

Performance Audit of Incurred Costs – University of Alabama

REPORT PREPARED BY SIKICH CPA, LLC





At a Glance

Performance Audit of Incurred Costs – University of Alabama
OIG 24-1-011 | May 24, 2024

AUDIT OBJECTIVE

The National Science Foundation Office of Inspector General engaged Sikich CPA, LLC (Sikich) to conduct a performance audit of costs that the University of Alabama (UA) incurred on 242 NSF awards during the period of November 1, 2019, to October 31, 2022. The auditors tested approximately \$1.9 million of the more than \$40.1 million of costs claimed to NSF during the period. The audit objective was to determine if costs claimed by UA on NSF awards were allowable, allocable, reasonable, and in compliance with NSF award terms and conditions and federal financial assistance requirements. A full description of the audit's objective, scope, and methodology is attached to the report as Appendix B.

AUDIT RESULTS

The report highlights concerns about UA's compliance with certain federal and NSF award requirements, NSF award terms and conditions, and UA policies. The auditors questioned \$41,311 of costs claimed by UA during the audit period. Specifically, the auditors found \$29,567 of unallowable expenses, \$7,242 of inappropriately applied indirect costs, and \$4,502 of inadequately supported expenses. The auditors also identified two compliance related findings for which there were no questioned costs: an Intergovernmental Personnel Act assignment not appropriately established or accounted for and non-compliance with UA's student tuition payment policy. In addition to the five findings, the audit report includes one area for improvement for UA to consider regarding insufficient controls related to a summer salary appointment that wasn't appropriately established. Sikich is responsible for the attached report and the conclusions expressed in it. NSF OIG does not express any opinion on the conclusions presented in Sikich's audit report.

RECOMMENDATIONS

The auditors included 5 findings and one area for improvement in the report with associated recommendations for NSF to resolve the \$41,311 in questioned costs and to ensure UA strengthens its award management environment.

AUDITEE RESPONSE

UA generally agreed with the findings included in the audit report and agreed to reimburse NSF for \$33,066 of the \$41,311 in questioned costs. UA's response is attached, in its entirety, to the report as Appendix A.

CONTACT US

For congressional, media, and general inquiries, email OIGPublicAffairs@nsf.gov.



U.S. NATIONAL SCIENCE FOUNDATION
Office of Inspector General

MEMORANDUM

DATE: May 24, 2024

TO: Quadira Dantro
Director
Division of Institution and Award Support

Jamie French
Director
Division of Grants and Agreements

FROM: Theresa S. Hull [REDACTED]
Assistant Inspector General
Office of Audits, Inspection, Evaluation

SUBJECT: Final Report No. 24-1-011, *University of Alabama*

This memorandum transmits the Sikich CPA, LLC (Sikich) report for the audit of costs charged by the University of Alabama (UA) to 242 NSF awards during the period of November 1, 2019, to October 31, 2022. The audit encompassed approximately \$1.9 million of the more than \$40.1 million of costs claimed to NSF during the period. The audit objective was to determine if costs claimed by UA 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

Sikich 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 Sikich's audit report. To fulfill our responsibilities, we:

- reviewed Sikich'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 Sikich, as necessary, to discuss audit progress, findings, and recommendations;
- reviewed the audit report prepared by Sikich; 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.

Attachment

CC: Darío Gil, Victor McCrary, John Veysey, Ann Bushmiller, Karen Marrongelle, Teresa Grancorvitz, Christina Sarris, Janis Coughlin-Piester, Judy Hayden, Alex Wynnyk, Rochelle Ray, Charlotte Grant-Cobb

EXECUTIVE SUMMARY

The Sikich CPA LLC (formerly known as Cotton & Company Assurance and Advisory, LLC) audit team determined that University of Alabama (UA) needs improved oversight 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 UA policies and procedures. Specifically, the audit report includes five findings, one area for improvement, and a total of \$41,311 in questioned costs.

