

Performance Audit of Incurred Costs – Texas A&M Engineering Experiment Station

REPORT PREPARED BY COTTON & COMPANY LLP

NATIONAL SCIENCE FOUNDATION
OFFICE OF INSPECTOR GENERAL

March 28, 2018
OIG 18-1-002





AT A GLANCE

Performance Audit of Incurred Costs – Texas A&M Engineering Experiment Station

Report No. OIG 18-1-002

March 28, 2018

AUDIT OBJECTIVE

The National Science Foundation Office of Inspector General engaged Cotton & Company LLP (C&C) to conduct a performance audit of incurred costs at the Texas A&M Engineering Experiment Station (TEES) for the period May 1, 2013, to April 30, 2016. The auditors tested more than \$2.9 million of the \$56.1 million of costs claimed to NSF. The objective of the audit was to determine if costs claimed by TEES 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 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.

AUDIT RESULTS

TEES did not always comply with all Federal, NSF, and TEES regulations and policies when allocating expenses to NSF awards. Specifically, the auditors found \$28,232 in expenses that were inappropriately allocated to NSF; \$14,759 for inappropriate equipment and supply purchases made at the end of an award's period of performance; \$13,827 of unallowable foreign travel expenses; \$8,484 of inappropriately allocated indirect costs; \$8,111 of unsupported salary expenses; and, \$6,642 of inappropriate participant support costs.

RECOMMENDATIONS

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

AUDITEE RESPONSE

TEES agreed with many of the findings, but did not respond to certain questioned costs, as noted in the report. TEES' response is attached in its entirety to the report as Appendix B.

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



NATIONAL SCIENCE FOUNDATION OFFICE OF INSPECTOR GENERAL

MEMORANDUM

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

DATE: March 28, 2018

SUBJECT: Audit Report No. 18-1-002, Texas A&M Engineering Experiment Station

This memo transmits the Cotton & Company LLP (C&C) report for the audit of costs charged by the Texas A&M Engineering Experiment Station (TEES) to its sponsored agreements with the National Science Foundation during the period May 1, 2013, to April 30, 2016. The audit encompassed more than \$2.9 million of the \$56.1 million claimed to NSF during the period. The objective of the audit was to determine if costs claimed by TEES 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 six months of the date of this report.

OIG Oversight

C&C is responsible for the attached auditors' report and the conclusions expressed in this report. We do not express any opinion on the conclusions presented in C&C's audit report. To fulfill our responsibilities, we:

- 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, as necessary, to discuss audit progress, findings, and recommendations;
- reviewed the audit report prepared by C&C; and
- coordinated issuance of the audit report.



NATIONAL SCIENCE FOUNDATION OFFICE OF INSPECTOR GENERAL

Attachment

cc:

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TEXAS A&M ENGINEERING EXPERIMENT STATION

**PERFORMANCE AUDIT OF INCURRED COSTS FOR
NATIONAL SCIENCE FOUNDATION AWARDS
FOR THE PERIOD MAY 1, 2013, TO APRIL 30, 2016
NATIONAL SCIENCE FOUNDATION
OFFICE OF INSPECTOR GENERAL**

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**NATIONAL SCIENCE FOUNDATION
PERFORMANCE AUDIT OF INCURRED COSTS
TEXAS A&M ENGINEERING EXPERIMENT STATION**

