

Performance Audit of Incurred Costs – University of Arkansas

REPORT PREPARED BY COTTON & COMPANY
ASSURANCE AND ADVISORY, LLC



At a Glance

Performance Audit of Incurred Costs – University of Arkansas

November 15, 2023 | OIG 24-1-002



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 the University of Arkansas (Arkansas) incurred on 215 NSF awards during the period of October 1, 2019, to September 30, 2022. The auditors tested approximately \$585,000 of the more than \$36.8 million of costs claimed during the period. The audit objective was to determine if costs claimed by Arkansas on NSF awards were allowable, allocable, reasonable, and in compliance with NSF award terms and conditions and federal financial assistance requirements. A description of the audit's objective, scope, and methodology is attached to the report as Appendix B.



AUDIT RESULTS

The report highlights concerns about Arkansas's compliance with certain federal and NSF award requirements, NSF award terms and conditions, and Arkansas policies. The auditors questioned \$257,693 of costs claimed by Arkansas during the audit period. Specifically, the auditors found \$125,124 of Award Cash Management Service (ACM\$) drawdowns that exceeded expenses, \$122,090 of unallowable expenses, \$6,203 of inappropriately allocated expenses, and \$4,276 of indirect cost rates inappropriately applied. The auditors also identified one compliance-related finding for which the auditors did not question any costs: non-compliance with Arkansas professional/consultant services policy. In addition to the findings, the audit report includes one area for improvement related to controls for applying 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 five findings and one area for improvement in the report with associated recommendations for NSF to direct Arkansas to resolve the questioned costs and to ensure Arkansas strengthens administrative and management controls.



AUDITEE RESPONSE

Arkansas generally agreed with the findings and agreed to reimburse NSF for the majority of the questioned costs. Arkansas's response is attached, in its entirety, to the report as Appendix A.



NATIONAL SCIENCE FOUNDATION
Office of Inspector General

MEMORANDUM

DATE: November 15, 2023

TO: Quadira Dantro
Director
Division of Institution and Award Support

Jamie French
Director
Division of Grants and Agreements

FROM: Theresa S. Hull [REDACTED]
Assistant Inspector General for Audits

SUBJECT: Report No. 24-1-002, University of Arkansas

This memorandum transmits the Cotton & Company Assurance and Advisory, LLC (C&C) report for the audit of costs charged by the University of Arkansas (Arkansas) to 215 NSF awards during the period of October 1, 2019, to September 30, 2022. The audit encompassed approximately \$585,000 of the more than \$36.8 million of costs claimed to NSF during the period. The audit objective was to determine if costs claimed by Arkansas 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.

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 Sarah Adams at 703-292-7100 or OIGpublicaffairs@nsf.gov.

Attachment

CC: Stephen Willard, Dan Reed, Victor McCrary, John Veysey, Ann Bushmiller, Karen Marrongelle, Teresa Grancorvitz, Christina Sarris, Janis Coughlin-Piester, Alex Wynnyk, Rochelle Ray, Charlotte Grant-Cobb

EXECUTIVE SUMMARY

The Cotton & Company Assurance and Advisory, LLC, audit team determined that the University of Arkansas (Arkansas) 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 Arkansas policies and procedures. Specifically, the audit report includes five findings, one area for improvement, and a total of \$257,693 in questioned costs.

AUDIT OBJECTIVES

The National Science Foundation Office of Inspector General engaged Cotton & Company Assurance and Advisory, LLC (herein referred to as “we”), to conduct a performance audit of costs Arkansas claimed during the period of October 1, 2019, to September 30, 2022. The audit objectives included evaluating Arkansas’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 Arkansas’s compliance with 2 Code of Federal Regulations (CFR) 200 (versions effective 12/26/2014 and 11/12/2020); NSF Proposal and Award Policies and Procedures Guides (PAPPGs) 15-1, 16-1, 17-1, 18-1, 19-1, 20-1, and 22-1; NSF award terms and conditions; and Arkansas 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 \$257,693 of direct and indirect costs that Arkansas inappropriately claimed during the audit period, including:

- \$125,124 of Award Cash Management Service (ACM\$) drawdowns that exceeded expenses
- \$122,090 of unallowable expenses
- \$6,203 of inappropriately allocated expenses
- \$4,276 for indirect cost rates inappropriately applied

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

- Non-compliance with Arkansas professional/consultant services policy

In addition to the five findings, the audit report includes one area for improvement for Arkansas to consider related to:

- Insufficient controls related to the application of indirect cost rates

RECOMMENDATIONS

The audit report includes 13 recommendations and 1 consideration for NSF’s Director of the Division of Institution and Award Support related to resolving the \$257,693 in questioned costs and ensuring Arkansas strengthens its award management environment, as summarized in [Appendix D](#).

AUDITEE RESPONSE

Arkansas generally agreed with the findings in the audit report and agreed to reimburse NSF for \$252,954 of the \$257,693 in questioned costs. Arkansas did not agree to reimburse NSF for the remaining \$4,739 in questioned costs. Arkansas’s response is attached, in its entirety, to the report as [Appendix A](#).

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Abbreviations

ACM\$	Award Cash Management \$ervice
Arkansas	University of Arkansas
CFR	Code of Federal Regulations
FY	Fiscal Year
GAGAS	Generally Accepted Government Auditing Standards
GL	General Ledger
GRA	Graduate Research Assistant
MTDC	Modified Total Direct Cost
NICRA	Negotiated Indirect Cost Rate Agreement
NSF	National Science Foundation
OIG	Office of Inspector General
PAPPG	Proposal and Award Policies and Procedures Guide
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 contractors to provide these audit services.

NSF OIG engaged Cotton & Company Assurance and Advisory, LLC (herein referred to as “we”), to conduct a performance audit of costs claimed by the University of Arkansas (Arkansas). Arkansas is a state-supported institution of higher education and the flagship of the University of Arkansas System, located in Fayetteville, Arkansas. In fiscal year (FY) 2022, Arkansas reported approximately \$420.5 million in non-operating revenues, with \$68.1 million received from federal grants—including NSF—as illustrated in Figure 1.

Figure 1: Arkansas’s FY 2022 Non-Operating Revenues



Source: The chart data is supported by Arkansas’s FY 2022 Report. (<https://financial-affairs.uark.edu/PDFs/2022annualrept.pdf>) The photo of Arkansas’s campus is publicly available on Arkansas’s website. (<https://www.uark.edu/about/index.php>)

AUDIT SCOPE

This performance audit—conducted under Order No. 140D0422F0884—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 Arkansas’s award management environment; determine if costs claimed on NSF awards were allowable, allocable, reasonable, and in compliance with relevant federal and NSF regulations; 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, Arkansas provided general ledger (GL) data to support the \$36.8 million in expenses it claimed on 215 NSF awards during our audit [period of performance \(POP\)](#) of October 1, 2019, to September 30, 2022.

Figure 2: Costs Claimed on NSF Awards from October 1, 2019, to September 30, 2022¹



Source: Auditor analysis of accounting data Arkansas provided, illustrating the total costs (\$36,648,597) by expense type, using financial information to support costs claimed on NSF awards during the audit period. The Other Direct Costs category includes other direct costs, consultant services, and publications. Additionally, the Other Direct Costs category in this table includes (\$55,743) in program income that offsets expenses.

