

Performance Audit of Incurred Costs – North Carolina Central University

REPORT PREPARED BY COTTON & COMPANY ASSURANCE AND ADVISORY, LLC

NATIONAL SCIENCE FOUNDATION
OFFICE OF INSPECTOR GENERAL

August 12, 2022
OIG 22-1-012





AT A GLANCE

Performance Audit of Incurred Costs – North Carolina Central University

Report No. OIG 22-1-012

August 12, 2022

AUDIT OBJECTIVE

The National Science Foundation Office of Inspector General engaged Cotton & Company Assurance and Advisory, LLC (C&C) to conduct a performance audit of costs that North Carolina Central University (NCCU) incurred on 19 NSF awards during the period of performance from each award's inception date through September 2, 2021. The auditors tested more than \$1.1 million of the approximately \$14.8 million of costs claimed to NSF. The audit objective was to determine if costs claimed by NCCU on NSF awards were allowable, allocable, reasonable, and in compliance with NSF award terms and conditions and federal financial assistance requirements. A full description of the audit's objective, scope, and methodology is attached to the report as Appendix B.

AUDIT RESULTS

The report highlights concerns about NCCU's compliance with certain federal and NSF award requirements, NSF award terms and conditions, and NCCU policies. The auditors questioned \$60,320 of costs claimed by NCCU during the audit period. Specifically, the auditors found \$24,029 in unallowable expenses, \$22,748 of inappropriately allocated expenses, and \$13,543 of inadequately supported expenses. The auditors also identified three compliance-related findings for which there were no questioned costs: non-compliance with NCCU policies, non-compliance with federal requirements for pass-through entities, and insufficient controls related to the application of indirect cost rates. C&C is responsible for the attached report and the conclusions expressed in it. NSF OIG does not express any opinion on the conclusions presented in C&C's audit report.

RECOMMENDATIONS

The auditors included six findings in the report with associated recommendations for NCCU to provide supporting documentation that it has repaid the questioned costs and to ensure NCCU strengthens administrative and management controls.

AUDITEE RESPONSE

NCCU agreed with the majority of the findings in the report. NCCU's response is attached in its entirety as Appendix A.

FOR FURTHER INFORMATION, CONTACT US AT OIGPUBLICAFFAIRS@NSF.GOV.



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

MEMORANDUM

DATE: August 12, 2022

TO: Dale Bell
Director
Division of Institution and Award Support

Jamie French
Director
Division of Grants and Agreements



FROM: Mark Bell
Assistant Inspector General
Office of Audits

SUBJECT: Audit Report No. 22-1-012, North Carolina Central University

This memorandum transmits the Cotton & Company Assurance and Advisory, LLC (C&C) report for the audit of costs charged by North Carolina Central University (NCCU) to its sponsored agreements with the National Science Foundation on 19 NSF awards during the period of performance from each award's inception date through September 2, 2021. The audit encompassed more than \$1.1 million of the approximately \$14.8 million of costs claimed to NSF during the period. The audit objective was to determine if costs claimed by NCCU on NSF awards were allowable, allocable, reasonable, and in compliance with NSF awards terms and conditions and federal financial assistance requirements. A full description of the audit's objective, scope, and methodology is attached to the report as Appendix B.

Please coordinate with our office during the 6-month resolution period, as specified by OMB 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 Billy McCain at 703.292.7100 or OIGpublicaffairs@nsf.gov.

Attachment

cc:

Stephen Willard	Karen Marrongelle	Rochelle Ray	Dan Buchtel
Dan Reed	Christina Sarris	Charlotte Grant-Cobb	Ken Lish
Victor McCrary	Teresa Grancorvitz	Allison Lerner	Billy McCain
John Veysey	Janis Coughlin-Piester	Lisa Vonder Haar	Harrison Ford
Ann Bushmiller	Alex Wynnyk	Ken Chason	Louise Nelson
			Karen Scott

EXECUTIVE SUMMARY

The Cotton & Company audit team determined that North Carolina Central University (NCCU) needs improved oversight of the allocation and documentation of expenses charged to NSF awards to ensure costs claimed are reasonable, allocable, and allowable in accordance with all federal and NSF regulations, NSF award terms and conditions, and NCCU policies. Specifically, the audit report includes six findings and a total of \$60,320 in questioned costs.

AUDIT OBJECTIVES

The National Science Foundation Office of Inspector General engaged Cotton & Company Assurance and Advisory, LLC to conduct a performance audit of costs that NCCU incurred on 19 awards that either ended or were close to the end of their period of performance. The audit objectives included evaluating NCCU's award management environment to determine whether any further audit work was warranted and performing additional audit work, as determined appropriate. We have attached a full description of the audit's objectives, scope, and methodology as [Appendix B](#).

AUDIT CRITERIA

The audit team assessed NCCU's compliance with relevant federal regulations (i.e., 2 Code of Federal Regulations [CFR] 200 and 2 CFR 220); NSF Proposal and Award Policies and Procedures Guides (PAPPGs) 13-1, 15-1, 16-1, 17-1, 18-1, and 19-1; NSF award terms and conditions; and NCCU policies and procedures. The audit team included references to relevant criteria within each finding and defined key terms within the Glossary located in [Appendix E](#).

We conducted this performance audit in accordance with *Generally Accepted Government Auditing Standards* (GAGAS) issued by the Comptroller General of the United States.

AUDIT FINDINGS

As summarized in [Appendix C](#), the auditors identified and questioned \$60,320 of direct and indirect costs that NCCU inappropriately claimed during the audit period, including:

- \$24,029 of unallowable expenses
- \$22,748 of inappropriately allocated expenses
- \$13,543 of inadequately supported expenses

The audit report also includes three compliance-related findings for which the auditors did not question any costs:

- Non-compliance with NCCU policies
- Non-compliance with federal requirements for pass-through entities
- Insufficient controls related to the application of indirect cost rates

RECOMMENDATIONS

The audit report includes 14 recommendations for NSF's Director of the Division of Institution and Award Support related to resolving the \$60,320 in questioned costs and ensuring NCCU strengthens its award management environment, as summarized in [Appendix D](#).

AUDITEE RESPONSE

NCCU concurred with the majority of the findings throughout the audit report, agreeing to reimburse NSF for \$60,320 in questioned costs. NCCU's response is attached in its entirety to the report as [Appendix A](#).

Table of Contents

Background	1
Audit Scope	2
Audit Results	3
Finding 1: Unallowable Expenses	4
Finding 2: Inappropriately Allocated Expenses	10
Finding 3: Inadequately Supported Expenses	13
Finding 4: Non-Compliance with NCCU Policy	17
Finding 5: Non-Compliance with Federal Requirements for Pass-Through Entities	18
Finding 6: Insufficient Controls Related to the Application of Indirect Cost Rates	20
Appendix A: NCCU's Response	25
Appendix B: Objectives, Scope, and Methodology	32
Appendix C: Summary of Questioned Costs	36
Appendix D: Summary of Recommendations and Considerations	41
Appendix E: Glossary	45

Abbreviations

ACM\$	Award Cash Management Service
CFR	Code of Federal Regulations
FY	Fiscal Year
GAGAS	Generally Accepted Government Auditing Standards
GL	General Ledger
HBCU	Historically Black College and University
MTDC	Modified Total Direct Cost
NCCU	North Carolina Central University
NICRA	Negotiated Indirect Cost Rate Agreement
NSF	National Science Foundation
OIG	Office of Inspector General
PAPPG	Proposal and Award Policies and Procedures Guide
Penn State	Pennsylvania State University
PI	Principal Investigator
POP	Period of Performance

BACKGROUND

The National Science Foundation is an independent federal agency created “to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense; and for other purposes” (Pub. L. No. 81-507). NSF funds research and education in science and engineering by awarding grants and contracts to educational and research institutions throughout the United States.

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 Assurance and Advisory, LLC (referred to as “we”) to conduct a performance audit of costs incurred by North Carolina Central University (NCCU). NCCU is a Historically Black College and University (HBCU) located in Durham, North Carolina, serving as a public liberal arts institution. In fiscal year (FY) 2021, NCCU reported approximately \$88.55 million in tuition and fees, sales revenue, award revenue, and operating revenues, with \$12.31 million received from federal sources—including NSF—as illustrated in Figure 1.

Figure 1: NCCU’s FY 2021 Operating Revenue



Source: The chart data is supported by NCCU’s 2021 Independent Auditor Report. (<https://www.auditor.nc.gov/media/4075/open>) The photo of Durham, North Carolina is publicly available on NCCU’s website (<https://www.nccu.edu/we-are-nc-central>).

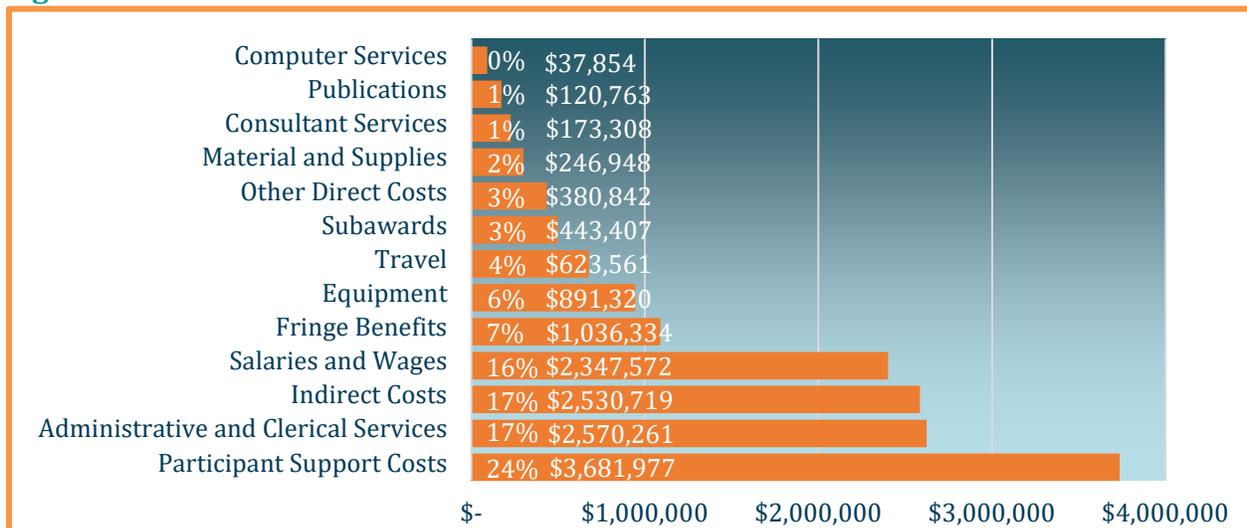
AUDIT SCOPE

This performance audit—conducted under Order No. 140D0421F0613—was designed to meet the objectives identified in the Objectives, Scope, and Methodology section of this report ([Appendix B](#)) and was conducted in accordance with *Generally Accepted Government Auditing Standards*, issued by the Comptroller General of the United States.

The objectives of this performance audit were to evaluate NCCU’s award management environment; determine whether any further audit work was warranted; and perform any additional audit work, as determined appropriate. [Appendix B](#) provides detailed information regarding the audit scope and methodology used for this engagement.

As illustrated in Figure 2, NCCU provided general ledger (GL) data to support the \$14.8 million in expenses it claimed on 19 NSF awards from each award’s inception date through September 2, 2021.

Figure 2: Costs NCCU Claimed on 19 NSF Awards¹



Source: Auditor analysis of accounting data NCCU provided, illustrating the total costs supported by its GL (\$15,084,866) by expense type, using financial information to support costs incurred on NSF awards during the audit period.

