

# Performance Audit of Incurred Costs – Mississippi State University

REPORT PREPARED BY COTTON & COMPANY  
ASSURANCE AND ADVISORY, LLC





# At a Glance

Performance Audit of Incurred Costs – Mississippi State University  
OIG 24-1-005 | January 26, 2024

## 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 Mississippi State University (MSU) incurred on 123 NSF awards during the period of November 1, 2019, to October 31, 2022. The auditors tested more than \$1 million of the approximately \$27.7 million of costs claimed during the period. The audit objective was to determine if costs claimed by MSU 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 MSU's compliance with certain federal and NSF award requirements, NSF award terms and conditions, and MSU policies. The auditors questioned \$34,314 of costs claimed by MSU during the audit period. Specifically, the auditors found \$23,205 of unallowable expenses, \$6,063 of inappropriately applied indirect costs, \$2,538 of inappropriately allocated graduate student expenses, and \$2,508 of inappropriate Award Cash Management Service drawdowns. The auditors also identified two compliance related findings for which there were no questioned costs: inadequate features of the financial management system and non-compliance with MSU policies and procedures. In addition to the six findings, the audit report includes one area for improvement for MSU to consider related to insufficient controls over 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 and one area for improvement in the report with associated recommendations for NSF to direct MSU to provide documentation supporting that it repaid or otherwise credited the questioned costs and to ensure MSU strengthens administrative and management controls.

## AUDITEE RESPONSE

MSU generally agreed with the findings in the audit report and agreed to reimburse NSF for the \$34,314 in questioned costs. MSU's response is attached to the report, in its entirety, as Appendix A.

## CONTACT US

For congressional, media, and general inquiries, email [OIGPublicAffairs@nsf.gov](mailto:OIGPublicAffairs@nsf.gov).



**NATIONAL SCIENCE FOUNDATION**  
**Office of Inspector General**

**MEMORANDUM**

**DATE:** January 26, 2024

**TO:** Quadira Dantro  
Director  
Division of Institution and Award Support

Jamie French  
Director  
Division of Grants and Agreements

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

**SUBJECT:** Final Report No. 24-1-005, *Mississippi State University*

This memorandum transmits the Cotton & Company Assurance and Advisory, LLC (C&C) report for the audit of costs charged by Mississippi State University (MSU) to 123 NSF awards during the period of November 1, 2019, to October 31, 2022. The audit encompassed more than \$1 million of the approximately \$27.7 million of costs claimed during the period. The audit objective was to determine if costs claimed by MSU 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 Jae Kim at 703-292-7100 or [OIGPublicAffairs@nsf.gov](mailto: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 Mississippi State University (MSU) 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 MSU policies and procedures. Specifically, the audit report includes six findings, one area for improvement, and a total of \$34,314 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 MSU incurred for the period from November 1, 2019, to October 31, 2022. The audit objectives included evaluating MSU’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 in [Appendix B](#).

## AUDIT CRITERIA

The audit team assessed MSU’s compliance with 2 Code of Federal Regulations (CFR) 200 (versions effective 12/26/2014 and 11/12/2020); 2 CFR 220; 2 CFR 215; NSF Proposal and Award Policies and Procedures Guides (PAPPGs) 14-1, 15-1, 17-1, 19-1, 20-1, and 22-1; NSF award terms and conditions; and MSU 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 \$34,314 in direct and indirect costs that MSU inappropriately claimed during the audit period, including:

- \$23,205 of unallowable expenses
- \$6,063 of indirect cost rates inappropriately applied
- \$2,538 of inappropriately allocated graduate student expenses
- \$2,508 of inappropriate Award Cash Management Service (ACM\$) drawdowns

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

- Inadequate financial management system
- Non-compliance with MSU policies and procedures

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

- Insufficient controls related to the application of indirect cost rates

## RECOMMENDATIONS

The audit report includes 17 recommendations and 1 consideration for NSF’s Director of the Division of Institution and Award Support related to resolving the \$34,314 in questioned costs and ensuring MSU strengthens its award management environment, as summarized in [Appendix D](#).

## AUDITEE RESPONSE

MSU generally agreed with the findings in the audit report and agreed to reimburse NSF for the \$34,314 in questioned costs. MSU’s response is attached, in its entirety, to the report as [Appendix A](#).

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## Abbreviations

<b>ACM\$</b>	Award Cash Management Service
<b>CFR</b>	Code of Federal Regulations
<b>FY</b>	Fiscal Year
<b>GAGAS</b>	Generally Accepted Government Auditing Standards
<b>GL</b>	General Ledger
<b>IHE</b>	Institute of Higher Education
<b>MSU</b>	Mississippi State University
<b>MTDC</b>	Modified Total Direct Cost
<b>NICRA</b>	Negotiated Indirect Cost Rate Agreement
<b>NSF</b>	National Science Foundation
<b>OIG</b>	Office of Inspector General
<b>PAPPG</b>	Proposal and Award Policies and Procedures Guide
<b>PI</b>	Principal Investigator
<b>POP</b>	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 incurred by Mississippi State University (MSU). MSU is a public institution of higher learning located in Starkville, Mississippi. In fiscal year (FY) 2022, MSU reported approximately \$619.8 million in operating revenues, with \$168.8 million received from federal grants and contracts—including NSF—as illustrated in Figure 1.

**Figure 1: MSU’s FY 2022 Operating Revenues**



Source: The chart data is supported by MSU’s Consolidated Financial Report for the Year Ended June 30, 2022. (<https://www.rpa.msstate.edu/sites/www.rpa.msstate.edu/files/2023-04/FY22Financials.pdf>) The photo of MSU’s campus is publicly available on MSU’s website. (<https://www.msstate.edu/newsroom/article/2016/07/new-residence-halls-highlight-campus-capital-improvements>)

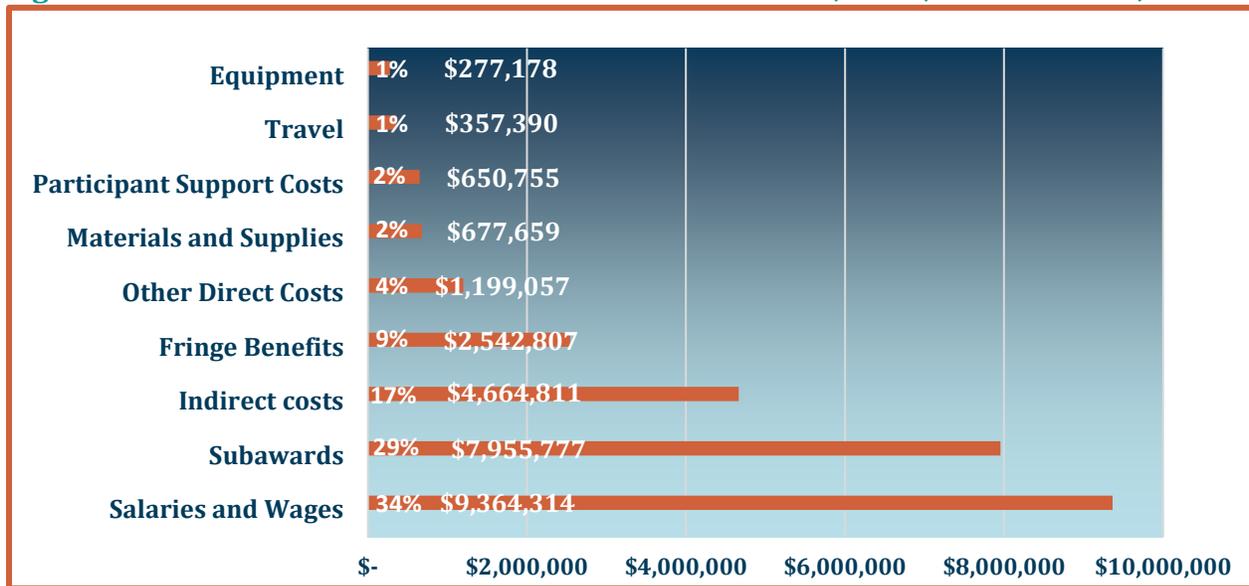
## AUDIT SCOPE

This performance audit—conducted under Order No. 140D0422F0880—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 MSU’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, MSU provided general ledger (GL) data to support the \$27.7 million in expenses it claimed on 123 NSF awards during our audit [period of performance \(POP\)](#) of November 1, 2019, to October 31, 2022.

**Figure 2: Costs Claimed on NSF Awards from November 1, 2019, to October 31, 2022<sup>1</sup>**



Source: Auditor analysis of accounting data MSU provided, illustrating the total costs (\$27,689,748) by expense type, using financial information to support costs incurred on NSF awards during the audit period. The “Other Direct Costs” category includes other direct costs, consultant services, computer services, and publications.

<sup>1</sup> Although we identified one instance in which MSU inappropriately drew down funding from NSF’s Award Cash Management Service (ACM\$) (See [Finding 4: Inappropriate Award Cash Management Service Drawdowns](#)), because the remainder of MSU’s GL expense data materially reconciled to the cash MSU drew down per NSF’s ACM\$ records, we determined that the GL data was appropriate for the purposes of this engagement.