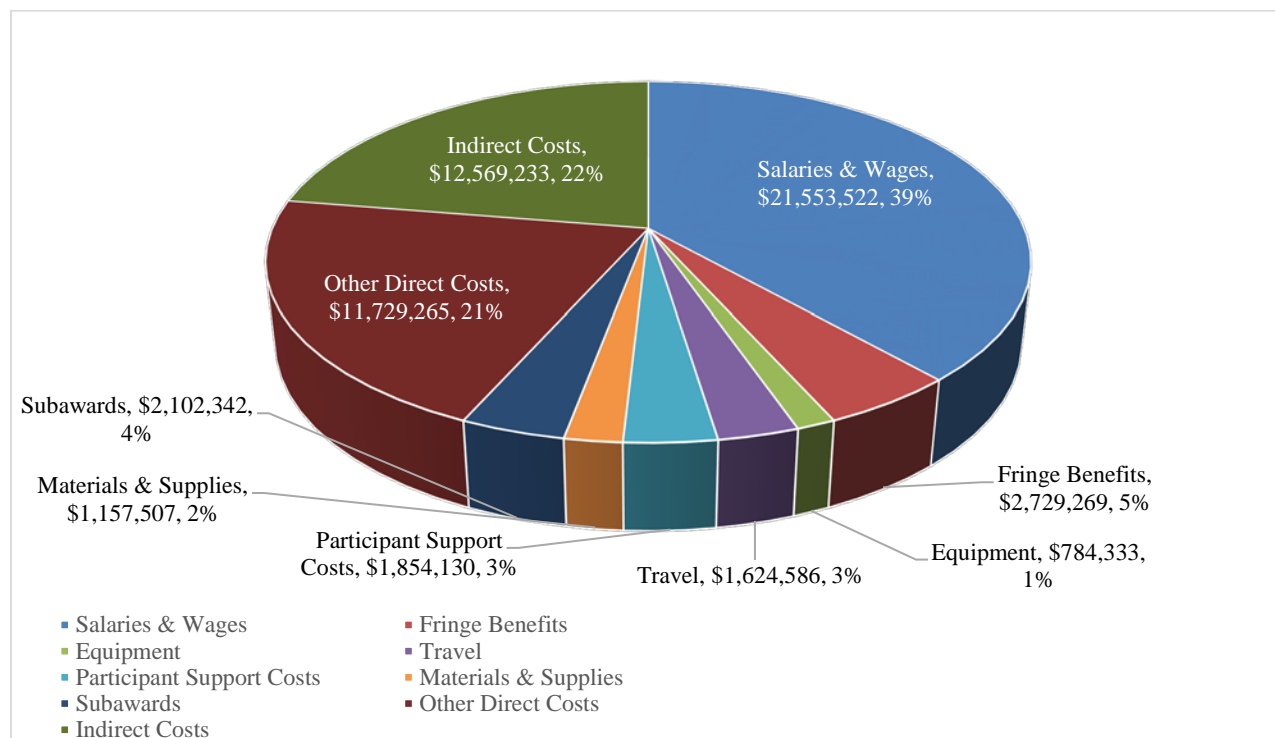
I. BACKGROUND

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 costs incurred by the Texas A&M Engineering Experiment Station (TEES). TEES is an engineering research agency within the Texas A&M University System whose focus is educational collaborations and engineering and technology-oriented research. TEES is an NSF grant recipient that received 42 percent of its research funding from Federal awards in fiscal year 2015 and is involved in more than 4,800 research projects. As illustrated in Figure 1, TEES claimed more than \$56 million in expenditures through the Award Cash Management Service (ACMS) across 401 NSF awards during our audit period, or May 1, 2013, through April 30, 2016. Figure 1 also shows costs claimed by budget category based on the accounting data provided by TEES.

Figure 1: Costs Claimed by NSF Budget Category, May 1, 2013, to April 30, 2016



Source: Auditor analysis of accounting data provided by TEES.

This performance audit, conducted under Contract No. D15PB00567, was designed to meet the objectives identified in the Objectives, Scope, and Methodology (OSM) section of this report (Appendix C) 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 TEES and the NSF OIG.

II. AUDIT RESULTS

As described in the OSM section of this report, this performance audit included obtaining transaction-level data for all costs that TEES claimed on NSF awards during the audit period. We judgmentally selected a sample of 275 transactions for testing, totaling \$2,900,791.

TEES did not always comply with all Federal, NSF, and TEES regulations and policies when allocating expenses to NSF awards and needs improved oversight of the allocation of expenses to NSF awards to ensure costs claimed are reasonable, allocable, and allowable in accordance with those regulations and policies. As a result, we questioned \$80,055 in costs claimed by TEES during the audit period, as follows:

- \$28,232 of expenses not appropriately allocated to NSF
- \$14,759 of inappropriate equipment and supply purchases made at the end of an award's period of performance
- \$13,827 of unallowable foreign travel expenses

- \$8,484 of inappropriately allocated indirect costs
- \$8,111 of unsupported salary expenses
- \$6,642 of inappropriate participant support costs

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

Finding 1: Expenses Not Appropriately Allocated to NSF Awards

TEES inappropriately allocated \$28,232 of expenses to seven NSF awards. Specifically, the costs identified below were not allocated in accordance with 2 Code of Federal Regulations (CFR) 220, Appendix A, Section C.4, which 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 relative benefits received or other equitable relationship, as follows:

Transposition Error: In December 2013, TEES inappropriately charged \$9,966 to NSF Award No. [REDACTED] due to a transposition error made when the expense was posted to the general ledger. As this expense was charged to this award as the result of an error, TEES has agreed to reimburse NSF for this expense.

PI Travel Expenses Not Allocable to the Award: In June 2015, TEES charged \$5,976 to NSF Award No. [REDACTED] related to travel expenses incurred by the Principal Investigator (PI) during a trip [REDACTED] took to [REDACTED] and [REDACTED] in [REDACTED] 2015. We reviewed the purpose of each leg of the PI's trip and noted that none of the travel taken appeared directly allocable to this award (as summarized below) and therefore questioned all costs associated with this trip. Specifically:

- ***Travel to [REDACTED]*** Per the PI, the purpose of this trip was to visit [REDACTED] at [REDACTED] University to discuss potential collaborations between Texas A&M University and [REDACTED] University. Neither [REDACTED] nor [REDACTED] University were identified as collaborators on this award, grant-related travel to [REDACTED] was not reported in the annual report, and a meeting about future collaborations does not appear to be directly allocable to this award.
- ***Travel to [REDACTED]*** Per the PI, the purpose of this trip was to recruit graduate students and discuss possible collaborations with [REDACTED] at [REDACTED] University. Neither [REDACTED] nor [REDACTED] University were identified as collaborators on this award, grant-related travel to [REDACTED] was not reported in the annual report, and no graduate students from [REDACTED] University were identified as award participants.
- ***Travel to [REDACTED]***: Per the PI, the purpose of this trip was to present a paper at the [REDACTED] Conference and to talk to colleagues about new ideas for joint proposals. Travel to [REDACTED] to attend the conference was not identified as grant-related travel, the paper the PI presented at the conference was not identified as a grant-related paper, and Federal policies state that proposal costs should not be directly allocated to Federal awards.