We judgmentally selected 45 transactions totaling \$1,197,627² (see Table 1) and evaluated supporting documentation to determine whether the costs claimed on the NSF awards were [allocable](#), [allowable](#), and [reasonable](#), and whether they were in conformity with NSF award terms and conditions, organizational policies, and applicable federal financial assistance requirements.

¹ The total award-related expenses that NCCU reported in its GL exceeded the \$14,754,734 reported in NSF’s Award Cash Management Service (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.

² The \$1,197,627 represents the total value of the 45 transactions selected for transaction-based testing; it does not represent the dollar base of the total costs reviewed during the audit.

Table 1: Summary of Selected Transactions

Budget Category	Transaction Count	Expense Amount ³
Equipment	6	\$472,555
Other Direct Costs	6	252,383
Participant Support Costs	7	214,839
Indirect Costs	2	115,256
Subawards	4	37,476
Consultant Services	4	26,931
Administrative and Clerical Services	2	17,666
Salaries and Wages	4	14,149
Computer Services	2	13,427
Travel	3	13,267
Material and Supplies	3	10,825
Publications	1	7,833
Fringe Benefits	1	1,020
Total	<u>45</u>	<u>\$1,197,627</u>

Source: Auditor summary of selected transactions.

AUDIT RESULTS

We identified and questioned \$60,320 in costs that NCCU charged to nine NSF awards. We also identified expenses that NCCU charged to six NSF awards that did not result in questioned costs, but resulted in non-compliance with federal, NSF, and NCCU-specific policies. See Table 2 for a summary of questioned costs by finding area, [Appendix C](#) for a summary of questioned costs by NSF award, and [Appendix D](#) for a summary of all recommendations.

Table 2: Summary of Questioned Costs by Finding Area

Finding Description	Questioned Costs
Unallowable Expenses	\$24,029
Inappropriately Allocated Expenses	22,748
Inadequately Supported Expenses	13,543
Non-Compliance with NCCU Policies	-
Non-Compliance with Federal Requirements for Pass-Through Entities	-
Insufficient Controls Related to the Application of Indirect Cost Rates	-
Total	<u>\$60,320</u>

Source: Auditor summary of findings identified.

We made 14 recommendations for NSF’s Director of the Division of Institution and Award Support related to resolving the \$60,320 in questioned costs and ensuring NCCU strengthens its administrative and management procedures for monitoring federal funds. We communicated the results of our audit and the related findings and recommendations

³ The expense amounts reported represent the total dollar value of the transactions selected for our sample; they do not include the total [fringe benefits](#) or [indirect costs](#) applied to the sampled transactions. However, we tested the fringe benefits and indirect costs for [allowability](#).

to NCCU and NSF OIG. We included NCCU’s response to this report in its entirety in [Appendix A](#).

FINDING 1: UNALLOWABLE EXPENSES

NCCU charged five NSF awards a total of \$24,029 in expenses incurred for [participant support](#), indirect, and other direct costs that were unallowable under federal regulations⁴ and [NSF Proposal and Award Policies and Procedures Guides \(PAPPGs\)](#).⁵

Unallowable Participant Support Costs

NCCU charged four NSF awards for \$13,909 in unallowable participant support costs,⁶ as illustrated in Table 3.

Table 3: Unallowable Participant Support Costs

Expense Date	NSF Award No.	Unallowable Total	Participant Support Funds Inappropriately Used to Cover	Notes
September 2019	██████	\$888	Baseball Tickets for Participants	a
September 2019	██████	3,736	Unbudgeted Compensation Paid to Graduate Student	b
March 2020	██████	38	Meal Provided to an NCCU Employee	c
March 2020	██████	1,500	NCCU Employee and Two Unused Conference Registration Fees	d
February 2021	██████	2,910	Unbudgeted Computer Equipment	e
May 2021	██████	4,837	Unbudgeted Software License Renewal	f

Source: Auditor summary of identified exceptions.

- a) In September 2019, NCCU used participant support cost funds awarded under NSF Award No. ██████ to cover \$888 in costs it incurred to purchase baseball tickets

⁴ According to 2 Code of Federal Regulations (CFR) § 200.403, *Factors affecting allowability of costs*, for a cost to be allowable, it must be adequately documented, necessary, and reasonable for the performance of the federal award. See Appendix E of this report for additional factors affecting the allowability of costs.

⁵ According to NSF PAPPGs 15-1 and 16-1, Part II, Chapter V, Section A, and 17-1 and 18-1, Part II, Chapter X, Section A, *Basic Considerations*, expenditures under NSF cost-reimbursement grants are governed by the federal cost principles and must conform to NSF policies, grant special provisions, and grantee internal policies. Grantees should ensure that costs claimed under NSF grants meet the requirements of the cost principles, grant terms and conditions, and other specific requirements of both the award notice and the applicable program solicitation.

⁶ According to 2 CFR § 200.75, *Participant support costs*, participant support costs are direct costs for items such as stipends or subsistence allowances, travel allowances, and registration fees paid to or on behalf of participants or trainees (but not employees) in connection with conferences or training projects. Additionally, NSF PAPPGs 16-1, 17-1, and 18-1 Part I, Chapter II, Section C.2.g.v, *Participant Support*, state that this budget category refers to direct costs for items such as stipends or subsistence allowances, travel allowances, and registration fees paid to or on behalf of participants or trainees (but not employees) in connection with NSF-sponsored conferences or training projects.

for NSF award participants. As NCCU did not include the baseball tickets in the grant budget or obtain separate NSF approval, the **entertainment costs** are unallowable.⁷

- b) In September 2019, NCCU used participant support cost funds awarded under NSF Award No. [REDACTED] to cover \$3,736 in compensation paid to a graduate student for providing technical laboratory support to students participating in an NSF award summer program. As participant support funds were not budgeted to support graduate students, as this student was not an award participant, and as NCCU did not request approval to rebudget participant support cost funds to compensate graduate students for assisting in the summer program, this compensation is not an allowable use of participant support cost funds.⁸
- c) In March 2020, NCCU used participant support cost funds awarded under NSF Award No. [REDACTED] to cover \$38 in meal costs for an NCCU employee.
- d) In March 2020, NCCU used participant support cost funds awarded under NSF Award No. [REDACTED] to cover \$1,500 in conference registration fees for an NCCU employee who attended the NSF-sponsored conference and for two participants who did not attend.
- e) In February 2021, NCCU internally rebudgeted participant support cost funds awarded under NSF Award No. [REDACTED] to cover \$2,910 of computer equipment without obtaining NSF approval to rebudget the funds.⁹
- f) In May 2021, NCCU internally rebudgeted participant support cost funds awarded under NSF Award No. [REDACTED] to cover \$4,837 for a software license renewal without obtaining NSF approval to rebudget the funds.¹⁰

Unallowable Indirect Costs

NCCU charged two NSF awards for \$8,051 in indirect costs that were inappropriately applied to participant support costs, **subaward** expenses over \$25,000, equipment expenses, and rental costs which should not have been included in the Modified Total

⁷ According to 2 CFR § 200.438, *Entertainment costs*, costs of entertainment—including amusement—are unallowable, except where specific costs have a programmatic purpose and are authorized either in the approved budget for the federal award or with prior written approval of with prior written approval of the federal awarding agency.

⁸ According to NSF PAPPG 18-1, Part II, Chapter X, Allowability of Costs Section A.3, *Prior Written Approvals*, the grantee is authorized to transfer funds from one budget category to another for allowable expenditures and the Research Terms and Conditions Appendix A includes a consolidated listing of prior approvals that are required by NSF. As such, the Research Terms and Conditions Appendix A requires NSF approval for the transfer of funds budgeted for participant support costs to other categories of expense.

⁹ According to NSF PAPPG 17-1, Part II, Chapter X, Allowability of Costs Section A.3.b, *NSF Prior Approval Policy*, written prior approval from the cognizant NSF Program Officer is required for the reallocation of funds provided for participant support costs.

¹⁰ According to NSF PAPPG 16-1, Part II, Chapter V, Allowability of Costs Section A.3.b, *NSF Prior Approval Policy*, written prior approval from the cognizant NSF Program Officer is required for the reallocation of funds provided for participant support costs.

Direct Cost (**MTDC**) base to which indirect costs are applied, per federal regulations¹¹ and NCCU's Negotiated Indirect Cost Rate Agreement (**NICRA**),¹² as illustrated in Table 4.

Table 4: Unallowable Indirect Costs

Expense Date	NSF Award No.	Indirect Costs Applied	Indirect Costs Inappropriately Applied to	Notes
December 2015		\$2,969	Participant Support Costs	a
November 2016		362	Subaward Costs Over \$25,000	b
March 2017		2,719	Equipment	c
July 2018		1,583	Rental of Specialized Equipment	d
September 2019		418	Participant Support Costs	e

Source: Auditor summary of identified exceptions.

- a) In December 2015, NCCU charged NSF Award No. [REDACTED] for \$2,969 in indirect costs that it inappropriately applied to participant support costs.
- b) In November 2016, NCCU charged NSF Award No. [REDACTED] for \$362 in indirect costs that it inappropriately applied to subaward costs in excess of \$25,000.
- c) In March 2017, NCCU charged NSF Award No. [REDACTED] for \$2,719 in indirect costs that it inappropriately applied to an equipment expense it charged to a materials and supplies account.
- d) In July 2018, NCCU charged NSF Award No. [REDACTED] for \$1,583 in indirect costs that it inappropriately applied to costs it incurred to rent specialized equipment.
- e) In September 2019, NCCU charged NSF Award No. [REDACTED] for \$418 in indirect costs that it inappropriately applied to participant support costs.

Unallowable Other Direct Costs

NCCU charged one NSF award for \$2,069 in unallowable other direct costs, as illustrated in Table 5.

Table 5: Unallowable Other Direct Costs

Expense Date	NSF Award No.	Amount	Unallowable Expenses Associated With:	Notes
January 2019		\$2,069	Estimated Copier and Printing Services	a

Source: Auditor summary of identified exception.

¹¹ According to 2 CFR § 200.68, *Modified Total Direct Cost*, MTDC means all direct salaries and wages, applicable fringe benefits, materials and supplies, services, **travel**, and up to the first \$25,000 of each subaward (regardless of the **period of performance** [POP] of the subawards under the award). MTDC excludes **equipment**, capital expenditures, charges for patient care, rental costs, tuition remission, scholarships and fellowships, participant support costs, and the portion of each subaward in excess of \$25,000.

¹² NCCU's NICRAs dated January 8, 2013, and March 6, 2017, state that MTDCs consist of all salaries and wages, fringe benefits, materials, supplies, services, travel and subgrants and subcontracts up to the first \$25,000 of each subgrant or subcontract and exclude equipment, capital expenditures, charges for patient care, student tuition remission, rental costs of off-site facilities, scholarships, and fellowships, as well as the portion of each subgrant and subcontract in excess of \$25,000.

- a) In January 2019, NCCU charged NSF Award No. [REDACTED] for \$2,069 in estimated copier and printing service expenses. Although these services were specifically budgeted, because the amount charged was based on anticipated future services and not on actual costs that benefitted this NSF award, the costs are unallowable.

Conclusion

NCCU did not have sufficient policies and procedures or internal controls in place to ensure it only charged allowable costs to NSF awards. Specifically, NCCU's procedures did not always ensure that it only charged NSF awards for allowable participant support costs, that it requested NSF approval for participant support fund rebudget, that it applied indirect costs to the appropriate MTDC base, and/or that it charged NSF awards based on actual incurred costs. We are therefore questioning \$24,029 of unallowable expenses charged to five NSF awards which NCCU agreed to reimburse, as illustrated in Table 6.

