

# Performance Audit of Incurred Costs – University of Connecticut

REPORT PREPARED BY COTTON & COMPANY LLP

NATIONAL SCIENCE FOUNDATION  
OFFICE OF INSPECTOR GENERAL

March 23, 2020  
OIG 20-1-002





## AT A GLANCE

Performance Audit of Incurred Costs – University of Connecticut  
Report No. OIG 20-1-002  
March 23, 2020

### 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 University of Connecticut (UConn) for the period February 1, 2016, to January 31, 2019. The auditors tested approximately \$1.7 million of the \$63 million of costs claimed to NSF. The objective of the audit was to evaluate UConn's award management environment to determine whether any further audit work was warranted, and to perform additional audit work, as determined appropriate. A full description of the audit's objective, scope, and methodology is attached in its entirety to the report as Appendix C.

### AUDIT RESULTS

The report highlights concerns about UConn's compliance with certain Federal, NSF, and/or UConn regulations and policies when allocating expenses to NSF awards. The auditors questioned \$75,139 of costs claimed by UConn during the audit period. Specifically, the auditors found \$39,009 of expenses not appropriately allocated to NSF awards; \$31,095 of expressly unallowable expenses charged to NSF awards; \$3,184 of inappropriately used participant support funds; and \$1,851 of fringe benefits not appropriately applied to payroll charged in different fiscal years. The auditors also identified 5 findings related to incorrect application of proposed indirect cost rates, travel comparisons not appropriately performed, cost transfer documentation not appropriately maintained, stipends not appropriately provided to Noyce scholars, and program income not appropriately used for which there were no questioned costs. 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.

### RECOMMENDATIONS

The auditors included 9 findings in the report with associated recommendations for NSF to resolve the questioned costs and to ensure UConn strengthens administrative and management controls.

### AUDITEE RESPONSE

UConn mostly agreed with the findings and provided explanations for its disagreements. UConn's response is attached in its entirety to the report as Appendix B.

FOR FURTHER INFORMATION, CONTACT US AT [OIGPUBLICAFFAIRS@NSF.GOV](mailto:OIGPUBLICAFFAIRS@NSF.GOV).



**National Science Foundation • Office of Inspector General**  
2415 Eisenhower Avenue, Alexandria, Virginia 22314

**MEMORANDUM**

**DATE:** March 23, 2020

**TO:** Dale Bell  
Director  
Division of Institution and Award Support

Jamie French  
Director  
Division of Grants and Agreements

**FROM:** Mark Bell [REDACTED]  
Assistant Inspector General  
Office of Audits

**SUBJECT:** Audit Report No. 20-1-002, University of Connecticut

This memorandum transmits the Cotton & Company LLP (C&C) report for the audit of costs charged by University of Connecticut (UConn) to its sponsored agreements with the National Science Foundation during the period February 1, 2016, to January 31, 2019. The audit encompassed approximately \$1.7 million of the \$63 million claimed to NSF during the period. The objective of the audit was to evaluate UConn's award management environment to determine whether any further audit work was warranted, and to perform additional audit work, as determined appropriate. A full description of the audit's objective, scope, and methodology is attached in its entirety to the report as Appendix C.

Please coordinate with our office during the 6-month resolution period, as specified by Office of Management and Budget Circular A-50, to develop a mutually agreeable resolution of the audit findings. The findings should not be closed until NSF determines that all recommendations have been adequately addressed and the proposed corrective actions have been satisfactorily implemented.

**OIG Oversight of the Audit**

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.

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 Jae Kim at 703.292.7100 or

[OIGpublicaffairs@nsf.gov](mailto:OIGpublicaffairs@nsf.gov).

#### Attachment

cc:

Anneila Sargent  
John Veysey  
Ann Bushmiller  
Christina Sarris  
Fleming Crim

Fae Korsmo  
Teresa Grancorvitz  
Pamela Hawkins  
Alex Wynnyk  
Rochelle Ray

Carrie Davison  
Allison Lerner  
Lisa Vonder Haar  
Ken Chason  
Dan Buchtel

Ken Lish  
Billy McCain  
Jennifer Kendrick  
Louise Nelson  
Karen Scott  
Jae Kim

**UNIVERSITY OF CONNECTICUT**

**PERFORMANCE AUDIT OF INCURRED COSTS FOR  
NATIONAL SCIENCE FOUNDATION AWARDS FOR THE PERIOD  
FEBRUARY 1, 2016, THROUGH JANUARY 31, 2019**

**NATIONAL SCIENCE FOUNDATION  
OFFICE OF INSPECTOR GENERAL**

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**NATIONAL SCIENCE FOUNDATION  
PERFORMANCE AUDIT OF INCURRED COSTS  
UNIVERSITY OF CONNECTICUT**

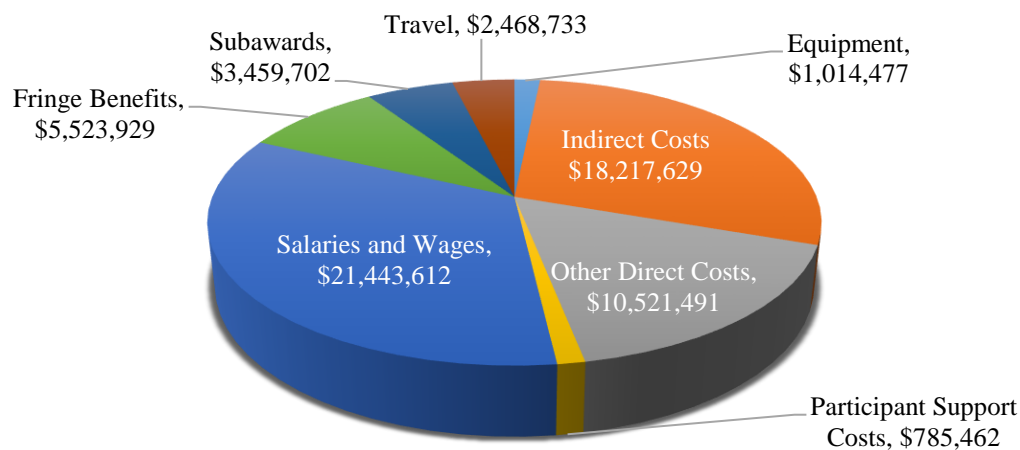
**I. BACKGROUND**

The National Science Foundation 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 that provides independent oversight of the agency's programs and operations. Part of NSF OIG's mission is to conduct audits and investigations to prevent and detect fraud, waste, and abuse. In support of this mission, 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. NSF OIG may also hire a contractor to provide these audit services.

NSF OIG engaged Cotton & Company LLP (referred to as "we") to conduct a performance audit of costs incurred by the University of Connecticut (UConn). UConn is a public research university that reported \$212 million in sponsored awards and external funding from Federal sources in fiscal year 2018. As illustrated in Figure 1, UConn's general ledger (GL) supported more than \$63 million in expenses claimed on 401 NSF awards during our audit period of performance (POP) of February 1, 2016, to January 31, 2019. Figure 1 also shows costs claimed by budget category based on the accounting data that UConn provided.

**Figure 1. Costs Claimed by NSF Budget Category, February 1, 2016, through January 31, 2019<sup>1</sup>**



Source: Auditor analysis of accounting data provided by UConn.

This performance audit, conducted under Order No. 140D0418F0437, 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* (GAGAS), issued by the U.S. Government Accountability Office. We communicated the results of our audit and the related findings and recommendations to UConn and NSF OIG. We have included UConn's full response to this report in its entirety in Appendix B.

## II. AUDIT RESULTS

We tested 125 transactions, which represented \$1,698,055 in costs that UConn claimed during the audit period. Based on the results of our testing, we determined that UConn needs improved oversight of the allocation and documentation of expenses charged to NSF awards to ensure that it is able to support that costs claimed are reasonable, allocable, and allowable in accordance with all Federal and NSF regulations and UConn policies.

As a result, we identified and questioned \$75,139 of direct and indirect costs that UConn inappropriately claimed during the audit period:

- \$39,009 of expenses not appropriately allocated to NSF awards.
- \$31,095 of expressly unallowable expenses charged to NSF awards.
- \$3,184 of inappropriately used participant support funds.
- \$1,851 of fringe benefits not appropriately applied to payroll charged in different fiscal years.

<sup>1</sup> The total award-related expenses reported in UConn's GL exceeded the \$63,346,829 reported in NSF's Award Cash Management System (ACM\$); however, because the GL data materially reconciled to NSF's ACM\$ records, we determined that the GL data was appropriate for the purposes of this engagement.