AUDIT OBJECTIVES

The National Science Foundation Office of Inspector General engaged Sikich CPA LLC (herein referred to as “we”), to conduct a performance audit of costs UA claimed during the period of November 1, 2019, to October 31, 2022. The audit objectives included evaluating UA’s award management environment to determine whether any further audit work was warranted and performing additional audit work, as determined appropriate. We have attached a full description of the audit’s objectives, scope, and methodology as [Appendix B](#).

AUDIT CRITERIA

The audit team assessed UA’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) 13-1, 16-1, 17-1, 18-1, 19-1, 20-1, and 22-1; NSF award terms and conditions; and UA 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 \$41,311 of direct and indirect costs that UA inappropriately claimed during the audit period, including:

- \$29,567 of unallowable expenses
- \$7,242 of unallowable costs associated with indirect cost rates not appropriately applied
- \$4,502 of inadequately supported expenses

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

- Intergovernmental Personnel Act (IPA) assignment not appropriately established or accounted for
- Non-compliance with UA’s Tuition, Stipends, and Other Student Payments Policy

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

- Summer salary appointment not appropriately established

RECOMMENDATIONS

The audit report includes 14 recommendations and one consideration for NSF’s Director of the Division of Institution and Award Support related to resolving the \$41,311 in questioned costs and ensuring UA strengthens its award management environment, as summarized in [Appendix D](#).

AUDITEE RESPONSE

UA generally agreed with the findings included in the audit report and agreed to reimburse NSF for \$33,066 of the \$41,311 in questioned costs. UA’s response is attached, in its entirety, to the report as [Appendix A](#).

Table of Contents

Background	1
Audit Scope	2
Audit Results.....	3
Finding 1: Unallowable Expenses.....	4
Finding 2: Indirect Cost Rates Not Appropriately Applied	9
Finding 3: Inadequately Supported Expenses	13
Finding 4: IPA Assignment Not Appropriately Established or Accounted For	15
Finding 5: Non-Compliance with UA’s Tuition, Stipends, and Other Student Payments Policy	17
Area for Improvement: Summer Salary Appointment Not Appropriately Established ..	18
Appendix A: UA’s Response	20
Appendix B: Objectives, Scope, and Methodology	28
Appendix C: Summary of Questioned Costs	32
Appendix D: Summary of Recommendations and Considerations	37
Appendix E: Glossary	41

Abbreviations

ACM\$	Award Cash Management \$ervice
CFR	Code of Federal Regulations
FY	Fiscal Year
GAGAS	Generally Accepted Government Auditing Standards
GL	General Ledger
GPA	Grade Point Average
I-Corps	NSF’s Innovation Corps
IPA	Intergovernmental Personnel Act
MTDC	Modified Total Direct Cost
NICRA	Negotiated Indirect Cost Rate Agreement
NSF	National Science Foundation
OIG	Office of Inspector General
PAPPG	Proposal and Award Policies and Procedures Guide
PI	Principal Investigator
POP	Period of Performance
UA	University of Alabama