Table 6: Finding 1 Summary: Unallowable Expenses

NSF Award No.	Description	Fiscal Year(s)	Questioned Costs			NCCU Agreed to Reimburse
			Direct	Indirect	Total	
[REDACTED]	September 2019 Baseball Tickets for Participants	2020	\$888	\$0 ¹³	\$888	\$888
[REDACTED]	September 2019 Unbudgeted Compensation Paid to Graduate Student	2020	3,736	-	3,736	3,736
[REDACTED]	March 2020 Meal Provided to an NCCU Employee	2020	38	-	38	38
[REDACTED]	March 2020 NCCU Employee and Two Unused Conference Registration Fees	2020	1,500	-	1,500	1,500
[REDACTED]	February 2021 Unbudgeted Computer Equipment	2021	2,910	-	2,910	2,910
[REDACTED]	May 2021 Unbudgeted Software License Renewal	2021	4,837	-	4,837	4,837
[REDACTED]	December 2015 Indirect Costs on Participant Support Costs	2016	-	2,969	2,969	2,969
[REDACTED]	November 2016 Indirect Costs on Subaward Costs over \$25,000	2017	-	362	362	362
[REDACTED]	March 2017 Indirect Costs on Equipment	2017	-	2,719	2,719	2,719
[REDACTED]	July 2018 Indirect Costs on the Rental of Specialized Equipment	2019	-	1,583	1,583	1,583
[REDACTED]	September 2019 Indirect Costs on Participant Support Costs	2020	-	418	418	418

¹³ The \$418 in indirect costs that NCCU inappropriately applied to these expenses are questioned as unallowable indirect costs.

NSF Award No.	Description	Fiscal Year(s)	Questioned Costs			
			Direct	Indirect	Total	NCCU Agreed to Reimburse
	January 2019 Estimated Copier and Printing Services	2019	1,408	661	2,069	2,069
Total			<u>\$15,317</u>	<u>\$8,712</u>	<u>\$24,029</u>	<u>\$24,029</u>

Source: Auditor summary of identified exceptions.

Recommendations

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

- 1.1. Direct NCCU to provide documentation supporting that it has repaid or otherwise credited the \$24,029 in questioned participant support, indirect, and other direct costs for which NCCU has agreed to reimburse NSF.
- 1.2. Direct NCCU to establish clear guidance regarding allowable uses of participant support cost funding. This guidance should address how to segregate and account for costs that NCCU cannot cover using participant support cost funds, such as costs incurred for NCCU employees, non-participant conference registrants, and other expenses not included in the approved participant support cost budget, including those incurred for entertainment.
- 1.3. Direct NCCU to update its internal rebudgeting processes to note that NCCU must receive express permission from NSF to rebudget funds awarded in the participant support cost budget category and to identify when and how to request NSF approval to re-budget these funds.
- 1.4. Direct NCCU to strengthen its monitoring procedures and internal control processes for applying indirect costs to federal awards. Updated procedures should ensure that NCCU only applies indirect costs to expenses that are allowable in its Modified Total Direct Cost base per federal and NCCU policies. These procedures could include:
 - Performing an annual review of costs incurred to benefit NSF award participants to ensure the participant support costs were charged to an account excluded from NCCU's Modified Total Direct Cost base.
 - Verifying subaward costs in excess of \$25,000 were charged to accounts that are excluded from NCCU's Modified Total Direct Cost base.
 - Performing periodic reviews of expenses in excess of \$5,000 that were charged to materials/supplies accounts to ensure any costs that should have been considered equipment are appropriately transferred to an equipment account that is excluded from NCCU's Modified Total Direct Cost base.

- Updating its indirect cost rate policies to note that costs to rent equipment are not allowable in NCCU's Modified Total Direct Cost base, which is consistent with federal regulations.

1.5. Direct NCCU to strengthen its administrative and management procedures to ensure that it only charges actual expenses, and not estimated costs, to NSF awards.

NCCU's Response: NCCU agreed with this finding and agreed to reimburse NSF for the full \$24,029 in questioned costs. Specifically:

- NCCU agreed to reimburse NSF for the \$888 of questioned costs charged to NSF Award No. [REDACTED], stating that the expense had a programmatic purpose and it had authority to transfer funds from one budget category to another; however, it did not receive prior written approval for this type of expense. Further, NCCU stated that Principal Investigators (PIs) have been informed of the requirement to obtain NSF prior approval for such future activity.
- NCCU agreed to reimburse NSF for the \$3,736 of questioned costs charged to NSF Award No. [REDACTED], stating that the graduate student provided technical support to the laboratories and a stipend was used as compensation. NCCU stated that PIs have been informed of the requirement to obtain NSF prior approval for such future activity.
- NCCU agreed to reimburse NSF for the \$38 of questioned costs charged to NSF Award No. [REDACTED], stating that it will educate PIs on the importance of properly separating NCCU employee travel expenses from participant support costs.
- NCCU agreed to reimburse NSF for the \$1,500 of questioned costs charged to NSF Award No. [REDACTED], stating that it will educate PIs on the importance of properly separating NCCU employee travel expenses from participant support costs.
- NCCU agreed to reimburse NSF for the \$2,910 of questioned costs charged to NSF Award No. [REDACTED], stating that PIs have been informed of the requirement to obtain NSF prior approval for such future activity.
- NCCU agreed to reimburse NSF for the \$4,837 of questioned costs charged to NSF Award No. [REDACTED], stating that PIs have been informed of the requirement to obtain NSF prior approval for such future activity.
- NCCU agreed to reimburse NSF for the \$2,969 of questioned costs charged to NSF Award No. [REDACTED], stating that clear terms for charging indirect costs were not established internally during personnel changes; as such, it will strengthen controls by ensuring that standard operating procedures are updated and readily available during periods of employee turnover.

- NCCU agreed to reimburse NSF for the \$362 of questioned costs charged to NSF Award No. [REDACTED], stating that it intends to strengthen controls by ensuring that standard operating procedures are updated and readily available during periods of employee turnover.
- NCCU agreed to reimburse NSF for the \$2,719 of questioned costs charged to NSF Award No. [REDACTED], stating that it intends to strengthen controls by ensuring that expenses are charged to the proper account and category.
- NCCU agreed to reimburse NSF for the \$1,583 of questioned costs charged to NSF Award No. [REDACTED] stating that it intends to strengthen controls by ensuring that standard operating procedures are updated and readily available during periods of employee turnover.
- NCCU agreed to reimburse NSF for the \$418 of questioned costs charged to NSF Award No. [REDACTED]. Although NCCU stated the expense had a programmatic purpose and it had authority to transfer funds from one budget category to another, NCCU did not receive prior written approval for this type of expense. Further, NCCU stated PIs have been informed of the requirement to obtain NSF prior approval for such future activity.
- NCCU agreed to reimburse NSF for the \$2,069 of questioned costs charged to NSF Award No. [REDACTED], stating that it intends to strengthen controls by ensuring that standard operating procedures are updated and readily available during periods of employee turnover. Additionally, NCCU noted that it implemented a new Copier and Printing Service Program, which updated the accounting and billing practices, including no longer billing on estimates, but on actual usage.

Auditors' Additional Comments: Our position regarding this finding has not changed.

FINDING 2: INAPPROPRIATELY ALLOCATED EXPENSES

NCCU did not appropriately allocate \$22,748 in insurance, airfare, consultant, and materials and supplies expenses to three NSF awards based on the relative benefits the awards received, as required by federal regulations¹⁴ and NSF PAPPGs,¹⁵ as illustrated in Table 7.

¹⁴ According to 2 CFR § 200.405, *Allocable costs*, (a), a cost is allocable to a particular cost objective (i.e., a specific function, project, sponsored agreement, department, or the like) if the goods or services involved are chargeable or assignable to such cost objective in accordance with relative benefits received (or other equitable relationship).

¹⁵ NSF PAPPGs 15-1 and 16-1, Part II, Chapter V, and 17-1, Part II, Chapter X, Section A, *Basic Considerations*, state that grantees should ensure all costs charged to NSF awards meet the requirements of the applicable federal cost principles, grant terms and conditions, and any other specific requirements of both the award notice and the applicable program solicitation.

Table 7: Inappropriately Allocated Expenses

Expense Date	NSF Award No.	Amount Charged	Percent Allocable	Amount Inappropriately Allocated	Notes
December 2015	████████	\$3,856	0%	\$3,856	a
September 2017	████████	4,108	Unable to Determine	4,108	b
January 2018	████████	11,236	0%	11,236	c
October 2018	████████	3,548	0%	3,548	d

Source: Auditor summary of identified exceptions.

- a) In December 2015, NCCU charged NSF Award No. ██████████ for \$3,856 in insurance premiums paid for four students that do not appear allocable to the award as these students were not identified as NSF award participants in the annual reports nor did NCCU provide any documentation to support these four students dedicated any effort to this award.
- b) In September 2017, NCCU charged NSF Award No. ██████████ for \$4,108 in airfare costs incurred for the PI to attend and present at conferences in Italy and Croatia. As neither the presentation nor the trip itself were identified in the annual reports the PI submitted for this award, and as the PI’s presentation did not reference NSF Award No. ██████████ or any other NSF funding sources as having provided support for the presented research, we are unable to determine whether any of the travel costs were appropriately allocated to this award.¹⁶
- c) In January 2018, NCCU charged NSF Award No. ██████████ for \$11,236 in lab **consultant services** that did not appear to benefit NSF Award No. ██████████. Specifically, based on the objectives included within the consultant agreement, the services provided by this consultant appeared to benefit a different NSF award, NSF Award No. ██████████, which was the award the consultant was originally hired to support.
- d) In October 2018, NCCU charged NSF Award No. ██████████ for \$3,548—or 100 percent—of the costs it incurred to purchase a laser projector. Although the equipment was ordered before the award expired, because the projector did not arrive until after the award’s POP expired, the cost of the projector does not appear to have been appropriately allocated to this award as it was not available to benefit the award during the award’s POP.

¹⁶ According to NSF PAPPG 17-1, Part I, Chapter II, Section C.2.g.(iv), *Travel*, (a), travel and its relation to the proposed activities must be specified, itemized, and justified by destination and cost.

Conclusion

NCCU did not have sufficient policies and procedures or internal controls in place to ensure that it allocated costs incurred based on the relative benefits received by each award. Specifically, NCCU did not appropriately allocate insurance premiums for students whose activities did not support NSF awards; airfare costs incurred to attend conferences that did not directly benefit NSF awards; consultant services performed outside the scope of the NSF award; or materials and supplies received after an NSF award’s expiration date. We are therefore questioning \$22,748 of insurance, airfare, consultant services, and materials and supply expenses that NCCU inappropriately allocated to three NSF awards which NCCU agreed to reimburse, as illustrated in Table 8.

Table 8: Finding 2 Summary: Inappropriately Allocated Expenses

NSF Award No.	Description	Fiscal Year(s)	Questioned Costs			NCCU Agreed to Reimburse
			Direct	Indirect	Total	
██████	December 2015 Insurance Premiums	2016	\$3,856	\$0	\$3,856	\$3,856
██████	September 2017 Airfare	2018	2,853	1,255	4,108	4,108
██████	January 2018 Consultant Services	2018	7,803	3,433	11,236	11,236
██████	October 2018 Laser Projector	2019	2,464	1,084	3,548	3,548
Total			<u>\$16,976</u>	<u>\$5,772</u>	<u>\$22,748</u>	<u>\$22,748</u>

Source: Auditor summary of identified exceptions.