We also identified five compliance-related findings:

- Incorrect application of proposed indirect cost rates.
- Travel comparisons not appropriately performed.
- Cost transfer documentation not appropriately maintained.
- Stipends not appropriately provided to Noyce scholars.
- Program income not appropriately used.

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**

UConn did not always allocate expenses to NSF awards based on the relative benefits the awards received, as required by Federal regulations<sup>2</sup> and NSF *Proposal and Award Policies and Procedures Guides* (PAPPGs).<sup>3</sup> Specifically, UConn inappropriately allocated a total of \$39,009 in expenses to six NSF awards.

- In June 2016, UConn charged NSF Award No. [REDACTED] for \$5,210 in tuition remission costs incurred for two graduate students. This expense represented 100 percent of the students' tuition remission costs; however, based on the students' certifications, only 94 percent of their effort related to the award. UConn therefore should not have allocated 6 percent of the students' tuition remission costs, or \$313, to this award.
  - *UConn agreed to reimburse NSF for this expense.*
- In September 2016, UConn charged NSF Award No. [REDACTED] for \$38,250 in [REDACTED] services. This expense represented 100 percent of the cost for the services; however, UConn only received 25 percent of the [REDACTED] services during the period of performance for the NSF award. UConn therefore should not have allocated 75 percent of the cost for these services, or \$28,688, to this award.
  - *UConn agreed to reimburse NSF for this expense.*
- Between July and October 2017, UConn charged NSF Award No. [REDACTED] for \$6,452 in travel costs that the project's Principal Investigator (PI) incurred to attend the July 2017 [REDACTED]. This expense represented 100 percent of the travel costs incurred for this meeting. This trip does appear to have benefited the NSF award charged; however, it also appears to have benefited NSF

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<sup>2</sup> According to 2 Code of Federal Regulations (CFR) Part 220, Appendix A, Section C.4.a and 2 CFR §200.405(a), organizations should allocate costs to a particular cost objective in accordance with the relative benefits received.

<sup>3</sup> NSF PAPPGs 10-1, 13-1, Part II, Chapter V, Section A state that grantees should ensure that costs claimed under NSF grants are necessary, reasonable, allocable, and allowable under the applicable cost principles, NSF policy, and/or the program solicitation. PAPPGs 15-1 and 16-1, Part II, Chapter V, Section A and 17-1 and 18-1, Part II, Chapter X, Section A state that grantees should ensure that all costs charged to NSF awards meet the requirements of the cost principles contained in 2 CFR §200, Subpart E; grant terms and conditions; and any other specific requirements of both the award notice and the applicable program solicitation.

Award No. [REDACTED], as UConn identified the [REDACTED] meeting as one of the public talks/demonstrations at which it disseminated the results of NSF Award No. [REDACTED]. Because the PI was able to disseminate research related to two separate NSF awards as a result of this trip, UConn should have allocated the travel costs equally between the two projects. We are therefore questioning 50 percent of the travel costs charged to NSF Award No. [REDACTED], or \$3,226.

- Between September and November 2017, UConn charged NSF Award No. [REDACTED] for \$6,773 in rental costs incurred to host an NSF award collaborator. This expense represented 100 percent of the rental costs incurred; however, only 50 percent of the collaborator's effort while at UConn related to this award. As a result, UConn should only have allocated 50 percent of the collaborator's rental costs, or \$3,387, to this award. We are therefore questioning \$3,387.

- *UConn agreed to reimburse NSF for this expense.*

- In September 2018, UConn charged NSF Award No. [REDACTED] for \$1,595 in costs incurred to publish a research article. This expense represented 100 percent of the publication costs; however, the costs do not appear to be allocable to this NSF award, as UConn did not include NSF Award No. [REDACTED] among the six NSF awards cited in the article. UConn therefore should not have charged the publication expense to this award.

- *UConn agreed to reimburse NSF for this expense.*

- In November 2018, UConn charged NSF Award No. [REDACTED] for \$1,800 in costs incurred to obtain [REDACTED] services. This expense represented 100 percent of the cost for the services. We noted that UConn initiated the service request during the award's POP; however, the vendor did not perform the services until after the POP ended. The [REDACTED] services therefore do not appear to have benefited NSF Award No. [REDACTED], and UConn should not have charged the expense to this award.

- *UConn agreed to reimburse NSF for this expense.*

UConn does not have proper controls in place to ensure that it consistently allocates costs to sponsored awards based on the relative benefits that the awards receive. As a result, UConn charged NSF awards for expenses that it should have allocated to alternative funding sources. We are therefore questioning \$39,009 of inappropriately allocated direct and indirect expenses. As illustrated in Table 1, UConn concurred with \$35,783 of the questioned costs, but disagreed with \$3,226.

**Table 1. Expenses Not Appropriately Allocated to NSF Awards**

Description	NSF Award No.	Fiscal Year	Questioned Costs			
			Direct	Indirect	Total	UConn Agreed to Reimburse
June 2016 Tuition Remission	██████	2016	\$313	\$0	\$313	\$313
September 2016 Analyses	██████	2017	18,750	9,938	28,688	28,688
July – October 2017 Travel	██████	2018	2,042	1,184	3,226	0
September – November 2017 Rent	██████	2018	2,144	1,243	3,387	3,387
September 2018 Publication	██████	2019	1,000	595	1,595	1,595
November 2018 Analyses	██████	2019	<u>1,429</u>	<u>371</u>	<u>1,800</u>	<u>1,800</u>
	<b>Total</b>		<b><u>\$25,678</u></b>	<b><u>\$13,331</u></b>	<b><u>\$39,009</u></b>	<b><u>\$35,783</u></b>

Source: Auditor summary of questioned transactions.

### ***Recommendations***

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

1. Resolve the \$3,226 in questioned unallocable travel costs that UConn has not agreed to reimburse NSF and direct UConn to repay or otherwise remove the sustained questioned costs from its NSF awards.
2. Direct UConn to provide documentation supporting that it has repaid or otherwise credited the \$35,783 of questioned unallocable tuition, analysis, rent, and publication costs.
3. Direct UConn to strengthen its administrative and management controls and processes for allocating expenses to sponsored projects. Processes could include:
  - a. Requiring PIs or other designated staff to both document the allocation methodology used to charge expenses to sponsored projects and provide a detailed justification for using that methodology.
  - b. Requiring departmental personnel to review all tuition payments after students have certified their effort to verify that UConn allocated each student’s effort and tuition expenses in a consistent manner.
  - c. Implementing additional procedures requiring UConn to review the allowability of expenses charged to NSF awards within 120 days of the award’s expiration date.
  - d. Implementing additional procedures requiring UConn’s Sponsored Program Services (SPS) to verify that all publications charged directly to NSF award(s) specifically identify the NSF award(s) charged before SPS approves the expense.

4. Direct UConn to encourage PIs to identify all award participants and report all award-related travel in the annual reports submitted to NSF.

**University of Connecticut Response:** UConn agreed that the \$35,783 of questioned costs associated with tuition, analysis, rent, and publication expenses was not allocable to the awards charged and stated that it will reimburse NSF for these costs. UConn disagreed with the remaining \$3,226 in questioned travel costs for NSF Award No. [REDACTED], as it believes that the reporting issue was the result of a clerical error that caused it to identify the travel in the wrong award's annual report, and that the travel solely benefited NSF Award No. [REDACTED].

UConn stated that it believes it has strong controls in place to ensure that expenses charged to federally sponsored awards are allowable, allocable, reasonable, and necessary, and to ensure that costs are consistently allocated to sponsored awards based on the relative benefit received.

**Auditors' Additional Comments:** Our position regarding this finding does not change. UConn stated that it had included the questioned travel in the annual report for NSF Award No. [REDACTED] based on a clerical error, and that the travel solely benefited NSF Award No. [REDACTED]. However, based on the scope of the travel, we still believe that UConn should have allocated at least 50 percent of the travel to NSF Award No. [REDACTED].

## **Finding 2: Expressly Unallowable Expenses Charged to NSF Awards**

UConn charged ten NSF awards a total of \$31,095 for expenses that are expressly unallowable under Federal regulations, NSF policies and procedures, and/or UConn policies.