Tuition Expense Processing Error: In February 2016, TEES inappropriately charged \$4,415 of Fall 2015 tuition expenses to NSF Award No. [REDACTED], which did not become effective until the Spring 2016 semester, due to an error that occurred when processing Fall 2015 tuition. TEES has agreed to reimburse NSF for these expenses.

Misallocated Graduate Student Tuition: In April 2016, TEES charged \$3,255, or 100%, of a graduate student's Spring 2016 tuition expense to NSF Award No. [REDACTED]. The student certified spending 20% effort on this award during the Spring 2016 certification period and allocated 20% effort to this award, therefore only 20% of the student's tuition, \$651, should have been allocated to this NSF award. We therefore questioned \$2,604, or 80%, of the Spring 2016 tuition expense.

Student Airfare Expense Not Allocable to NSF Award: In August 2014, TEES charged \$2,513 to NSF Award No. [REDACTED] for airfare expenses incurred for a student to attend a conference. The student was not identified as an award participant in annual reports and did not allocate any effort to this NSF award, therefore airfare expenses for this student should not have been charged to this award.

PI Travel Not Allocable and Exception to Fly America Act: In July 2014, the PI of NSF Award No. [REDACTED] traveled to [REDACTED] to discuss possible topics for future collaborative proposals with [REDACTED] located in [REDACTED] and charged the \$2,428 of travel expenses to the NSF award. The PI claims that this travel benefitted this NSF award, but did not report international travel, nor did they identify [REDACTED] award collaborator within the annual reports submitted for this award. Furthermore, we noted the PI purchased an airline ticket from [REDACTED], rather than using a U.S. flag air carrier. The Fly America Act and TEES' Travel Reimbursement Policy require travelers booking airfare with funds provided by the Federal government to use a U.S. flag carrier regardless of cost or convenience, with limited exceptions.¹

Post-Award Tuition Expenses: In [REDACTED] 2014, TEES charged \$2,188 to NSF Award No. [REDACTED] to cover [REDACTED] 2014 ([REDACTED] 2014 - [REDACTED] 2014) tuition expenses; however, the award expired [REDACTED], before [REDACTED]. Since a portion of the expenses related to post-expiration ([REDACTED] 2014) tuition costs, we questioned \$330 of the [REDACTED] 2014 tuition expense.

TEES did not have proper controls in place to ensure that errors were detected when expenses were posted, or that costs were allocated to projects based on the proportional benefit they received. As a result, TEES inappropriately charged NSF for \$28,232 of expenses, which were not allocable to the awards, as follows:

¹ The PI purchased an airline ticket from [REDACTED] because (1) [REDACTED] offered direct flights from Houston, [REDACTED], and (2) [REDACTED]. As neither of these justifications represents an allowable exception for use of a foreign air carrier, the purchase does not comply with the Fly America Act.

Table 1: Expenses Not Appropriately Allocated to NSF Awards

Description	NSF Award No.	FY	Questioned Costs
Transposition Error		2014	\$9,966
PI Travel Expenses Not Allocable to the Award		2015	5,976
Tuition Expense Processing Error		2016	4,415
Misallocated Graduate Student Tuition		2016	2,604
Student Airfare Expense Not Allocable to NSF Award		2015	2,513
PI Travel Not Allocable and Exception to Fly America Act		2015	2,428
Post-Award Tuition Expenses		2015	330
Total Questioned Costs			<u>\$28,232</u>

Source: Auditor summary of questioned transactions.

Recommendations

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

1. Repay NSF the \$28,232 of questioned costs.
2. Strengthen the administrative and management controls and processes over allocating expenses to sponsored funding sources.
3. Implement policies and procedures to require documentation of the methodology used to allocate expenses to sponsored projects, including a justification for how the methodology was determined.

TEES Response: TEES agreed that it should implement stronger controls over allocating expenses to sponsored projects. Specifically, TEES noted that it will strengthen its procedures around documenting its expense allocation methodology and will offer training to PIs to increase awareness of this recommendation. TEES did not respond regarding the allowability of the questioned costs.

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

Finding 2: Equipment and Supply Expenses Charged at the End of the Award Period

TEES personnel charged \$14,759 of equipment expenses to NSF awards that did not appear to be reasonable, necessary, or allowable for accomplishing award objectives. Specifically, TEES inappropriately charged equipment expenses incurred after a grant's period of performance (POP) expired and reallocated general supply purchases to an NSF award at the end of the award's POP, as follows:

Post-Expiration Equipment Purchase: On [REDACTED] 2013, [REDACTED] days after NSF Award No. [REDACTED] expired, TEES ordered a \$7,488 piece of equipment to replace a flow-meter that the PI stated was needed to finalize grant objectives. As the equipment was not ordered until after the expiration date of the grant, the expense does not represent a valid commitment made before the grant's expiration date. It is therefore unallowable per the *NSF Proposal and Award Policies and Procedures Guide (PAPPG)*², which states that NSF funds may not be expended subsequent to the grant's expiration date except to liquidate valid commitments made on or before the expiration date.