¹ The \$36,773,267 that Arkansas claimed in NSF’s Award Cash Management Service (ACM\$) exceeded the total award-related expenses that Arkansas reported in its GL. Because the amount claimed exceeded the expenses incurred, we reported [Finding 1 ACM\\$ Drawdowns that Exceeded Expenses](#). Please also see the [Objectives, Scope, and Methodology](#) section for additional information. Because the remaining GL data materially reconciled to NSF’s ACM\$ records, we determined that the GL data was appropriate for the purposes of this engagement.

We judgmentally selected 50 transactions totaling \$584,451² (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.

Table 1: Summary of Selected Transactions

Budget Category	Transaction Count	Expense Amount ³
Equipment	4	\$233,382
Other Direct Costs	7	102,528
Salaries and Wages	17	101,643
Subawards	3	67,944
Participant Support Costs	8	39,414
Materials and Supplies	3	22,480
Travel	4	8,770
Fringe Benefits	2	3,790
Consultant Services	1	2,500
Publications	1	2,000
Total	<u>50</u>	<u>\$584,451</u>

Source: Auditor summary of selected transactions.

AUDIT RESULTS

We identified and questioned \$257,693 in costs that Arkansas charged to seven NSF awards. We also identified expenses Arkansas charged to two NSF awards that did not result in **questioned costs**, but that did result in non-compliance with federal, NSF, or Arkansas-specific policies and procedures. Finally, we identified one area in which Arkansas should consider strengthening its controls to ensure it does not overcharge indirect costs to NSF awards in the future. 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
ACM\$ Drawdowns That Exceeded Expenses	\$125,124
Unallowable Expenses	122,090
Inappropriately Allocated Expenses	6,203
Indirect Cost Rates Inappropriately Applied	4,276
Non-Compliance with Arkansas Professional/Consultant Services Policy	-
Total	<u>\$257,693</u>

Source: Auditor summary of findings identified.

² The \$584,451 represents the total value of the 50 transactions selected for transaction-based testing and does not represent the dollar base of the total costs reviewed during the audit.

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.

We made 13 recommendations and identified 1 consideration for NSF’s Director of the Division of Institution and Award Support related to resolving the \$257,693 in questioned costs and ensuring Arkansas strengthens its administrative and management procedures for monitoring federal funds. We communicated the results of our audit and the related findings and recommendations to Arkansas and NSF OIG. We included Arkansas’s response to this report, in its entirety, in [Appendix A](#).

FINDING 1: ACM\$ DRAWDOWNS THAT EXCEEDED EXPENSES

Arkansas did not appropriately draw down funding in ACM\$ for one NSF award, as required per federal regulations⁴ and the NSF [Proposal and Award Policies and Procedures Guide \(PAPPG\)](#).⁵ Specifically, Arkansas’s ACM\$ draws for one NSF award exceeded the total expenses supported within its GL by \$125,124, as illustrated in Table 3.

Table 3: Funding Claimed in ACM\$ That Exceeded Accumulated Expenses

NSF Award No.	Cash Drawn per ACM\$	Expenses per Arkansas’s GL	Discrepancy	Notes
██████████	\$227,566	\$102,442	\$125,124	a

Source: Auditor summary of identified exception.

- a) Arkansas drew down \$227,566 in funding on NSF Award No. ██████████ during the audit period; however, Arkansas’s GL only supported \$102,442 in net expenses posted to the award—or \$125,124 less than it drew down in ACM\$. This issue occurred because Arkansas incorrectly claimed the December 2021 cumulative draw amount rather than updating the March 2022 draw amount to reflect the total of the expenditures it had accumulated since its previous ACM\$ draw.

Conclusion

Arkansas did not have sufficient policies and procedures or internal controls in place to ensure it appropriately drew down funds in ACM\$ based on the expenses recorded within its GL. We are therefore questioning \$125,124 claimed on one NSF award that was not supported by the expenses recorded within Arkansas’s GL as of the end of our audit period. Arkansas agreed to reimburse NSF for the \$125,124 in questioned costs, as illustrated in Table 4.

⁴ According to 2 Code of Federal Regulations (CFR) § 200.305 (12/26/2014), *Federal payment*, (b)(1), the timing and amount of advance payments must be as close as is administratively feasible to the actual disbursements by the non-federal entity for direct program or project costs and the proportionate share of any allowable indirect costs.

⁵ According to NSF PAPPG 18-1, Part II, Chapter VIII, Section (C.2.a.) *Payment Requirements – Payment Policies*, advances to a grantee shall be limited to the minimum amount needed and shall be timed to be in accordance with the actual, immediate cash requirements of the grantee. The timing and amount of cash advances shall be as close as is administratively feasible to actual disbursements for direct program costs and the proportionate share of any allowable indirect costs.

Table 4: Finding 1 Summary: ACM\$ Drawdowns That Exceeded Expenses

NSF Award No.	Description	Fiscal Year(s)	Questioned Costs	Arkansas Agreed to Reimburse
██████	Funding Claimed in ACM\$ That Exceeded Accumulated Expenses	2022	\$125,124	\$125,124
Total			<u>\$125,124</u>	<u>\$125,124</u>

Source: Auditor summary of identified exception.

Recommendations

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

- 1.1. Direct Arkansas to provide documentation supporting that it has repaid or otherwise credited the \$125,124 in questioned Award Cash Management \$ervice drawdowns for which it has agreed to reimburse NSF.
- 1.2. Direct Arkansas to strengthen its administrative and management internal controls and processes over its Award Cash Management \$ervice reconciliation process. Updated controls could include requiring that an individual who is independent from the standard Award Cash Management \$ervice drawdown process perform periodic reconciliations of Award Cash Management \$ervice drawdowns to Arkansas’s general ledger expenses for each NSF award.

University of Arkansas’s Response: Arkansas agreed with the finding and stated that it reimbursed NSF for the full \$125,124 on December 7, 2022.⁶ Additionally, Arkansas noted that it has since strengthened internal controls to include a full monthly reconciliation of all NSF awards to ensure ACM\$ drawdowns do not exceed actual expenses incurred for each award.

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

FINDING 2: UNALLOWABLE EXPENSES

Arkansas charged four NSF awards a total of \$122,090 in expenses for **salary, participant support costs**, and **equipment** that were unallowable per federal regulations⁷ and NSF PAPPGs.⁸

⁶ Arkansas noted the full amount was returned on December 7, 2023; however, that date is after the date of its formal response. As such, we referenced December 7, 2022, the date on which the repayment was made.

⁷ According to 2 CFR § 200.403 (12/26/2014) and 2 CFR § 200.403 (Revised 11/12/2020), **Factors affecting allowability of costs**, (a), for a cost to be allowable, it must be allocable and reasonable for the performance of the federal award. Further, section (g) states that, in order for a cost to be allowable, it must be adequately documented.

⁸ According to NSF PAPPG 16-1, Part II, Chapter V, Section A, and NSF PAPPGs 20-1 and 22-1, Part II, Chapter X, Section A, *Basic Considerations*, grantees should ensure all costs charged to NSF awards meet the requirements of the cost principles contained in 2 CFR § 200, Subpart E, grant terms and conditions, and any other specific requirements of both the award notice and the applicable program solicitation.

Unallowable Salary Expenses

Arkansas charged one NSF award for \$52,448 in salary expenses that did not benefit the award, as illustrated in Table 5.

Table 5: Unallowable Salary Expenses

Expense Date	NSF Award No.	Unallowable Total	Description	Notes
June 2022	██████████	\$52,448	Salary Incorrectly Charged to the Award	a

Source: Auditor summary of identified exception.