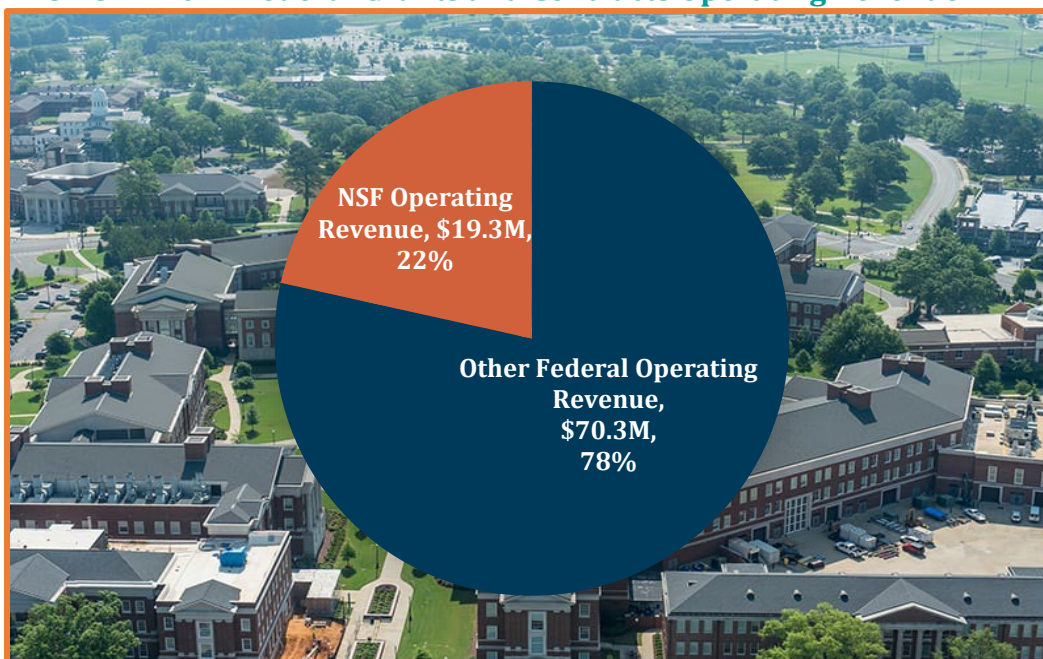
BACKGROUND

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 Sikich CPA LLC (formerly known as Cotton & Company Assurance and Advisory, LLC, and herein referred to as “we”), to conduct a performance audit of costs claimed by the University of Alabama (UA). UA is a public university located in Tuscaloosa, Alabama. In fiscal year (FY) 2022, UA reported approximately \$89.6 million in federal grants and contracts operating revenue, with \$19.3 million received from NSF, as illustrated in Figure 1.

Figure 1: UA’s FY 2022 Federal Grants and Contracts Operating Revenue



Source: The chart data is supported by UA’s 2021–2022 Annual Financial Report.

(<https://afr.ua.edu/wp-content/uploads/2023/02/UA-AFR-FY22.pdf>)

The photo of UA’s campus is publicly available on UA’s website. (<https://www.ua.edu/about/>)