### ***Unallowable Travel Expenses***

UConn charged six NSF awards a total of \$13,749 for unallowable travel expenses. Specifically:

- In March 2017, UConn charged NSF Award No. [REDACTED] for \$29,035 in meal and lodging costs incurred to support summer Research Experience for Undergraduate (REU) participants. The summer REU program does appear to have benefitted this award; however, the expenses charged included \$141 of unallowable entertainment expenses.<sup>4</sup>
  - *UConn agreed to reimburse NSF for these expenses.*
- In December 2017, UConn charged NSF Award No. [REDACTED] for \$2,929 in per diem expenses that the PI incurred during a 4-week period spent in [REDACTED], attending a conference and participating in a summer school program. The PI did perform grant-related activities during a portion of this 4-week period; however, UConn was unable to provide documentation to support the business purpose of 10 of the days for which the PI claimed per diem. As these 10 days of travel do not appear to have been reasonable or

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<sup>4</sup> Specifically, \$141 of the meal and lodging charge appears to relate to a game room. Game-room charges are considered entertainment expenses and are thus unallowable per 2 CFR 220, Appendix A, Section J.17 and NSF PAPPG 14-1, Part II, Chapter V, Section C.5.i.

necessary for the performance of the NSF award,<sup>5</sup> we are questioning the \$1,422<sup>6</sup> in per diem claimed for those 10 days.

- *UConn agreed to reimburse NSF for these expenses.*
- In January 2018, UConn charged NSF Award No. [REDACTED] for \$22,161 in lodging costs incurred to host a grant-related conference. The majority of the lodging costs appeared to be allocable to and reasonable for this award; however, UConn charged the NSF award for \$519 in “no-show” expenses that were not reasonable or necessary for the performance of the award.<sup>7</sup>
  - *UConn agreed to reimburse NSF for this expense.*
- In April 2018, UConn charged NSF Award No. [REDACTED] for \$3,258 in airfare costs that a participant on the award incurred to present at a conference in [REDACTED]. UConn had identified the participant as an industrial mentor on the award; however, UConn did not request or receive written approval from the NSF I-Corps program director prior to undertaking the international travel, as was required for the travel to be allowable under the terms and conditions established for the award.<sup>8</sup>
  - *UConn agreed to reimburse NSF for these expenses.*
- In May 2018, UConn charged NSF Award No. [REDACTED] for \$12,789 in lodging costs that UConn incurred to host participants at a grant-related workshop. The majority of the conference expenses appeared to be allocable to and reasonable for this award; however, \$301 of the expenses were unallowable,<sup>9</sup> including \$297 in costs incurred as a result of one individual’s early departure and \$4 to purchase a bottle of water.
  - *UConn agreed to reimburse NSF for these expenses.*
- In June 2018, UConn charged NSF Award No. [REDACTED] for \$8,108 in business-class airfare expenses to enable a participant to conduct grant-related foreign travel. UConn noted that the participant was required to upgrade from economy-class airfare to

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<sup>5</sup> According to 2 CFR §200.403(a), to be allowable, expenses must be necessary and reasonable for the performance of the Federal award.

<sup>6</sup> The PI claimed \$90 per day (75 percent of the \$120 U.S. State Department per diem rate for [REDACTED]) for each of the 10 days. We calculated the questioned amount as follows:  $\$90 \text{ per day} * 10 \text{ days} = \$900 + \$522$  (indirect costs applied at 58 percent) = \$1,422.

<sup>7</sup> According to 2 CFR §200.403(a), expenses must be necessary and reasonable for the performance of the Federal award to be allowable.

<sup>8</sup> The award documents for NSF Award No. [REDACTED] state that UConn must request explicit written approval from an NSF I-Corps program director prior to undertaking travel to an academic conference or any international travel under the I-Corps award.

<sup>9</sup> According to 2 CFR Part 220, Appendix A, Section C.2, costs must be reasonable and allocable to sponsored agreements to be allowable. Further, NSF PAPPG 13-1, Part II, Chapter V, Section A states that grantees should ensure that costs claimed under NSF grants are necessary, reasonable, allocable, and allowable under the applicable cost principles.

accommodate their medical needs; however, it did not document the justification for the upgrade, as was required for the upgrade to be allowable under NSF and Federal regulations.<sup>10</sup> Because we were unable to determine the difference between the cost of the economy-class airfare and the cost of the business-class airfare, we are questioning the entire \$8,108 airfare expense.

### ***Unallowable (Non-Working) Catering Expenses***

UConn charged two NSF awards a total of \$9,267 in unallowable catering expenses. Because these catering expenses were not deemed to be “working” meals, these expenses are unallowable per NSF guidance.<sup>11</sup> Specifically:

- In January 2018, UConn charged NSF Award No. [REDACTED] for \$1,800 in costs incurred to host a reception at the beginning of an award-related conference; however, UConn did not identify this reception as a working session for participants, appears to have hosted the reception as a social event, and did not obtain NSF’s specific approval for the event, as was required for the reception to be allowable under this award.<sup>12</sup>
  - *UConn agreed to reimburse NSF for this expense.*
- In January 2018, UConn charged NSF Award No. [REDACTED] for a \$7,467 payment that UConn made to the University [REDACTED] to cover a portion of the costs incurred to host an award-related planning meeting at [REDACTED].<sup>13</sup> The planning meeting did relate to the scope of this award; however, the invoice that [REDACTED] provided to support the total conference expenses also included \$7,545 of unallowable (i.e., non-working) meal expenses and \$780 of unallowable alcohol expenses.<sup>14</sup> Because we were unable to identify what percentage of the total conference costs was allowable or determine whether [REDACTED] used any portion(s) of UConn’s payment to cover unallowable expenses, we are questioning all costs associated with the [REDACTED] payment.
  - *UConn agreed to reimburse NSF for this expense.*

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<sup>10</sup> According to 2 CFR §200.474(d)(v), airfare in excess of standard commercial economy-class is allowable if the standard accommodations would not be sufficient to address a traveler’s medical needs. However, it also states, “The non-Federal entity must justify and document these conditions on a case-by-case basis in order for the use of first-class or business-class airfare to be allowable in such cases.” NSF PAPPG 16-1, Part II, Chapter VI, Section F.1.a.(ii) states: “Except as provided in the governing OMB cost principles, the difference between economy airfare and a higher-class airfare is unallowable.”

<sup>11</sup> NSF PAPPGs 16-1 Part I, Chapter II, D.9.g and 17-1, Part I, Chapter II, Section E.7.g only allow entities to include “meals that are an integral and necessary part of a conference” (e.g., “working” meals during which business is transacted) in the conference budget.

<sup>12</sup> According to 2 CFR §200.438, costs of entertainment, including social activities, are unallowable, except where specific costs that might otherwise be considered entertainment have a programmatic purpose and are authorized either in the approved budget for the Federal award or with prior written approval of the Federal awarding agency.

<sup>13</sup> This meeting was supported by three universities, including UConn. Because [REDACTED] incurred the majority of the costs, the other two universities each reimbursed it for one-third of the costs. The costs included expenses related to travel, lodging, and conference expenses (e.g., catering and audio/visual expenses).

<sup>14</sup> According to 2 CFR §200.423, the costs of alcoholic beverages are unallowable.

### ***Unallowable Salary Costs***

- In April 2018, UConn processed a cost transfer to move 100 percent of the salary that a post-doctoral employee (postdoc) earned from August 2017 through February 2018 to NSF Award No. [REDACTED]. UConn claimed that 100 percent of the postdoc's effort related to this award; however, based on the postdoc's certification, only 92 percent of [REDACTED] Spring 2018 effort related to the award.<sup>15</sup> Because the postdoc only certified 92 percent of [REDACTED] salary as being allocable to this award, we are questioning the costs associated with the 8 percent of the postdoc's salary that [REDACTED] certified as allocable to other funding sources, or \$4,678.<sup>16</sup>
  - *UConn agreed to reimburse NSF for this expense.*

### ***Unallowable Sponsorship Expense***

- In October 2018, UConn charged NSF Award No. [REDACTED] for a \$1,580 contribution<sup>17</sup> to sponsor the [REDACTED]. Contribution costs are not allowable under this award.
  - *UConn agreed to reimburse NSF for this expense.*

### ***Unallowable Incentive Expense***

- In June 2016, UConn charged NSF Award No. [REDACTED] for \$1,570 in follow-on survey incentives; however, the entities did not ultimately conduct the follow-on surveys and UConn therefore never distributed the incentives. As a result, the incentives are unallowable.<sup>18</sup>
  - *UConn agreed to reimburse NSF for this expense.*

### ***Unreimbursed Sales Tax***

- In September 2016, UConn charged NSF Award No. [REDACTED] for \$251 in sales tax associated with the purchase of a virtual reality headset. The individual purchased the headset using a UConn purchasing card. During the audit, UConn determined that the invoice inappropriately included sales tax<sup>19</sup> and therefore requested and received a sales

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<sup>15</sup> UConn noted that a clerical error resulting from a manual cost transfer caused the effort report to inappropriately reflect how UConn had allocated the employee's Spring 2018 effort.