Recommendations

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

- 2.1 Direct NCCU to provide documentation supporting that it has repaid or otherwise credited the \$22,748 in questioned insurance, airfare, consultant services, and material and supply costs for which NCCU has agreed to reimburse NSF.
- 2.2 Direct NCCU to strengthen its policies and procedures and internal controls for allocating expenses, and for supporting the **allocation** of expenses, charged to sponsored projects. Updated processes could include:
 - Requiring Principal Investigators to review and certify the allowability and allocability of all payments made to or on behalf of NSF award participants.
 - Documenting how airfare and other travel expenses benefit a sponsored award prior to allocating reimbursed travel costs to NSF awards.

- Requiring departmental personnel or other designated invoice approvers to confirm that invoiced consultant services align to the objectives of the award(s) the consultant costs are being charged to prior to charging consultant costs to NSF awards.
- Updating NSF award close-out procedures to require a review of all material and supply purchases made within the final 90 days of a grant award's period of performance and requiring that all costs associated with materials received after an NSF award's expiration date be removed from the NSF award.

NCCU Response: NCCU agreed with this finding and agreed to reimburse NSF for the \$22,748 in questioned costs, stating that it intends to strengthen compliance by further educating PIs on the importance of monitoring expenses and separating related projects unless NSF grants prior approval, and strengthen controls around purchasing to eliminate purchases at the end of an award's POP.

Auditors' Additional Comments: Our position regarding this finding has not changed.

FINDING 3: INADEQUATELY SUPPORTED EXPENSES

NCCU did not provide adequate documentation to support the allocability, allowability, and reasonableness of \$13,543 in expenses charged to three NSF awards during the audit period, as required for the costs to be allowable, per federal regulations¹⁷ and NSF PAPPGs.¹⁸

¹⁷ According to 2 CFR 220, Appendix A, Section C.2., and 2 CFR § 200.403, *Factors affecting allowability of costs*, for a cost to be allowable, it must be allocable and reasonable for the performance of the federal award. Additionally, according to 2 CFR 220, Appendix A, Section C.4., and 2 CFR §200.405, *Allocable Costs*, a cost is allocable to a particular cost objective if the goods or services involved are chargeable or assignable to the cost objective in accordance with the relative benefits received. A cost is allocable to a sponsored agreement if it is incurred solely to advance the work under the sponsored agreement or federal award. Lastly, 2 CFR § 200.302, *Financial Management*, states that a non-federal entity must have records that adequately identify the source and application of funds for federally-funded activities. Furthermore, this section states that non-federal entities' financial management systems must be sufficient to permit funds tracing to a level of expenditures to adequately establish that the entities used the funds according to federal statutes, regulations, and the federal award terms and conditions.

¹⁸ According to NSF PAPPGs 13-1 and 16-1, Part II, Chapter V, Section A, *Basic Considerations*, grantees should ensure that costs claimed under NSF grants are necessary, reasonable, allocable, and allowable under the applicable cost principles, NSF policy, and the program solicitation. Additionally, the grantee organization is responsible for ensuring that all costs charged to NSF awards meet the requirements of the grant terms and conditions.

Inadequately Supported Salary Expenses

NCCU did not provide adequate documentation to support \$7,177 in **salary** expenses charged to one NSF award, as required for the costs to be allowable per federal regulations¹⁹ and NSF PAPPGs,²⁰ as illustrated in Table 9.

Table 9: Inadequately Supported Salary Expense

Expense Date	NSF Award No.	Expense Total	Insufficient Documentation to Support the Allowability of	Notes
March 2014 – April 2014	██████████	\$7,177	Salary Paid to a Temporary Employee	a

Source: Auditor summary of identified exception.

- a) From March 2014 to April 2014 NCCU charged NSF Award No. ██████████ for \$7,177 in a salary it paid to a temporary employee. Although NCCU stated the employee's work benefitted the award, NCCU did not provide documentation to support the amount of time and/or effort the temporary employee dedicated to this award.

Inadequately Supported Participant Support Expenses

NCCU did not provide adequate documentation to support \$6,366 of participant support costs charged to two NSF awards that were used to benefit NSF award participants,²¹ as illustrated in Table 10.

Table 10: Inadequately Supported Participant Support Expenses

Expense Date	NSF Award No.	Expense Total	Insufficient Documentation to Support the Allowability of	Notes
June 2019	██████████	\$3,666	Participant Gift Cards	a
July 2020	██████████	2,700	Student Stipends	b

Source: Auditor summary of identified exceptions.

- a) In June 2019, NCCU charged NSF Award No. ██████████ for \$3,666 in costs incurred to purchase 50 gift cards for distribution to NSF award participants. Although NCCU

¹⁹ According to 2 CFR § 220, Appendix A, Section J.10.c., *Examples of Acceptable Methods for Payroll Distribution*, (1).e, “annually a statement will be signed by the employee, principal investigator, or responsible official(s) using suitable means of verification that the work was performed, stating that salaries and wages charged to sponsored agreements as direct charges, and to residual, F&A cost or other categories are reasonable in relation to work performed.” Additionally, 2 CFR § 215.53, *Retention and access requirements for records*, states that financial records, supporting documents, statistical records, and all other records pertinent to an award shall be retained for a period of three years from the date of submission of the final expenditure report.

²⁰ According to NSF PAPPG 13-1 Part I, Chapter II, Section C.2.g.(i).(a), *Senior Personnel Salaries & Wages Policy*, states effort must be documented in accordance with the applicable cost principles.

²¹ According to 2 CFR § 200.75, *Participant support costs*, participant support costs are direct costs for items such as stipends or subsistence allowances, travel allowances, and registration fees paid to or on behalf of participants or trainees (but not employees) in connection with conferences, or training projects. Additionally, NSF PAPPG 16-1 Part I Chapter II, Section C.2.g(v), *Participant Support*, states that any additional categories of participant support costs other than those described in 2 CFR § 200.75 (such as incentives, gifts, souvenirs, t-shirts, and memorabilia), must be justified in the budget justification, and NSF will closely scrutinize such costs.

stated that the 50 gift cards were distributed to participants, NCCU did not maintain documentation to support who received the gift cards and/or when and if the gift cards were distributed.²²

- b) In July 2020, NCCU charged NSF Award No. [REDACTED] for \$13,500 in stipend payments it made to two students participating in summer programs at NCCU. Although the students had previously worked on NSF Award No. [REDACTED], and had earned \$5,400 each for this work, NCCU paid each student an additional \$1,350—or a total of \$2,700—in excess of the budgeted amount and did not maintain documentation to support the allowability, allocability, or reasonableness of the additional stipend amounts.

Conclusion

NCCU did not have appropriate policies, procedures, or internal controls in place to ensure that it created and maintained adequate documentation to support the allowability of all costs charged to federal awards. Specifically, NCCU did not create sufficient documentation to support that gift cards were appropriately distributed to NSF participants, that stipend amounts were appropriately established/paid, and/or that salary costs paid to temporary employees were charged in a manner consistent with the employee’s actual effort. We are therefore questioning \$13,543 charged to three NSF awards that NCCU did not support represented reasonable, allocable, or allowable expenses. NCCU agreed to reimburse NSF for the \$13,543 in questioned costs, as illustrated in Table 11.

Table 11: Finding 3 Summary: Inadequately Supported Expenses

NSF Award No.	Description	Fiscal Year(s)	Questioned Costs			NCCU Agreed to Reimburse
			Direct	Indirect	Total	
[REDACTED]	March 2014 – April 2014 Salary Paid to a Temporary Employee	2014	\$7,177	\$0	\$7,177	\$7,177
[REDACTED]	June 2019 Participant Gift Cards	2019	3,666	-	3,666	3,666
[REDACTED]	July 2020 Student Stipends	2021	2,700	-	2,700	2,700
Total			<u>\$13,543</u>	<u>\$0</u>	<u>\$13,543</u>	<u>\$13,543</u>

Source: Auditor summary of identified exceptions.

Recommendations

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

²² According to 2 CFR § 200.333, *Retention requirements for records*, financial records, supporting documents, statistical records, and all other non-federal entity records pertinent to a federal award must be retained for a period of 3 years from the date of submission of the final expenditure report.

- 3.1. Direct NCCU to provide documentation supporting that it has repaid or otherwise credited the \$13,543 in questioned inadequately supported participant support and salary and wages expenses for which NCCU has agreed to reimburse NSF.
- 3.2. Direct NCCU to strengthen its policies and procedures for creating and retaining documentation, including introducing additional controls to help ensure that it appropriately creates and maintains all documentation necessary to support the allowability of expenses charged to NSF awards. Updated procedures could include requiring the following:
 - Departmental personnel to track the purchase and distribution of all gift cards charged to NSF awards through the use of a gift-card log, or other appropriate documentation.
 - Principal Investigators or other appropriate personnel to justify the amount of all NSF stipend payments that are provided at an amount not consistent with the NSF award budget.
 - Temporary employees to complete timesheets and/or effort certifications consistent with the requirements for full-time employees.

NCCU Response: NCCU agreed with this finding and agreed to reimburse NSF for the \$13,543 in questioned costs. Specifically:

- NCCU agreed to reimburse NSF for the \$7,177 of questioned costs charged to NSF Award No. [REDACTED], stating that the finding relates to an employee contract, time, and effort from 2014, and since then, it has strengthened compliance around time and effort reporting by implementing a different system in 2019.
- NCCU agreed to reimburse NSF for the \$3,666 of questioned costs charged to NSF Award No. [REDACTED], stating that it intends to implement a policy to strengthen controls around gift card purchase, use, and tracking.
- NCCU agreed to reimburse NSF for the \$2,700 of questioned costs charged to NSF Award No. [REDACTED], stating that it intends to strengthen controls around payroll processes to eliminate opportunities for duplication errors.

Auditors' Additional Comments: Our position regarding this finding has not changed.

FINDING 4: NON-COMPLIANCE WITH NCCU POLICY

NCCU did not always comply with its equipment inventory policy²³ which requires that capital assets²⁴ with a cost of \$5,000 (or greater) and a useful life of 1 year or more to be accounted for, tracked, and inventoried, as illustrated in Table 12.

Table 12: Non-Compliance with NCCU Capital Assets Policy

Expense Date	NSF Award No.	Equipment Policy Compliance Exception	Notes
March 2017	██████████	Capital Asset Excluded from the Annual Inventory	a

Source: Auditor summary of identified exception.

- a) In March 2017, NCCU charged NSF Award No. ██████████ for \$6,180 in equipment costs to purchase a pump that met NCCU's definition of equipment that was improperly excluded from its annual inventory.

Conclusion

NCCU did not have adequate procedures in place to ensure that equipment costs were appropriately charged to equipment accounts which it considers when determining whether items purchased need to be accounted for, tracked, and inventoried. In addition to questioning the indirect costs applied to the equipment expense in Finding 1, we are noting a compliance exception, as NCCU did not appropriately include this piece of equipment within its annual inventory, as illustrated in Table 13.

Table 13: Finding 4 Summary: Non-Compliance with NCCU Policy

NSF Award No.	Compliance Exception Identified	Fiscal Year(s)
██████████	Non-Compliance with NCCU Capital Assets Policy	2017

Source: Auditor summary of identified exception.

Recommendations

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

- 4.1 Direct NCCU to strengthen its administrative and management procedures for the annual inventory process to ensure that all capitalizable expenses are accurately accounted for, tracked, and inventoried.
- 4.2 Direct NCCU to perform periodic reviews of expenses of \$5,000 or more charged to material/supply accounts to ensure any costs that should have been considered equipment are appropriately identified and tracked as capital assets.