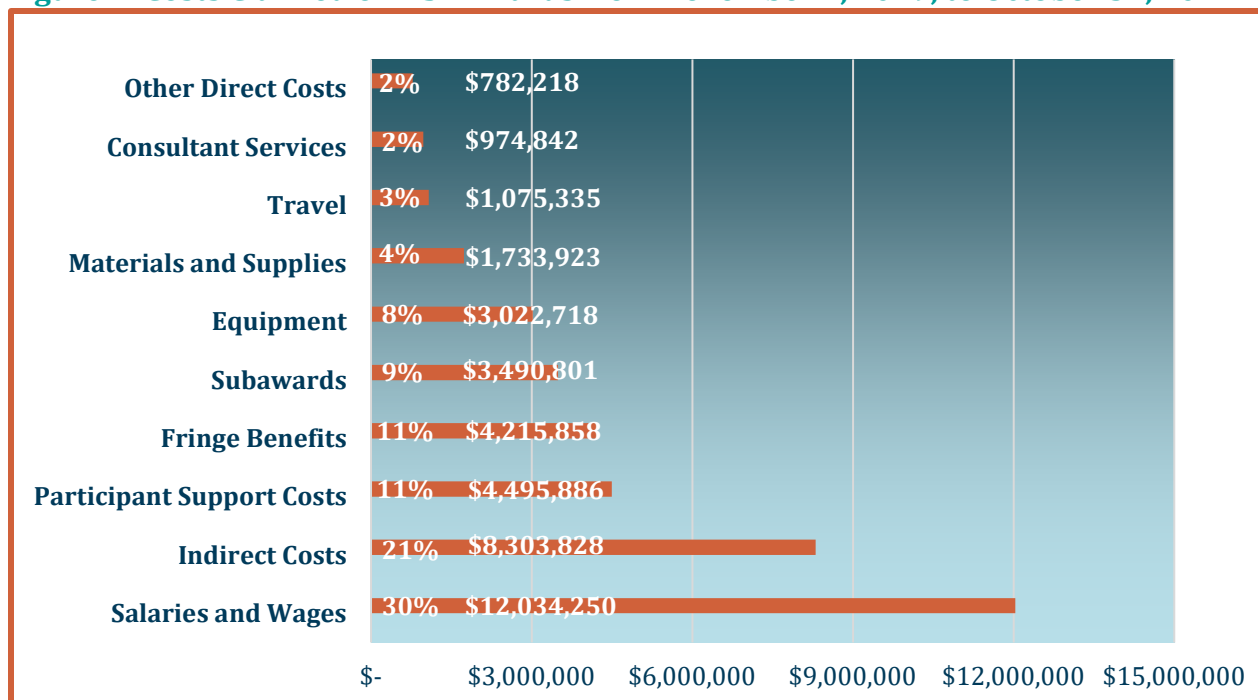
AUDIT SCOPE

This performance audit—conducted under Order No. 140D0422F0933—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* (GAGAS), issued by the Comptroller General of the United States.

The objectives of this performance audit were to evaluate UA’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, UA provided general ledger (GL) data to support the \$40.1 million in expenses it claimed on 242 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



Source: Auditor analysis of accounting data UA provided, illustrating the total costs (\$40,129,659) 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, computer services, and publications.

We judgmentally selected 42 transactions totaling \$1,909,334¹ (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 ²
Equipment	2	\$1,092,319
Participant Support Costs	3	278,535
Materials and Supplies	4	91,435
Fringe Benefits	4	88,870
Subawards	2	87,548
Consultant Services	2	83,867
Other Direct Costs	11	67,682
Salaries and Wages	9	67,496
Indirect Costs	2	27,856
Travel	3	23,726
Total	<u>42</u>	<u>\$1,909,334</u>

Source: Auditor summary of selected transactions.

AUDIT RESULTS

We identified and questioned \$41,311 in costs that UA charged to 12 NSF awards. We also identified expenses that UA charged to three NSF awards that did not result in **questioned costs** but did result in non-compliance with NSF or UA-specific policies and procedures. Finally, we identified one area in which UA should consider strengthening its controls to ensure it appropriately establishes summer salary appointments in the future. See Table 2 for a summary of questioned costs by finding area, **Appendix C** for a summary of questioned costs by NSF award, and **Appendix D** for a summary of all recommendations.

Table 2: Summary of Questioned Costs by Finding Area

Finding Description	Questioned Costs
Unallowable Expenses	\$29,567
Indirect Cost Rates Not Appropriately Applied	7,242
Inadequately Supported Expenses	4,502
Intergovernmental Personnel Act (IPA) Assignment Not Appropriately Established or Accounted For	-
Non-Compliance with UA's Tuition, Stipends, and Other Student Payments Policy	-
Total	<u>\$41,311</u>

Source: Auditor summary of findings identified.

¹ The \$1,909,334 represents the total value of the 42 transactions selected for transaction-based testing and does not represent the dollar base of the total costs reviewed during the audit.

² The expense amounts reported represent the total dollar value of the transactions selected for our sample; they do not include the total **fringe benefits** or **indirect costs** applied to the sampled transactions. However, we tested the fringe benefits and indirect costs for **allowability**.

We made 14 recommendations and identified one consideration for NSF's Director of the Division of Institution and Award Support related to resolving the \$41,311 in questioned costs and ensuring UA 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 UA and NSF OIG. We included UA's response to this report, in its entirety, in [Appendix A](#).