Reallocated General Supply Purchases: On [REDACTED] [REDACTED] days before NSF Award No. [REDACTED] expired, the PI sent an e-mail to grant administrative staff noting that the full budget of this award had not been spent. The PI then requested that \$7,271 related to general supply expenses previously allocated to the PI's start-up fund³ be transferred to the expiring NSF award. 2 CFR 220, Appendix A, Section C.4.a. states that a cost is allocable to a particular Federal award if the goods involved are chargeable or assignable to that award in accordance with the relative benefits received or other equitable relationship. While the PI stated that these supplies were used to conduct award-related research and were originally charged to the start-up fund due to a delay in this NSF award being transferred to TEES. However, the documentation provided supports that the costs were not transferred to this award until the PI noted that funds were still available on this award during closeout. As the supplies do not appear to have been charged to the award in accordance with the benefits received, but rather, appear to have been shifted to this award solely for fund considerations and/or for other reasons of convenience, these expenses should not have been charged to NSF.

TEES did not have sufficient policies and procedures in place to ensure that funds were not expended after the award expiration date or that costs were allocated to projects based on the proportional benefit they received. We questioned \$14,759 of expenses as follows:

Table 2: Equipment and Supply Expenses Charged at the End of the Award Period

Description	NSF Award No.	FY	Questioned Costs
Post-Expiration Equipment Purchase	[REDACTED]	2014	\$7,488
Reallocated General Supply Purchases	[REDACTED]	[REDACTED]	7,271
Total Questioned Costs			<u>\$14,759</u>

Source: Auditor summary of questioned transactions.

Recommendations

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

² See NSF PAPPG Part II – Award and Administration Guide, Chapter V, Section A.2.c

³ [REDACTED]. PIs receive startup funds as part of their appointment agreements. PIs can use startup funds to conduct non-sponsored research activities.

1. Repay NSF the \$14,759 of questioned costs.
2. Strengthen the administrative and management controls and processes over allocating equipment expenses to sponsored projects. Processes could include requiring that all equipment purchased less than 90 days before an award expires be reviewed to evaluate whether the costs comply with appropriate Federal and sponsor-specific regulations.
3. Strengthen the administrative and management controls and procedures over the processing of cost transfers as an award's end date approaches. Processes could include requiring sponsor approval before allowing cost transfers that would result in expenses being transferred from an alternative funding source to a sponsored funding source within the final 90 days of an award's period of performance.

TEES Response: TEES agreed to strengthen its controls and processes over allocating equipment expenses to sponsored projects by reviewing purchases made less than 90 days before the award expires. In addition, TEES noted that it will strengthen its cost transfer policy to require sponsor approval as appropriate. TEES did not respond regarding the allowability of the questioned costs.

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

Finding 3: Unallowable Foreign Travel Expenses

TEES charged \$13,827 of unallowable foreign travel expenses to seven NSF awards during the sampled audit period. Specifically, TEES inappropriately charged upgraded business class airfare expenses, airfare expenses that do not appear to have complied with the Fly America Act, unallowable per diem, and unsupported foreign travel expenses to NSF awards, as follows:

Upgraded Business Class Airfare: TEES charged NSF for an upgrade to business class airfare that was not allowable in accordance with Federal or TEES travel policies. Specifically, on [REDACTED] 2015, while attending a conference in [REDACTED], the PI of NSF Award No. [REDACTED] upgraded an economy class return airfare ticket to a business class ticket after purportedly beginning to feel ill the day before departure.

Federal regulations⁴ and TEES policy⁵ prohibit reimbursement of business or first class airfare, with limited exceptions. Documentation was not provided to support that a business class upgrade was justified and approved at the time of travel, as required TEES policy. In addition,

⁴2 CFR 220, Appendix A, Section J.53.c states: Airfare costs in excess of the customary standard commercial airfare, Federal Government contract airfare, or the lowest commercial discount airfare are unallowable except when such accommodations would: (a) Require circuitous routing; (b) Require travel during unreasonable hours; (c) Excessively prolong travel; (d) Result in additional costs that would offset the transportation savings; or (e) Offer accommodations not reasonably adequate for the traveler's medical needs.

⁵ TEES' Travel Reimbursement Policy states that economy/coach or other discounted fares are to be used when available and notes that Federal regulations prohibit reimbursement of business or first class airfare unless it is required to accommodate a disability or special need.

the business class airfare does not appear necessary⁶; therefore, we questioned \$4,895 charged to this NSF award associated with the upgrade fee.