- a) In June 2022, Arkansas charged NSF Award No. ██████████ for \$52,448 in salary and related fringe and indirect costs that Arkansas acknowledged it had incorrectly charged to the award.

Unallowable Use of Participant Support Funds

Arkansas used \$48,430 of participant support funding awarded on one NSF award to cover non-participant expenses, which is not allowable without prior NSF approval per federal regulations,⁹ as illustrated in Table 6.

Table 6: Unallowable Use of Participant Support Funds

Expense Date	NSF Award No.	Unallowable Total	Participant Support Funds Inappropriately Used to Cover:	Notes
July 2020	██████████	\$48,430	Equipment Expenses	a

Source: Auditor summary of identified exception.

- a) In July 2020, Arkansas inappropriately used \$48,430 in participant support funds awarded to NSF Award No. ██████████ to cover equipment costs. Specifically, Arkansas’s Office of Sponsored Programs personnel did not obtain approval from the NSF Program Officer, as required by the NSF PAPPG.¹⁰

Unallowable Equipment Expenses

Arkansas charged two NSF awards for \$21,212 in unallowable equipment expenses, as illustrated in Table 7.

⁹ According to 2 CFR § 200.75 (12/26/2014), *Participant Support Costs*, participant support costs represent direct costs for items such as stipends or subsistence allowances, travel allowances, and registration fees paid to or on behalf of participants or trainees in connection with conferences or training projects.

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

Table 7: Unallowable Equipment Expenses

Expense Date	NSF Award No.	Unallowable Total	Description	Notes
June 2021	██████████	\$13,200	Duplicate Equipment Expenses	a
April 2022	██████████	8,012	Equipment Expenses Incorrectly Charged to Award	b

Source: Auditor summary of identified exceptions.

- a) In June 2021, Arkansas charged NSF Award No. ██████████ for \$13,200 associated with an equipment expense that had previously been charged to the award and therefore represented a duplicative expense.
- b) In April 2022, Arkansas charged NSF Award No. ██████████ for \$8,012 in equipment expenses that Arkansas acknowledged it had incorrectly charged to the award.

Conclusion

Arkansas did not have sufficient policies, procedures, or internal controls in place to ensure it only charged allowable costs to NSF awards. Specifically, Arkansas’s policies, procedures, and internal controls did not always ensure that Arkansas: (1) charged employee salary expenses to the appropriate awards, (2) obtained NSF approval to rebudget participant support funding, and (3) appropriately removed duplicative expenses from NSF awards. We are therefore questioning \$122,090 of unallowable expenses charged to four NSF awards. Arkansas agreed to reimburse NSF for the \$122,090 in questioned costs, as illustrated in Table 8.

Table 8: Finding 2 Summary: Unallowable Expenses

NSF Award No.	Description	Fiscal Year	Questioned Costs			Arkansas Agreed to Reimburse
			Direct	Indirect	Total	
██████████	June 2022 Salary	2022	\$35,200	\$17,248	\$52,448	\$52,448
██████████	July 2020 Non-Participant Equipment	2021	48,430	-	48,430	48,430
██████████	June 2021 Duplicate Equipment	2021	8,800	4,400	13,200	13,200
	April 2022 Equipment	2022	8,012	-	8,012	8,012
Total			\$100,442	\$21,648	\$122,090	\$122,090

Source: Auditor summary of identified exceptions.

Recommendations

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

- 2.1 Direct Arkansas to provide documentation supporting that it has repaid or otherwise credited the \$122,090 in questioned salary, participant support, and equipment expenses for which it has agreed to reimburse NSF.

- 2.2 Direct Arkansas to implement additional policies or procedures that address how to ensure it obtains required approval from the NSF Program Officer before re-budgeting participant support cost funding.
- 2.3 Direct Arkansas to strengthen its procedures for charging salary and equipment expenses to ensure the expenses are budgeted, allowable, and allocable to the specific award prior to charging the expenses to the NSF award.

University of Arkansas's Response: Arkansas agreed to reimburse NSF for the \$122,090 in questioned costs. Specifically:

- Regarding the unallowable salary and equipment expenses, Arkansas previously credited \$22,069 of the questioned salary expenses to the NSF award charged and agreed to reimburse the remaining questioned salary and equipment expenses to NSF. Additionally, Arkansas noted it will re-emphasize to Principal Investigators, faculty, and staff the importance of time and effort reporting and reviewing award financial activity monthly to ensure expenses are appropriately charged to awards in accordance with 2 CFR § 200 (Uniform Guidance), Subpart E, Cost Principles, NSF PAPPGs, and institutional policy. Further, Arkansas's Office of Sponsored Programs will continue to perform risk-based reviews to further reduce the risk of noncompliant expenses.
- Regarding the unallowable use of participant support funds, Arkansas noted that although it obtained prior approval from the NSF Program Director, it will ensure NSF Program Officer approval is received in the future. Additionally, Arkansas will re-train its Office of Sponsored Programs personnel and re-emphasize to Principal Investigators, faculty, and staff the NSF pre-approval requirements.

Auditor's Additional Comments: Our position regarding this finding has not changed. Specifically, regarding the unallowable use of participant support funds, although Arkansas requested the NSF Program Director's approval to re-budget participant support funds, it did not obtain the requested approval. Rather, the NSF Program Director noted Arkansas had the authority to rebudget the participant support cost funding without NSF approval. However, Arkansas did not have that authority per the applicable NSF PAPPG which states, "written prior approval from the cognizant NSF Program Officer is required for the reallocation of participant support funds." As such, our position regarding this finding has not changed.

FINDING 3: INAPPROPRIATELY ALLOCATED EXPENSES

Arkansas did not always allocate expenses to NSF awards based on the relative benefits the awards received, as required by both federal regulations¹¹ and NSF PAPPGs.¹² As a result, Arkansas inappropriately charged two NSF awards for a total of \$6,203 in inappropriately allocated expenses.

Inappropriately Allocated Travel Expenses

Arkansas charged one NSF award for \$4,739 in inappropriately allocated **travel** expenses, as illustrated in Table 9.

Table 9: Inappropriately Allocated Travel Expenses

Expense Date	NSF Award Charged	Funding Sources Referenced/Acknowledged	Amount Charged	Percent Allocable	Amount Inappropriately Allocated	Notes
September 2019	██████████	NSF Award Nos. ██████████, ██████████	\$6,318	25%	\$4,739	a

Source: Auditor summary of identified exception.

- a) In September 2019, Arkansas charged NSF Award No. ██████████ for \$6,318 in travel expenses for a Graduate Research Assistant (GRA) to attend a conference. During the conference, the GRA gave two presentations. Neither of these presentations acknowledged NSF Award No. ██████████ however, they did reference three other NSF awards. After the conference, the GRA published two papers based on experience gained and material learned at the conference, and both papers acknowledged NSF Award No. ██████████. Because the material presented during the travel also related to three other NSF awards and Arkansas did not provide a reasonable justification regarding why none of these costs were allocable to these awards, we are questioning \$4,739—or 75 percent—of the costs associated with this travel expense that appear to have benefitted other awards.

¹¹ According to 2 CFR § 200.405 (12/26/2014), *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.

¹² NSF PAPPGs 15-1, Part II, Chapter V, Section A, and 18-1, Part II, Chapter X, Section A, *Basic Considerations*, state that grantees should ensure all costs charged to NSF awards meet the requirements of the cost principles contained in 2 CFR § 200, Subpart E, grant terms and conditions, and any other specific requirements of both the award notice and the applicable program solicitation.