²³ According to NCCU Policy 30.01.4, Section 3.2, *Capital Assets Regulation*, assets costing \$5000 or greater with a useful life of 1 year or more are considered to be capital assets and therefore required to be accounted for, tracked, and inventoried.

²⁴ According to 2 CFR § 200.12, *Capital assets*, capital assets mean assets used in operations having a useful life of more than 1 year which are capitalized in accordance with generally accepted accounting principles.

NCCU Response: NCCU agreed with this finding and stated that it intends to strengthen controls around the annual inventory processes to ensure proper tracking of capitalizable expenses.

Auditors' Additional Comments: Our position regarding this finding has not changed.

FINDING 5: NON-COMPLIANCE WITH FEDERAL REQUIREMENTS FOR PASS-THROUGH ENTITIES

NCCU policies did not comply with all federal requirements for pass-through entities, which resulted in NCCU either not appropriately performing or documenting that it performed a risk assessment or subaward monitoring activities, as required by federal regulations,²⁵ as illustrated in Table 14.

Table 14: Instances of Non-Compliance with Federal Requirements for Pass-Through Entities

NSF Award No.	Subaward Effective Date	Subawardee	Notes
██████████	September 2015	Pennsylvania State University (Penn State)	a
██████████	July 2019	Cynosure Consulting	b

Source: Auditor summary of identified exceptions.

- a) NCCU issued a subaward to Penn State in September 2015 to perform work under NSF Award No. ██████████ without performing or documenting a risk assessment prior to the subaward issuance. Additionally, NCCU did not document that it monitored this subaward through its period of performance.
- b) NCCU issued a subaward to Cynosure Consulting in July 2019 to perform work under NSF Award No. ██████████ without performing or documenting a risk assessment prior to the subaward issuance. Additionally, NCCU did not document that it monitored this subaward through its period of performance.

Conclusion

NCCU did not have sufficient policies and procedures or internal controls in place to ensure it complied with all federal requirements established for pass-through entities when issuing or monitoring subawards. Specifically, NCCU did not establish subaward policies and procedures that required it to document its subaward risk assessment or monitoring

²⁵ According to 2 CFR §200.331, *Requirements for pass-through entities*, “All pass-through entities must: ... (b) Evaluate each subrecipient’s risk of noncompliance with Federal statutes, regulations, and the terms and conditions of the subaward for purposes of determining the appropriate subrecipient monitoring... (c) Consider imposing specific subaward conditions upon a subrecipient if appropriate as described in §200.207 Specific conditions. (d) Monitor the activities of the subrecipient as necessary to ensure that the subaward is used for authorized purposes, in compliance with Federal statutes, regulations, and the terms and conditions of the subaward; and that subaward performance goals are achieved.”

activities until 2018. Further, NCCU did not establish sufficient controls to ensure it complied with its updated subaward policies and procedures.

Because these instances of non-compliance did not directly result in NCCU charging unallowable costs to NSF awards, we are not questioning any costs related to these exceptions; however, we are noting compliance findings for the two instances in which NCCU did not comply with all applicable federal requirements for pass-through entities, as illustrated in Table 15.

Table 15: Finding 5 Summary: Non-Compliance with Federal Requirements for Pass-Through Entities

NSF Award No.	Description	Fiscal Year(s)	Questioned Costs			
			Direct	Indirect	Total	NCCU Agreed to Reimburse
██████	2015 Penn State Subaward	2016–2021	\$0	\$0	\$0	\$0
██████	2019 Cynosure Consulting Subaward	2020–2022	-	-	-	-
Total			<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>

Source: Auditor summary of identified exceptions.

Recommendations

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

- 5.1 Direct NCCU to ensure that it has performed risk assessments for all active NSF subawards and to verify that each subaward is being appropriately monitored based on the results of the risk assessment.

NCCU Response: NCCU agreed with this finding and noted that although it established a subaward risk assessment and monitoring policy in 2018, it intends to implement a new subaward monitoring plan with documented procedures to strengthen controls around subaward monitoring. This includes hiring designated staff to focus on this ongoing responsibility.

Auditors’ Additional Comments: Our position regarding this finding has not changed.

FINDING 6: INSUFFICIENT CONTROLS RELATED TO THE APPLICATION OF INDIRECT COST RATES

NCCU did not have sufficient controls in place to ensure it, or its subawardees, consistently applied indirect costs using the NICRA rate(s) in effect as of the NSF award date, as required by federal²⁶ and NSF PAPPGs.²⁷

Insufficient Controls Related to the Application of Budgeted Indirect Cost Rates

NCCU and its subawardee, Penn State, applied the NICRA rates included in the proposals they submitted to perform work for each NSF award without determining whether adjustments needed to be made to reflect the rate(s) in effect when the NSF awards were issued. Specifically, NCCU and Penn State applied the indirect cost rates²⁸ effective at the time the grant was proposed without evaluating whether newly negotiated indirect cost rates should be applied to at least three NSF awards, as illustrated in Table 16.

Table 16: Budgeted Indirect Cost Rates Not Adjusted

NSF Award Number	Award Date	Fiscal Year(s)	Rate Applied (%)	Appropriate Rate (%)	Notes
	8/25/2015	2017	51.90%	57.20%	a
	6/13/2017	2018	44.00%	47.00%	b
	6/13/2018	2019 - 2020	47.00%	48.00%	c

Source: Auditor summary of identified exceptions.

- a) Penn State invoiced NCCU for indirect costs using its budgeted indirect cost rate of 51.90 percent when applying indirect costs to FY 2017 expenses, rather than applying the 57.20 percent indirect cost rate in effect when the NSF Award No. [REDACTED] subaward was approved.
- b) NCCU charged NSF Award No. [REDACTED] for indirect costs using its budgeted indirect cost rate of 44.00 percent when applying indirect costs to FY 2018 expenses, rather than applying the 47.00 percent indirect cost rate approved for FY 2018 within the NICRA applicable to when the NSF grant was awarded.

²⁶ According to 2 CFR 200, Appendix III, Section C.7., *Fixed Rates for the Life of the Sponsored Agreement*, federal agencies must use the negotiated rates in effect at the time of the initial award throughout the life of the federal award.

²⁷ NSF requires institutions of higher education to use the negotiated indirect cost rate in effect as of the date of the award throughout the life of the award. See NSF PAPPGs 16-1, 17-1, 18-1, and 19-1, Part I, Chapter II, Section C.2.g.(viii), *Indirect Costs*.

²⁸ Penn State's NICRA dated June 23, 2015, established a predetermined (i.e., negotiated) indirect cost rate of 51.90 percent for on-campus organized research from July 1, 2014, to June 30, 2015. Penn State's NICRA dated May 16, 2016, established a predetermined indirect cost rate of 57.20 percent for on-campus organized research from July 1, 2015, to June 30, 2016. Additionally, NCCU's NICRA dated January 8, 2013, established a predetermined indirect cost rate of 44.00 percent for on-campus organized research from July 1, 2014, to June 30, 2016. The provisional rate was in place from July 1, 2016, to until amended. Lastly, NCCU's NICRA dated March 6, 2017, established a predetermined indirect cost rate of 44.00 percent for on-campus organized research from July 1, 2016, to June 30, 2017; 47.00 percent for on-campus organized research from July 1, 2017, to June 30, 2018; and 48.00 percent for on-campus organized research from July 1, 2018, to June 30, 2020.

- c) NCCU charged NSF Award No. [REDACTED] for indirect costs using its budgeted indirect cost rate of 47.00 percent when applying indirect costs to FY 2019 and 2020 expenses, rather than applying the 48.00 percent indirect cost rate approved by FY 2019 and 2020 within the NICRA applicable to when the NSF grant was awarded.

Insufficient Controls Related to the Application of Indirect Cost Rates

NCCU did not appropriately apply indirect costs to expenses that should have been included within its MTDC base per federal regulations²⁹ and NCCU’s NICRA,³⁰ as illustrated in Table 17.

Table 17: Indirect Cost Rates Not Applied

NSF Award Number	Award Date	Transaction Date	Rate Applied (%)	Appropriate Rate (%) ³¹	Notes
[REDACTED]	7/17/2019	3/5/2020	0.00%	48.00%	a
[REDACTED]	1/15/2014	2/1/2021	0.00%	44.00%	b
[REDACTED]	9/16/2016	5/7/2021	0.00%	44.00%	c

Source: Auditor summary of identified exceptions.

- a) NCCU charged NSF Award No. [REDACTED] for subaward costs but did not include the first \$25,000 in subaward costs invoiced by a subawardee, Cynosure Consulting, within its MTDC base.
- b) NCCU charged NSF Award No. [REDACTED] for costs incurred to purchase a laptop but did not include the costs within its MTDC base.
- c) NCCU charged NSF Award No. [REDACTED] for costs incurred to renew software licenses but did not include the costs within its MTDC base.

²⁹ According to 2 CFR § 200.68, *Modified Total Direct Cost*, MTDC means all direct salaries and wages, applicable fringe benefits, materials and supplies, services, travel, and up to the first \$25,000 of each subaward (regardless of the POP of the subawards under the award). MTDC excludes equipment, capital expenditures, charges for patient care, rental costs, tuition remission, scholarships and fellowships, participant support costs, and the portion of each subaward in excess of \$25,000.

³⁰ NCCU’s NICRAs dated January 8, 2013, and March 6, 2017, state that MTDCs consist of all salaries and wages, fringe benefits, materials, supplies, services, travel, and subgrants and subcontracts up to the first \$25,000 of each subgrant or subcontract and exclude equipment, capital expenditures, charges for patient care, student tuition remission, rental costs of off-site facilities, scholarships, and fellowships, as well as the portion of each subgrant and subcontract in excess of \$25,000.

³¹ NCCU’s NICRA dated January 8, 2013, established a predetermined indirect cost rate of 44.00 percent for on-campus organized research from July 1, 2014, to June 30, 2016. The provisional rate was in place from July 1, 2016, to until amended. NCCU’s NICRA dated March 6, 2017, established a predetermined indirect cost rate of 44.00 percent for on-campus organized research from July 1, 2016, to June 30, 2017; 47.00 percent for on-campus organized research from July 1, 2017, to June 30, 2018; and 48.00 percent for on-campus organized research from July 1, 2018, to June 30, 2020.

Conclusion

NCCU did not have sufficient internal controls in place to ensure it monitored, evaluated, and/or adjusted its budgeted indirect cost rates after the NSF awards were issued to determine the appropriate indirect cost rate to apply. Additionally, it did not have sufficient controls in place to ensure indirect costs were applied to all costs rebudgeted out of its participant support cost budget to cover expenses allowable in its MTDC base.

Because these instances of NCCU and its subawardee not appropriately applying indirect costs did not directly result in NCCU charging unallowable costs to NSF awards, we are not questioning any costs related to these exceptions; however, NCCU's current process could cause it, or its subawardees, to charge unallowable costs to NSF awards if rates were to decrease or remained unmonitored in the future and results in NCCU not appropriately identifying its MTDC base. Therefore, we are noting compliance exceptions for the six instances in which NCCU did not appropriately apply indirect costs to six NSF awards, as illustrated in Table 18.

Table 18: Finding 6 Summary: Insufficient Controls Related to the Application of Indirect Cost Rates

NSF Award Number	Compliance Exception Identified	Fiscal Year(s)
	Budgeted Indirect Cost Rates Not Adjusted	2017
	Budgeted Indirect Cost Rates Not Adjusted	2018
	Budgeted Indirect Cost Rates Not Adjusted	2019-2020
	Indirect Cost Rates Not Applied	2020
	Indirect Cost Rates Not Applied	2021
	Indirect Cost Rates Not Applied	2021

Source: Auditor summary of identified exceptions.