We judgmentally selected 44 transactions totaling \$1,023,295<sup>2</sup> (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 <sup>3</sup>
Subawards	3	\$332,962
Participant Support Costs	3	261,463
Indirect Costs	1	101,103
Other Direct Costs	9	76,913
Salaries and Wages	9	71,706
Equipment	3	63,042
Materials and Supplies	5	47,388
Consultant Services	3	45,730
Travel	3	8,361
Fringe Benefits	3	7,728
Computer Services	1	3,899
Publications	1	3,000
<b>Total</b>	<b><u>44</u></b>	<b><u>\$1,023,295</u></b>

Source: Auditor summary of selected transactions.

## AUDIT RESULTS

We identified and questioned \$34,314 in costs that MSU charged to eight NSF awards. We also identified expenses that MSU charged to 13 NSF awards that did not result in questioned costs but did result in non-compliance with federal, NSF, and/or MSU-specific policies and procedures. Finally, we identified one area in which MSU should consider strengthening its controls to ensure it does not overcharge NSF awards for indirect costs 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.

<sup>2</sup> The \$1,023,295 represents the total value of the 44 transactions selected for transaction-based testing. It does not represent the dollar base of the total costs reviewed during the audit.

<sup>3</sup> 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**.

**Table 2: Summary of Questioned Costs by Finding Area**

Finding Description	Questioned Costs
Unallowable Expenses	\$23,205
Inappropriately Applied Indirect Cost Rates	6,063
Inappropriately Allocated Graduate Student Expenses	2,538
Inappropriate ACM\$ Drawdowns	2,508
Inadequate Financial Management System	-
Non-Compliance with MSU Policies and Procedures	-
<b>Total</b>	<b><u>\$34,314</u></b>

Source: Auditor summary of findings identified.

We made 17 recommendations and identified 1 consideration for NSF's Director of the Division of Institution and Award Support related to resolving the \$34,314 in questioned costs and ensuring MSU strengthens its administrative and management procedures for monitoring federal funds. We communicated our audit results and the related findings, area for improvement, recommendations, and consideration to MSU and NSF OIG. We included MSU's response to this report, in its entirety, in [Appendix A](#).

### **FINDING 1: UNALLOWABLE EXPENSES**

MSU charged four NSF awards a total of \$23,205 in [consultant](#) and [participant support cost](#) expenses that were unallowable under federal regulations,<sup>4</sup> [NSF Proposal and Award Policies and Procedures Guides \(PAPPGs\)](#),<sup>5</sup> and MSU policies.

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<sup>4</sup> According to 2 Code of Federal Regulations (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. See [Appendix E](#) of this report for additional factors affecting the allowability of costs.

<sup>5</sup> NSF PAPPGs 15-1, Part II, Chapter V, Section A, and 19-1 and 20-1, 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. Additionally, the grantee organization is responsible for ensuring that all costs charged to NSF awards meet the requirements of the grant terms and conditions.

### ***Unallowable Consultant Expenses***

MSU charged three NSF awards for \$16,106 in consulting expenses that were not supported as allowable per federal regulations,<sup>6</sup> NSF PAPPGs,<sup>7</sup> and MSU policies.<sup>8</sup>

**Table 3: Unallowable Consultant Expenses**

<b>Expense Date(s)</b>	<b>NSF Award No.</b>	<b>Unallowable Total</b>	<b>Unallowable Expenses Associated With</b>	<b>Notes</b>
January 2020 – April 2021	██████████	\$9,458	Intra-University Consulting Services	<b>a</b>
July 2020	██████████	3,696	Lack of Consulting Agreement	<b>b</b>
July 2022	██████████	2,952	Unallowable Conference Expenses	<b>c</b>

*Source: Auditor summary of identified exceptions.*

- a) Between January 2020 and April 2021, MSU charged NSF Award No. ██████████ for \$9,458 in intra-Institute of Higher Education (IHE) consulting services for an MSU employee to perform evaluation services for the award. Although MSU requested funding to hire an external consultant to provide evaluation services in its award budget, MSU did not execute a consulting agreement to support either the scope of the services provided or the dollar amount that it would reimburse for those services. Further, MSU did not request or receive NSF approval for an intra-IHE consulting arrangement. Specifically, MSU noted that, because the employee who performed the evaluation did not receive additional payment for the services (the employee’s department billed MSU and MSU paid the department, rather than the employee), MSU did not request or submit a contract or request approval to pay the intra-IHE services invoiced by the employee’s department.
- b) In July 2020, MSU charged NSF Award No. ██████████ for \$3,696 in expenses associated with a payment made to an independent consultant for services that were not supported by a consulting agreement that identified the scope of the services provided or the dollar amount that MSU agreed to pay the consultant. Further, MSU noted that \$340 of the direct costs paid to the consultant—who also performs services for the University of ██████████—occurred because the consultant

<sup>6</sup> Per 2 CFR § 200.459 (12/26/2014) and 2 CFR § 200.459 (Revised 11/12/2020), *Professional service costs*, when determining the allowability of professional service costs, relevant factors include the adequacy of the contractual agreement for the service (e.g., description of the service, estimate of time required, rate of compensation, and termination provisions). Further, per 2 CFR § 200.430 (12/26/2014) (h)(3), *Intra-Institution of Higher Education (IHE) consulting*, intra-IHE consulting by faculty should be undertaken as an IHE responsibility requiring no additional compensation unless an intra-IHE consulting arrangement is specifically provided for in the federal award or approved in writing by the awarding agency.

<sup>7</sup> Per NSF PAPPGs 15-1 and 20-1, Part I, Chapter II, Section C.2.g(vi)(c), *Consultant Services (also referred to as Professional Service Costs)*, costs of professional and consultant services are allowable when reasonable in relation to the services rendered and allowable per 2 CFR § 200.459.

<sup>8</sup> According to MSU’s *Outside Employment and Consulting* policy, employees must obtain an approved outside employment request form before providing consulting services. According to MSU’s *Securing and Paying for Honorarium, Speakers, Consultants and Independent Contractors* policy, after Human Resource Management approves the classification checklist, MSU may initiate and approve a service contract following its *Contract Guidelines*.

applied the University of [REDACTED] fringe benefit rate to the direct costs invoiced. This application of fringe benefits would not be allowable, as the consultant did not provide the services through an agreement with the University of [REDACTED]

- c) In July 2022, MSU charged NSF Award No. [REDACTED] for \$12,538 in expenses associated with costs that a consultant invoiced to host and attend a number of grant-related conferences. Although the majority of the expenses invoiced appeared to be allowable and allocable to the NSF award, \$2,952<sup>9</sup> of the amount charged was associated with unallowable travel expenses,<sup>10</sup> including costs incurred to host a social activity<sup>11</sup>—specifically, a banquet dinner that included unallowable alcohol expenses<sup>12</sup>—and expenses claimed for miscellaneous meals that the consultant did not support with itemized receipts.<sup>13</sup>

***Unallowable Use of Participant Support Funds***

MSU used \$7,099 of participant support funding awarded on one NSF award to cover non-participant expenses, which is not allowable without prior NSF approval per NSF Research Terms and Conditions,<sup>14</sup> as illustrated in Table 4.

**Table 4: Unallowable Use of Participant Support Funds**

Expense Date	NSF Award No.	Amount of Participant Funds	Participant Funds Used to Cover	Notes
June 2022	[REDACTED]	\$7,099	Consultant Costs	a

Source: Auditor summary of identified exception.

- a) In June 2022, MSU inappropriately used \$7,099 in participant support cost funds budgeted for NSF Award No. [REDACTED] to cover costs incurred to hire a consultant to host an award-related workshop. Because the consultant was not a conference participant and because MSU did not receive or request approval to rebudget participant support cost funding to cover consultant costs, these costs are unallowable.

<sup>9</sup> Because MSU charged the NSF award for one-third of the invoiced costs, we questioned one-third of the \$6,086 in unallowable costs invoiced by the consultant and the associated indirect costs.

<sup>10</sup> According to 2 CFR § 200.475 (Revised 11/12/2020), *Travel costs*, travel costs are allowable only to the extent that such costs do not exceed charges normally allowed by the non-federal entity in its regular operations as the result of the non-federal entity’s written travel policy. Further, the regulations note that if the non-federal entity charges these costs directly to the federal award, documentation must justify that the individual’s participation is necessary to the federal award and that the costs are reasonable and consistent with the non-federal entity’s established travel policy.

<sup>11</sup> According to 2 CFR § 200.438 (Revised 11/12/2020), *Entertainment costs*, costs of entertainment—including amusement, diversion, and social activities—and any associated costs are unallowable.

<sup>12</sup> Per 2 CFR § 200.423 (Revised 11/12/2020), *Alcoholic beverages*, costs of alcoholic beverages are unallowable.

<sup>13</sup> MSU’s *Travel Services Guidelines* requires receipts for expenses that exceed \$10.

<sup>14</sup> According to NSF’s *Research Terms & Conditions* (effective February 25, 2019), Appendix A, *Prior Approval Matrix*, dated December 10, 2018, the grantee must obtain written approval from NSF to transfer funds budgeted for participant support costs to other categories of expense.

## Conclusion

MSU did not have sufficient policies and procedures or internal controls in place to ensure it only charged allowable costs to NSF awards. Specifically, MSU’s policies, procedures, and internal controls did not always ensure that MSU appropriately established consulting agreements prior to paying consulting expenses, only reimbursed consultants for allowable costs, and only used participant support cost funding to support workshop participants. We are therefore questioning \$23,205 of unallowable expenses charged to four NSF awards. MSU concurred with the \$23,205 in questioned costs, as illustrated in Table 5.