FINDING 1: UNALLOWABLE EXPENSES

UA charged seven NSF awards a total of \$29,567 in [salary, participant support, tuition/scholarship, and long-term visa costs](#) that were unallowable per federal regulations³ and [NSF Proposal and Award Policies and Procedures Guides \(PAPPGs\)](#).⁴

Unallowable Salary Expenses

UA charged one NSF award for \$8,505 in salary expenses that were not based on the employee's appointment and were not supported by records that accurately reflect the work performed, as required for salary expenses to be allowable per federal regulations⁵ and the NSF PAPPG,⁶ as illustrated in Table 3.

Table 3: Unallowable Salary Expense

Expense Date	NSF Award No.	Unallowable Total	Unallowable Expenses Associated With:	Notes
July 2021	██████████	\$8,505	Graduate Student Salary	a

Source: Auditor summary of identified exception.

- a) In July 2021, UA charged NSF Award No. ██████████ for \$8,505 in retroactive salary paid to a graduate student at an amount that was neither consistent with the student's salary appointment nor supported by an effort certification for the period in which the salary was actually earned.

³ According to 2 Code of Federal Regulations (CFR) § 200.403 (12/26/2014), 2 CFR § 200.403 (Revised 11/12/2020), and 2 CFR 220, Appendix A, Section C.2, *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.

⁴ According to NSF PAPPG 11-1, Part II, Chapter V, Section A and NSF PAPPGs 17-1, 18-1, 19-1, 20-1, and 22-1, Part II, Chapter X, Section A, *Basic Considerations*, grantees should ensure all costs charged to NSF awards meet the requirements of the cost principles contained in 2 CFR § 200, Subpart E, grant terms and conditions, and any other specific requirements of both the award notice and the applicable program solicitation.

⁵ According to 2 CFR § 200.430, *Compensation – personal services*, (a) costs of compensation are allowable (1) if they are reasonable for the services rendered, (2) follow an appointment made in accordance with the entity's policies, and are supported in accordance with 2 CFR § 200.430(i). 2 CFR § 200.430(i), *Standards for Documentation of Personnel Expenses*, states charges to federal awards for salaries and wages must be based on records that accurately reflect the work performed.

⁶ According to NSF PAPPG 20-1, Part I, Chapter II, Section C.g.(a), *Senior Personnel Salaries and Wages Policy*, effort must be documented in accordance with 2 CFR § 200, Subpart E, including 2 CFR § 200.430(i).

Unallowable Use of Participant Support Funds

UA used \$11,322 of participant support funding awarded on four NSF awards to cover salary, non-participant and other expenses that did not benefit the NSF awards charged, which is not allowable per federal regulations and NSF PAPPs,⁷ 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
February 2020	██████	\$4,845	Doctoral Student Salary	a
September 2021	██████	1,890	No-Show Participant Lodging and Non-Participant Parking	b
July 2022	██████	3,087	Non-Participant Meals	c
August 2022	██████	1,500	Non-Participant Lodging and No-Show Participant Lodging	d

Source: Auditor summary of identified exceptions.

- a)** In February 2020, UA inappropriately used \$4,845 in participant support funding awarded for NSF Award No. ██████ to cover expenses associated with salary paid to a UA doctoral student. In addition to these expenses being unallowable, as participant support funding was used to cover a non-participant salary payment, UA did not appropriately apply its indirect cost rate to the salary expenses.
- b)** In September 2021, UA inappropriately used \$1,890 in participant support funding awarded for NSF Award No. ██████ to cover \$1,880 in unallowable no-show participant lodging expenses and \$10 for a parking pass purchased for a non-participant session coordinator. In addition to these expenses being unallowable, because UA inappropriately classified these expenses as participant support, UA did not appropriately apply its indirect cost rate to the parking pass expense.
- c)** In July 2022, UA inappropriately used \$3,087 in participant support funding awarded for NSF Award No. ██████ to cover meal expenses for eight non-participant workshop mentors and organizers. In addition to these expenses being unallowable, because UA inappropriately classified these expenses as participant support, it did not appropriately apply its indirect cost rate to the mentors' and organizers' meal expenses.
- d)** In August 2022, UA inappropriately used \$1,500 in participant support funding awarded for NSF Award No. ██████ to cover \$1,050 in lodging provided to non-participant mentors and counselors and \$450 in lodging reserved for students that was unallowable as the students did not attend the event. In addition to these expenses being unallowable, because UA inappropriately classified these expenses