Recommendations

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

- 6.1 Direct NCCU to develop and implement a control to identify when indirect cost rates change between proposal submission and award date, as well as to take appropriate steps to avoid claiming unallowable indirect costs on NSF awards.
- 6.2 Direct NCCU to develop and implement a control to monitor expenses charged to accounts excluded from NCCU's Modified Total Direct Cost base to ensure costs allowable in the Modified Total Direct Cost base are not excluded from its indirect cost calculations. Updated procedures could include:
 - Reviewing and monitoring all subawards to verify that the first \$25,000 invoiced by each subawardee is included in NCCU's Modified Total Direct Cost base.

- Reviewing direct costs charged as a result of participant support cost budget reallocations to ensure it appropriately applies indirect costs to expenses allowable within its Modified Total Direct Cost base.

NCCU Response: NCCU agreed with two exceptions identified, but disagreed with the remaining four exceptions regarding insufficient controls related to the application of indirect costs. Specifically:

- With regard to the subawardee budgeted cost rate exception related to NSF Award No. [REDACTED], NCCU agreed with the exception and noted it intends to strengthen controls around indirect costs to ensure proper application of indirect cost rates.
- With regard to the budgeted indirect cost rate exceptions related to NSF Award Nos. [REDACTED] and [REDACTED], NCCU disagreed with the exceptions, noting that the rate applied to each award was NCCU's approved rate at the time of the proposal submission and was included in each grant agreement for NSF. As such, no adjustments were made to the indirect cost rates applied in subsequent years.
- With regard to the exception for subaward expenses inappropriately excluded from the MTDC related to NSF Award No. [REDACTED], NCCU agreed with the exception and noted it intends to strengthen controls around indirect costs to ensure proper application of indirect cost rates.
- With regard to the exception for laptop expenses inappropriately excluded from the MTDC related to NSF Award No. [REDACTED], NCCU disagreed with the exception, stating that indirect costs were not charged because although the funds were re-budgeted, the computer was still considered participant support costs.
- With regard to the exception for software expenses inappropriately excluded from the MTDC related to NSF Award No. [REDACTED], NCCU disagreed with the exception, stating the re-budget was due to the need for COVID remote instruction, and as such, indirect costs were not charged because the transaction was considered participant support costs.

Auditors' Additional Comments: Our position regarding this finding has not changed. Specifically, regarding the insufficient controls related to the application of budgeted indirect cost rates, although NCCU applied a proposed and budgeted indirect cost rate supported by NCCU's NICRA, NCCU does not appear to have sufficient controls in place to ensure it reviews the NICRA rates in effect at the time of award issuance. If rates were to decrease on the NICRA year over year, NCCU could overcharge indirect costs to NSF awards. Additionally, regarding the insufficient controls related to the application of indirect costs, although NCCU utilized re-budgeted participant support funds to purchase a computer and software licenses, NCCU's NICRA and federal regulation require the application of indirect costs to be applied to materials and supplies. As the budget category

for which the funding is derived does not dictate the application of indirect costs, but the type of expense incurred does, our position regarding this finding has not changed.

COTTON & COMPANY ASSURANCE AND ADVISORY, LLC



Erin Meredith, CPA, CFE, CGFM
Partner
July 28, 2022

APPENDIX A: NCCU'S RESPONSE



Associate Provost/Dean

Division of Research and Sponsored Programs

July 5, 2022

Cotton & Company
333 John Carlyle Street, Suite 500
Alexandria, VA 22314

Attention: Megan Mesko, CPA, CFE

Dear Ms. Mesko,

North Carolina Central University (NCCU) respectfully submits this letter as the formal response to your Discussion Draft Report (DDR). Comments addressing each finding can be found on the following pages.

We appreciate the continued opportunity to work with Cotton & Company and the National Science Foundation, Office of Inspector General as we strive to strengthen our processes and internal control environment, and maintain good stewardship of federal funding.

Sincerely,

[Redacted Signature]

E. K. Park, Ph.D.
Associate Provost and Dean of Research
Division of Research and Sponsored Programs (DRSP)

North Carolina Central University Formal Response

NCCU values the importance of compliance with all grant regulatory agencies, and we are committed to implementing stronger policies and procedures to ensure compliance across our research portfolio. Having dedicated staff to assign responsibilities specific to the areas of focus listed below, and continuing to prioritize training and professional development will help to ensure that NCCU's internal control structure remains current and effective.

Finding #1: Unallowable Expenses

NSF Award No.	Unallowable Total	NCCU Response
██████████	\$888	NCCU agrees with this finding and will reimburse NSF for this expense. This expense had a programmatic purpose and was a part of the social, cultural, and professional experiences that NCCU provides for student participants. NSF pre-authorized the awarded grant project to transfer funds from one budget category to another for allowable expenditures, but prior written approval for this particular activity was not obtained. Principal Investigators (PI) have been informed that NSF's prior approval is required in the future.
██████████	\$3,736	NCCU agrees with this finding and will reimburse NSF for this expense. A graduate student provided technical support to our laboratories in which our students engage during the research and training activities provided by the project. Stipend was used as compensation for the student. Principal Investigators have been informed that NSF's prior approval is required for such activity in the future.
██████████	\$38	NCCU agrees with this finding, and will reimburse NSF for this expense. NCCU will educate PIs on the importance of properly charging chaperone travel expenses.
██████████	\$1,500	NCCU agrees with this finding, and will reimburse NSF for this expense. NCCU will educate PIs on the importance of properly charging chaperone travel expenses.
██████████	\$2,910	NCCU agrees with this finding, and will reimburse NSF for this expense. Principal Investigators have been informed that NSF's prior approval is required for such activity in the future.
██████████	\$4,837	NCCU agrees with this finding, and will reimburse NSF for this expense. Principal Investigators have been informed that NSF's prior approval is required for such activity in the future.

██████	\$2,969	NCCU agrees with this finding, and will reimburse NSF for this expense. Clear terms for charging IDC were not set internally during grant personnel changes. NCCU will strengthen controls by ensuring that SOPs are updated and readily available during periods of employee turnover.
██████	\$362	NCCU agrees with this finding, and will reimburse NSF for this expense. NCCU will strengthen controls by ensuring that SOPs are updated and readily available during periods of employee turnover.
██████	\$2,719	NCCU agrees with this finding, and will reimburse NSF for this expense. NCCU will strengthen controls by ensuring that expenses are charged to the proper account and category.
██████	\$1,583	NCCU agrees with this finding, and will reimburse NSF for this expense. NCCU will strengthen controls by ensuring that SOPs are updated and readily available during periods of employee turnover.
██████	\$418	NCCU agrees with this finding and will reimburse NSF for this expense. This expense had a programmatic purpose and was a part of the social, cultural, and professional experiences that NCCU provides for student participants. NSF pre-authorized the awarded grant project to transfer funds from one budget category to another for allowable expenditures, but prior written approval for this particular activity was not obtained. Principal Investigators (PI) have been informed that NSF's prior approval is required in the future.
██████	\$2,069	NCCU agrees with this finding, and will reimburse NSF for this expense. NCCU will strengthen controls by ensuring that SOPs are updated and readily available during periods of employee turnover. NCCU has implemented a new Copier & Printing Services Program, and accounting and billing practices have been updated. Billing will no longer be based on estimates, but on actual usage.
<u>\$24,029</u>		

Finding #2: Inappropriately Allocated Expenses

NSF Award No.	Unallowable Total	NCCU Response
██████	\$3,856	NCCU agrees with this finding, and will reimburse NSF for this expense. NCCU will strengthen compliance by further educating PIs on the importance of monitoring their expenses and keeping related projects separate unless NSF grants prior approval.

██████	\$4,108	NCCU agrees with this finding, and will reimburse NSF for this expense. NCCU will strengthen compliance by further educating PIs on the importance of monitoring their expenses and keeping related projects separate unless NSF grants prior approval.
██████	\$11,236	NCCU agrees with this finding, and will reimburse NSF for this expense. NCCU will strengthen compliance by further educating PIs on the importance of monitoring their expenses and keeping related projects separate unless NSF grants prior approval.
██████	\$3,548	NCCU agrees with this finding, and will reimburse NSF for this expense. NCCU will strengthen controls around purchasing to eliminate purchases at the end of a award's POP.
<u>\$22,748</u>		

Finding #3: Inadequately Supported Expenses

NSF Award No.	Unallowable Total	NCCU Response
██████	\$7,177	NCCU agrees with this finding, and will reimburse NSF for this expense. The employee contract and time and effort in question occurred in 2014. Since then, NCCU has strengthened compliance around time and effort reporting by implementing an electronic system in 2019.
██████	\$3,666	NCCU agrees with this finding, and will reimburse NSF for this expense. NCCU will implement a policy to strengthen controls around gift card purchases, uses and tracking.
██████	\$2,700	NCCU agrees with this finding, and will reimburse NSF for this expense. NCCU will strengthen controls around payroll processes to eliminate opportunities for duplication errors.
<u>\$13,543</u>		

Finding #4: Non-Compliance with NCCU Policies

NSF Award No.	Compliance Exception Identified	NCCU Response
██████	Non-Compliance with NCCU Capital Assets Policy	NCCU agrees with this finding. We will strengthen controls around our annual inventory processes to ensure proper tracking of capitalizable expenses.

Finding #5: Non-Compliance with Federal Requirements for Pass-Through Entities

NSF Award No.	Compliance Exception Identified	NCCU Response
██████████	Non-Compliance with Federal Requirements for Pass-Through Entities	NCCU agrees with this finding. Our new policy was created in 2018. We will implement a new subaward monitoring plan with documented procedures to strengthen controls around subaward monitoring. We will hire designated staff to focus on this ongoing responsibility.
██████████	Non-Compliance with Federal Requirements for Pass-Through Entities	NCCU agrees with this finding. Our new policy was created in 2018. We will implement a new subaward monitoring plan with documented procedures to strengthen controls around subaward monitoring. We will hire designated staff to focus on this ongoing responsibility.

Finding #6: Insufficient Controls Related to the Application of Indirect Cost Rates

NSF Award Number	Compliance Exception Identified	NCCU Response
██████████	Budgeted Indirect Cost Rates Not Adjusted	NCCU agrees with this finding. We will strengthen controls around indirect costs to ensure proper application of indirect cost rates.
██████████	Budgeted Indirect Cost Rates Not Adjusted	NCCU disagrees with this finding. The rate applied was NCCU's approved rate at the time of the proposal submission, and the rate cited in the grant agreement from NSF. No adjustments were made to the IDC rates applied in subsequent years.
██████████	Budgeted Indirect Cost Rates Not Adjusted	NCCU disagrees with this finding. The rate applied was NCCU's approved rate at the time of the proposal submission, and the rate cited in the grant agreement from NSF. No adjustments were made to the IDC rates applied in subsequent years.
██████████	Indirect Cost Rates Not Applied	NCCU agrees with this finding. We will strengthen controls around indirect costs to ensure proper application of indirect cost rates.

██████	Indirect Cost Rates Not Applied	NCCU disagrees with this finding. IDC was not charged because even though the funds were re-budgeted, the computer was still a part of PSCs.
██████	Indirect Cost Rates Not Applied	NCCU disagrees with this finding. Re-budget was due to COVID remote instruction, IDC was not charged because the transaction was a part of PSCs.