Inappropriately Allocated Publication Expenses

Arkansas charged one NSF award for \$1,464 in inappropriately allocated publication expenses, as illustrated in Table 10.¹³

Table 10: Inappropriately Allocated Publication Expenses

Expense Date	NSF Award Charged	Funding Sources Referenced/ Acknowledged	Amount Charged	Percent Allocable	Amount Inappropriately Allocated	Notes
September 2019	██████████	University Grant No. ██████████, NSF Award No. ██████████	\$2,928	50%	\$1,464	a

Source: Auditor summary of identified exception.

- a) In September 2019, Arkansas charged NSF Award No. ██████████ for \$2,948—or 100 percent—of the expenses incurred to publish a scientific report that acknowledged NSF Award No. ██████████ and an internal Arkansas grant. Because the report acknowledged that both grants contributed to the research \$1,464—or 50 percent—of the costs associated with this publication expense are not allocable to this award.

Conclusion

Arkansas did not have sufficient policies, procedures, or internal controls in place to ensure that it reasonably allocated costs incurred based on the relative benefits each NSF award received. Specifically, Arkansas did not require personnel to verify and/or justify that they had appropriately allocated travel and publication expenses to all funding sources that benefitted from the costs. We are therefore questioning \$6,203 of expenses that Arkansas inappropriately allocated to two NSF awards. Arkansas agreed with both exceptions in this finding, but only agreed to reimburse NSF for \$1,464 in questioned costs, as illustrated in Table 11.

Table 11: Finding 3 Summary: Inappropriately Allocated Expenses

NSF Award No.	Description	Fiscal Year	Questioned Costs			Arkansas Agreed to Reimburse
			Direct	Indirect	Total	
██████████	September 2019 Travel	2020	\$3,224	\$1,515	\$4,739	\$0
██████████	September 2019 Publication	2020	983	481	1,464	1,464
Total			<u>\$4,207</u>	<u>\$1,996</u>	<u>\$6,203</u>	<u>\$1,464</u>

¹³ According to 2 CFR § 200.461 (12/26/2014), *Publication and printing costs*, (b), page charges for professional journal publications are allowable where: (1) the publications report work supported by the federal government; and (2) the charges are levied impartially on all items published by the journal, whether or not under a federal award.

Source: Auditor summary of identified exceptions.

Recommendations

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

- 3.1 Resolve the \$4,739 in questioned inappropriately allocated travel expenses for which Arkansas has not agreed to reimburse NSF and direct Arkansas to repay or otherwise remove the sustained questioned costs from its NSF award.
- 3.2 Direct Arkansas to provide documentation supporting that it has repaid or otherwise credited the \$1,464 in questioned publication expenses for which it has agreed to reimburse NSF.
- 3.3 Direct Arkansas to strengthen its administrative and management controls and processes for supporting the **allocation** of travel expenses to sponsored projects. Updated processes could include:
 - Requiring Principal Investigators or other designated staff to both document and justify the allocation methodologies used when charging travel expenses to sponsored projects.
 - Implementing a standard documentation and retention process to support the allocation of travel expenses that benefit multiple awards.
- 3.4 Direct Arkansas to produce formal written guidance and provide training on how to assess and document the methodology used to allocate publication costs consistent with the benefits received by acknowledged funding sources.

University of Arkansas's Response: Arkansas agreed to reimburse NSF for \$1,464 in inappropriately allocated publication expenses but disagreed with the remaining \$4,739 in inappropriately allocated travel expenses. Specifically:

- Regarding the inappropriately allocated travel expenses, although Arkansas noted it agreed with the finding and will communicate to Principal Investigators, faculty, and staff their responsibility for ensuring compliance with regulations and appropriately allocating expenses, it noted it should not be required to reimburse the questioned costs because all awards that benefitted from the total travel costs were NSF awards.

Auditor's Additional Comments: Our position regarding this finding has not changed. Specifically, as Arkansas acknowledged that the travel benefitted multiple NSF awards, rather than solely NSF Award No. [REDACTED] our position regarding this finding has not changed.

FINDING 4: INDIRECT COST RATES INAPPROPRIATELY APPLIED

Arkansas did not apply indirect cost rates consistent with its **Negotiated Indirect Cost Rate** Agreements (NICRAs) when charging direct expenses to four NSF awards. Specifically, Arkansas did not consistently apply its indirect cost rate to its **Modified Total Direct Cost (MTDC)** base established in its NICRAs consistent with federal regulations.¹⁴ As a result, Arkansas charged \$4,276 in unallowable indirect costs to two NSF awards and did not appropriately charge indirect costs to two NSF awards, as illustrated in Table 12.¹⁵

Table 12: Indirect Cost Rates Inappropriately Applied

NSF Award Number	Expense Type	Transaction Date	Rate Applied (%)	Appropriate Rate (%)	Inappropriately Charged Indirect Costs	Notes
██████████	Supplies	04/01/2021	0.00	50.00	\$0	a
██████████	Equipment	06/25/2021	50.00	0.00	350	b
██████████	Equipment	04/01/2022	49.00	0.00	3,926	c
██████████	Other Direct Costs	07/19/2022	0.00	50.00	-	d
██████████	Other Direct Costs	07/19/2022	0.00	50.00	-	e

Source: Auditor summary of identified exceptions.

- a) In April 2021, Arkansas charged NSF Award No. ██████████ for \$3,623 in supplies that Arkansas inappropriately posted to an account that was excluded from Arkansas's MTDC base.
- b) In June 2021, Arkansas charged NSF Award No. ██████████ for \$700 in equipment shipping expenses that Arkansas inappropriately posted to an account that was included in Arkansas's MTDC base, rather than to the capitalized equipment account, consistent with the State of Arkansas's Capital Asset Guidelines.¹⁶ As such, Arkansas inappropriately charged \$350 in indirect costs to NSF Award No. ██████████
- c) In April 2022, Arkansas charged NSF Award No. ██████████ for \$8,012 in equipment expenses that Arkansas inappropriately posted to an account that was included in its MTDC base, rather than to the capitalized equipment account. As such, Arkansas inappropriately charged \$3,926 in indirect costs to NSF Award No. ██████████

¹⁴ According to 2 CFR § 200.68 (12/26/2014) and 2 CFR § 200.1 (Revised 11/12/2020), *Modified Total Direct Costs*, supplies, services, and travel are included in the MTDC; however, equipment and capital expenditures are excluded from MTDCs.

¹⁵ According to Arkansas's NICRAs dated May 20, 2020, and May 20, 2022, MTDCs consist of 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 of the subawards under the award). MTDCs shall exclude 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, as well as with the approval of the cognizant agency for indirect costs.

¹⁶ According to the State of Arkansas Capital Asset Guidelines, *Equipment*, expenditures to be capitalized as equipment include freight charges.

- d) In July 2022, Arkansas charged NSF Award No. [REDACTED] for \$2,700 in room rental expenses that Arkansas inappropriately posted to an account that was excluded from Arkansas’s MTDC base.
- e) In July 2022, Arkansas charged NSF Award No. [REDACTED] for \$3,402 in food service expenses that Arkansas inappropriately posted to an account that was excluded from Arkansas’s MTDC base.

Conclusion

Arkansas did not have sufficient policies, procedures, or internal controls in place to ensure that it appropriately charged equipment expenses to account codes that were correctly excluded from its MTDC base or that it included supplies and other direct costs in its MTDC base, consistent with its NICRA. We are therefore questioning \$4,276 in inappropriately charged indirect costs and noting three compliance exceptions for four NSF awards. Arkansas agreed to reimburse NSF for the \$4,276 in questioned costs, as illustrated in Table 13.