<sup>16</sup> According to 2 CFR §200.430(h)(8)(i), salaries and wages charged to Federal awards must be based on records that accurately reflect the work performed.

<sup>17</sup> According to 2 CFR §200.434(a), costs of contributions and donations, including cash, property, and services, from the non-Federal entity to other entities are unallowable.

<sup>18</sup> According to 2 CFR Part 220, Appendix A, Section C.2, costs must be reasonable and allocable to sponsored agreements to be allowable.

<sup>19</sup> UConn is exempt from paying sales tax.

tax credit from the vendor. UConn is required to reimburse NSF for this credit, per applicable Federal regulations.<sup>20</sup>

- *UConn agreed to reimburse NSF for this expense.*

UConn does not have sufficient policies and procedures in place to ensure that it only charges allowable expenses to NSF awards. As a result, UConn charged NSF awards for expenses that are expressly unallowable under Federal, NSF, and/or UConn-specific regulations/policies. We are therefore questioning \$31,095 of inappropriately allocated direct and indirect expenses. As illustrated in Table 2, UConn concurred with \$22,987 of the questioned costs, but disagreed with \$8,108.

**Table 2. Unallowable Expenses**

Description	NSF Award No.	Fiscal Year	Questioned Costs			
			Direct	Indirect	Total	UConn Agreed to Reimburse
March 2017 Lodging	██████	2017	\$141	\$0	\$141	\$141
December 2017 Per Diem	██████	2018	900	522	1,422	1,422
January 2018 Lodging	██████	2018	519	0	519	519
April 2018 Airfare	██████	2018	3,258	0	3,258	3,258
May 2018 Lodging	██████	2018	301	0	301	301
June 2018 Airfare	██████	2018	5,132	2,976	8,108	0
January 2018 Reception	██████	2018	1,800	0	1,800	1,800
January 2018 Catering	██████	2018	5,779	1,688	7,467	7,467
April 2018 Salary	██████	2018	2,933	1,745	4,678	4,678
October 2018 Sponsorship	██████	2019	1,000	580	1,580	1,580
June 2016 Incentive	██████	2016	1,000	570	1,570	1,570
September 2016 Sales Tax	██████	2017	159	92	251	251
		<b>Total</b>	<b><u>\$22,922</u></b>	<b><u>\$8,173</u></b>	<b><u>\$31,095</u></b>	<b><u>\$22,987</u></b>

*Source:* Auditor summary of questioned transactions.

### ***Recommendations***

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

1. Resolve the \$8,108 in questioned airfare expenses that UConn has not agreed to reimburse NSF and direct UConn to repay or otherwise remove the sustained questioned costs from its NSF awards.
2. Direct UConn to provide documentation supporting that it has repaid or otherwise credited the \$22,987 of questioned travel, conference, salary, sponsorship, incentive, and sales tax costs.

<sup>20</sup> According to 2 CFR §200.406(a), credits received to offset or reduce expense items allocable to Federal awards must be credited to the Federal award either as a cost reduction or a cash refund, as appropriate.



3. Direct UConn to strengthen its policies and procedures related to the creation and retention of documentation, including introducing additional controls to help ensure that UConn appropriately creates and maintains all documentation necessary to support the allowability of expenses charged to sponsored programs.
4. Direct UConn to strengthen its administrative and management processes and procedures surrounding the approval of travel expense reports. Updated procedures could include:
  - a. Conducting annual training for individuals responsible for reviewing and approving expense reports within each department.
  - b. Requiring that departments review all grant-imposed travel restrictions before approving the expense reports.
  - c. Establishing clear guidance regarding the allowability of no-show and early departure lodging expenses that do not benefit the project(s) charged.
5. Direct UConn to establish clear guidance regarding the allowability of catering expenses. This guidance could include:
  - a. Outlining when it is permissible to provide meals/refreshments during a conference.
  - b. Establishing meal/refreshment cost ceilings.
  - c. Mandating the type of documentation that departmental personnel must maintain to support the allowability of catering expenses.
6. Direct UConn to strengthen its administrative and management procedures surrounding the processing of manual payroll cost transfers. Procedures could include ensuring that personnel appropriately update effort certification reports based on the adjustments performed during the reporting period(s) affected by the cost transfer(s).
7. Direct UConn to strengthen its administrative and management procedures surrounding the approval of sponsorship expenses.
8. Direct UConn to update its policies and procedures surrounding the charging of survey incentives to sponsored projects. Updates could include requiring that survey incentives be earned and distributed to project participants before UConn can charge the associated expenses to a sponsored project.
9. Direct UConn to strengthen its administrative and management procedures for ensuring that it receives credits for sales tax charged on its purchasing card activities. Procedures could include periodic reviews of purchasing card credit statements to ensure that the number of credits posted appears to be appropriate based on the number and types of expenses charged to the purchasing card during the applicable billing periods.

**University of Connecticut Response:** UConn agreed that the \$22,987 of questioned costs associated with travel, conference, salary, sponsorship, incentive, and tax expenses was not allowable on the awards charged and stated that it will reimburse NSF for these costs. UConn disagreed with the remaining \$8,108 in questioned costs associated with airfare expenses for NSF Award No. [REDACTED]. Specifically, UConn stated, “While the justification for the use of a business class fare could have been reinforced via additional documentation, activities associated with the trip benefited the NSF award.”

UConn further stated that it believes it has strong controls in place to ensure that expenses charged to federally sponsored awards are allowable, allocable, reasonable, and necessary, and to ensure that costs are allowable in accordance with Federal and sponsor regulations and University policy.

**Auditors’ Additional Comments:** Our position regarding this finding does not change. Specifically, because UConn did not document and justify the conditions that warranted the upgraded airfare, as required by Federal regulations, the cost associated with the business-class airfare is not allowable.

### **Finding 3: Inappropriate Use of Funds Provided for Participant Support**

UConn inappropriately used \$4,850 in funding provided for participant support costs (PSCs) to cover non-participant expenses without first obtaining the NSF program officer’s approval to do so.<sup>21</sup> Specifically, UConn used PSC funding to pay speaker-related expenses and participant lodging expenses, as follows:

- UConn used \$3,661 of its PSC funding to cover speaker-related expenses. Specifically:
  - In June 2016, UConn used \$1,995 in PSC funding awarded under NSF Award No. [REDACTED] to pay a speaker to host a career readiness workshop.
  - In June 2017, UConn used \$1,666 in PSC funding awarded under NSF Award No. [REDACTED] to cover lodging expenses for two conference speakers.
    - *NSF guidance states that entities should not use PSC funding to cover speaker expenses;<sup>22</sup> however, because UConn specifically budgeted funding for speaker lodging expenses under the PSC section of the budget, we are not questioning any costs associated with this exception.*

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<sup>21</sup> According to NSF PAPPG 13-1, Part II, Chapter V, Section B.8.a (ii), grantees may not use funds provided for participant support to cover other categories of expenses without first obtaining the specific approval of the cognizant NSF program officer. NSF PAPPG 16-1, Part II, Chapter V, Section A.3.b states that written prior approval from the cognizant NSF Program Officer is required for reallocation of funds provided for PSCs.

<sup>22</sup> Page 4 of the NSF Proposal and Award Policy Newsletter, Issue II, May/June 2017 states that speakers and trainers are not considered participants and should not be included in the PSC section of the budget.

- UConn used \$1,189 of its PSC funding to cover employee expenses. Specifically:
  - In May 2018, UConn used \$1,189 in PSC funding awarded under NSF Award No. [REDACTED] to cover lodging expenses for the PI, who was a UConn employee.
  - UConn agreed to partially reimburse NSF for this expense.

UConn did not have proper controls in place to ensure that accounts established to track PSCs only included expenses incurred to support grant participants. Further, UConn did not have appropriate oversight of the budget proposal process to ensure that the PSC section of the budget only included funding to support grant participants. As a result, UConn spent PSC funds on non-PSC expenses without first obtaining the required prior approval from NSF. We are therefore questioning \$3,184<sup>23</sup> of PSC funding that UConn used to cover unallowable non-PSC expenses. As illustrated in Table 3, UConn concurred with \$1,042 of the questioned costs, but disagreed with \$2,142.

**Table 3. Inappropriate Use of Funds Provided for Participant Support**

Description	NSF Award No.	Fiscal Year	Questioned Costs			
			Direct	Indirect	Total	UConn Agreed to Reimburse
June 2016 Speaker Fees	[REDACTED]	2016	\$1,995	\$0	\$1,995	\$0
June 2017 Speaker Lodging	[REDACTED]	2017	0	0	0	0
May 2018 PI Lodging	[REDACTED]	2018	1,189	0	1,189	1,042
<b>Total</b>			<b><u>\$3,184</u></b>	<b><u>\$0</u></b>	<b><u>\$3,184</u></b>	<b><u>\$1,042</u></b>

Source: Auditor summary of questioned transactions.