**Table 5: Finding 1 Summary: Unallowable Expenses**

NSF Award No.	Description	Fiscal Year	Questioned Costs			MSU Agreed to Reimburse
			Direct	Indirect	Total	
██████	January 2020 – April 2021 Consultant Services	2021	\$6,500	\$2,958	\$9,458	\$9,458
██████	July 2020 Consultant Services	2021	2,540	1,156	3,696	3,696
██████	July 2022 Consultant Conference Costs	2023	2,029	923	2,952	2,952
██████	June 2022 Participant Support Costs	2022	7,099	-	7,099	7,099
<b>Total</b>			<b><u>\$18,168</u></b>	<b><u>\$5,037</u></b>	<b><u>\$23,205</u></b>	<b><u>\$23,205</u></b>

Source: Auditor summary of identified exceptions.

## Recommendations

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

- 1.1 Direct MSU to provide documentation supporting that it has repaid or otherwise credited the \$23,205 in questioned consultant services, conference costs, and participant support costs for which it has agreed to reimburse NSF.
- 1.2 Direct MSU to strengthen its policies and procedures surrounding the establishment of consulting agreements. Specifically, MSU should implement additional policies and procedures designed to ensure that it:
  - Does not charge NSF awards for costs incurred to obtain intra-Institute of Higher Education consulting services in those cases where MSU does not receive approval for such agreements and/or does not intend to use the funds to directly pay the MSU employees providing the services.
  - Formally documents and approves consulting agreements before employees or external consultants execute effort to support an NSF-sponsored project.

- 1.3 Direct MSU to strengthen its procedures and internal controls for approving consultant invoices. Updated procedures or controls should require the approver to verify that MSU has established an active contract with the consultant and that all expenses claimed were reasonable, allocable, and allowable prior to approving the invoice and charging the expenses to NSF awards.
- 1.4 Direct MSU to establish additional guidance to ensure that it uses funds budgeted for participant support costs to cover participant expenses and/or appropriately rebudgets the funds with NSF approval. Updated guidance should specifically address:
  - How to request the required approvals from NSF before re-budgeting participant support cost funding.
  - How to ensure MSU has obtained the required approvals before using participant support funds to cover non-participant expenses.

**Mississippi State University Response:** MSU agreed to reimburse the \$23,205 in questioned costs. It stated that, although it believes it has sufficient internal controls in place to provide reasonable assurance that expenses charged to sponsored awards are allowable, allocable, reasonable, and necessary, it will evaluate and strengthen its policies and procedures related to consultants and participant costs.

**Auditors' Additional Comments:** Although MSU believes its internal controls provide reasonable assurance that it will only charge allowable costs to sponsored awards, because MSU's current controls permitted it to charge at least \$23,205 in unallowable costs to NSF awards, our position regarding this finding has not changed.

## **FINDING 2: INDIRECT COST RATES NOT APPROPRIATELY APPLIED**

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MSU did not apply indirect cost rates consistent with its federally **Negotiated Indirect Cost Rate** Agreements (NICRAs) when charging direct expenses to five NSF awards. Specifically, MSU did not consistently apply its indirect cost rate to its **Modified Total Direct Cost (MTDC)** base established in its NICRAs.<sup>15</sup> As a result, MSU charged \$6,063 in unallowable indirect costs or did not appropriately apply indirect costs to direct expenses charged to five NSF awards, as illustrated in Table 6.

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<sup>15</sup> MSU's NICRAs dated May 3, 2017, and January 20, 2022, state that 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 POP of the **subawards** under the award) and 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.

**Table 6: Indirect Cost Rates Not Appropriately Applied**

NSF Award Number	Expense Type	Expense Date(s)	Rate Applied (%)	Appropriate Rate (%)	Inappropriately Charged Indirect Costs	Notes
██████████	Equipment	10/31/2019	45.5	0	\$2,957	a
██████████	Equipment	09/09/2022	45.5	0	2,275	b
██████████	Tuition	06/29/2020	45.5	0	603	c
██████████	Participant Support	05/2022	45.5	0	228	d
██████████	Consultant	06/29/2022	0	45.5	-	e
██████████	Other Direct	Various	Various	45.5	-	f

Source: Auditor summary of identified exceptions.

- a) In October 2019, MSU inadvertently charged NSF Award No. ██████████ for \$6,498 in consulting services when the expenses actually pertained to rearrangement/alteration costs that MSU’s Facilities Management Team incurred to install a **capital asset**. Because MSU did not appropriately account for these expenses as part of the cost of the capital asset, it inappropriately applied its indirect cost rate to the expenses. As a result, MSU charged NSF Award No. ██████████ for \$2,957 in unallowable indirect costs.
- b) In September 2022, MSU inadvertently accounted for \$4,999<sup>16</sup> in fabricated **equipment** costs as materials and supplies rather than as equipment. As a result, MSU inappropriately charged \$2,275 in indirect costs to NSF Award No. ██████████
- c) In June 2020, when MSU processed a cost transfer to move graduate school tuition and insurance expenses to NSF Award No. ██████████ it inadvertently charged \$1,325 in tuition expenses to its “Graduate Assistant Insurance” account. As a result, MSU inappropriately charged \$603 in indirect costs to NSF Award No. ██████████
- d) In May 2022, MSU charged \$500 in participant support costs to a “Participant Support Cost Reportable” account it had established for NSF Award No. ██████████. However, MSU inadvertently included this account in its MTDC base.<sup>17</sup> As a result, MSU inappropriately charged \$228 in indirect costs to NSF Award No. ██████████
- e) In June 2022, MSU inappropriately charged a participant support cost account for \$7,099 in costs that MSU had incurred for a consultant to host and attend a workshop for NSF Award No. ██████████. Because participant support cost accounts are excluded from the MTDC base, MSU did not appropriately include the consultant

<sup>16</sup> According to MSU’s Property Management Procedures Manual, property is defined as all furniture, vehicles, equipment, and other state property having a useful life expectancy of at least 1 year and a cost of \$1,000 or more.

<sup>17</sup> NSF PAPPG 19-1, Part I, Chapter II, Section C.2.g.(v), *Participant Support*, states that indirect costs are not allowed on participant support costs and that entities must account for participant support costs separately, should an award be made.

costs in its MTDC base. As a result, MSU did not appropriately apply its indirect cost rate to the consultant expenses.

- f) In April 2021, MSU did not appropriately apply its indirect cost rate to all applicable other direct costs charged on NSF Award No. [REDACTED]. Specifically, MSU noted that, as soon as it had charged the NSF award for the total amount of indirect costs budgeted under the award, it no longer applied its indirect cost rate to direct costs under the award, even if the expenses were allowable within MSU’s MTDC base. As a result, MSU did not appropriately apply indirect costs to a variety of direct expenses.

**Conclusion**

MSU did not have sufficient policies and procedures or internal controls in place to ensure it appropriately charged rearrangement/alteration, equipment, tuition, and participant support costs to account codes that it correctly included or excluded from its MTDC base. Further, MSU’s indirect cost rate application procedures are not designed to ensure that MSU consistently applies indirect cost rates in compliance with its NICRAs. We are therefore questioning \$6,063 in inappropriately charged indirect costs and noting two compliance exceptions for the instances in which MSU did not appropriately apply indirect costs. MSU concurred with the \$6,063 in questioned costs, as illustrated in Table 7.

**Table 7: Finding 2 Summary: Indirect Cost Rates Not Appropriately Applied**

NSF Award No.	Description	Fiscal Year	Questioned Costs			MSU Agreed to Reimburse
			Direct	Indirect	Total	
[REDACTED]	October 2019 Rearrangement and Alterations	2020	\$0	\$2,957	\$2,957	\$2,957
[REDACTED]	September 2022 Equipment	2023	-	2,275	2,275	2,275
[REDACTED]	June 2020 Graduate Tuition	2020	-	603	603	603
[REDACTED]	May 2022 Participant Support Costs	2022	-	228	228	228
[REDACTED]	June 2022 Consultant Costs	2022	-	-	-	-
[REDACTED]	April 2021 Other Direct Costs	2021	-	-	-	-
<b>Total</b>			<b><u>\$0</u></b>	<b><u>\$6,063</u></b>	<b><u>\$6,063</u></b>	<b><u>\$6,063</u></b>

Source: Auditor summary of identified exceptions.

## Recommendations

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

- 2.1 Direct MSU to provide documentation supporting that it has repaid or otherwise credited the \$6,063 in questioned indirect costs for which it has agreed to reimburse NSF.
- 2.2 Direct MSU to strengthen its policies, procedures, and internal control processes for applying its federally negotiated indirect cost rate to NSF awards. Updated procedures could include:
  - Requiring that personnel manually review expenses invoiced by MSU's Facilities Management Team to ensure that MSU appropriately capitalizes any rearrangement/alteration and fabricated equipment expenses.
  - Developing additional procedures that require personnel responsible for approving cost transfers to verify that MSU will appropriately apply indirect costs before the personnel approve the cost transfer requests.
  - Implementing an annual review process for costs charged to awards that include funding for participant support costs to ensure MSU is appropriately segregating participant support costs in accounts that it has excluded from its Modified Total Direct Cost base.
  - Conducting training for individuals responsible for charging indirect costs to sponsored accounts that incur indirect costs. We suggest that MSU conduct the training at least annually.
- 2.3 Direct MSU to strengthen its indirect cost rate application 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. Updated procedures should ensure that indirect costs charged to NSF awards are not limited to only the amounts budgeted for indirect costs on each award.