Table 13: Finding 4 Summary: Indirect Cost Rates Inappropriately Applied

NSF Award No.	Description	Fiscal Year	Questioned Costs			Arkansas Agreed to Reimburse
			Direct	Indirect	Total	
[REDACTED]	April 2021 Supplies Excluded from MTDC	2021	\$0	\$0	\$0	\$0
[REDACTED]	June 2021 Equipment Included in MTDC	2021	-	350	350	350
[REDACTED]	April 2022 Equipment Included in MTDC	2022	-	3,926	3,926	3,926
[REDACTED]	July 2022 Other Direct Costs Excluded from MTDC	2023	-	-	-	-
[REDACTED]	July 2022 Other Direct Costs Excluded from MTDC	2023	-	-	-	-
Total			<u>\$0</u>	<u>\$4,276</u>	<u>\$4,276</u>	<u>\$4,276</u>

Source: Auditor summary of identified exceptions.

Recommendations

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

- 4.1 Direct Arkansas to provide documentation supporting that it has repaid or otherwise credited the \$4,276 in questioned indirect costs for which it has agreed to reimburse NSF.

4.2 Direct Arkansas to strengthen its monitoring procedures for classifying equipment purchases. Updated procedures could include:

- Implementing an annual review process for costs exceeding \$5,000 charged to its “Other Costs” account to determine whether it should capitalize the expenses.
- Requiring that personnel manually review equipment invoices to ensure they have appropriately capitalized the shipping costs and have excluded the costs from the Modified Total Direct Cost base.

4.3 Direct Arkansas to strengthen its monitoring procedures to ensure it applies its indirect cost rates to all direct costs that should be included within its Modified Total Direct Cost base per its Negotiated Indirect Cost Rate Agreements.

University of Arkansas Response: Arkansas agreed with the finding and noted it will re-train Procurement Office staff on treatment of capitalized costs and remind Procurement Office staff of the importance of coding direct costs to the appropriate spend categories to ensure indirect costs are accurately charged.

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

FINDING 5: NON-COMPLIANCE WITH ARKANSAS PROFESSIONAL/CONSULTANT SERVICES POLICY

Arkansas did not always comply with its **professional/consultant services** policy¹⁷ when charging costs to one NSF award, as illustrated in Table 14.

Table 14: Non-Compliance with Arkansas Professional/Consultant Services Policy

Expense Date	NSF Award No.	Documentation Not Obtained	Notes
September 2021	██████████	Requisition Form, Vendor ID Form, Contract and Grant Disclosure, Immigrant Certification, and Equal Opportunity Policy	a

Source: Auditor summary of identified exception.

- a) In September 2021, Arkansas charged NSF Award No. ██████████ for \$17,573 in professional service expenses. Although Arkansas had a contract for the services, it did not obtain all of the documentation required per its professional/consultant services policy, including a requisition form, vendor ID form, contract and grant disclosure, immigrant certification, and equal opportunity policy.

¹⁷ According to Arkansas’s *Professional/Consultant Services* policy, acquired services between \$10,000 and \$20,000 require the completion of mandatory attachments that include the requisition form, vendor ID form, contract and grant disclosure, immigrant certification, and equal opportunity policy.

Conclusion

Arkansas did not have sufficient controls in place to ensure that it obtained the required documents for professional services with a cost between \$10,000 and \$20,000. Because this instance of non-compliance did not directly result in Arkansas charging unallowable costs to NSF Award No. [REDACTED] we are not questioning any costs related to the exception; however, we are noting a compliance finding for the instance in which Arkansas did not comply with its internal professional/consultant services policy, as illustrated in Table 15.

Table 15: Finding 5 Summary: Non-Compliance with Arkansas Professional/Consultant Services Policy

NSF Award No.	Compliance Exception Identified	Fiscal Year
[REDACTED]	Non-Compliance with Arkansas Professional/Consultant Services Policy	2022

Source: Auditor summary of identified exception.

Recommendation

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

- 5.1 Direct Arkansas to strengthen its procedures for confirming that it obtains all of the supporting documents required for professional services before the services are rendered.

University of Arkansas Response: Arkansas agreed with the finding and noted its *Fayetteville Policies and Procedures 324.0, Contracts for Services – Professional and Consultant Services (PCS) Contracts and Technical and General Services (TGS) Contracts* were revised on April 17, 2023. Additionally, Arkansas’s financial management system was modified to prompt and alert users of the required forms.

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

AREA FOR IMPROVEMENT: INSUFFICIENT CONTROLS RELATED TO THE APPLICATION OF INDIRECT COST RATES

Arkansas does not have a formally documented policy or procedure in place to ensure it consistently charges indirect costs using a rate no greater than the NICRA rate(s) in effect as of the NSF award date. Specifically, Arkansas does not have a formal process for documenting its decision to apply a proposed indirect cost rate when the proposed rate is different than the NICRA rate(s) effective at the time of the award.

As a result, Arkansas did not document that it verified its use of the proposed indirect cost rates would not result in indirect costs being overcharged to 10 NSF awards, as illustrated in Table 16.

Table 16: Proposed Indirect Cost Rates Applied

NSF Award Number	Award Date	Transaction Date	Rate Applied (%)	Appropriate Rate (%) ^{18, 19}
[REDACTED]	07/06/2017	05/31/2020	47.50	49.00
	08/18/2017	06/30/2020	47.50	49.00
	05/11/2018	05/24/2022	47.50	50.00
	07/10/2018	06/01/2022	49.00	50.00
[REDACTED]	08/15/2018	12/31/2020	49.00	50.00
		07/15/2021		
[REDACTED]	02/27/2019	06/30/2022	49.00	50.00
	06/06/2019	07/31/2020	49.00	50.00
	08/30/2019	04/01/2022	49.00	50.00
	09/17/2019	08/31/2020	49.00	50.00
	03/16/2020	10/12/2021	49.00	50.00

Source: Auditor summary of identified exceptions.

Conclusion

Because these instances of Arkansas charging indirect costs using proposed rates did not directly result in Arkansas charging unallowable costs to NSF awards, we are not noting a finding. However, we are noting an **area for improvement**, as Arkansas’s lack of a formal process and/or procedure for applying proposed indirect cost rates could cause Arkansas to charge unallowable costs to NSF awards if Arkansas’s indirect cost rates were to decrease in the future.

Consideration

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

- Directing Arkansas to develop formal policies and/or procedures regarding how to verify—and document its verification of—its election to use proposed indirect cost rates. This should address how Arkansas will ensure the decision to use proposed indirect cost rates will not result in NSF being overcharged for indirect costs when negotiated rates decrease within a single Negotiated Indirect Cost Rate Agreement or between the date an NSF award is proposed and the date it is awarded.

¹⁸ Arkansas’s NICRA dated April 4, 2017, established a predetermined indirect cost rate of 47.50 percent for on-campus research from July 1, 2016, to June 30, 2017. The same rate was provisional from July 1, 2017, to June 30, 2019. Arkansas’s NICRA dated February 20, 2018, established a predetermined indirect cost rate of 49.00 percent for on-campus research from July 1, 2017, to June 30, 2020.

¹⁹ Arkansas’s NICRAs dated April 17, 2018, and April 5, 2019, established a predetermined indirect cost rate of 49.00 percent for on-campus research from July 1, 2017, to June 30, 2020, and 50.00 percent for on-campus research from July 1, 2020, to June 30, 2021. The same rates were provisional from July 1, 2021, until amended.