### **Recommendations**

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

1. Resolve the \$2,142 in questioned PSC expenses and direct UConn to repay or otherwise remove the sustained questioned costs from its NSF awards.
2. Direct UConn to provide documentation supporting that it has repaid or otherwise credited the \$1,042 of questioned lodging expenses.
3. Direct UConn to strengthen its administrative and management controls and processes for budgeting and tracking PSCs. Processes could include:
  - a. Providing regular training to PIs and/or other designated staff to ensure that they are aware of all PSC-related guidance available for reference when creating NSF budgets and/or charging costs to an NSF award account established to track PSCs.

<sup>23</sup> Calculated by subtracting the \$1,666 in non-compliant costs from the \$4,850 in inappropriately used PSC funding.

- b. Requiring that the PI and/or other designated staff meet with SPS on an annual basis to review all costs charged to NSF PSC accounts and verify that the PI incurred the costs to support participants.

**University of Connecticut Response:** UConn had no further comments regarding the exception noted for NSF Award No. [REDACTED] and agreed to partially reimburse the lodging expenses related to NSF Award No. [REDACTED]. However, UConn disagreed with the remaining \$2,142 in questioned costs, as it believes the costs were allowable, allocable, and reasonable, as follows:

- With regard to the \$1,995 in questioned speaker fees charged to NSF Award No. [REDACTED], UConn agreed that it should not have used PSCs to cover these expenses and will reclassify the total charge; however, it believes that the costs should not be questioned, as the award's non-PSC budget categories had adequate funding available to cover the expense.
- With regard to the \$147 in questioned lodging expenses that UConn did not agree to reimburse, UConn agreed that it should not have used PSCs to cover these expenses and will reclassify the this portion of the charge; however, it believes that the costs should not be questioned, as the award's non-PSC budget categories had adequate funding available to cover the expense.

UConn further stated that it believes it has strong controls in place to ensure that accounts established to track PSCs only include expenses incurred to support grant participants and that proposal budgets that include PSCs only include funding for grant participants in the PSC budget.

**Auditors' Additional Comments:** Our position regarding this finding does not change. Specifically, although UConn may have had additional funding available on the awards charged, it still used PSC funding to cover non-PSC expenses, and the expenses as originally charged to the award are therefore unallowable.

#### **Finding 4: Fringe Benefits Not Appropriately Applied to Payroll Charged in Different Fiscal Years**

UConn did not appropriately apply fringe benefits to payroll costs that were earned and charged in different fiscal years (FYs). Specifically, because UConn applied fringe benefits to salary expenses using the Negotiated Indirect Cost Rate Agreement (NICRA) rate(s)<sup>24</sup> applicable when UConn charged the salary costs to the NSF awards, rather than the rate(s) applicable when the employee earned the salary, UConn over-applied fringe benefits on two NSF awards, for a total of \$1,851. Specifically:

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<sup>24</sup> UConn's NICRA agreements support the following fringe benefit rates applicable to this finding:

- 7/1/2014 to 6/30/2015: 53.8% for Professionals [DHHS Rate Agreement Dated 2/6/2015]
- 7/1/2015 to 6/30/2016: 71.0% for Professionals [DHHS Rate Agreement Dated 4/19/2016]
- 7/1/2016 to 6/30/2017: 21.7% for Special Payroll [DHHS Rate Agreement Dated 8/31/2016]
- 7/1/2017 to 6/30/2018: 25.3% for Special Payroll [DHHS Rate Agreement Dated 6/2/2017]

- In March 2016, UConn processed a journal entry to transfer \$11,233 in salary costs and \$7,975 in fringe benefit costs to NSF Award No. [REDACTED]. The salary payment appears to be allocable to this award, based on the employee's effort certification; however, the cost transfer caused UConn to over-apply fringe benefits to this award. Specifically, because UConn applied the fringe benefits to the full salary amount using the FY 2016 rate in effect at the time of the cost transfer (i.e., 71 percent), rather than using the FY 2015 and FY 2016 rates originally applied when the employee incurred the effort (i.e., 53.8 percent and 71 percent, respectively)<sup>25</sup> when it manually calculated the amount of the payroll cost transfer, UConn over-charged the award a total of \$1,571 in fringe benefits.<sup>26</sup>
  - *UConn agreed to reimburse NSF for this expense.*
- In November 2017, UConn charged NSF Award No. [REDACTED] for \$7,768 in salary expenses and \$1,965 in fringe benefits for the co-PI's work during the period from May 23 through June 16, 2017. This salary payment appears to be allocable to this award, based on the co-PI's effort certification; however, because UConn did not process this additional salary request either before or during the effort period, it over-applied the fringe benefits to this award. Specifically, because UConn applied the fringe benefits using the FY 2018 rate effective at the time that UConn processed the salary payment (i.e., 25.3 percent), rather than the FY 2017 rate in effect at the time the co-PI incurred the effort (i.e., 21.7 percent), UConn charged NSF Award No. [REDACTED] for \$280 in unallowable fringe benefits.
  - *UConn agreed to reimburse NSF for this expense.*

Both UConn's accounting system and the individual who manually processed the payroll cost transfer applied fringe benefits based on the UConn NICRA fringe benefit rates effective at the time they processed the salary, rather than the rates applicable when UConn initially incurred the salary expenses. As a result, UConn did not correctly apply fringe benefits to salary costs when it processed/transferred payroll in a different fiscal year than the year in which the employee earned the payroll. As illustrated in Table 4, UConn concurred with all \$1,851 of the questioned costs.

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<sup>25</sup> The employee earned \$5,780.09 of the transferred salary expenses in FY 2015 (July 1, 2014, through June 30, 2015), when the appropriate NICRA rate was 53.8 percent. The total allowable fringe benefit expense (and the total fringe benefit expense charged to the original funding source) is therefore \$6,981.01, or the sum of \$3,109.69 (\$5,780.09 times 53.8 percent) and \$3,871.31 (\$5,452.56 times 71 percent).

<sup>26</sup> Calculated as the actual fringe benefit expense charged less the appropriate/allowable fringe benefit expense per Footnote 25 (i.e., \$7,975.18 – \$6,981.01 = \$994.19), multiplied by the indirect cost multiplier of 1.58 (\$994.19 \* 1.58 = \$1,570.79).

**Table 4. Overcharged Fringe Benefit Expenses**

NSF Award No.	Fiscal Year	Questioned Costs			
		Direct	Indirect	Total	UConn Agreed to Reimburse
██████	2015	\$994	\$577	\$1,571	\$1,571
██████	2017	<u>177</u>	<u>103</u>	<u>280</u>	<u>280</u>
Total		<u>\$1,171</u>	<u>\$680</u>	<u>\$1,851</u>	<u>\$1,851</u>

Source: Auditor summary of questioned transactions.

### **Recommendations**

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

1. Direct UConn to provide documentation supporting that it has repaid or otherwise credited the \$1,851 of questioned fringe benefit costs.
2. Direct UConn to identify a manual or automated solution to ensure that it appropriately applies fringe benefit costs to payroll earned in a different fiscal year than the year in which UConn charged the expenses to an NSF award.

**University of Connecticut Response:** UConn agreed with this finding. UConn stated that it believes it has strong controls in place to ensure that it appropriately charges fringe rates to sponsored projects, and that its internal controls for personnel cost transfers have improved since 2016. However, UConn stated that it will evaluate its current personnel cost transfer procedures to identify any opportunities for improvement and will provide enhanced training in the areas of summer payroll processing and cost transfers.

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

### **Finding 5: Incorrect Application of Proposed Indirect Cost Rates**

UConn applied incorrect indirect cost rates to direct expenses accumulated on 14 NSF awards. For each of these awards, UConn applied the NICRA rate that was in effect at the time it submitted the award proposal, rather than the rate that was in effect as of the date of award, contrary to applicable Federal<sup>27</sup> and NSF guidance.<sup>28</sup> As a result, UConn applied indirect costs at rates that were lower than the approved NICRA rates based on the dates that NSF awarded the grants to the university, as summarized in the table below.

<sup>27</sup> According to 2 CFR Part 200, Appendix III, Section C.7, and 2 CFR 220, Appendix A, Section G.7.a, when identifying and computing indirect costs at Institutions of Higher Education (IHE), Federal agencies must use the negotiated rates in effect at the time of the initial award throughout the life of the award.

<sup>28</sup> NSF also requires IHEs to use the negotiated indirect cost rate in effect at the time the award was made throughout the life of the award. See NSF PAPPs 11-1, 13-1, 16-1, and 17-1, Part I, Chapter II, Section C.2.g.(viii).