Non-Compliance with the Fly America Act: We identified five instances where a non-U.S. flag air carrier was used to conduct foreign travel and valid exemptions to the Fly America Act were not documented, as follows:

- *June 2015 Fly America Exception:* In June 2015, the PI of NSF Award No. [REDACTED] traveled to [REDACTED] to conduct grant-related activities; however, the PI purchased airline tickets to conduct this visit using a non-U.S. flag air carrier, [REDACTED]. While we noted that travel [REDACTED] was only offered by non-U.S. flag carriers, the student's round trip flight to/from Texas to [REDACTED] should have been purchased through a U.S. flag air carrier; therefore, we questioned \$2,234 of costs associated with the roundtrip airfare.
- *May 2015 Fly America Exception:* In May 2015, a graduate student performing research on NSF Award No. [REDACTED] traveled to [REDACTED] to conduct grant-related activities. The \$1,984 charged to NSF for airline tickets was for tickets purchased from a non-U.S. flag air carrier, [REDACTED].
- *June 2014 Fly America Exception:* In June 2014, a graduate student performing research on NSF Award No. [REDACTED] traveled to [REDACTED] to conduct grant-related activities. The \$1,535 charged to NSF for airline tickets was for tickets purchased from a non-U.S. flag air carrier, [REDACTED].
- *September 2015 Fly America Exception:* In September 2015, the PI of NSF Award No. [REDACTED] traveled to [REDACTED] to attend a grant-related conference. The \$1,445 charged to NSF for airline tickets was for tickets purchased from a non-U.S. flag air carrier, [REDACTED].
- *May 2014 Fly America Exception:* In May 2014, the PI of NSF Award No. [REDACTED] traveled to [REDACTED] to conduct grant-related activities. The \$1,160 charged to NSF for airline tickets was for tickets purchased from a non-U.S. flag air carrier, [REDACTED].

NSF's PAPPG requires foreign travel expenses to comply with the Fly America Act. With limited exception, the Fly America Act requires Federal employees and their dependents, consultants, contractors, grantees, and others performing United States Government-financed foreign air travel to travel by U.S. flag air carriers. In addition, TEES' Travel Reimbursement Policy states that if a traveler is traveling on funds provided by the Federal government, he/she must use a U.S. flag air carrier, regardless of cost or convenience. U.S. flag air carriers were not used in the five instances identified above; therefore, we questioned \$8,358 of foreign airfare expenses.

Unsupported Expenses: We identified two instances where travel expenses in excess of \$75 were not supported by appropriate documentation, as follows:

⁶ The PI claimed that the upgrade was necessary because [REDACTED] was not feeling well [REDACTED]
[REDACTED]

- *December 2014 Unsupported Travel Expenses:* TEES was unable to provide documentation to support \$125 associated with a meal expense and \$348 associated with a taxi expense reimbursed to the PI of NSF Award No. [REDACTED] for foreign travel taken in December 2014. The TEES Travel Reimbursement Policy states receipts are required for any single fare or expense over \$75; therefore, we questioned \$473 associated with unsupported travel expenses.
- *June 2014 Unsupported Foreign Transaction Fees:* In June 2014, TEES charged \$240 to NSF Award No. [REDACTED] associated with foreign transaction fees incurred while traveling abroad; however, the documentation provided only supported \$139 of the \$240 charged. The TEES Travel Reimbursement Policy states that travelers may be reimbursed for the actual costs of travel expenses; therefore, we questioned \$101 associated with costs not supported by actual expenditures.

TEES did not have appropriate policies and procedures in place to ensure that foreign travel expenses were appropriately reviewed to verify that claimed costs complied with all relevant TEES and Federal policies before the travel costs were charged to NSF. As a result, TEES inappropriately charged unallowable foreign travel expenses to NSF awards and we questioned \$13,827 of expenses as follows:

Table 3: Unallowable Foreign Travel Expenses

Description	NSF Award No.	FY	Questioned Costs
Upgraded Business Class Airfare	[REDACTED]	2016	\$4,895
June 2015 Fly America Exception	[REDACTED]	2016	2,234
May 2015 Fly America Exception	[REDACTED]	2016	1,984
June 2014 Fly America Exception	[REDACTED]	2015	1,535
September 2015 Fly America Exception	[REDACTED]	2016	1,445
May 2014 Fly America Exception	[REDACTED]	2014	1,160
December 2014 Unsupported Travel Expenses	[REDACTED]	2015	473
June 2014 Unsupported Foreign Transaction Fees	[REDACTED]	2014	101
Total			<u>\$13,827</u>

Source: Auditor summary of questioned transactions.

Recommendations

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

1. Repay NSF the \$13,827 of questioned costs.
2. Strengthen the administrative and management controls and processes over allocating travel expenses to sponsored projects. Policies could include:

- a. Strengthening the controls over processing expenses allocable to expense categories that accumulate costs that may be expressly unallowable under 2 CFR 220 and the updated Uniform Guidance, including upgraded airfare expenses.
- b. Implementing controls that require all airfare expenses charged to Federal projects be purchased using a U.S. flag air carrier, unless an allowable exception to the Fly America Act exists and has been properly documented and approved.

TEES Response: TEES agreed that the upgraded airfare and unsupported travel expenses were unallowable on the NSF awards charged, as TEES had not properly documented or obtained approval for these expenses. TEES stated that it has improved its controls in this area and has taken steps to increase awareness of the requirement to use U.S. flag carriers for Federally funded air travel. Specifically, TEES noted that it now provides additional training regarding allowable travel expenses at the start of all Federal awards that include funding for foreign travel, and that it has started specifically reviewing Federal travel expenses for compliance when the traveler submits the expenses for reimbursement.