**Mississippi State University Response:** MSU agreed to reimburse the \$6,063 in questioned costs. It stated that, although it believes it has sufficient internal controls in place to ensure it applies its indirect cost rates to its MTDC base, it will evaluate and strengthen its processes related to rearrangements and alterations, fabricated equipment, graduate tuition and insurance, and participant support costs.

**Auditors' Additional Comments:** Although MSU believes its internal controls are sufficient to ensure that it applies indirect cost rates consistent with its NICRAs, because MSU's current controls permitted MSU to inappropriately charge—or inappropriately fail to charge—indirect cost rates to at least five NSF awards, our position regarding this finding has not changed.

### FINDING 3: INAPPROPRIATELY ALLOCATED GRADUATE STUDENT EXPENSES

MSU did not always allocate graduate student expenses to NSF awards based on the relative benefits the awards received, as required by both federal regulations<sup>18</sup> and NSF PAPPGs.<sup>19</sup> As a result, MSU charged one NSF award a total of \$2,538 in graduate tuition and insurance expenses utilizing an inappropriate **allocation** methodology, as illustrated in Table 8.

**Table 8: Inappropriately Allocated Graduate Student Expenses**

Expense Date	NSF Award No.	Amount Charged	Percent Allocable	Amount Inappropriately Allocated	Notes
June 2020	██████████	\$2,538	0%	\$2,538	a

Source: Auditor summary of identified exception.

- a) In June 2020, MSU charged NSF Award No. ██████████ for \$2,538 in tuition and insurance costs incurred for one graduate student who did not allocate effort to this NSF award. MSU stated that it had mistakenly allocated these costs to the NSF award and that it would remove the costs from the award.

### Conclusion

MSU did not have sufficient policies and procedures or internal controls in place to ensure that it appropriately charged graduate tuition and insurance expenses to NSF awards consistent with the graduate student’s effort. We are therefore questioning \$2,538 of graduate student expenses that MSU inappropriately allocated to one NSF award. MSU concurred with the \$2,538 in questioned costs, as illustrated in Table 9.

**Table 9: Finding 3 Summary: Inappropriately Allocated Graduate Student Expenses**

NSF Award No.	Description	Fiscal Year	Questioned Costs			
			Direct	Indirect	Total	MSU Agreed to Reimburse
██████████	June 2020 Graduate Tuition and Insurance Expenses	2020	\$2,159	\$379 <sup>20</sup>	\$2,538	\$2,538
<b>Total</b>			<u>\$2,159</u>	<u>\$379</u>	<u>\$2,538</u>	<u>\$2,538</u>

<sup>18</sup> According to 2 CFR § 200.405 (12/26/2014), *Allocable costs*, (a), 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 the relative benefits received.

<sup>19</sup> NSF PAPPG 19-1, Part II, Chapter X, Section A, *Basic Considerations*, states 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.

<sup>20</sup> We did not question the \$603 in indirect costs applied to the graduate tuition expenses as part of this finding because we previously questioned these costs in **Finding 2, Indirect Cost Rates Not Appropriately Applied**.

Source: Auditor summary of identified exception.

## Recommendations

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

- 3.1 Direct MSU to provide documentation supporting that it has repaid or otherwise credited the \$2,538 in questioned graduate student expenses for which it has agreed to reimburse NSF.
- 3.2 Direct MSU to strengthen its policies and procedures and internal controls for allocating graduate student expenses charged to sponsored projects. Updated processes could include establishing formal guidance regarding how MSU will ensure it appropriately charges NSF awards for costs incurred to support graduate tuition and insurance expenses in a manner that is consistent with the graduate students' effort.

**Mississippi State University Response:** MSU agreed to reimburse the \$2,538 in questioned costs. It stated that, although it believes its internal controls provide reasonable assurance that it charges graduate tuition and insurance expenses to NSF awards consistent with the graduate students' effort, it will perform a review of the costs before it closes out the award.

**Auditors' Additional Comments:** Although MSU believes its internal controls are sufficient to ensure that it charges graduate student tuition and insurance to NSF awards consistent with the students' effort, because MSU's current controls permitted MSU to inappropriately transfer these expenses to an NSF award to which the student did not dedicate any effort, our position regarding this finding has not changed.

## **FINDING 4: INAPPROPRIATE AWARD CASH MANAGEMENT SERVICE DRAWDOWNS**

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MSU did not appropriately draw down funding in NSF's Award Cash Management Service (ACM\$) based on its immediate cash needs, as required per federal regulations<sup>21</sup> and NSF PAPPGs,<sup>22</sup> for three NSF awards, as illustrated in Table 10.

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<sup>21</sup> According to 2 CFR § 200.305 (12/26/2014) and 2 CFR § 200.305 (Revised 11/12/2020), *Federal payment*, (b), (1), advance payments to a non-federal entity must be limited to the minimum amounts needed and be timed to be in accordance with the actual, immediate cash requirements of the non-federal entity in carrying out the purpose of the approved program or project.

<sup>22</sup> NSF PAPPGs 17-1 and 20-1, Part II, Chapter VIII, Section C.2.a, *Timing of Payments*, state that 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 10: Inappropriate Award Cash Management Service Drawdowns**

NSF Award Number	Total Expenses Drawn in ACM\$	Total Expenses per MSU's GL	Discrepancy	Notes
	\$397,010	\$399,518	(\$2,508)	a
	41,741	39,233	2,508	
	199,501	197,012	2,489	b

Source: Auditor summary of identified exceptions.

- a) MSU confirmed that it erroneously drew down \$2,508 on NSF Award No. [REDACTED] when it should have drawn down this amount on NSF Award No. [REDACTED] instead. Specifically, our ACM\$ reconciliation supported that MSU drew down (i) \$397,010 of funding on NSF Award No. [REDACTED] or \$2,508 less than the \$399,518 in expenses supported by MSU's GL; and (ii) \$41,741 of funding on NSF Award No. [REDACTED] or \$2,508 more than the \$39,233 in expenses supported by MSU's GL.
- b) MSU drew down \$199,501 of funding on NSF Award No. [REDACTED] within NSF's ACM\$ during the audit period; however, its GL only supported that it incurred \$197,012 in expenses, or \$2,489 less than the funds MSU drew down. Although MSU's GL did not support all of the expenses that MSU drew down in ACM\$ during the audit period, because MSU was able to support that it had underdrawn on indirect costs for this NSF award as of the end of our audit period, which it corrected in December 2022,<sup>23</sup> we did not question any costs associated with this exception.

**Conclusion**

MSU 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 accounting system. We are therefore questioning \$2,508 claimed on one NSF award and noting compliance exceptions with regard to costs claimed on two NSF awards that were not supported by the expenses recorded within MSU's accounting records as of the end of our audit period. MSU concurred with the \$2,508 in questioned costs, as illustrated in Table 11.

**Table 11: Finding 4 Summary: Inappropriate Award Cash Management Service Drawdowns**

NSF Award No.	Description	Questioned Costs	MSU Agreed to Reimburse
[REDACTED]	Inappropriate ACM\$ Drawdowns	\$2,508	\$2,508
[REDACTED]	Inappropriate ACM\$ Drawdowns	-	-
[REDACTED]	Inappropriate ACM\$ Drawdowns	-	-
<b>Total</b>		<b><u>\$2,508</u></b>	<b><u>\$2,508</u></b>

Source: Auditor summary of identified exceptions.

<sup>23</sup> MSU was able to support that it had alleviated the \$2,489 discrepancy by posting an indirect cost adjustment in December 2022 during award closeout.

## Recommendations

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

- 4.1 Direct MSU to provide documentation supporting that it has repaid or otherwise credited the \$2,508 in questioned Award Cash Management Service drawdowns for which it has agreed to reimburse NSF.
- 4.2 Direct MSU to strengthen its internal controls and processes over its Award Cash Management Service reconciliation process. Updated processes 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 MSU's accounting records for each NSF award.

**Mississippi State University Response:** MSU agreed to reimburse the \$2,508 in questioned costs; however, it noted that it does draw down funding in NSF's ACM\$ system based on its immediate cash needs and that it would have discovered and corrected these errors at award closeout.

**Auditors' Additional Comments:** Although MSU believes its current procedures for drawing funding from ACM\$ are sufficient to ensure it draws the funding appropriately, because its current procedures allowed MSU to draw cash for expenses that its GL did not support, our position regarding this finding has not changed.

## **FINDING 5: INADEQUATE FINANCIAL MANAGEMENT SYSTEM**

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Because MSU applies indirect costs manually on an ad-hoc basis, its **financial management system** is not configured to consistently provide an accurate, current, and complete disclosure of the financial status of each NSF award, as required per federal regulations.<sup>24</sup> Specifically, MSU's current process for applying indirect costs made it difficult for MSU to determine which indirect cost rate(s) it applied to sampled direct expenses and often caused MSU to inappropriately apply indirect costs to NSF awards for multiple months at a time. As a result, MSU's records support the correction of multiple mistakes related to indirect cost rate application, including a correction of one mistake where the error resulted in MSU drawing down \$101,103 more than the amount allowable per the NSF PAPPG,<sup>25</sup> as illustrated in Table 12.

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<sup>24</sup> According to 2 CFR § 200.302 (Revised 11/12/2020), *Financial management*, (b), "The financial management system of each non-Federal entity must... [have] accurate, current, and complete disclosure of the financial results of each federal award and records that identify adequately the source and application of funds for federally-funded activities."

