission to rebudget senior personnel salaries was specifically addressed by NSF in the 2013 FAQs published 1/14/13 as follows:

“...Therefore, under 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...”

In the 2013 FAQs, NSF stated that this was not a change to their terms and conditions or any of their post-award prior approval requirements and references AAG Exhibit II-1.

NSF incorporated this 2013 FAQs language into the NSF Proposal and Award Policies and Procedures Guide published December 26, 2014. This permission was also addressed in NSF’s response to the Inspector General’s semiannual report published November 30, 2015 sent to the Chairman of the National Science Board. NSF referenced permission to rebudget senior personnel salaries exceeding the 2 month rule noting that this was not a change in policy, but rather a clarification of their long-standing policy.

These policies and guidance support the senior personnel salaries charged as allowable, therefore, PSU requests that the \$63,472 in questioned costs be removed.

Finding 2: Unallowable Indirect Expenses

The Pennsylvania State University Response: PSU disagrees with the classification of the Pittsburgh Supercomputing Center (PSC) as a rental expense. PSC was providing a purchased service based on their charge out rate for storage on their Data Super Cell. The agreement between Carnegie Mellon University and PSU identifies this purchase as a PSC data storage service.

The PSC provides this service to support several federal agencies including the NSF Cyberinfrastructure Program. All data storage was housed at PSC and due to the nature of purchasing high performance computing capacity there is a component of database administrators, programmers, and hardware/software/helpdesk support included.

While the cost was originally proposed as PSU Capital Equipment, it was rebudgeted to Purchased Services for the Pittsburgh Supercomputing Center. PSU had rebudgeting authority based on the following Federal Demonstration Partnership (FDP) Matrix where prior approval for rebudgeting among budget categories and rebudgeting between direct and F&A costs is waived by NSF:

<http://www.nsf.gov/pubs/fdp/fdpmatrix.xls>

PSU did not ask NSF for additional funding based on the rebudgeting from salaries and fringe benefits. There was no change to the project scope of work.

PSU requests that the \$57,600 in questioned costs be removed.

Finding 3: Unallowable Pre-Award Computer Purchase

The Pennsylvania State University Response: PSU disagrees with this finding, as we believe that the expenditure for the Apple MacBook Pro complied with the guidance that costs are not incurred prior to 90 days before the effective date of the award which was July 1, 2014. The costs of the Apple MacBook Pro were incurred on April 25, 2014. This date falls within the 90 day pre-effective date of the award.

PSU did order the computer in February of 2014 but no cost was incurred on the award at this time. Apple MacBook Pro's were known to be on a 6-to-12-week delay of shipments. This proved to be the case and the computer was received and expended on the award in the correct 90 day window. PSU did not invoice NSF for this purchase until after the project officially began.

PSU requests that the \$5,337 in questioned costs for the computer purchase be removed.

PSU agrees that the indirect costs should not have been allocated to the computer expense and we will take the appropriate steps to have this \$2,775 removed.

Finding 4: Unallowable Relocation Expenses

The Pennsylvania State University Response: PSU disagrees with this finding as relocation expenses are considered an allowable expense. Dr. [REDACTED] Post-Doctoral Scholar position was specifically proposed and approved by NSF as a budget line item. Dr. [REDACTED] was identified in the [REDACTED] annual progress report submitted and approved by NSF as follows:

"During year 1 we completed some but not all of our goals. The reason is that we were not able to hire a postdoc immediately. We advertised the position during the fall [REDACTED] job season and after reviewing applications we identified a suitably qualified person in the spring of [REDACTED]. [REDACTED] will begin working with our group in September [REDACTED], after completing [REDACTED] PhD at [REDACTED]. This delay was inevitable because of the timing of the job advertisement and hiring season in the U.S. and [REDACTED]."

The progress report explains that the position was advertised in Fall [REDACTED] during the job season and Dr. [REDACTED] was identified in Spring [REDACTED]. Dr. [REDACTED] was hired specifically for the project and was considered essential to carry out the new observations and analyze and interpret the data. [REDACTED] was also mentioned throughout the [REDACTED] and [REDACTED] annual progress reports which were submitted to and approved by NSF.

PSU has rebudgeting authority to cover these relocation expenses and we did not request any additional funding from NSF. There was no change to the project scope of work.

PSU requests that the \$3,409 in questioned costs be removed.

Finding 5: Expenses Inappropriately Allocated to NSF Awards

The Pennsylvania State University Response: PSU agrees that the three expenses identified above were charged to NSF in error and will take the appropriate steps to remove these costs from the awards.

If you have any questions or need additional clarification from PSU, please contact Victoria Doksa at 814-865-1702.

Sincerely,

[REDACTED]

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PennState

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 PSU incurred on NSF awards for the period from April 1, 2012, to March 31, 2015. The objective of the audit was to determine if costs claimed by PSU during this period were allocable, allowable, reasonable, and in conformity with NSF award terms and conditions and applicable Federal financial assistance requirements.

Our work required us to rely on computer-processed data obtained from PSU and the NSF OIG. The NSF OIG provided data on each award that PSU reported on FFRs and through ACM\$ during our audit period, and PSU provided detailed transaction-level data for all costs charged to NSF awards during the period. This resulted in a total audit universe of \$182,585,968 in costs claimed on 1,079 NSF awards.

We assessed the reliability of the data provided by PSU by (1) comparing costs charged to NSF award accounts within PSU’s accounting records to reported net expenditures, as reflected in PSU’s quarterly financial reports and ACM\$ drawdown requests submitted to NSF for the corresponding periods; and (2) reviewing the parameters that PSU used to extract transaction data from its accounting records and systems.

Based on our assessment, we found PSU’s computer-processed data to be sufficiently reliable for the purposes of this audit. We did not review or test whether the data contained in, or the controls over, NSF’s databases were accurate or reliable; however, the independent auditor’s report on NSF’s financial statements for FY 2015 found no reportable instances in which NSF’s financial management systems did not substantially comply with applicable requirements.

PSU 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 PSU’s internal control solely for the purpose of understanding the policies and procedures relevant to the financial reporting and administration of NSF awards to evaluate PSU’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 PSU’s internal control over award financial reporting and administration. Accordingly, we do not express an opinion on the effectiveness of PSU’s internal control over its award financial reporting and administration.

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

We began our analytics process by reviewing the transaction-level data that PSU provided, then used IDEA software to combine it with the data provided by the NSF OIG. We conducted data mining and data analytics on the entire universe of data provided and compiled 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, large-dollar amounts, possible duplications, indications of unusual trends in spending, descriptions indicating potentially unallowable costs, cost transfers, expenditures outside of an award's POP, and unbudgeted expenditures.

We identified 250 transactions for testing and requested that PSU provide documentation to support each transaction. We reviewed the supporting documentation to determine if we had obtained sufficient, appropriate evidence to support the allowability of the sampled expenditures. When necessary, we requested additional supporting documentation, reviewed it, and obtained explanations and justifications from PIs and other knowledgeable PSU personnel until 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 IDEA software to select an additional judgmental sample of 75 transactions, which included samples for two additional tests focused on general ledger transactions in areas that warranted further sampling. We requested and received supporting documentation for the additional transactions tested and summarized the results of the additional testing in a final fieldwork summary.

At the conclusion of our fieldwork, we provided a summary of our results to NSF OIG personnel for review. We also provided the summary of results to PSU 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, which 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.