APPENDIX B: OBJECTIVES, SCOPE, AND METHODOLOGY

transaction data from its accounting systems. We found NCCU's computer-processed data to be sufficiently reliable for the purposes of the audit. We did not identify any exceptions with the parameters that NCCU 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 NSF's databases or the controls over NSF's databases were accurate or reliable; however, the independent auditor's report on NSF's financial statements for FY 2020 found no reportable instances in which NSF's financial management systems did not substantially comply with applicable requirements.
- NCCU provided detailed transaction-level data to support \$15,084,866 in costs charged to NSF awards during the period, which was greater than the \$14,754,734 NCCU claimed in ACM\$ for the 19 awards. This data resulted in a total audit universe of \$15,084,866 in expenses claimed on 19 NSF awards.
- Obtaining and reviewing all available accounting and administrative policies and procedures, external audit reports, desk review reports, and other relevant information that NCCU and NSF OIG provided, as well as any other relevant information that was available online.
- Summarizing our understanding of federal, NSF, and NCCU-specific policies and procedures surrounding costs budgeted for or charged to NSF awards and identifying the controls in place to ensure that costs charged to sponsored projects were reasonable, allocable, and allowable.
 - In planning and performing this audit, we considered NCCU's internal controls within the audit's scope solely to understand the directives or policies and procedures NCCU has in place to ensure that charges against NSF awards complied with relevant federal regulations, NSF award terms, and NCCU policies.
- Providing NCCU with a list of 45 transactions that we selected based on the results of our data analytics and requesting that NCCU provide documentation to support each transaction.

- Reviewing the supporting documentation NCCU provided and requesting additional documentation as necessary to ensure we obtained sufficient, appropriate evidence to assess the allowability of each sampled transaction under relevant federal,³² NSF,³³ and NCCU policies.³⁴
- Holding virtual interviews and walkthroughs with NCCU in January 2022 to discuss payroll (including effort reporting), fringe benefits, travel, participant support costs, procurement, equipment (including an inventory check), Graduate Research Fellowship Program, other direct costs (e.g., patent, 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 (e.g., pre- and post-award costs, program income, whistle-blower information, research misconduct, and conflict of interest policies).
- Summarizing the results of our fieldwork and confirming that we did not identify any extraordinary circumstances that justified the need for a second audit phase.³⁵

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 NCCU personnel to ensure that NCCU was aware of each of our findings and that it did not have additional documentation to support the questioned costs.

We conducted this performance audit in accordance with *Generally Accepted Government Auditing Standards*, issued by the Comptroller General of the United States. 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.

³² We assessed NCCU's compliance with 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, and 2 CFR Part 220, Cost Principles for Educational Institutions (Office of Management and Budget Circular A-21), as appropriate.

³³ We assessed NCCU's compliance with NSF PAPPGs 13-1, 15-1, 16-1, 17-1, 18-1, and 19-1 and with NSF award-specific terms and conditions, as appropriate.

³⁴ We assessed NCCU's compliance with internal NCCU policies and procedures surrounding costs budgeted for or charged to NSF awards.

³⁵ Based on the areas of elevated risk of noncompliance identified during the initial phase, we determined that there was no need for any expanded audit phase.

APPENDIX C: SUMMARY OF QUESTIONED COSTS

Appendix C, Table 1: Schedule of Questioned Costs by Finding

Finding	Description	Questioned Costs		Total
		<i>Unsupported</i>	<i>Unallowable</i>	
1	Unallowable Expenses	\$0	\$24,029	\$24,029
2	Inappropriately Allocated Expenses	-	22,748	22,748
3	Inadequately Supported Expenses	-	13,543	13,543
4	Non-Compliance with NCCU Policies	-	-	-
5	Non-Compliance with Federal Requirements for Pass-Through Entities	-	-	-
6	Insufficient Controls Related to the Application of Indirect Cost Rates	-	-	-
Total		<u>\$0</u>	<u>\$60,320</u>	<u>\$60,320</u>

Source: Auditor summary of questioned costs by finding.

Appendix C, Table 2: Summary of Questioned Costs by NSF Award Number

NSF Award No.	No. of Transaction Exceptions	Questioned Direct Costs	Questioned Indirect Costs	Questioned Total	NCCU Agreed to Reimburse
██████	3	\$10,087	\$0	\$10,087	\$10,087
██████	1	2,464	1,084	3,548	3,548
██████	9	6,709	8,888	15,597	15,597
██████	1	2,700	-	2,700	2,700
██████	2	4,837	-	4,837	4,837
██████	1	3,666	-	3,666	3,666
██████	2	7,803	3,433	11,236	11,236
██████	1	38	-	38	38
██████	6	7,532	1,079	8,611	8,611
██████	2	-	-	-	-
Total	<u>28</u>	<u>\$45,836</u>	<u>\$14,484</u>	<u>\$60,320</u>	<u>\$60,320</u>

Source: Auditor summary of questioned costs by NSF award number.

Appendix C, Table 3: Summary of Questioned Costs by NSF Award Number and Expense Description

Finding No.	NSF Award No.	Description	Fiscal Year(s)	Direct	Indirect	Total	NCCU Agreed to Reimburse
1) Unallowable Expenses	██████	September 2019 Baseball Tickets for Participants	2020	\$888	\$0	\$888	\$888
	██████	September 2019 Unbudgeted Compensation Paid to Graduate Student	2020	3,736	-	3,736	3,736
	██████	March 2020 Meal Provided to an NCCU Employee	2020	38	-	38	38
	██████	March 2020 NCCU Employee and Two Unused Conference Registration Fees	2020	1,500	-	1,500	1,500
	██████	February 2021 Unbudgeted Computer Equipment	2021	2,910	-	2,910	2,910
	██████	May 2021 Unbudgeted Software License Renewal	2021	4,837	-	4,837	4,837
	██████	December 2015 Indirect Costs on Participant Support Costs	2016	-	2,969	2,969	2,969
	██████	November 2016 Indirect Costs on Subaward Costs over \$25,000	2017	-	362	362	362
	██████	March 2017 Indirect Costs on Equipment	2017	-	2,719	2,719	2,719
	██████	July 2018 Indirect Costs on the Rental of Specialized Equipment	2019	-	1,583	1,583	1,583
	██████	September 2019 Indirect Costs on Participant Support Costs	2020	-	418	418	418
	██████	January 2019 Estimated Copier and Printing Services	2019	1,408	661	2,069	2,069
2) Inappropriately Allocated Expenses	██████	December 2015 Insurance Premiums	2016	3,856	-	3,856	3,856
	██████	September 2017 Airfare	2018	2,853	1,255	4,108	4,108

	██████	January 2018 Consultant Services	2018	7,803	3,433	11,236	11,236
	██████	October 2018 Laser Projector	2019	2,464	1,084	3,548	3,548
3) Inadequately Supported Expenses	██████	March 2014 – April 2014 Salary Paid to a Temporary Employee	2014	7,177	-	7,177	7,177
	██████	June 2019 Participant Gift Cards	2019	3,666	-	3,666	3,666
	██████	July 2020 Student Stipends	2021	2,700	-	2,700	2,700
4) Non-Compliance with NCCU Policies	██████	Non-Compliance with NCCU Capital Assets Policy	2017	-	-	-	-
5) Non-Compliance with Federal Requirements for Pass-Through Entities	██████	2015 Penn State University Subaward	2016–2021	-	-	-	-
	██████	2019 Cynosure Consulting Subaward	2020–2022	-	-	-	-
6) Insufficient Controls Related to the Application of Indirect Cost Rates	██████	Budgeted Indirect Cost Rates Not Adjusted	2017	-	-	-	-
	██████	Budgeted Indirect Cost Rates Not Adjusted	2018	-	-	-	-
	██████	Budgeted Indirect Cost Rates Not Adjusted	2019–2020	-	-	-	-
	██████	Indirect Cost Rates Not Applied	2020	-	-	-	-
	██████	Indirect Cost Rates Not Applied	2021	-	-	-	-
	██████	Indirect Cost Rates Not Applied	2021	-	-	-	-
Total				<u>\$45,836</u>	<u>\$14,484</u>	<u>\$60,320</u>	<u>\$60,320</u>

Source: Auditor summary of identified exceptions.

APPENDIX D: SUMMARY OF RECOMMENDATIONS AND CONSIDERATIONS

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

- 1.1. Direct NCCU to provide documentation supporting that it has repaid or otherwise credited the \$24,029 in questioned participant support, indirect, and other direct costs for which NCCU has agreed to reimburse NSF.
- 1.2. Direct NCCU to establish clear guidance regarding allowable uses of participant support cost funding. This guidance should address how to segregate and account for costs that NCCU cannot cover using participant support cost funds, such as costs incurred for NCCU employees, non-participant conference registrants, and other expenses not included in the approved participant support cost budget, including those incurred for entertainment.
- 1.3. Direct NCCU to update its internal rebudgeting processes to note that NCCU must receive express permission from NSF to rebudget funds awarded in the participant support cost budget category and to identify when and how to request NSF approval to re-budget these funds.
- 1.4. Direct NCCU to strengthen its monitoring procedures and internal control processes for applying indirect costs to federal awards. Updated procedures should ensure that NCCU only applies indirect costs to expenses that are allowable in its Modified Total Direct Cost base per federal and NCCU policies. These procedures could include:
 - Performing an annual review of costs incurred to benefit NSF award participants to ensure the participant support costs were charged to an account excluded from NCCU's Modified Total Direct Cost base.
 - Verifying subaward costs in excess of \$25,000 were charged to accounts that are excluded from NCCU's Modified Total Direct Cost base.
 - Performing periodic reviews of expenses in excess of \$5,000 that were charged to materials/supplies accounts to ensure any costs that should have been considered equipment are appropriately transferred to an equipment account that is excluded from NCCU's Modified Total Direct Cost base.
 - Updating its indirect cost rate policies to note that costs to rent equipment are not allowable in NCCU's Modified Total Direct Cost base, which is consistent with federal regulations.
- 1.5. Direct NCCU to strengthen its administrative and management procedures to ensure that it only charges actual expenses, and not estimated costs, to NSF awards.

- 2.1 Direct NCCU to provide documentation supporting that it has repaid or otherwise credited the \$22,748 in questioned insurance, airfare, consultant services, and material and supply costs for which NCCU has agreed to reimburse NSF.
- 2.2 Direct NCCU to strengthen its policies and procedures and internal controls for allocating expenses, and for supporting the allocation of expenses, charged to sponsored projects. Updated processes could include:
 - Requiring Principal Investigators to review and certify the allowability and allocability of all payments made to or on behalf of NSF award participants.
 - Documenting how airfare and other travel expenses benefit a sponsored award prior to allocating reimbursed travel costs to NSF awards.
 - Requiring departmental personnel or other designated invoice approvers to confirm that invoiced consultant services align to the objectives of the award(s) the consultant costs are being charged to prior to charging consultant costs to NSF awards.
 - Updating NSF award close-out procedures to require a review of all material and supply purchases made within the final 90 days of a grant award's period of performance and requiring that all costs associated with materials received after an NSF award's expiration date be removed from the NSF award.
- 3.1. Direct NCCU to provide documentation supporting that it has repaid or otherwise credited the \$13,543 in questioned inadequately supported participant support and salary and wages expenses for which NCCU has agreed to reimburse NSF.
- 3.2. Direct NCCU to strengthen its policies and procedures for creating and retaining documentation, including introducing additional controls to help ensure that it appropriately creates and maintains all documentation necessary to support the allowability of expenses charged to NSF awards. Updated procedures could include requiring the following:
 - Departmental personnel to track the purchase and distribution of all gift cards charged to NSF awards through the use of a gift-card log, or other appropriate documentation.
 - Principal Investigators or other appropriate personnel to justify the amount of all NSF stipend payments that are provided at an amount not consistent with the NSF award budget.
 - Temporary employees to complete timesheets and/or effort certifications consistent with the requirements for full-time employees.