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

Finding 4: Inappropriate Allocation of Indirect Costs

TEES' did not ensure indirect costs were appropriately applied to NSF awards in accordance with applicable NSF policies and program solicitations, and as a result, inappropriately charged \$8,484 of indirect costs to NSF. Specifically, TEES inappropriately assessed indirect costs on two (2) NSF awards, as follows:

Indirect Costs Inappropriately Applied to Participant Support Costs: TEES inappropriately assessed \$8,107 of indirect costs to participant support costs (PSCs) accumulated on NSF Award No. [REDACTED]. Specifically, TEES charged \$17,624 of workshop expenses to this award within its normal conference expense project account rather than a project account to accumulate PSCs, which resulted in indirect costs being inappropriately applied to costs incurred to support participant conference expenses. The *NSF Proposal and Award Policies and Procedures Guide, Part II – Award and Administration Guide*, Chapter V, Section B.8 states generally, indirect costs (F&A) are not allowed on participant support costs, therefore indirect costs should not have been assessed on the conference expenses.

Incorrect Indirect Cost Rate Application: The Innovation Corps Teams (I-Corps Teams) Program Solicitation NSF 12-602 states the recovery of indirect costs (F&A) shall be limited to \$5,000; however, TEES inappropriately assessed \$5,377 of indirect costs to NSF Award No. [REDACTED]. Specifically, TEES inappropriately set up its accounting system to apply indirect costs to direct costs accumulated on this award at a rate of 13.68%, which resulted in \$377 of unallowable indirect costs being applied to this NSF award⁷.

⁷ To appropriately accumulate indirects, the accounting system should have been set up to apply indirect costs at 11.11%, as I-Corps awards provide \$5,000 for indirect costs and \$45,000 for direct costs. ($\$5,000/\$45,000 = 11.11\%$)

TEES did not ensure indirect costs were appropriately applied to NSF awards in accordance with NSF policies and procedures. As a result, we questioned \$8,484 of indirect costs inappropriately charged to NSF Awards as follows:

Table 4: Inappropriate Allocation of Indirect Costs

Description	NSF Award No.	FY	Questioned Costs
Indirect Costs Applied to PSCs		2014	\$8,107
Incorrect Indirect Cost Rate Applied		2015	<u>377</u>
Total Questioned Costs			<u>\$8,484</u>

Source: Auditor summary of questioned transactions.

Recommendations

We recommend that NSF’s Director of the Division of Institution and Award Support direct TEES to:

1. Repay NSF the \$8,484 of questioned costs.
2. Strengthen the administrative and management controls and processes over allocating PSCs and indirect costs. Processes could include:
 - a. Developing new policies and procedures that require TEES to periodically review all project accounts set up for NSF awards that include PSCs in the budget, to ensure the accounts track and manage PSC activity and are being used appropriately to track all PSCs incurred on the award to date.
 - b. Updating TEES policies and procedures to ensure that all I-Corps awards are appropriately set up to limit F&A recovery to \$5,000.

TEES Response: TEES agreed with this finding and noted that it has already processed a repayment of \$8,484 for indirect costs that it had inappropriately charged to NSF due to human error. TEES also noted that it has implemented processes to improve project set-up and to manage indirect cost activity more appropriately.

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

Finding 5: Unsupported Salary Expense

TEES was unable to provide an effort certification to support \$8,111 associated with salary and fringe benefit costs charged to NSF Award No. [REDACTED] by Del Mar College, a regional community college division of TEES. 2 CFR 220 Appendix A, Section J.10. does not specify a particular method for documenting payroll costs. However, it does set forth requisite criteria for an awardee’s methods, including that the methods “must recognize the principle of after-the-fact confirmation or determination so that costs distributed represent actual costs, unless a mutually satisfactory alternative agreement is reached.” Furthermore, Section 4.4 of The Texas A&M

University System's Time and Effort Reporting policy requires effort certifications to be processed on an after-the-fact basis..

While TEES regional divisions are required to certify effort charged to Federal awards, TEES did not require regional divisions to submit effort certifications to support salary expenses invoiced to TEES. As a result, TEES charged salary expenses invoiced by regional divisions to NSF that were not appropriately certified. As TEES was unable to provide an effort report to support salary expenses charged to NSF, we questioned \$8,111 of unsupported salary expenses as follows:

Table 5: Unsupported Salary Expense

Description	NSF Award No.	FY	Questioned Costs
Salary Expense Not Certified		2014	\$8,111

Source: Auditor summary of questioned transactions.

Recommendations

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

1. Repay NSF the \$8,111 of questioned costs.
2. Strengthen the administrative and management controls and processes over allocating community college or other regional division campus salaries to its Federal awards. Processes could include requiring all off-site campuses to provide effort certifications that support salaries charged on each invoice submitted to TEES for reimbursement.

TEES Response: TEES agreed to strengthen controls and processes over the certification of regional division salaries on Federal awards where the effort report is not part of the Texas A&M University System-wide Time & Effort system. Specifically, TEES noted that it will review effort certifications supporting salaries charged both at the time of reimbursement and through a periodic monitoring cycle. TEES did not respond regarding the allowability of the questioned costs.