<sup>25</sup> NSF PAPPG 20-1, Part II, Chapter VIII, Section C.2.a, *Timing of Payments*, states that advance payments to grantees must be limited to the minimum amounts needed and be timed to be in accordance with the actual, immediate cash requirements of the grantee in carrying out the purpose of the approved program or project. The timing and amount of advance payments must be as close as is administratively feasible to the actual disbursements by the grantee for direct program or project costs and the proportionate share of any allowable indirect costs.

**Table 12: Example of Error Caused by MSU’s Inadequate Financial Management System**

NSF Award No.	ACM\$ Draw Date	Previous Cumulative Cash Disbursement	Payment Amount	Cumulative Cash Disbursement	Expenses per MSU’s GL as of 1 Day Before Draw Date	Overdrawn Cash	Notes
██████████	07/19/2022	\$140,032	\$113,359	\$253,392	\$152,289 <sup>26</sup>	\$101,103	a
	08/18/2022	253,392	(86,014)	167,378	167,378	0	

Source: Auditor summary of identified exception.

- a) In July 2022, MSU charged NSF Award No. ██████████ for \$101,103 in indirect costs it inappropriately posted to the award during a period in which it had incurred \$0 in net direct expenses. As a result, MSU inappropriately drew down \$101,103 in cash from ACM\$. MSU confirmed that it had inappropriately charged the indirect costs to the NSF award and noted that it had corrected the error in August 2022. Because we verified that MSU posted an adjusting entry on August 16, 2022, and returned the overdrawn funds to NSF on August 18, 2022, we are not questioning any costs associated with this finding.

**Conclusion**

MSU did not configure its financial management system to automatically apply indirect costs based on MSU’s approved NICRA rates and MTDC base and does not have sufficient quality control processes in place to ensure it performs its manual application of indirect costs accurately and on a routine basis. Although these instances of non-compliance did not generate any questioned costs, because MSU has not configured its financial management system to ensure the system provides an accurate, current, and complete disclosure of MSU’s financial results or to ensure that claimed federal costs are allowable, we are noting a compliance exception.

**Table 13: Finding 5 Summary: Inadequate Financial Management System**

NSF Award No.	Compliance Exception Identified	Fiscal Year
Various	Inadequate Financial Management System	2023

Source: Auditor summary of identified exception.

**Recommendation**

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

- 5.1 Direct MSU to update the controls within its financial management system to ensure that the system accurately applies indirect costs on a consistent, timely basis,

<sup>26</sup> This value is absent the \$101,103 in sampled indirect costs.

allowing MSU to provide accurate, current, and complete disclosure of the financial results of each NSF award, as required per federal regulations.

**Mississippi State University Response:** Although MSU agreed to review the quality control processes it has in place to ensure it accurately applied indirect costs, MSU disagreed with this finding. Specifically, MSU stated that it does apply indirect costs based on its approved NICRA rates and MTDC base using a manual monthly process reviewed by management. Further, MSU noted that it corrected the exception in a timely manner and that it has review and closeout procedures in place to ensure that it has accurately calculated indirect costs.

**Auditors' Additional Comments:** Although MSU processed a correction to rectify the error in its next ACM\$ draw, because MSU's manual application process often allowed MSU to inappropriately charge indirect costs to NSF awards and, in at least one case, allowed MSU to draw down more than \$100,000 in cash that it should not have posted to the NSF award, our position regarding this finding has not changed.

## **FINDING 6: NON-COMPLIANCE WITH MSU POLICIES AND PROCEDURES**

MSU did not always comply with its subaward, consultant, salary, cost transfer, and equipment policies and procedures when charging costs to five NSF awards.

### ***Non-Compliance with MSU Subaward Policy***

We identified one instance in which MSU did not comply with its internal subaward policies and procedures, which require MSU to determine and document subrecipient and vendor relationships,<sup>27</sup> as illustrated in Table 14.

**Table 14: Non-Compliance with MSU Subaward Policy**

<b>Expense Date</b>	<b>NSF Award No.</b>	<b>Fiscal Year</b>	<b>Subaward Compliance Exception</b>	<b>Notes</b>
February 2020	██████████	2020	Non-Compliance with Subrecipient or Vendor Classification	<b>a</b>

*Source:* Auditor summary of identified exception.

- a)** In February 2020, MSU issued a subaward for a subawardee to provide independent evaluation services under NSF Award No. ██████████ without appropriately documenting the classification of the relationship in accordance with its *Subaward Roles and Responsibilities Matrix*.

<sup>27</sup> According to MSU's *Subaward Roles and Responsibilities Matrix*, the Office of Sponsored Projects determines whether a subrecipient or vendor relationship exists during the proposal stage and ensures that adequate documentation about the selection process is on file.

***Non-Compliance with MSU Consultant Policy***

We identified one instance in which MSU did not comply with its internal consultant policies and procedures, which require MSU to complete a classification checklist and perform a suspension/debarment check for each consultant,<sup>28</sup> as illustrated in Table 15.

**Table 15: Non-Compliance with MSU Consultant Policy**

Expense Date	NSF Award No.	Fiscal Year	Consultant Compliance Exception	Notes
July 2020	██████████	2021	Non-Compliance with Classification Checklist and Suspension/Debarment Review	a

Source: Auditor summary of identified exception.

- a) In July 2020, MSU hired a consultant to evaluate a workshop for NSF Award No. ██████████ but did not complete a classification checklist or suspension/debarment check in accordance with its *Securing and Paying for Honorarium, Speakers, Consultants and Independent Contractors* policy.

***Non-Compliance with MSU Salary Policy***

We identified four instances in which MSU employees did not comply with MSU’s *Time and Effort Reporting* policy, which requires personnel to certify their time-and-effort reports within 90 days of the close of the reporting period,<sup>29</sup> as illustrated in Table 16.

**Table 16: Non-Compliance with MSU Salary Policy**

Expense Date(s)	NSF Award No.	Fiscal Year	Close of Effort Reporting Period	Certification Date(s)	Days Between	Notes
January – June 2021	██████████	2021	06/30/2021	11/2/2021	125	a
March 2021	██████████	2021	06/30/2021	06/07/2022	342	
March 2021	██████████	2021	06/30/2021	06/07/2022	342	
July 2022	██████████	2023	08/15/2022	11/17/2022	94	b

Source: Auditor summary of identified exceptions.

- a) Between January 2021 and June 2021, MSU charged NSF Award No. ██████████ for salaries for three personnel who did not certify their effort reports within 90 days.

<sup>28</sup> According to MSU’s *Securing and Paying for Honorarium, Speakers, Consultants and Independent Contractors* policy, if a contractor or consultant is an individual, MSU personnel must complete a Classification Checklist, HRM 323, before the individual performs services for the University; the personnel must then forward the checklist to Human Resources Management for review and determination of classification. Additionally, once the checklist is approved, the Principal Investigator is responsible for ensuring the consultant has not been debarred.

<sup>29</sup> According to MSU’s *Time and Effort Reporting* policy, personnel must certify their time-and-effort reports within 90 calendar days of the close of the reporting period.

- b) In July 2022, MSU charged NSF Award No. [REDACTED] for salary for the Principal Investigator (PI), who did not certify their effort report within 90 days.

***Non-Compliance with MSU Cost Transfer Policy***

We identified one instance in which MSU did not comply with its internal cost transfer policies and procedures, which require MSU to document additional details to support cost transfers that occur more than 90 days past the original expense date,<sup>30</sup> as illustrated in Table 17.

**Table 17: Non-Compliance with MSU Cost Transfer Policy**

Expense Date	NSF Award No.	Fiscal Year	Original Expense Date	Cost Transfer Date	Days Between	Notes
April 2022	[REDACTED]	2022	02/12/2021	04/21/2022	433	a

Source: Auditor summary of identified exception.

- a) In April 2022, MSU processed a cost transfer on NSF Award No. [REDACTED] that took place more than 90 days after MSU originally incurred the expenses. MSU did not appropriately document the additional details required.

***Non-Compliance with MSU Property Management Policy***

We identified one instance in which MSU did not comply with its Property Management Procedures Manual,<sup>31</sup> which requires MSU to complete a property acquisition form for purchases that meet the inventory equipment criteria,<sup>32</sup> as illustrated in Table 18.

**Table 18: Non-Compliance with MSU Property Management Policy**

Expense Date	NSF Award No.	Fiscal Year	Equipment Compliance Exception	Notes
September 2022	[REDACTED]	2023	Property Acquisition Form Not Completed	a

Source: Auditor summary of identified exception.

- a) In September 2022, MSU charged NSF Award No. [REDACTED] for \$4,999 in equipment costs without completing a property acquisition form at the time of purchase. Specifically, MSU did not complete the property acquisition form for this equipment until February 2023, in response to our audit.

**Conclusion**

<sup>30</sup> According to MSU’s *Cost Transfer* policy, all cost transfers must be accompanied by written documentation indicating why the transfer was necessary and appropriate and why the PI authorized the transfer. Additionally, if a cost transfer occurs more than 90 days after the original posting date, additional written documentation is required.

<sup>31</sup> According to MSU’s *Property Management Procedures Manual*, the department should complete a property acquisition form for each acquisition that meets the inventory equipment criteria. This property acquisition form should include all available acquisition information.

<sup>32</sup> According to MSU’s *Property Management Procedures Manual*, all equipment purchases of \$1,000 or more must be numbered and included on MSU’s property inventory list.