- 4.1 Direct NCCU to strengthen its administrative and management procedures for the annual inventory process to ensure that all capitalizable expenses are accurately accounted for, tracked, and inventoried.
- 4.2 Direct NCCU to perform periodic reviews of expenses of \$5,000 or more charged to material/supply accounts to ensure any costs that should have been considered equipment are appropriately identified and tracked as capital assets.
- 5.1 Direct NCCU to ensure that it has performed risk assessments for all active NSF subawards and to verify that each subaward is being appropriately monitored based on the results of the risk assessment.
- 6.3 Direct NCCU to develop and implement a control to identify when indirect cost rates change between proposal submission and award date, as well as to take appropriate steps to avoid claiming unallowable indirect costs on NSF awards.
- 6.4 Direct NCCU to develop and implement a control to monitor expenses charged to accounts excluded from NCCU's Modified Total Direct Cost base to ensure costs allowable in the Modified Total Direct Cost base are not excluded from its indirect cost calculations. Updated procedures could include:
 - Reviewing and monitoring all subawards to verify that the first \$25,000 invoiced by each subawardee is included in NCCU's Modified Total Direct Cost base.
 - Reviewing direct costs charged as a result of participant support cost budget reallocations to ensure it appropriately applies indirect costs to expenses allowable within its Modified Total Direct Cost base.

APPENDIX E: GLOSSARY

Allocable cost. A cost is allocable to a particular federal award or other cost objective if the goods or services involved are chargeable or assignable to that federal award or cost objective in accordance with relative benefits received. This standard is met if the cost:

- (a) Is incurred specifically for the federal award.
- (b) Benefits both the federal award and other work of the non-federal entity and can be distributed in proportions that may be approximated using reasonable methods.
- (c) Is necessary to the overall operation of the non-federal entity and is assignable in part to the federal award in accordance with the principles in this subpart. (2 CFR § 200.405).

Return to the term's initial use.

Allocation. *Allocation* means the process of assigning a cost, or a group of costs, to one or more cost objective(s), in reasonable proportion to the benefit provided or other equitable relationship. The process may entail assigning a cost(s) directly to a final cost objective or through one or more intermediate cost objectives. (2 CFR § 200.4).

Return to the term's initial use.

Factors affecting allowability of costs. The tests of allowability of costs under these principles are: they must be reasonable; they must be allocable to sponsored agreements under the principles and methods provided herein; they must be given consistent treatment through application of those generally accepted accounting principles (GAAP) appropriate to the circumstances; and they must conform to any limitations or exclusions set forth in these principles or in the sponsored agreement as to types or amounts of cost items. (2 CFR § 200.403).

Return to the term's initial use.

Allowable cost. Except where otherwise authorized by statute, costs must meet the following general criteria in order to be allowable under federal awards:

- (a) Be necessary and reasonable for the performance of the federal award and be allocable thereto under these principles.
- (b) Conform to any limitations or exclusions set forth in these principles or in the federal award as to types or amount of cost items.
- (c) Be consistent with policies and procedures that apply uniformly to both federally-financed and other activities of the non-federal entity (2 CFR § 200.403).

Return to the term's initial use.

Consultant Services (Professional Service costs). This refers to costs of professional and consultant services rendered by persons who are members of a particular profession or possess a special skill, and who are not officers or employees of the non-federal entity, which are allowable, subject to paragraphs (b) and (c) when reasonable in relation to the

services rendered and when not contingent upon recovery of the costs from the federal government.

In determining the allowability of costs in a particular case, no single factor or any special combination of factors is necessarily determinative; however, the following factors are relevant:

- 1) The nature and scope of the service rendered in relation to the service required.
- 2) The necessity of contracting for the service, considering the non-federal entity's capability in the particular area.
- 3) The past pattern of such costs, particularly in the years prior to federal awards.
- 4) The impact of federal awards on the non-federal entity's business.
- 5) Whether the proportion of federal work to the non-federal entity's total business is such as to influence the non-federal entity in favor of incurring the cost, particularly where the services rendered are not of a continuing nature and have little relationship to work under federal awards.
- 6) Whether the service can be performed more economically by direct employment rather than contracting.
- 7) The qualifications of the individual or concern rendering the service and the customary fees charged, especially on non-federally funded activities.
- 8) Adequacy of the contractual agreement for the service (e.g., description of the service, estimate of time required, rate of compensation, and termination provisions). (2 CFR § 200.459).

[**Return to the term's initial use.**](#)

Entertainment. Costs of entertainment, including amusement, diversion, and social activities and any associated costs 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. (2 CFR § 200.438).

[**Return to the term's initial use.**](#)

Equipment. Tangible personal property—including information technology (IT) systems—having a useful life of more than 1 year and a per-unit acquisition cost which equals or exceeds the lesser of the capitalization level established by the non-federal entity for financial statement purposes, or \$5,000 (2 CFR § 200.33).

[**Return to the term's initial use.**](#)

Fringe Benefits. Allowances and services provided by employers to their employees as compensation in addition to regular salaries and wages. Fringe benefits include, but are not limited to, the costs of leave (vacation, family-related, sick, or military), employee insurance, pensions, and unemployment benefit plans. Except as provided elsewhere in these principles, the costs of fringe benefits are allowable provided that the benefits are reasonable and are required by law, non-federal entity-employee agreement, or an establishment policy of the non-federal entity.

Leave is the cost of fringe benefits in the form of regular compensation paid to employees during periods of authorized absences from the job, such as for annual leave, family-related leave, sick leave, holidays, court leave, military leave, administrative leave, and other similar benefits, are allowable if all of the following criteria are met:

- 1) They are provided under established written leave policies.
- 2) The costs are equitably allocated to all related activities, including federal awards.
- 3) The accounting basis (cash or accrual) selected for costing each type of leave is consistently followed by the non-federal entity or specified grouping of employees. (2 CFR § 200.431).

[Return to the term's initial use.](#)

Indirect (F&A) Costs. This refers to those costs incurred for a common or joint purpose benefitting more than one cost objective, and not readily assignable to the cost objectives specifically benefitted, without effort disproportionate to the results achieved. To facilitate equitable distribution of indirect expenses to the cost objectives served, it may be necessary to establish a number of pools of indirect (F&A) costs. Indirect (F&A) cost pools must be distributed to benefitted cost objectives on bases that will produce an equitable result in consideration of relative benefits derived. (2 CFR § 200.56).

[Return to the term's initial use.](#)

Modified Total Direct Cost (MTDC). This refers to all direct salaries and wages, applicable fringe benefits, materials and supplies, services, travel, and up to the first \$25,000 of each subaward (regardless of the period of performance (POP) of the subawards under the award). MTDC excludes equipment, capital expenditures, charges for patient care, rental costs, tuition remission, scholarships and fellowships, participant support costs and the portion of each subaward in excess of \$25,000. Other items may only be excluded when necessary to avoid a serious inequity in the distribution of indirect costs, and with the approval of the cognizant agency for indirect costs. (2 CFR § 200.68).

[Return to the term's initial use.](#)

Negotiated Indirect Cost Rate. Generally charged to federal awards through the development and application of an indirect cost rate. In order to recover indirect costs related to federal awards, most organizations must negotiate an indirect cost rate with the federal agency that provides the preponderance of funding, or Health and Human Services

(HHS) in the case of colleges and universities. (NSF Office of Budget, Finance, and Award Management).

[Return to the term's initial use.](#)

Participant Support Costs. This refers to direct costs for items such as stipends or subsistence allowances, travel allowances, and registration fees paid to or on behalf of participants or trainees (but not employees) in connection with conferences or training projects. (2 CFR § 200.75).

[Return to the term's initial use.](#)

Period of Performance (POP). The time during which the non-federal entity may incur new obligations to carry out the work authorized under the federal award. The federal awarding agency or pass-through entity must include start and end dates of the POP in the federal award. (2 CFR § 200.77).

[Return to the term's initial use.](#)

Proposal & Award Policies & Procedures Guide (PAPPG). Comprises documents relating to NSF's proposal and award process for the assistance programs of NSF. The PAPPG, in conjunction with the applicable standard award conditions incorporated by reference in award, serve as the NSF's implementation of 2 CFR § 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*. If the PAPPG and the award conditions are silent on a specific area covered by 2 CFR § 200, the requirements specified in 2 CFR § 200 must be followed. (NSF PAPPG 19-1).

[Return to the term's initial use.](#)

Reasonable Cost. A reasonable cost is a cost that, in its nature and amount, does not exceed that which would have been incurred by a prudent person under the circumstances prevailing at the time the decision to incur the cost was made. (2 CFR § 200.404).

[Return to the term's initial use.](#)

Salaries and Wages. Compensation for personal services includes all remuneration, paid currently, or accrued, for services of employees rendered during the POP under the federal award, including but not necessarily limited to wages and salaries. Costs of compensation are allowable to the extent that they satisfy the specific requirements of this Part, and that the total compensation for individual employees:

- (1) Is reasonable for the services rendered and conforms to the established written policy of the non-federal entity consistently applied to both federal and non-federal activities.
- (2) Follows an appointment made in accordance with a non-federal entity's laws or rules or written policies and meets the requirements of federal statute, where applicable.
- (3) Is determined and supported as provided in Standards for Documentation of

Personnel Expenses, when applicable. (2 CFR § 200.430) and (2 CFR § 220, Appendix A, Section J.10).

[Return to the term's initial use.](#)

Subawards. An award provided by a pass-through entity to a subrecipient for the subrecipient to carry out part of a federal award received by the pass-through entity. It does not include payments to a contractor or payments to an individual that is a beneficiary of a federal program. A subaward may be provided through any form of legal agreement, including an agreement that the pass-through entity considers a contract. (2 CFR § 200.92).

[Return to the term's initial use.](#)

Travel costs. Expenses for transportation, lodging, subsistence, and related items incurred by employees who are in travel status on official business of the non-federal entity. Such costs may be charged on an actual cost basis, on a per diem or mileage basis in lieu of actual costs incurred, or on a combination of the two, provided the method used is applied to an entire trip and not to selected days of the trip, and results in charges consistent with those normally allowed in like circumstances in the non-federal entity's non-federally funded activities and in accordance with non-federal entity's written travel reimbursement policies. Notwithstanding the provisions of § 200.444 *General costs of government*, travel costs of officials covered by that section are allowable with the prior written approval of the federal awarding agency or pass-through entity when they are specifically related to the federal award. (2 CFR § 200.474).

[Return to the term's initial use.](#)



About NSF OIG

We promote effectiveness, efficiency, and economy in administering the Foundation's programs; detect and prevent fraud, waste, and abuse within NSF or by individuals who receive NSF funding; and identify and help to resolve cases of research misconduct. NSF OIG was established in 1989, in compliance with the *Inspector General Act of 1978*, as amended. Because the Inspector General reports directly to the National Science Board and Congress, the Office is organizationally independent from the Foundation.

Obtaining Copies of Our Reports

To view this and any of our other reports, please visit our website at www.oig.nsf.gov.

Connect with Us

For further information or questions, please contact us at OIGpublicaffairs@nsf.gov or 703.292.7100. Follow us on Twitter at [@nsfoig](https://twitter.com/nsfoig). Visit our website at www.oig.nsf.gov.

Report Fraud, Waste, Abuse, or Whistleblower Reprisal

- File online report: <https://oig.nsf.gov/hotline>
- Anonymous Hotline: 1.800.428.2189
- Mail: 2415 Eisenhower Avenue, Alexandria, VA 22314 ATTN: OIG HOTLINE