**Table 5. Incorrect Application of Proposed Indirect Cost Rates**

NSF Award No.	Award Date	Appropriate Rate	Rate Applied
██████████	02/13/2017	59.5%	58%
██████████	06/24/2016	59.5%	58%
██████████	08/20/2016	59.5%	58%
██████████	08/17/2016	59.5%	58%
██████████	08/16/2016	59.5%	58%
██████████	08/17/2016	59.5%	58%
██████████	02/09/2017	59.5%	58%
██████████	04/28/2016	59.5%	58%
██████████	03/15/2016	59.5%	58%
██████████	08/17/2016	59.5%	58%
██████████	02/13/2017	59.5%	58%
██████████	02/09/2017	59.5%	58%
██████████	01/24/2017	59.5%	58%
██████████	02/09/2017	59.5%	58%
██████████	01/25/2017	35%	29.2%
██████████	06/27/2011	57%	53%
██████████	06/27/2011	57%	53%
██████████	08/31/2012	58%	57%
██████████	08/31/2012	58%	57%
██████████	01/22/2014	58%	47% <sup>29</sup>
██████████	10/27/2016	59.5%	49.5% <sup>30</sup>

Source: Auditor summary of identified instances of non-compliance.

Contrary to Federal guidance, when UConn receives an NSF award, whether directly or through a transfer from an outside institution, it establishes accounts that apply indirect costs at the rate(s) included in the approved proposal, “as long as it is equal to or less than the current rate at the time of the award,” so it does not negatively impact the direct costs for the project. The account uses this rate throughout the life of the award and does not adjust the rate unless additional funding remains on the award during grant close-out.<sup>31</sup>

This issue did not result in any questioned costs; however, UConn’s treatment of indirect cost rates is not consistent with Federal regulations. Without policies and procedures in place to ensure that UConn uses the correct indirect cost rate, it is possible that UConn may overcharge sponsoring organizations for indirect costs in the future.

<sup>29</sup> This rate does not represent an approved indirect cost rate per UConn’s NICRA; the University ██████████ proposed the rate while the PI was still employed at ██████████, and the rate was included in the budget when the award transferred to UConn.

<sup>30</sup> This rate does not represent an approved indirect cost rate per UConn’s NICRA; the University ██████████ (USF) proposed the rate while the PI was still employed at ██████████, and the rate was included in the budget when the award transferred to UConn.

<sup>31</sup> UConn processed an adjustment to correct the rate applied to NSF Award No. ██████████ at the end of the award period, as additional funding was available.

## ***Recommendation***

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

1. Direct UConn to update its current practices for award set-up to ensure that personnel set up accounts for NSF awards such that the account applies indirect costs at the rates in effect as of the award date of the NSF award, rather than using the rates included in the original grant proposal.

**University of Connecticut Response:** UConn stated that it believes its prior practice was allowable under Federal and NSF guidance, as 2 CFR §200, Appendix III, C.7 “directs the Federal agency, and not the nonfederal awardee, to use and honor the negotiated rate in effect at the time of the initial award.” Therefore, UConn believes that it may elect to apply a lower rate as voluntary uncommitted cost share. . However, UConn stated that it has updated its current standard practices for NSF award set-up to ensure that accounts established for NSF awards apply indirect costs rates in accordance with the NICRA in effect on the date NSF awarded the grant.

**Auditors' Additional Comments:** Our position regarding this finding does not change. Specifically, 2 CFR §200, Appendix III, C.7 states that Federal agencies must use the negotiated rates in effect at the time of the initial award throughout the life of the award, except as provided in paragraph (c) (1) of §200.414, which states that Federal agencies may use a rate that differs from the negotiated rate only when required by Federal statute or when approved by a Federal awarding agency. Further, for proposals accepted and awarded after January 30, 2017, the NSF PAPPs<sup>32</sup> state that the “use of an indirect cost rate lower than the organization’s current negotiated indirect cost rate is considered a violation of NSF’s cost sharing policy.” Because NSF did not approve either the use of an indirect cost rate that was lower than the NICRA or the use of cost-sharing on this award, UConn should have used the rate in effect at the time of the initial award.

## **Finding 6: Travel Comparisons Not Appropriately Performed**

UConn did not appropriately perform, or document that it had performed, travel comparisons when travel dates or arrival/departure airports were impacted by travel plans that were unrelated to the NSF award, as required by university policy.<sup>33</sup> Specifically, we identified three instances in which UConn was unable to support that flight costs incurred were less than the costs that it would have incurred if the employees had traveled solely for business purposes, as follows:

- In June 2016, UConn charged NSF Award No. [REDACTED] for \$1,940 in foreign airfare expenses incurred for the co-PI to travel to [REDACTED] to perform grant-related research. The

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<sup>32</sup> This language initially appeared in NSF PAPP 17-1 Chapter II, Section C.2 (g) (viii) and is included in the same location in NSF PAPPs 18-1, 19-1, and 20-1.

<sup>33</sup> UConn’s Travel Policy Manual, Section 1e, states that travelers must provide supporting documentation and an economic justification at the time of booking (including cost comparisons from [REDACTED], UConn’s travel management vendor, as of the booking date) to support that the cost of a combined business and personal trip is lower than the cost of a business-only trip.



travel was necessary to achieve the award objectives; however, the co-PI traveled to [REDACTED] 21 days before the grant-related research began.

- In December 2017, UConn charged NSF Award No. [REDACTED] for \$5,489 in travel costs that the PI incurred during a 4-week period spent in [REDACTED], attending a conference and participating in a summer school program. A portion of the travel appears to have benefitted the award; however, the PI reported that 25 percent of the trip related to personal travel.
- In December 2017, UConn charged NSF Award No. [REDACTED] for \$1,864 in foreign airfare expenses that the PI incurred to travel to [REDACTED] to conduct grant-related research. The travel to [REDACTED] appears to have benefited this award; however, the PI's flight originated in and returned to [REDACTED], which the PI was visiting for non-grant-related purposes.

UConn's current travel policies appear to contain sufficient instructions for supporting the allowability of combined business and personal travel; however, UConn does not appear to have sufficient procedures in place to ensure that employees and/or its travel management vendor, [REDACTED], accurately perform and maintain travel comparisons. The identified instances did not result in any questioned costs; however, the lack of airfare comparisons could cause UConn to over-charge sponsored projects as a result of individuals combining personal and grant-related travel.

### ***Recommendation***

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

1. Direct UConn to strengthen its administrative and management procedures for purchasing airfare that will be charged to sponsored projects. Procedures could include:
  - a. Requiring that travelers identify the business purpose for each date of their trip when submitting a travel request form and/or expense report.
  - b. Updating its agreement(s) with [REDACTED] to require that [REDACTED] perform travel comparisons for all airfare purchases in which a traveler's travel request itinerary includes more than one purpose, and that [REDACTED] maintain all travel comparisons performed.

**University of Connecticut Response:** UConn stated that it is in the process of implementing a travel software solution that will enable it to more easily identify travel that includes both personal and business purposes.

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

### **Finding 7: Cost Transfer Documentation Not Appropriately Maintained**

UConn was unable to provide written documentation supporting all of its cost transfers, including its justification for transferring the costs to a sponsored award, as required by UConn's internal policies and procedures.<sup>34</sup> Specifically, we identified four instances in which UConn was unable to provide the required cost transfer documentation, as follows:

- In November 2016, UConn transferred \$7,752 in rental costs related to audio-visual production to NSF Award No. [REDACTED].
- In November 2016, UConn transferred \$2,097 in catering expenses for the award's kickoff event to NSF Award No. [REDACTED].
- In December 2017, UConn transferred \$8,398 in rental costs related to audio-visual production to NSF Award No. [REDACTED].
- In April 2017, UConn transferred \$5,407 in salary expenses for a graduate assistant to NSF Award No. [REDACTED].

UConn has sufficient policies in place for documenting cost transfers; however, it does not appear to have sufficient procedures in place to ensure that it maintains all cost transfer documentation. This issue did not result in any questioned costs; however, the lack of cost transfer documentation could cause UConn to charge sponsors for expenses that are not related to the purpose of the award.

### ***Recommendation***

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

1. Direct UConn to strengthen its documentation retention processes to ensure that it appropriately maintains all forms/written justifications required to support the allowability of cost transfers.

**University of Connecticut Response:** UConn stated that it believes these instances to be isolated and that it has strong controls in place to ensure that it appropriately maintains cost transfer documentation.