MSU did not have adequate procedures in place to ensure that it consistently complied with its subaward, consultant, salary, cost transfer, and equipment policies and procedures. Because these instances of non-compliance did not directly result in MSU charging unallowable costs to NSF awards, we are not questioning any costs related to these exceptions. However, we are noting compliance findings for the six instances in which MSU did not comply with its internal policies when charging costs to six NSF awards, as illustrated in Table 19.

**Table 19: Finding 6 Summary: Non-Compliance with MSU Policies and Procedures**

NSF Award No.	Compliance Exception Identified	Fiscal Year
██████████	February 2020 Subrecipient or Vendor Classification Not Completed	2020
██████████	July 2020 Consultant Classification Checklist and Suspension/Debarment Review Not Performed	2021
██████████	March 2021 Late Time and Effort Report Certification	2021
██████████	March 2021 Late Time and Effort Report Certification	2021
██████████	March 2021 Late Time and Effort Report Certification	2021
██████████	July 2022 Late Time and Effort Report Certification	2023
██████████	April 2022 Cost Transfer Not Appropriately Justified or Approved	2022
██████████	September 2022 Property Acquisition Form Not Completed	2023

Source: Auditor summary of identified exceptions.

## Recommendations

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

- 6.1 Direct MSU to implement additional procedures that require Office of Sponsored Program personnel to verify that MSU appropriately classified vendors at the proposal stage and to maintain documentation that supports that verification.
- 6.2 Direct MSU to implement additional automated procedures within its procurement system(s) that verify proposed consultants (i) have not been suspended or debarred, and (ii) have classification checklists on file before the consultant begins engaging in services.
- 6.3 Direct MSU to implement consequences, such as an inability to submit proposals or the removal of all uncertified effort from sponsored awards, for employees who do not certify their effort reports within the time period required per award recipient policies.
- 6.4 Direct MSU to strengthen its policies and procedures to ensure that it does not approve cost transfers requested more than 90 days after MSU incurred the original expense unless the request includes all required additional justifications necessary to support such transfers.

- 6.5 Direct MSU to implement annual reviews of all equipment purchases greater than \$1,000 to evaluate whether Property Management appropriately prepared a property acquisition form to support all inventoriable equipment at the time of purchase.

**Mississippi State University Response:** Although MSU agreed that it did not always comply with its internal policies, it generally believes its internal policies are sufficient to ensure that it appropriately charges costs to NSF awards. Specifically:

- With regard to the instance of non-compliance with its subaward policy, MSU agreed that it did not have clear documentation to describe the process of classifying this vendor as a subawardee. However, MSU noted that it stands by its decision to issue a subaward using its judgment based on the criteria in 2 CFR 200.330.
- With regard to the instance of non-compliance with its consultant policy, MSU stated that the department wrote a letter to the director of procurement justifying the expense and provided an explanation as to why it was an allowable charge against the NSF grant. MSU noted the letter was signed by the department head and the dean of the College of Engineering. However, MSU did agree to evaluate and strengthen its policies and procedures surrounding the establishment of consulting agreements and to provide training, as necessary.
- With regard to the instances of non-compliance with its salary policy, MSU stated that Sponsored Programs has procedures in place to collect employees' time-and-effort reports within 90 days after the end of the reporting period, but that MSU will continue to generate awareness of deadlines to stress the importance of certifying effort within the 90-day period to ensure employees are in compliance with the *Time and Effort Reporting* policy.
- With regard to the instance of non-compliance with its cost transfer policy, MSU stated that Sponsored Programs has procedures in place to review and approve cost transfers, but that MSU will provide additional training to the departments that complete cost transfers and to Sponsored Programs staff responsible for reviewing and approving the cost transfer documents.
- With regard to the instance of non-compliance with its property management policy, MSU stated that it will provide training and strengthen its review of all equipment purchases to ensure compliance with the Property Management Procedures Manual.

**Auditors' Additional Comments:** Although MSU generally believes its internal policies are sufficient to ensure that it appropriately charges costs to NSF awards, because MSU agreed with the instances of non-compliance identified and because we continue to believe the additional procedures recommended could decrease MSU's instances of non-compliance

with its internal policies in the future, our position regarding this finding has not changed.

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

MSU 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, MSU does not have a formal process for documenting its decision to apply only the predetermined indirect cost rate effective at the time of the award when its NICRA includes multiple approved predetermined rates.

As a result, MSU did not document that it verified its use of only the predetermined indirect cost rate in effect as of the NSF grant’s award date would not result in MSU overcharging indirect costs to five NSF awards, as illustrated in Table 20.

**Table 20: Predetermined Indirect Cost Rates Applied**

NSF Award Number	Award Date	Transaction Date	Rate Applied (%)	Appropriate Rate (%) <sup>33,34</sup>
	9/3/2013	6/26/2020	44.5%	45.5%
	10/27/2020	9/28/2022	45.5%	46.5%
	7/12/2021	7/6/2022	45.5%	46.5%
	7/26/2021	7/21/2022	45.5%	46.5%
	7/13/2022	9/9/2022	45.5%	46.5%

Source: Auditor summary of identified exceptions.

### Conclusion

Because these instances of MSU applying indirect costs using only the predetermined rate applicable when the grant was awarded did not directly result in MSU charging unallowable costs to NSF awards, we are not noting a finding. However, we are noting an **area for improvement**, as MSU’s lack of a formal process and/or procedure for applying proposed indirect cost rates could cause MSU to charge unallowable costs to NSF awards if MSU’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 MSU to develop formal policies and/or procedures regarding how to verify—and document its verification—that its election to not use all indirect cost

<sup>33</sup> MSU’s NICRA, dated April 17, 2014, established a predetermined indirect cost rate of 44.5 percent for on-campus research from July 1, 2013, to June 30, 2014, and 45.5 percent for on-campus research from July 1, 2014, to June 30, 2017.

<sup>34</sup> MSU’s NICRA, dated January 1, 2021, established a predetermined indirect cost rate of 45.5 percent for on-campus research from July 1, 2021, to June 30, 2022, and 46.5 percent for on-campus research from July 1, 2022, to June 20, 2025.

rates within its Negotiated Indirect Cost Rate Agreements will not cause it to overcharge NSF for indirect costs.

**Mississippi State University Response:** MSU stated that, when a new NICRA is issued, MSU's Director of Sponsored Programs makes a verbal decision to continue to use the approved rates in the proposal for the life of the award if the new approved rate is not lower than the indirect cost rate used in the award. However, MSU stated that, based on the auditor's suggestion, it will develop formal policies and procedures to document this process.

**Auditors' Additional Comments:** Our position regarding this area for improvement has not changed.

COTTON & COMPANY ASSURANCE AND ADVISORY, LLC



Megan Mesko, CPA, CFE  
Partner  
12/22/2023

## **APPENDIX A: MSU'S RESPONSE**

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**MSU Response to Audit Findings**

**Finding 1: Unallowable Expenses**

**Unallowable Consultant and Participant Support Cost Expenses**

Mississippi State University (MSU) has internal controls in place that reasonably assure that expenses charged to sponsored awards are allowable, allocable, reasonable, and necessary. Our controls also provide reasonable assurance that costs are allowable based on sponsor regulations and MSU policies. Policies and procedures related to consultants and participant costs will be evaluated and strengthened, as needed, and necessary training will be provided.

NSF Award No.	Questioned Costs	MSU Response
██████	\$9,458	MSU agrees to reimburse NSF.
██████	\$3,696	MSU agrees to reimburse NSF.
██████	\$2,952	MSU agrees to reimburse NSF.
██████	\$7,099	MSU has already credited the \$7,099 and will provide a copy of the general ledger.
<b>Total</b>	<b>\$23,205</b>	

**Finding 2: Indirect Cost Rates Not Appropriately Applied**

MSU has internal controls and procedures in place for applying indirect cost rates consistently to all direct costs that should be included within its Modified Total Direct Cost base per its Negotiated Indirect Cost Rate Agreement. Processes as it relates to rearrangement/alterations, fabricated equipment, GA tuition and insurance, and participant support costs will be evaluated and strengthened, as needed, and necessary training will be provided.

NSF Award No.	Questioned Costs	MSU Response
██████	\$2,957	MSU agrees to reimburse NSF.
██████	\$2,275	MSU will adjust Indirect Cost and provide a copy of the general ledger.
██████	\$603	MSU will adjust indirect cost and provide a copy of the general ledger.

██████	\$228	MSU will adjust indirect cost and provide a copy of the general ledger.
██████	\$0	Because we inappropriately charged a consultant cost to a Participant Support Cost Fund, we did not include the cost in the MTDC base. MSU will strengthen its internal controls over Participant Support Funds to ensure only the appropriately segregated participant support costs are allowed.
██████	\$0	MSU usually applies the indirect cost rate to direct costs up to the budgeted indirect cost amount. MSU will strengthen its indirect cost rate application procedures to ensure that indirect costs charged to the NSF awards are not limited to only the amounts budgeted on each award for indirect costs.
<b>Total</b>	<b>\$6,063</b>	

**Finding 3: Inappropriately Allocated Graduate Student Expenses**

MSU has internal controls and processes in place to reasonably assure that graduate tuition and insurance expenses are appropriately charged to NSF awards consistent with the graduate student's effort. In this case, the charge took place in June 2020, during this time Mississippi State employees were working remotely due to COVID. The tuition/insurance should have been paid from another NSF award, however due to circumstances at that time this was not identified. The charge will be credited, and a review of costs will be conducted before closeout.