COTTON & COMPANY ASSURANCE AND ADVISORY, LLC



Erin Mooney Meredith, CPA, CFE, CGFM

Partner

November 3, 2023

APPENDIX A: ARKANSAS'S RESPONSE

UAF Response to Audit Findings

Finding 1 Summary: ACM\$ Drawdowns That Exceeded Expenses

Arkansas did not appropriately draw down funding in ACM\$ for one NSF award, as required per federal regulations and NSF Proposal & Award Policies & Procedures Guides (PAPPGs). Specifically, Arkansas's ACM\$ draws for one NSF award exceeded the total expenses supported within its accounting system data by \$125,124, as illustrated in Table 3.

Table 3: Expenses Claimed in ACM\$ That Exceeded Accumulated Expenses

NSF Award No.	Cash Drawn per ACMS	Expenses per Arkansas's GL	Discrepancy	Notes
	\$227,566	\$102,442	\$125,124	a

U of A Response:

The University of Arkansas (U of A) agrees with the finding. Upon our identification of this issue U of A promptly returned the overdrawn funds to NSF on transaction #341192, dated December 7, 2023. U of A has since strengthened internal controls to include a full reconciliation of all NSF awards each month (inception to date expenses, inception to date draws, available to draw, etc.) to ensure ACM\$ drawdowns do not exceed actual expenses incurred for each award.

Finding 2 Summary: Unallowable Expenses

Arkansas charged four NSF awards a total of \$122,090 in expenses for salary, participant support costs, and equipment that were unallowable per federal regulations and NSF PAPPGs.

Unallowable Salary Expenses

Arkansas charged one NSF award for \$52,448 in salary expenses that did not benefit the award, as illustrated in Table 5.

Table 5: Unallowable Salary Expenses

Expense Date	NSF Award No.	Unallowable Total	Description	Notes
June 2022		\$52,448	Salary Incorrectly Charged to the Award	a



U of A Response:

U of A agrees with the finding. U of A credited \$22,069.38 of the unallowable charge on the award in the University's financial system, resulting in the return of funds to NSF. See below for the refund details.

Transaction #	Transaction Date	Amount
357385	5/04/2023	\$19,726.61
352525	03/23/2023	\$2,342.77

U of A will re-emphasize to program PIs, faculty, and staff the importance of their monthly review of award financial activity and time and effort reporting, as part of the overall process for ensuring salary and fringe benefit expenses are appropriately charged to awards in accordance with Uniform Guidance Cost Principles, NSF's PAPPGs and institutional policy. Additionally, U of A Office of Sponsored Programs (OSP) will continue to perform risk-based reviews of project expenses to further reduce the risk of noncompliance expenses.

Unallowable Use of Participant Support Funds

Arkansas used \$48,430 of participant support funding awarded on one NSF award to cover non-participant expenses, which is not allowable without prior NSF approval per federal regulations, as illustrated in Table 6.

Table 6: Unallowable Use of Participant Support Funds

Expense Date	NSF Award No.	Unallowable Total	Participant Support Funds Inappropriately Used to Cover:	Notes
July 2020		\$48,430	Equipment Expenses	a

U of A Response:

U of A agrees with the finding. While in this instance, U of A did obtain prior approval from the NSF Program Director, going forward U of A will make certain that such approvals are received from only the NSF Program Officer. U of A will re-emphasize to program PIs, faculty and staff NSF pre-approval requirements as set forth in NSF's PAPPG and the Research Terms and Conditions (RTC) Appendix A, Prior Approval Matrix. Additionally, OSP will be re-trained on prior approval requirements.

Unallowable Equipment Expenses

Arkansas charged two NSF awards for \$21,212 in duplicate and unallowable equipment expenses, as illustrated in Table 7.

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Table 7: Unallowable Equipment Expenses

Expense Date	NSF Award No.	Unallowable Total	Description	Notes
June 2021	[REDACTED]	\$13,200	Duplicate Equipment Expenses	a
April 2022	[REDACTED]	8,012	Equipment Expenses Incorrectly Charged to Award	b

U of A Response:

U of A agrees with the finding. U of A will re-emphasize to program PIs, faculty, and staff the importance of their monthly review of award financial activity, as part of the overall process for ensuring all expenses are appropriately charged to awards in accordance with Uniform Guidance Cost Principles, NSF's (PAPPG) and institutional policy. Additionally, OSP will continue to perform risk-based reviews of project expenses to further reduce the risk of noncompliance expenses.

Finding 3: Inappropriately Allocated Expenses

Arkansas did not always allocate expenses to NSF awards based on the relative benefits the awards received, as required by both federal regulations and NSF PAPPGs. As a result, Arkansas inappropriately charged two NSF awards for a total of \$6,203 in inappropriately allocated expenses.

Inappropriately Allocated Travel Expenses

Arkansas charged one NSF award for \$4,739 in inappropriately allocated travel expenses, as illustrated in Table 9.

Table 9: Inappropriately Allocated Travel Expenses

Expense Date	Amount Charged	NSF Award Charged	Funding Sources Referenced/Acknowledged	Percent Allocable	Amount Inappropriately Allocated	Notes
September 2019	\$6,318	[REDACTED]	NSF Award Nos. [REDACTED]	25%	\$4,739	a

U of A Response:

U of A agrees with the finding. The U of A will continue to actively communicate with program PIs, faculty, and staff their primary responsibility for ensuring compliance with federal, sponsor and university regulations, including appropriate allocation of expenses. While U of A agrees with the finding, we would disagree with reimbursing NSF for the amount deemed as inappropriately



allocated because the \$6,318 total amount charged was allocated in its entirety to awards sponsored by NSF.

Inappropriately Allocated Publication Expenses

Arkansas charged one NSF award for \$1,464 in inappropriately allocated publication expenses, as illustrated in Table 10.

Table 10: Inappropriately Allocated Publication Expenses

Expense Date	Amount Charged	NSF Award Charged	Funding Sources Referenced/Acknowledged	Percent Allocable	Amount Inappropriately Allocated	Notes
September 2019	\$2,928	[REDACTED]	University Grant No. [REDACTED] NSF Award No. [REDACTED]	50%	\$1,464	a

U of A Response:

U of A agrees with the finding. U of A will re-emphasize to program PIs, faculty, and staff their primary responsibility for ensuring compliance with federal, sponsor and university regulations, including appropriate allocation of award costs. Additionally, OSP will continue to perform risk-based reviews of project expenses to further reduce the risk of noncompliance expenses.

Finding 4: Indirect Cost Rates Inappropriately Applied

Arkansas did not apply indirect cost rates consistent with its **Negotiated Indirect Cost Rate Agreements (NICRAs)** when charging direct expenses to four NSF awards. Specifically, Arkansas did not consistently apply its indirect cost rate to its **Modified Total Direct Cost (MTDC)** base established in its NICRAs consistent with federal regulations. As a result, Arkansas charged \$4,276 in unallowable indirect costs to two NSF awards, as illustrated in Table 12.