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

### **Finding 8: Stipends Not Appropriately Provided to Noyce Scholars**

As part of the "Husky Teach" Robert Noyce Teacher Scholarship program under NSF Award No. 1439881, UConn awarded participating college graduates \$30,000 per year to help "defray

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<sup>34</sup> UConn's Cost Transfers on Sponsored Projects Policy states that cost transfers must be supported by documentation that contains a written explanation that includes details regarding how the error occurred; the types of expenses being transferred, including why and when the original charge(s) occurred; and why the charge is appropriate for the receiving account and how the expense is allocable to that account.

costs to attend the Avery Point Program,” a teacher certification program for college graduates. Participation in this program was consistent with the grant objectives; however, UConn awarded these funds as scholarships rather than as stipends.<sup>35</sup> As a result, UConn used the \$30,000 awards to offset expenses accumulated on each student’s account, rather than providing the funds directly to the participants, as intended by the program for STEM professionals.<sup>36</sup>

This issue did not result in any questioned costs, as UConn used the funding to support the Noyce scholarship participants as originally intended; however, because the NSF program solicitation and the NSF grant budget<sup>37</sup> indicate that participants who meet the qualifications for STEM professionals should receive the Noyce funds in the form of a stipend, UConn’s current methodology for accounting for these payments is inconsistent with the terms and conditions established for the NSF award.

### ***Recommendation***

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

1. Direct UConn to update its policies and procedures for administering grants with Noyce awards to ensure that it provides scholarships for STEM majors and stipends for STEM professionals.

**University of Connecticut Response:** UConn stated that it has altered its procedures to ensure that it pays STEM professionals stipends under this award.

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

### **Finding 9: Program Income Not Appropriately Used**

UConn did not use the program income that it earned from NSF Award No. [REDACTED] to offset award expenses before requesting reimbursement against the award, as required by NSF policies.<sup>38</sup> However, UConn refunded the \$3,778 in unallowable direct costs after the award’s POP expired.

UConn does not have sufficient procedures in place to ensure to ensure that it expends program income earned during an NSF award’s project period before requesting reimbursement against the award. Because UConn returned the funds to NSF before the beginning of our audit, we are

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<sup>35</sup> Awarding the funding as a scholarship rather than a stipend is consistent with the “STEM majors” language in the program solicitation, which states that scholarship recipients must be majoring in a discipline such as science, mathematics, engineering, or computer science and must be in the last 2 years of a baccalaureate degree program.

<sup>36</sup> The participants in this program were not in the last two years of a baccalaureate program and would therefore have been considered “STEM professionals” rather than “STEM majors.” The program solicitation states that STEM professionals receive stipends of at least \$10,000.

<sup>37</sup> The proposal and budget for NSF Award No. 1439881 indicated that UConn would provide the grant funding to Noyce participants in the form of stipends.

<sup>38</sup> NSF PAPPG 14-1, Part II, Chapter III, Section D.4.a states that grantees should make an effort to avoid having unexpended program income remaining at award expiration, and that program income earned during the project period should be expended prior to requesting reimbursement against the award.

not questioning any costs; however, UConn should have used the unexpended program income to offset the costs that it claimed on this award during the grant's POP, in compliance with NSF policies.

***Recommendation***

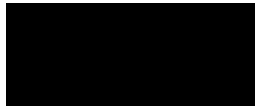
We recommend that NSF's Director of the Division of Institution and Award Support:

1. Direct UConn to strengthen its administrative and management processes surrounding the tracking and offsetting of program income earned on sponsored awards. Processes could include updating the current system to account for all program income as an offset to program expenses as UConn earns the income.

**University of Connecticut Response:** UConn stated that it believes this instance to be isolated and that it will continue to train staff regarding the appropriate consideration of program income funds in calculating and requesting reimbursement from NSF.

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

COTTON & COMPANY LLP



Megan Mesko, CPA, CFE  
Partner  
March 20, 2020

## **APPENDIX A: SCHEDULE OF QUESTIONED COSTS BY FINDING**

NATIONAL SCIENCE FOUNDATION  
ORDER # 140D0418F0437  
PERFORMANCE AUDIT OF COSTS CLAIMED ON NSF AWARDS  
UNIVERSITY OF CONNECTICUT

SCHEDULE OF QUESTIONED COSTS BY FINDING

Finding	Description	Questioned Costs		Total
		Unsupported	Unallowable	
1	Expenses Not Appropriately Allocated to NSF Awards	\$0	\$39,009	\$39,009
2	Expressly Unallowable Expenses Charged to NSF Awards	0	31,095	31,095
3	Inappropriate Use of Funds Provided for Participant Support	0	3,184	3,184
4	Fringe Benefits Not Appropriately Applied to Payroll Charged in Different Fiscal Years	0	1,851	1,851
5	Incorrect Application of Proposed Indirect Cost Rates	0	0	0
6	Travel Comparisons Not Appropriately Performed	0	0	0
7	Cost Transfer Documentation Not Appropriately Maintained	0	0	0
8	Stipends Not Appropriately Provided to Noyce Scholars	0	0	0
9	Program Income Not Appropriately Used	0	0	0
<b>Total</b>		<b><u>\$0</u></b>	<b><u>\$75,139</u></b>	<b><u>\$75,139</u></b>

**APPENDIX B: UNIVERSITY OF CONNECTICUT RESPONSE**



March 2, 2020

Cotton & Company LLP  
Attn: Megan Mesko, CPA, CFE – Partner  
365 Slaters Lane  
4<sup>th</sup> Floor  
Alexandria, VA 22314

Dear Ms. Mesko,

The National Science Foundation's (NSF) financial support for research conducted at the University of Connecticut (UConn) supports the mission of the University to further education, research and science. The University is committed to its fiduciary stewardship responsibilities for the support it receives from the NSF as well as other sponsors.

It is with this commitment that UConn appreciates the opportunity to review and provide comments in response to the NSF Office of Inspector General Performance Audit for Incurred Costs for the period of February 1, 2016 through January 31, 2019. Both internal and external regular audits are an integral component of UConn's internal controls and provide valuable feedback to UConn's management of where these controls are effective and where we may implement improvements.

UConn appreciates the professionalism of Cotton & Company LLP (C&C) in conducting the audit. We agree to reimburse the NSF \$61,663 in questioned costs identified by C&C. We do not agree with \$13,476 of questioned costs.

Although we believe the findings included in this report relate almost exclusively to isolated incidents, UConn appreciates the recommendations provided by C&C and in response to this report, plans to evaluate and identify areas to improve policy, procedure, training and guidance.

UConn's responses to the audit findings are presented below.

**Finding 1: Expenses Not Appropriately Allocated to NSF Awards**

UConn has strong controls in place to ensure that expenses charged to federally sponsored awards are allowable, allocable, reasonable and necessary and to ensure that costs are consistently allocated to sponsored awards based on the relative benefit received.

NSF Award Number	Amount	UConn Response
██████	\$313	UConn agreed to reimburse NSF
██████	\$28,688	UConn agreed to reimburse NSF
██████	\$3,226	UConn does not agree with this questioned cost. The travel solely benefitted ██████ and did not provide benefit to ██████. The PI

Office of the Vice President for Research  
438 WHITNEY ROAD EXTENSION, UNIT 1006  
STORRS, CT 06269-1006  
PHONE 860.486.3619  
FAX 860.486.5381  
research.uconn.edu

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		made a clerical error and erroneously included this travel on the progress report associated with [REDACTED], however it should have been reported on [REDACTED]. As stated by C&C, the description of the activities of the trip align with the scope of work for [REDACTED]. As this trip and associated travel expenses only benefited [REDACTED], UConn asserts that this is an allowable expense.
[REDACTED]	\$3,387	UConn agreed to reimburse NSF
[REDACTED]	\$1,595	UConn agreed to reimburse NSF
[REDACTED]	\$1,800	UConn agreed to reimburse NSF

#### Finding 2: Expressly Unallowable Expenses Charged to NSF Awards

UConn has strong controls in place to ensure that expenses charged to federally sponsored awards are allowable, allocable, reasonable and necessary and to ensure that costs are allowable in accordance with federal and sponsor regulation and University policy.