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

Finding 6: Inappropriate Spending of Participant Support Costs

TEES inappropriately used funding budgeted to support PSCs to reimburse PI salary expenses on NSF Award No. [REDACTED]. Specifically, while NSF approved a PSC rebudget request of \$13,895 that allowed reimbursement of a portion of the PI's salary, TEES charged one full month of the PI's salary, \$19,650, to this grant.

The NSF Proposal and Award Policies and Procedures Guide, Part II – Award and Administration Guide, Chapter V, Section B.8.ii states that funding provided for participant

support may not be used by grantees for other categories of expense without prior written approval of the cognizant NSF Program Officer. As the PSC rebudgeting request only provided \$13,895 to support salary expenses, we questioned \$6,642⁸ associated with shifted salary costs that were not approved.

TEES' policies and procedures require TEES to request NSF's approval before shifting funds from participant support costs to other categories; however, TEES did not appropriately spend its funding within the limits approved by NSF. Therefore, we questioned \$6,642 of salary and fringe benefit expenses inappropriately charged to this award, as follows:

Table 6: Inappropriate Spending of Participant Support Costs

Description	NSF Award No.	FY	Salary	Fringe Benefits	Questioned Costs
Transferred PSCs		2016	\$5,755	\$887	\$6,642

Source: Auditor summary of questioned transactions.

Recommendations

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

1. Repay NSF the \$6,642 of questioned costs.
2. Strengthen the administrative and management controls and processes over the use of funding for participant support costs. Processes could include developing new policies and procedures that require TEES to annually review all project accounts set up for NSF awards that include PSCs, and compare spending to other cost categories to ensure funding is not being inappropriately shifted.

TEES Response: TEES agreed that it should implement stronger controls and processes over the use of funding for PSCs. Specifically, TEES noted that it has implemented improvements to its project set-up procedures that will help project administrators manage PSCs throughout the life of the award. TEES did not respond regarding the allowability of the questioned costs.

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

Finding 7: Inappropriate Application of Proposed Negotiated Indirect Cost Rates

TEES incorrectly applies indirect expenses to NSF awards at the organization's Negotiated Indirect Cost Rate Agreement (NICRA) rate in effect when grants are proposed, rather than at

⁸ We questioned the \$5,755 difference between the amount charged for salaries (\$19,650) and the approved re-budgeted amount (\$13,895), as well as the cost of all associated fringe benefits (\$887).

the NICRA rate in effect at the time of the award.⁹ Specifically, TEES stated that it sets up its accounting system to apply indirect costs at the rates proposed in a grant's approved budget, rather than updating the rate to reflect the approved NICRA rate at the time the award.

This methodology does not comply with Federal requirements and may have resulted in NSF being overcharged in prior periods, or may result in NSF being overcharged for indirect costs in the future.

Recommendations

We recommend that NSF's Director of the Division of Institution and Award Support direct TEES to strengthen the administrative and management controls and processes over establishing indirect cost rates that are to be applied to Federal awards to ensure costs are applied at the rates effective when grants are awarded, rather than at the rates effective when grants are proposed.

TEES Response: TEES stated that it applies indirect cost rates in accordance with 2 CFR § 200.414. However, TEES noted that, in cases where the effective rate decreases from the time of proposal to the time of award, it will re-budget according to guidance set by the Uniform Guidance.

Auditors' Additional Comments: Our position regarding this finding does not change. However, we did note that TEES' response that it will adjust the rate if the effective rate decreases from the time of proposal to the time of award does not comply with Federal regulations. Specifically, to comply with 2 CFR § 200.414, TEES should re-budget any time the effective rate increases or decreases between the time of proposal and the time of award.

COTTON & COMPANY LLP



Michael W. Gillespie, CPA, CFE
Partner

⁹ See 2 CFR § 200.414, for cost principles for indirect (F&A) costs, and Appx. III to Part 200, section C.7.a, which provides criteria for applying indirect cost rates at IHEs ("Federal agencies must use the negotiated rates in effect at the time of the initial award throughout the life of the Federal award" except as otherwise provided for in 2 CFR § 200.414.) NSF implements 2 CFR Part 200 through the PAPP, in conjunction with NSF's Grant General Conditions. See NSF 17-1, Introduction, para. B. The PAPP states that grantees are "ultimately responsible for ensuring that all costs charged to NSF awards meet the requirements of the cost principles contained in 2 CFR [Part] 200, Subpart E [as well as the grant terms and conditions and any award-specific requirements]." *Id.* Ch. X, para. A.

APPENDIX A: SCHEDULE OF QUESTIONED COSTS BY FINDING

NATIONAL SCIENCE FOUNDATION
ORDER # D15PB00567
PERFORMANCE AUDIT OF COSTS CLAIMED ON NSF AWARDS
TEXAS A&M ENGINEERING EXPERIMENT STATION

SCHEDULE OF QUESTIONED COSTS BY FINDING

Finding	Description	Questioned Costs		Total
		<i>Unsupported</i>	<i>Unallowable</i>	
1	Expenses Not Appropriately Allocated to NSF Awards	\$0	\$28,232	\$28,232
2	Equipment and Supply Expenses Charged at the End of the Award Period	0	14,759	14,759
3	Unallowable Foreign Travel Expenses	574	13,253	13,827
4	Inappropriate Allocation of Indirect Costs	0	8,484	8,484
5	Unsupported Salary Expense	8,111	0	8,111
6	Inappropriate Spending of Participant Support Costs	0	6,642	6,642
7	Inappropriate Application of Proposed Negotiated Indirect Cost Rates	<u>0</u>	<u>0</u>	<u>0</u>
Total		<u>\$8,685</u>	<u>\$71,370</u>	<u>\$80,055</u>