Table 12: Indirect Cost Rates Inappropriately Applied

NSF Award Number	Expense Type	Transaction Date	Rate Applied (%)	Appropriate Rate (%)	Inappropriately Charged Indirect Costs	Notes
[REDACTED]	Equipment	4/1/2022	49	0	\$3,926	a
[REDACTED]	Equipment	6/25/2021	50	0	350	b
[REDACTED]	Supplies	4/1/2021	0	50	-	c
[REDACTED]	Other Direct Costs	7/19/2022	0	50	-	d
[REDACTED]	Other Direct Costs	7/19/2022	0	50	-	e

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U of A Response:

U of A agrees with the finding. In Workday, the U of A's administrative system for Finance, Procurement, Human Capital Management and Payroll administration, indirect costs are associated with and automatically charged against certain Spend Categories. The coding of the underlying direct charges to the correct Spend Categories is critical to indirect costs being accurately charged to awards.

U of A will remind the Procurement Office staff of their primary responsibility for ensuring that expenses are correctly coded in Workday, and the importance of proper coding as it relates to direct charging of sponsored projects. U of A will also re-train the Procurement Office specifically on capitalization thresholds, equipment coding consistent with proscribed thresholds, and the treatment of other capitalizable costs such as shipping and handling.

Finding 5: Non-Compliance with Arkansas Professional Services Policy

Arkansas did not always comply with its professional services policy when charging costs to one NSF award, as illustrated in Table 14.

Table 14: Non-Compliance with Arkansas Professional Services Policy

Expense Date	NSF Award No.	Documentation Not Obtained	Notes
September 2021	[REDACTED]	Requisition Form, Vendor ID Form, Contract and Grant Disclosure, Immigrant Certification, and Equal Opportunity Policy	a

U of A Response:

U of A agrees with the finding. Fayetteville Policies and Procedures 324.0, *Contracts for Services – Professional and Consultant Services (PCS) Contracts and Technical and General Services (TGS) Contracts*, was revised effective April 17, 2023, to update form requirements associated with various contract dollar thresholds. In addition, Workday was modified to include system alerts prompting the use of all required forms.

[REDACTED]

Oct. 6, 2023

Margaret Sova McCabe
Vice Chancellor for Research and Innovation

Date

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APPENDIX B: OBJECTIVES, SCOPE, AND METHODOLOGY

Objectives

The NSF OIG Office of Audits engaged Cotton & Company Assurance and Advisory, LLC (referred to as “we”), to conduct an audit of the costs that the University of Arkansas (Arkansas) claimed on NSF awards during the audit period of performance (POP) of October 1, 2019, through September 30, 2022. The objectives of the audit were to evaluate Arkansas’s award management environment; to determine if costs claimed were allowable, allocable, reasonable, and in compliance with NSF award terms and conditions and applicable federal financial assistance requirements; and to determine whether any extraordinary circumstances existed that would justify further audit work beyond the original sample of 40 to 50 transactions.

Scope

The audit population included approximately \$36.6 million in expenses that Arkansas claimed on 215 NSF awards during our audit POP of October 1, 2019, through September 30, 2022.

Methodology

After obtaining NSF OIG’s approval for our audit plan, we performed each of the approved audit steps. Generally, these steps included:

- Assessing the reliability of the general ledger (GL) data that Arkansas provided by comparing the costs charged to NSF awards per Arkansas’s accounting records to the reported net expenditures reflected in the Award Cash Management Service (ACM\$) drawdown requests.
 - Our work required us to rely on computer-processed data obtained from Arkansas and NSF OIG. NSF OIG provided award data that Arkansas reported through NSF’s ACM\$ during our audit period.
 - We assessed the reliability of the GL data that Arkansas provided by: (1) comparing the costs charged to NSF awards per Arkansas’s accounting records to the reported net expenditures reflected in the ACM\$ drawdown requests that Arkansas submitted to NSF during the audit POP; and (2) reviewing the parameters that Arkansas used to extract transaction data from its accounting systems. We found Arkansas’s computer-processed data to be sufficiently reliable for the purposes of the audit. We did not identify any exceptions with the parameters that Arkansas 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 2021 found no

reportable instances in which NSF's financial management systems did not substantially comply with applicable requirements.

- Arkansas provided detailed transaction-level data to support \$36,648,597 in costs charged to NSF awards during the period, which was less than the \$36,773,267 Arkansas claimed in ACM\$ for the 215 awards. This data resulted in a total audit universe of \$36,648,597 in expenses claimed on 215 NSF awards.
 - Although Arkansas provided GL data to support the majority of the costs claimed, Arkansas did not support a portion of the costs claimed. As such, we questioned the unsupported drawdown amount in **Finding 1**.
- Obtaining and reviewing all available accounting and administrative policies and procedures, external audit reports, desk review reports, and other relevant information that Arkansas and NSF OIG provided, as well as any other relevant information that was available online.
- Summarizing our understanding of federal, NSF, and Arkansas-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 Arkansas's internal controls within the audit's scope solely to understand the directives or policies and procedures Arkansas has in place to ensure that charges against NSF awards complied with relevant federal regulations, NSF award terms and conditions, and Arkansas policies.
- Providing Arkansas with a list of 50 transactions that we selected based on the results of our data analytics and requesting that Arkansas provide documentation to support each transaction.
- Reviewing the supporting documentation Arkansas 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,²⁰ NSF,²¹ and Arkansas policies.²²

²⁰ We assessed Arkansas's compliance with 2 CFR Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (versions effective 12/26/2014 and 11/12/2020).

²¹ We assessed Arkansas's compliance with NSF Proposal and Award Policies and Procedures Guides (PAPPGs) 15-1, 16-1, 17-1, 18-1, 19-1, 20-1, and 22-1 and with NSF award-specific terms and conditions, as appropriate.

²² We assessed Arkansas's compliance with internal Arkansas policies and procedures surrounding costs budgeted for or charged to NSF awards.

- Holding virtual interviews and walkthroughs with Arkansas in April 2023 to discuss payroll (including fringe benefits and effort reporting), travel, participant support costs, procurement, equipment (including an inventory check), other direct costs (e.g., patent, relocation, recruiting, interest, advertising/public relations, entertainment, fundraising, lobbying, selling/marketing, training costs), subawards, ACM\$ processing, indirect costs, and other general policies (e.g., pre- and post-award costs, program income, whistle-blower information, research misconduct, 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.²³

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 Arkansas personnel to ensure that Arkansas was aware of each of our findings and to verify 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* (GAGAS) 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.

²³ Based on the areas of elevated risk of noncompliance identified during the initial phase, we determined that there was no need for an expanded audit phase.