<b>NSF Award No.</b>	<b>Questioned Costs</b>	<b>MSU Response</b>
██████	\$2,538	MSU will credit the questioned expense and adjust the applicable indirect cost.
<b>Total</b>	<b>\$2,538</b>	

**Finding 4: Inappropriate Award Cash Management Service Drawdowns**

MSU draws down funding in NSF’s Award Cash Management Service based on its immediate cash needs.

NSF Award No.	Questioned Costs	MSU Response
██████████	\$2,508	MSU returned funds to ACM on August 3, 2023. Confirmation will be provided. Upon review of the ACM records and MSU records at closeout of the NSF award, this error would have been discovered and corrected.
██████████	\$0	See comment above.
██████████	\$0	MSU drew the funds appropriately at closeout and made closing entries to post the indirect cost.
<b>Total</b>	<b>\$2,508</b>	

**Finding 5: Inadequate Financial Management System**

MSU does apply indirect costs based on MSU’s approved NICRA rates and MTDC base. Indirect Cost is manually calculated monthly for each NSF award and reviewed by management. At the expiration of the award a review and closeout process are completed to ensure indirect cost have been calculated accurately. The closeout and final draw amounts are reviewed by management. The compliance exceptions were identified corrected in a timely manner. We don’t agree with the conclusion by the auditors. However, MSU will review the quality control processes in place to ensure we perform the manual application of indirect cost accurately and on a routine basis.

## **Finding 6: Non-Compliance with MSU Policies and Procedures**

MSU did not always comply with its Subaward, consultant, salary, cost transfer and equipment policies and procedures.

### **Non-Compliance with MSU Subaward Policy**

The auditor identified one instance where MSU did not document the determination process for a subrecipient vs vendor relationship. We agree there was not clear documentation of the thought process to classify this as a subaward; however, we stand by our decision as there were ongoing exchanges throughout the project that directed decisions on the project which does not seem to characterize a vendor relationship. Based on our authority from 2 CFR 200.330, we issued a subaward using our judgement of the criteria listed for a subaward.

### **Non-Compliance Compliance with MSU Consultant Policy**

In the instance identified by the auditor, MSU did not comply with internal consultant policies and procedures. However, the department did write a letter to the Director of Procurement explaining the justification for the expense and how the expense was an allowable charge against the NSF grant. The letter was signed by the Department Head and the Dean of the College of Engineering. Based on this letter, the charge was posted to the grant. MSU will evaluate and strengthen, as needed, policies and procedures surrounding the establishment of consulting agreements and necessary training will be provided.

### **Non-Compliance with MSU Salary Policy**

The auditor identified four instances in which MSU did not comply with its internal effort reporting polices and procedures, which require the individuals to certify their effort within 90 days after the end of the reporting period. Sponsored Programs has procedures in place to collect the Time and Effort Reports within 90 days after the end of the reporting period. MSU will continue to generate awareness of deadlines to stress the importance of certifying effort and providing the certifications to Sponsored Programs before expiration of the 90-day period to help ensure employees are following the Time and Effort Policy.

### **Non-Compliance with MSU Cost Transfer Policy**

The auditor identified one instance in which MSU did not comply with its internal cost transfer policy and procedures for cost transfers, which require MSU to provide additional details to support cost transfers that occur more than 90 days past the original expense date. Sponsored Programs has procedures in place to review and approve cost transfers. However, to ensure compliance with the Cost Transfer Policy, MSU will provide additional training to the departments that complete the cost transfers and the Sponsored Programs staff that review and approve the documents.

### **Non-Compliance with MSU Property Management Policy**

The auditor identified one instance in which MSU did not comply with its Property Management Procedures Manual, which requires MSU to complete a property acquisition form for purchases that meet the inventory equipment criteria. MSU will provide training and strengthen its review of all equipment purchases to ensure we are compliance with the Property Management Procedures Manual.

### **Area for Improvement: Insufficient Controls Related to the Application of Indirect Cost Rates**

MSU award setup procedures include using indirect cost rates in the Negotiated Indirect Cost Rate Agreement in effect at the date of each sponsored award. A verbal decision is made by the Director of Sponsored Programs at the beginning of a new F&A Rate Agreement to continue to use the approved rates in the proposal and award for the life of the award if the new approved rate is not lower than the indirect cost rate used in the award. Upon the recommendation by the auditors, MSU will develop formal polices and procedures regarding how to verify and document its election to use proposed indirect cost rates that will not result in NSF being overcharged for indirect costs when negotiated rates decrease between the date an NSF award is proposed and the date it is awarded.

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

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## OBJECTIVES

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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 Mississippi State University (MSU) claimed on NSF awards during the audit period of performance (POP) of November 1, 2019, through October 31, 2022. The objectives of the audit were to evaluate MSU’s award management environment; determine if costs claimed were allowable, allocable, reasonable, and in compliance with NSF award terms and conditions and applicable federal financial assistance requirements; and determine whether any extraordinary circumstances existed that would justify further audit work beyond the original sample of 40 to 50 transactions.

## SCOPE

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The audit population included approximately \$27.7 million in expenses that MSU claimed on 123 NSF awards during our audit POP of November 1, 2019, through October 31, 2022.

## METHODOLOGY

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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 MSU provided by comparing the costs charged to NSF awards per MSU’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 MSU and NSF OIG. NSF OIG provided award data that MSU reported through NSF’s ACM\$ during our audit period.
    - We assessed the reliability of the GL data that MSU provided by (1) comparing the costs charged to NSF awards per MSU’s accounting records to the reported net expenditures reflected in the ACM\$ drawdown requests that MSU submitted to NSF during the audit POP, and (2) reviewing the parameters that MSU used to extract transaction data from its accounting systems. We found MSU’s computer-processed data to be sufficiently reliable for the purposes of the audit. We did not identify any exceptions with the parameters that MSU 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 2022 found no reportable instances in which NSF’s financial management systems did not substantially comply with applicable requirements.

- MSU provided detailed transaction-level data to support \$27,689,749 in costs charged to NSF awards during the period, which was less than the \$27,690,656 MSU claimed in ACM\$ for the 123 awards. This data resulted in a total audit universe of \$27,689,749 in expenses claimed on 123 NSF awards.
  - Although MSU provided GL data to support the majority of the costs claimed, MSU did not support a portion of the costs claimed. We questioned the unsupported drawdown amount in [Finding 5](#).
- Obtaining and reviewing all available accounting and administrative policies and procedures, external audit reports, desk review reports, and other relevant information that MSU and NSF OIG provided, as well as any other relevant information that was available online.
- Summarizing our understanding of federal, NSF, and MSU-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 MSU’s internal controls within the audit’s scope solely to understand the directives or policies and procedures MSU has in place to ensure that charges against NSF awards complied with relevant federal regulations, NSF award terms, and MSU policies.
- Providing MSU with a list of 44 transactions that we selected based on the results of our data analytics and requesting that MSU provide documentation to support each transaction.
- Reviewing the supporting documentation MSU 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,<sup>35</sup> NSF,<sup>36</sup> and MSU policies.<sup>37</sup>
- Holding virtual interviews and walkthroughs with MSU 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

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<sup>35</sup> We assessed MSU’s compliance with 2 CFR Part 200; Revised 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards; and 2 CFR Part 220/215, Cost Principles for Educational Institutions (Office of Management and Budget Circular A-21), as appropriate.

<sup>36</sup> We assessed MSU’s compliance with NSF PAPPGs 14-1, 15-1, 17-1, 19-1, 20-1, and 22-1 and with NSF award-specific terms and conditions, as appropriate.

<sup>37</sup> We assessed MSU’s compliance with internal MSU policies and procedures surrounding costs budgeted for or charged to NSF awards.

(e.g., patent, relocation, recruiting, interest, advertising/public relations, **entertainment**, fundraising, lobbying, selling/marketing, and training costs), subawards, ACM\$ processing, indirect costs, and other general policies (e.g., pre- and post-award costs, program income, whistleblower 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.<sup>38</sup>

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 MSU personnel to ensure that MSU 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* (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.

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<sup>38</sup> Based on the areas of elevated risk of non-compliance identified during the initial phase, we determined that there was no need for any expanded audit phase.