APPENDIX B: TEXAS A&M ENGINEERING EXPERIMENT STATION RESPONSE



TEXAS A&M ENGINEERING
EXPERIMENT STATION

March 8, 2018

Cotton & Company, LLP
Attn: Michael W. Gillespie
635 Slaters Lane, 4th Floor
Alexandria, VA 22314

RE: Texas A&M Engineering Experiment Station (TEES) NSF OIG Audit Responses

Dear Mr. Gillespie:

Please see below the TEES management response for the Performance Audit of Incurred Costs for National Science Foundation Awards. This response was prepared in coordination with Texas A&M Sponsored Research Services.

Finding 1: TEES agrees that stronger controls over allocating expenses to sponsored projects should be implemented. Procedures to require documentation for the allocation of expenses will be strengthened, including the justification for methodology used. Training will also be offered to principal investigators to provide a greater awareness of this recommendation.

Finding 2: TEES agrees to strengthen controls and processes over allocating equipment expenses to sponsored projects by reviewing purchases made less than 90 days before the award expires. In addition, the process to review cost transfers will be strengthened to require sponsor approval as appropriate occasions arise.

Finding 3: TEES agrees that upgraded airfare and unsupported travel expenses are unallowable on a sponsored project when such expenses are not properly documented and/or approved. These exceptions present isolated errors missed during the TEES expense review process.

Improvements to controls and an increased awareness regarding the requirement to use U.S. flag air carriers for federally funded air travel have been implemented. Additional training is provided to principal investigators at the start of federal awards where foreign travel is budgeted. Federal travel is then reviewed at the time when expenses are submitted for reimbursement. Non-compliant airfare reimbursements are not allowed on federal sources unless an exception is properly documented and approved.

7607 Eastmark Drive, Suite 104
College Station, Texas 77840

Finding 4: TEES has processed the repayment of \$8,484 for indirect costs since these costs were charged as a result of human error. Processes to improve project setup have been implemented, including quality review and project expenditure review, which will manage participant support and indirect cost activity more appropriately. Additional training will also be provided to the departments regarding the proper coding of expenditures.

Finding 5: TEES agrees to strengthen controls and processes over the certification of regional division salaries on Federal awards where such effort reporting is not part of the TAMU System-wide Time & Effort system. Effort certifications that support salaries charged will be reviewed at the time of reimbursement and through a periodic monitoring cycle.

Finding 6: TEES agrees that stronger controls and processes over the use of funding for participant support costs should be implemented. With improvements to the project setup that have been already implemented, quality reviews and project expenditure reviews identify participant support costs that project administrators manage throughout the life of the award.

Finding 7: TEES applies indirect cost rates in accordance with CFR §200.414. In cases where the effective rate decreases from the time of proposal until the time of award, TEES agrees to re-budget according to guidance set forth by Uniform Guidance.

We appreciate the professionalism of your staff during the audit. If you have any questions, please contact Deidra White at (979) 458-██████ or myself at (979) 458-██████

Thank you,

████████████████████
Lisa Akin
Director
TEES Risk and Compliance

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 TEES incurred on NSF awards for the period from May 1, 2013, to April 30, 2016. The objective of the audit was to determine if costs claimed by TEES 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 TEES and the NSF OIG. The NSF OIG provided award data that TEES reported through ACM\$ during our audit period. TEES provided detailed transaction-level data for all costs charged to NSF awards during the period. This resulted in a total audit universe of \$56,104,187 in costs claimed on 401 NSF awards.

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

Based on our assessment, we found TEES’ 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 fiscal year 2016 found no reportable instances in which NSF’s financial management systems did not substantially comply with applicable requirements.

TEES management is responsible for establishing and maintaining effective internal controls 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 TEES’ internal control solely for the purpose of understanding the policies and procedures relevant to the financial reporting and administration of NSF awards and to evaluate TEES’ compliance with laws, regulations, and award terms applicable to the items selected for testing. We did not consider TEES’ internal control for the purpose of expressing an opinion on the effectiveness of TEES’ internal control over award financial reporting and administration. Accordingly, we do not express an opinion on the effectiveness of TEES’ 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. We reviewed this information to ensure that we understood the data and that we had identified any possible weaknesses within TEES’ system that warranted focus during our testing.

We began our analytics process by reviewing the transaction-level data that TEES provided and used IDEA software to combine it with the NSF OIG-provided data. 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 period of performance, and unbudgeted expenditures.

We identified 250 transactions for testing, as well as samples for an additional test that focused on clusters of general ledger transactions, which warranted additional examination. We requested that TEES provide documentation to support each transaction, as well as the relevant information required to enable us to perform our cluster testing. We reviewed this supporting documentation to determine if we had obtained sufficient, appropriate evidence 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 TEES 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 25 transactions. 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 TEES 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. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.



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