APPENDIX C: SUMMARY OF QUESTIONED COSTS

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

Finding	Description	Questioned Costs		
		<i>Unsupported</i>	<i>Unallowable</i>	Total
1	ACM\$ Drawdowns That Exceeded Expenses	\$125,124	\$0	\$125,124
2	Unallowable Expenses	-	122,090	122,090
3	Inappropriately Allocated Expenses	-	6,203	6,203
4	Indirect Cost Rates Inappropriately Applied	-	4,276	4,276
5	Non-Compliance with Arkansas Professional/Consultant Services Policy	-	-	-
Total		<u>\$125,124</u>	<u>\$132,569</u>	<u>\$257,693</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	Arkansas Agreed to Reimburse
	1	\$3,224	\$1,515	\$4,739	\$0
	1	48,430	-	48,430	48,430
	1	125,124	-	125,124	125,124
	1	35,200	17,248	52,448	52,448
	1	983	481	1,464	1,464
	2	8,012	3,926	11,938	11,938
	2	-	-	-	-
	2	8,800	4,750	13,550	13,550
	2	-	-	-	-
Total	13	<u>\$229,773</u>	<u>\$27,920</u>	<u>\$257,693</u>	<u>\$252,954</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	Arkansas Agreed to Reimburse
1) ACM\$ Drawdowns That Exceeded Expenses	██████	Funding Claimed in ACM\$ That Exceeded Accumulated Expenses	2022	\$125,124	\$0	\$125,124	\$125,124
2) Unallowable Expenses	██████	June 2022 Salary	2022	\$35,200	\$17,248	\$52,448	\$52,448
2) Unallowable Expenses	██████	July 2020 Non-Participant Equipment	2021	48,430	-	48,430	48,430
2) Unallowable Expenses	██████	June 2021 Duplicate Equipment	2021	8,800	4,400	13,200	13,200
2) Unallowable Expenses	██████	April 2022 Equipment	2022	8,012	-	8,012	8,012
3) Inappropriately Allocated Expenses	██████	September 2019 Travel	2020	\$3,224	\$1,515	\$4,739	\$0
3) Inappropriately Allocated Expenses	██████	September 2019 Publication	2020	983	481	1,464	1,464
4) Indirect Cost Rates Inappropriately Applied	██████	April 2021 Supplies Excluded from MTDC	2021	-	-	-	-
4) Indirect Cost Rates Inappropriately Applied	██████	June 2021 Equipment Included in MTDC	2021	-	350	350	350
4) Indirect Cost Rates Inappropriately Applied	██████	April 2022 Equipment Included in MTDC	2022	-	3,926	3,926	3,926
4) Indirect Cost Rates Inappropriately Applied	██████	July 2022 Other Direct Costs Excluded from MTDC	2023	-	-	-	-
4) Indirect Cost Rates Inappropriately Applied	██████	July 2022 Other Direct Costs Excluded from MTDC	2023	-	-	-	-
5) Non-Compliance with Arkansas Professional/Consultant Services Policy	██████	Non-Compliance with Arkansas Professional/Consultant Services Policy	2022	-	-	-	-
Total				\$229,773	\$27,920	\$257,693	\$252,954

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 Arkansas to provide documentation supporting that it has repaid or otherwise credited the \$125,124 in questioned Award Cash Management Service drawdowns for which it has agreed to reimburse NSF.
- 1.2. Direct Arkansas to strengthen its administrative and management internal controls and processes over its Award Cash Management Service reconciliation process. Updated controls could include requiring that an individual who is independent from the standard Award Cash Management Service drawdown process perform periodic reconciliations of Award Cash Management Service drawdowns to Arkansas's general ledger expenses for each NSF award.
- 2.1. Direct Arkansas to provide documentation supporting that it has repaid or otherwise credited the \$122,090 in questioned salary, participant support, and equipment expenses for which it has agreed to reimburse NSF.
- 2.2. Direct Arkansas to implement additional policies or procedures that address how to ensure it obtains required approval from the NSF Program Officer before re-budgeting participant support cost funding.
- 2.3. Direct Arkansas to strengthen its procedures for charging salary and equipment expenses to ensure the expenses are budgeted, allowable, and allocable to the specific award prior to charging the expenses to the NSF award.
- 3.1. Resolve the \$4,739 in questioned inappropriately allocated travel expenses for which Arkansas has not agreed to reimburse NSF and direct Arkansas to repay or otherwise remove the sustained questioned costs from its NSF award.
- 3.2. Direct Arkansas to provide documentation supporting that it has repaid or otherwise credited the \$1,464 in questioned publication expenses for which it has agreed to reimburse NSF.
- 3.3. Direct Arkansas to strengthen its administrative and management controls and processes for supporting the allocation of travel expenses to sponsored projects. Updated processes could include:
 - Requiring Principal Investigators or other designated staff to both document and justify the allocation methodologies used when charging travel expenses to sponsored projects.
 - Implementing a standard documentation and retention process to support the allocation of travel expenses that benefit multiple awards.

- 3.4 Direct Arkansas to produce formal written guidance and provide training on how to assess and document the methodology used to allocate publication costs consistent with the benefits received by acknowledged funding sources.
- 4.1 Direct Arkansas to provide documentation supporting that it has repaid or otherwise credited the \$4,276 in questioned indirect costs for which it has agreed to reimburse NSF.
- 4.2 Direct Arkansas to strengthen its monitoring procedures for classifying equipment purchases. Updated procedures could include:
- Implementing an annual review process for costs exceeding \$5,000 charged to its “Other Costs” account to determine whether it should capitalize the expenses.
 - Requiring that personnel manually review equipment invoices to ensure they have appropriately capitalized the shipping costs and have excluded the costs from the Modified Total Direct Cost base.
- 4.3 Direct Arkansas to strengthen its monitoring procedures to ensure it applies its indirect cost rates to all direct costs that should be included within its Modified Total Direct Cost base per its Negotiated Indirect Cost Rate Agreements.
- 5.1 Direct Arkansas to strengthen its procedures for confirming that it obtains all of the supporting documents required for professional services before the services are rendered.

Additionally, we suggest that NSF's Director of the Division of Institution and Award Support consider:

- Directing Arkansas to develop formal policies and/or procedures regarding how to verify—and document its verification of—its election to use proposed indirect cost rates. This should address how Arkansas will ensure the decision to use proposed indirect cost rates will not result in NSF being overcharged for indirect costs when negotiated rates decrease within a single Negotiated Indirect Cost Rate Agreement or between the date an NSF award is proposed and the date it is awarded.

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: costs must meet the following general criteria in order to be allowable under Federal awards: (a) Be necessary and reasonable (b) Conform to any limitations or exclusions set forth in these principles or in the Federal award (c) Be consistent with policies and procedures (d) Be accorded consistent treatment (e) Be determined in accordance with generally accepted accounting principles (GAAP) (f) Not be included as a cost or used to meet cost sharing or matching requirements of any other federally-financed program (g) Be adequately documented. (2 CFR § 200.403 and Revised 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.

Area for Improvement. For the purposes of this report, an area for improvement represents a condition that does not constitute the grantee's non-compliance but warrants the attention of the grantee and NSF management.

[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. (2 CFR § 200.459)

[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 and Revised 2 CFR § 200.1)

[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. (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). 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 and Revised 2 CFR §

200.1)

[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 and Award Policies and 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 20-1)

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

Questioned Cost. §5(f)(1) a cost that is questioned by the Office because of-(A) an alleged violation of a provision of a law, regulation, contract, grant, cooperative agreement, or other agreement or document governing the expenditure of funds; (B) a finding that, at the time of the audit, such cost is not support by adequate document; or (C) a finding that the expenditure of funds for the intended purpose is unnecessary or unreasonable.

[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. (Revised 2 CFR § 200.430)

[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.](#)

Unsupported Cost. §5(f)(2) a cost that is questioned by the Office because the Office found that, at the time of the audit, such cost is not supported by adequate documentation. Unsupported Cost is a subset of and included in Questioned Costs.

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

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Pursuant to Pub. L. No. 117-263 § 5274, business entities and non-governmental organizations specifically identified in this report have 30 days from the date of report publication to review this report and submit a written response to NSF OIG that clarifies or provides additional context for each instance within the report in which the business entity or non-governmental organizations is specifically identified. Responses that conform to the requirements set forth in the statute will be attached to the final, published report.

If you find your business entity or non-governmental organization was specifically identified in this report and wish to submit comments under the above-referenced statute, please send your response to OIGPL117-263@nsf.gov, no later than December 20, 2023. We request that comments be in .pdf format, be free from any proprietary or otherwise sensitive information, and not exceed two pages. Please note, a response that does not satisfy the purpose set forth by the statute will not be attached to the final report.