## **APPENDIX C: SUMMARY OF QUESTIONED COSTS**

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**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	\$23,205	\$23,205
2	Inappropriately Applied Indirect Costs	-	6,063	6,063
3	Inappropriately Allocated Expenses	-	2,538	2,538
4	Inappropriate ACM\$ Drawdowns	-	2,508	2,508
5	Inadequate Financial Management System	-	-	-
6	Non-Compliance with MSU Policies and Procedures	-	-	-
<b>Total</b>		<b><u>\$0</u></b>	<b><u>\$34,314</u></b>	<b><u>\$34,314</u></b>

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	MSU Agreed to Reimburse
	2	\$6,500	\$2,958	\$9,458	\$9,458
	1	-	-	-	-
	2	2,540	1,156	3,696	3,696
	1	-	-	-	-
	1	-	-	-	-
	1	-	2,957	2,957	2,957
	5	9,258	982	10,240	10,240
	1	-	228	228	228
	1	-	-	-	-
	1	2,029	923	2,952	2,952
	1	-	-	-	-
	1	2,508	-	2,508	2,508
	2	-	2,275	2,275	2,275
	1	-	-	-	-
<b>Total</b>	<b><u>21</u></b>	<b><u>\$22,835</u></b>	<b><u>\$11,479</u></b>	<b><u>\$34,314</u></b>	<b><u>\$34,314</u></b>

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	MSU Agreed to Reimburse
1) Unallowable Expenses	██████	January 2020 - April 2021 Consultant Services	2021	\$6,500	\$2,958	\$9,458	\$9,458
	██████	July 2020 Consultant Services	2021	2,540	1,156	3,696	3,696
	██████	July 2022 Conference Costs	2023	2,029	923	2,952	2,952
	██████	June 2022 Workshop Costs	2022	7,099	-	7,099	7,099
2) Inappropriately Applied Indirect Costs	██████	October 2019 Rearrangement and Alternations	2020	-	2,957	2,957	2,957
	██████	September 2022 Equipment	2023	-	2,275	2,275	2,275
	██████	June 2020 Graduate Tuition	2020	-	603	603	603
	██████	May 2022 Participant Support Costs	2022	-	228	228	228
	██████	June 2022 Consultant Costs	2022	-	-	-	-
██████	April 2021 Other Direct Costs	2021	-	-	-	-	
3) Inappropriately Allocated Expenses	██████	June 2020 Graduate Tuition and Insurance Expenses	2020	2,159	379	2,538	2,538
4) Inappropriate ACM\$ Drawdowns	██████	Expenses Claimed in ACM\$ Exceed Accumulated Expenses	N/A	2,508	-	2,508	2,508
	██████	Expenses Claimed in ACM\$ Exceed Accumulated Expenses	N/A	-	-	-	-
	██████	Expenses Claimed in ACM\$ Exceed Accumulated Expenses	N/A	-	-	-	-
5) Inadequate Financial Management System	██████	Inadequate Financial Management System	2023	-	-	-	-
6) Non-Compliance with MSU Policies and Procedures	██████	February 2020 Subrecipient or Vendor Classification Not Completed	2022	-	-	-	-
	██████	July 2020 Consultant Classification Checklist and Suspension/Debarment Review Not Performed	2021	-	-	-	-

Finding No.	NSF Award No.	Description	Fiscal Year(s)	Direct	Indirect	Total	MSU Agreed to Reimburse
	██████	March 2021 Late Time and Effort Report Certification	2021	-	-	-	-
	██████	March 2021 Late Time and Effort Report Certification	2021	-	-	-	-
	██████	March 2021 Late Time and Effort Report Certification	2021	-	-	-	-
	██████	July 2022 Late Time and Effort Report Certification	2023	-	-	-	-
	██████	April 2022 Cost Transfer Not Appropriately Justified or Approved	2022	-	-	-	-
	██████	September 2022 No Property Acquisition Form Completed	2023	-	-	-	-
<b>Total</b>				<b><u>\$22,835</u></b>	<b><u>\$11,479</u></b>	<b><u>\$34,314</u></b>	<b><u>\$34,314</u></b>

Source: Auditor summary of identified exceptions.

## **APPENDIX D: SUMMARY OF RECOMMENDATIONS AND CONSIDERATIONS**

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

- 1.1 Direct MSU to provide documentation supporting that it has repaid or otherwise credited the \$23,205 in questioned consultant services, conference costs, and participant support costs for which it has agreed to reimburse NSF.
- 1.2 Direct MSU to strengthen its policies and procedures surrounding the establishment of consulting agreements. Specifically, MSU should implement additional policies and procedures designed to ensure that it:
  - Does not charge NSF awards for costs incurred to obtain intra-Institute of Higher Education consulting services in those cases where MSU does not receive approval for such agreements and/or does not intend to use the funds to directly pay the MSU employees providing the services.
  - Formally documents and approves consulting agreements before employees or external consultants execute effort to support an NSF-sponsored project.
- 1.3 Direct MSU to strengthen its procedures and internal controls for approving consultant invoices. Updated procedures or controls should require the approver to verify that MSU has established an active contract with the consultant and that all expenses claimed were reasonable, allocable, and allowable prior to approving the invoice and charging the expenses to NSF awards.
- 1.4 Direct MSU to establish additional guidance to ensure that it uses funds budgeted for participant support costs to cover participant expenses and/or appropriately rebudgets the funds with NSF approval. Updated guidance should specifically address:
  - How to request the required approvals from NSF before re-budgeting participant support cost funding.
  - How to ensure MSU has obtained the required approvals before using participant support funds to cover non-participant expenses.
- 2.1 Direct MSU to provide documentation supporting that it has repaid or otherwise credited the \$6,063 in questioned indirect costs for which it has agreed to reimburse NSF.
- 2.2 Direct MSU to strengthen its policies, procedures, and internal control processes for applying its federally negotiated indirect cost rate to NSF awards. Updated procedures could include:

- Requiring that personnel manually review expenses invoiced by MSU's Facilities Management Team to ensure that MSU appropriately capitalizes any rearrangement/alteration and fabricated equipment expenses.
- Developing additional procedures that require personnel responsible for approving cost transfers to verify that MSU will appropriately apply indirect costs before the personnel approve the cost transfer requests.
- Implementing an annual review process for costs charged to awards that include funding for participant support costs to ensure MSU is appropriately segregating participant support costs in accounts that it has excluded from its Modified Total Direct Cost base.
- Conducting training for individuals responsible for charging indirect costs to sponsored accounts that incur indirect costs. We suggest that MSU conduct the training at least annually.

2.3 Direct MSU to strengthen its indirect cost rate application 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. Updated procedures should ensure that indirect costs charged to NSF awards are not limited to only the amounts budgeted for indirect costs on each award.

3.1 Direct MSU to provide documentation supporting that it has repaid or otherwise credited the \$2,538 in questioned graduate student expenses for which it has agreed to reimburse NSF.

3.2 Direct MSU to strengthen its policies and procedures and internal controls for allocating graduate student expenses charged to sponsored projects. Updated processes could include establishing formal guidance regarding how MSU will ensure it appropriately charges NSF awards for costs incurred to support graduate tuition and insurance expenses in a manner that is consistent with the graduate students' effort.

4.1 Direct MSU to provide documentation supporting that it has repaid or otherwise credited the \$2,508 in questioned Award Cash Management Service drawdowns for which it has agreed to reimburse NSF.

4.2 Direct MSU to strengthen its internal controls and processes over its Award Cash Management Service reconciliation process. Updated processes 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 MSU's accounting records for each NSF award.

- 5.1 Direct MSU to update the controls within its financial management system to ensure that the system accurately applies indirect costs on a consistent, timely basis, allowing MSU to provide accurate, current, and complete disclosure of the financial results of each NSF award, as required per federal regulations.
- 6.1 Direct MSU to implement additional procedures that require Sponsored Program personnel to verify that MSU appropriately classified vendors at the proposal stage and to maintain documentation that supports that verification.
- 6.2 Direct MSU to implement additional automated procedures within its procurement system(s) that verify proposed consultants (i) have not been suspended or debarred, and (ii) have classification checklists on file before the consultant begins engaging in services.
- 6.3 Direct MSU to implement consequences, such as an inability to submit proposals or the removal of all uncertified effort from sponsored awards, for employees who do not certify their effort reports within the time period required per award recipient policies.
- 6.4 Direct MSU to strengthen its policies and procedures to ensure that it does not approve cost transfers requested more than 90 days after MSU incurred the original expense unless the request includes all required additional justifications necessary to support such transfers.
- 6.5 Direct MSU to implement annual reviews of all equipment purchases greater than \$1,000 to evaluate whether Property Management appropriately prepared a property acquisition form to support all inventoriable equipment at the time of purchase.

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

- Directing MSU to develop formal policies and/or procedures regarding how to verify—and document its verification—that its election to not use all indirect cost rates within its Negotiated Indirect Cost Rate Agreements will not cause it to overcharge NSF for indirect costs.

**APPENDIX E: GLOSSARY**

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**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).

**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.](#)

**Capital Asset.** Capital assets include both land, buildings, equipment and intellectual property as well as the additions, improvements, modifications, replacements, rearrangements, reinstallations, renovations and alterations made to capital assets that materially increase their value or useful life. (2 CFR § 200.12 and 2 CFR § 200.1).

[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.](#)

**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.](#)

**Financial Management System.** A non-Federal entity's financial management system includes records the organization maintains to document its compliance with Federal statutes, regulations, and the terms and conditions of Federal awards. (2 CFR § 200.302).

[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.

[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 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.](#)

**NSF 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 20-1).

[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).

[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.](#)

**Unsupported Cost.** A cost that is questioned because the auditors 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.](#)

# National Defense Authorization Act

## General Notification

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 within 30 days of the publication date of this report to [OIGPL117-263@nsf.gov](mailto:OIGPL117-263@nsf.gov), no later than March 1, 2024. 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.

## About Us

NSF OIG was established in 1989, in compliance with the *Inspector General Act of 1978* (5 USC 401-24). Our mission is to provide independent oversight of NSF to improve the effectiveness, efficiency, and economy of its programs and operations and to prevent and detect fraud, waste, and abuse.

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Have a question about reporting fraud, waste, or abuse? Email [OIG@nsf.gov](mailto:OIG@nsf.gov).

## Whistleblower Retaliation Information

All NSF employees, contractors, subcontractors, awardees, and subawardees are protected from retaliation for making a protected disclosure. If you believe you have been subject to retaliation for protected whistleblowing, or for additional information on whistleblower protections, please visit [oig.nsf.gov/whistleblower](http://oig.nsf.gov/whistleblower).