NSF Award Number	Amount	UConn Response
[REDACTED]	\$141	UConn agreed to reimburse NSF
[REDACTED]	\$1,422	UConn agreed to reimburse NSF
[REDACTED]	\$519	UConn agrees to reimburse NSF
[REDACTED]	\$3,258	UConn agreed to reimburse NSF
[REDACTED]	\$301	UConn agreed to reimburse NSF
[REDACTED]	\$8,108	UConn does not agree with this questioned cost. While the justification for the use of a business class fare could have been reinforced via additional documentation, activities associated with the trip benefited the NSF award.
[REDACTED]	\$1,800	UConn agrees to reimburse NSF
[REDACTED]	\$7,467	UConn agrees to reimburse NSF
[REDACTED]	\$4,678	UConn agreed to reimburse NSF
[REDACTED]	\$1,580	UConn agreed to reimburse NSF
[REDACTED]	\$1,570	UConn agreed to reimburse NSF
[REDACTED]	\$251	UConn agreed to reimburse NSF

#### Finding 3: Inappropriate Use of Funds Provided for Participant Support

UConn has strong controls to ensure that accounts established to track participant support costs only include expenses to support grant participants and that proposal budgets with participant support costs only include funding for the grant participant.

NSF Award Number	Amount	UConn Response
[REDACTED]	\$1,995	UConn does not agree with this questioned cost. The speaker fee to host a career readiness workshop was within the scope of the award

		and specifically benefitted NSF Award No. [REDACTED]. UConn agrees that this charge should not be categorized as a participant support cost. UConn agrees to reclassify this charge. There is appropriate and adequate budget available to reclassify the cost out of the participant support cost category without requiring a rebudget from participant support costs.
[REDACTED]	\$0	UConn has no further comment
[REDACTED]	\$1,189	UConn partially agrees with this questioned cost. The lodging costs for the PI to attend the session was within the scope of the award and specifically benefitted NSF Award No. [REDACTED]. UConn agrees that this charge should not be categorized as a participant support cost. UConn agrees to reclassify this charge and fund this travel through the non-Participant Support Budget in the amount of \$146.51. There is appropriate and adequate budget to reclassify \$146.51 without requiring a rebudget from the participant support cost category. This amount is allowable on the federal award. UConn agrees to reimburse NSF \$1,042.49 of the questioned cost.

#### **Finding 4: Fringe Benefits Not Appropriately Applied to Payroll Charged in Different Fiscal Years**

UConn has strong controls in place to ensure that fringe rates are appropriately charged to sponsored projects. Internal controls for cost transfer of personnel expenses have improved since the 2016 cost transfer noted in this report. The questioned cost, \$280, associated with NSF award [REDACTED], was due to an uncommon instance involving the late receipt of a single summer payroll charge. UConn will evaluate current procedures to identify any opportunities for improvement and will provide enhanced training in the areas of summer payroll processing and cost transfers.

NSF Award Number	Amount	UConn Response
[REDACTED]	\$1,571	UConn agreed to reimburse NSF
[REDACTED]	\$280	UConn agrees to reimburse NSF

#### **Finding 5: Incorrect Application of Proposed Indirect Cost Rates**

While UConn believes its prior practice is allowable under Uniform Guidance and the NSF PAPPG, UConn has updated its current standard practices associated with award setup for NSF proposals submitted through the University to ensure that accounts for NSF awards apply indirect costs rates in accordance with the Negotiated Indirect Cost Rate Agreement in effect as of the awarding date of the NSF award.

However, 2 C.F.R. § 200, Appendix III, paragraph C.7 directs the Federal agency, and not the non-federal awardee, to use and honor the negotiated rate in effect at the time of the initial award. Therefore, UConn may elect to apply a lower rate as voluntary uncommitted cost share.

**Finding 6: Travel Comparisons Not Appropriately Performed**

UConn is in the process of implementing a travel software solution that will aid in the identification if travel includes both personal and business travel. If the traveler will combine business and personal travel, the software will then provide instructions to the traveler on required documentation that is needed to ensure that sponsored awards are not overcharged.

**Finding 7: Cost Transfer Documentation Not Appropriately Maintained**

UConn believes these to be isolated incidents which occurred over two years ago. UConn has strong controls in place to ensure cost transfer documentation is appropriately maintained.

**Finding 8: Stipends Not Appropriately Provided to Noyce Scholars**

UConn has altered its procedures regarding this award to pay STEM Professionals as stipend payments.

**Finding 9: Program Income Not Appropriately Used**

UConn believes this to be an isolated incident. UConn's internal controls proactively identified the situation and corrective actions were taken prior to this audit. UConn will continue to provide training to staff on the appropriate consideration of Program Income funds in calculating and requesting reimbursement from the NSF.

Sincerely,



Radenka Maric  
Vice President for Research,  
Innovation and Entrepreneurship



Scott Jordan  
Executive Vice President for Administration  
and Chief Financial Officer

## **APPENDIX C: OBJECTIVES, SCOPE, AND METHODOLOGY**

## OBJECTIVES, SCOPE, AND METHODOLOGY

The NSF OIG Office of Audits engaged Cotton & Company LLP (referred to as “we”) to conduct an audit survey, the objective of which was to evaluate the University of Connecticut’s (UConn’s) award management environment to determine whether any further audit work was warranted and to recommend a path forward as described in the task order performance work statement, and then to perform any additional audit work, as determined appropriate.

Accordingly, we conducted this engagement in two phases, as follows:

**Audit Survey Phase:** After obtaining NSF OIG’s approval for our audit plan, we performed all of the audit survey steps outlined in the plan. Generally, these steps included:

- Assessing the reliability of the general ledger data that UConn provided by comparing the costs charged to NSF awards per UConn’s accounting records to the reported net expenditures reflected in the ACM\$ drawdown requests.
  - Our work required us to rely on computer-processed data obtained from UConn and NSF OIG. NSF OIG provided award data that UConn reported through ACM\$ during our audit period.
    - We assessed the reliability of the general ledger data that UConn provided by (1) comparing the costs charged to NSF awards per UConn’s accounting records to the reported net expenditures reflected in the ACM\$ drawdown requests that UConn submitted to NSF during the audit survey POP; and (2) reviewing the parameters that UConn used to extract transaction data from its accounting systems. We identified a number of discrepancies between the amounts supported by UConn’s general ledger and the amounts that UConn claimed per NSF’s ACM\$ system; however, we found UConn’s computer-processed data to be sufficiently reliable for the purposes of the audit survey, as UConn was able to provide justification for all discrepancies identified and we did not identify any issues with the parameters that UConn used to extract the accounting data.
    - We found NSF’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 2018 found no reportable instances in which NSF’s financial management systems did not substantially comply with applicable requirements.
  - UConn provided detailed transaction-level data to support all costs charged to NSF awards during the period. This data resulted in a total audit universe of \$63,435,035 in costs claimed on 401 NSF awards.

- Obtaining and reviewing all available accounting and administrative policies and procedures, external audit reports, desk review reports, and other relevant information that UConn and NSF OIG provided, as well as any other relevant information that was available online.
- Summarizing our understanding of Federal, NSF, and UConn-specific policies and procedures surrounding costs budgeted for and/or charged to NSF awards and specifically identifying the controls in place to ensure that costs charged to sponsored projects were reasonable, allocable, and allowable.
- Evaluating the strengths and weaknesses of the policies and procedures that UConn has in place to control the inherent, fraud, and control risks identified for each budget category.
- Providing UConn with a list of 45 transactions that we selected based on our data analytics and requesting that UConn provide documentation to support each transaction.
- Reviewing the supporting documentation that UConn provided and requesting additional documentation as necessary to ensure that we obtained sufficient, appropriate evidence to enable us to assess the allowability of each sampled transaction.
- Holding interviews and walkthroughs to discuss payroll (including effort reporting), fringe benefits, travel, participant support costs, procurement, equipment (including performing an inventory check), the graduate research fellowship program, other direct costs (including areas such as patents, relocation, recruiting, interest, advertising/public relations, entertainment, fundraising, lobbying, selling/marketing, and training costs), grant close-out procedures, subawards, ACM\$ processing, indirect costs, and other general policies (including areas such as pre- and post-award costs, program income, whistleblower information, research misconduct, and conflict of interest policies).
- Preparing an organizational risk assessment that (1) summarized the results of our planning/initial fieldwork, (2) included areas of elevated risk of noncompliance that we identified in the organization's award management environment, and (3) contained our recommendations for expanded testing.

Based on the areas of elevated risk of noncompliance identified during the survey phase, we determined that we should perform further audit procedures, which included:

- Conducting additional data analytics, evaluating the results of the analytics, and re-running analytical tests, as necessary.
- Selecting an additional audit sample of 80 transactions.
- Conducting additional fieldwork, which included providing the list of 80 transactions to UConn and requesting/reviewing supporting documentation until we had obtained sufficient, appropriate evidence to enable us to assess the allowability of each sampled transaction.

At the conclusion of our fieldwork, we provided a summary of our results to NSF OIG personnel for review. We also provided the summary to UConn personnel to ensure that UConn was aware of each of our findings and that it was not able to provide any additional documentation to support the questioned costs.

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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