⁷ According to 2 CFR § 200.75 (12/26/2014) and 2 CFR § 200.75 (Revised 11/12/2020), *Participant support costs*, and NSF PAPPs 18-1 and 22-1, Part I, Chapter II, Section C.2.g.(v), *Participant Support*, participant support costs are defined as 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.

as participant support, it did not appropriately apply its indirect cost rate to the mentor and counselor lodging expenses.

Unallowable Scholarship/Tuition Expenses

UA charged three NSF awards for \$6,015 in scholarship/tuition expenses that were not allowable because they were not **allocable** to the award charged or were earned by participants that were not eligible for the **Robert Noyce Teaching Scholarship Program**,⁸ as required for the costs to be allowable per federal regulations,⁹ as illustrated in Table 5.

Table 5: Unallowable Scholarship/Tuition Expenses

Expense Date	NSF Award No.	Unallowable Total	Unallowable Expenses Associated With:	Notes
May 2020	██████	\$1,515	Graduate Tuition	a
September 2020	██████	4,000	Ineligible Noyce Scholarship	b
June 2021	██████	500	Ineligible Noyce Scholarship	c

Source: Auditor summary of identified exceptions.

- a) In May 2020, UA charged NSF Award No. ██████ for \$5,390 for 100 percent of a graduate student's summer 2020 tuition. However, as the student only dedicated 71.89 percent of their summer 2020 effort to this award, 28.11 percent—or \$1,515—of the tuition is not allocable to this award, and therefore is not allowable.
- b) In September 2020, UA charged NSF Award No. ██████ for \$4,000 for a Noyce scholarship provided to a student who did not maintain the 3.0 Grade Point Average (GPA) required to be eligible for the Noyce scholarship and eventually dropped out of the program.¹⁰

⁸ According to the *Robert Noyce Teacher Scholarship Program Solicitations* dated September 6, 2016 and August 29, 2017, Section II, *PROGRAM DESCRIPTION*, the scholarship/stipend/fellowship may revert to a loan, meaning that the recipient will be required to repay all or a portion of the scholarship/stipend/fellowship, if the recipient: 1. fails to maintain an acceptable level of academic standing in the program in which the individual is enrolled; 2. is dismissed from the program or institution for disciplinary reasons; 3. withdraws from the program before the completion of such program; 4. declares that the individual does not intend to fulfill the teaching service commitment; or 5. fails to fulfill the teaching service commitment.

⁹ According 2 CFR § 200.405 (December 26, 2014) and 2 CFR 220, Appendix A, Section C.4., *Allocable costs*, (a), a cost is allocable to a particular cost objective (i.e., a specific function, project, sponsored agreement, department, or the like) if the goods or services involved are chargeable or assignable to such cost objective in accordance with relative benefits received.

¹⁰ UA's *Robert Noyce Developing Leaders in Science Teaching (LIST) Scholarship/Loan Agreement & Promissory Note*, effective March 1, 2018, required this student to certify they understood and agreed that the scholarship assistance would end if they ceased to be enrolled as a full-time or part-time student or if they failed to maintain a minimum overall 3.0 GPA.

- c) In June 2021, UA charged NSF Award No. [REDACTED] for \$500 for a Noyce scholarship salary supplement disbursement paid to a student who did not maintain the 3.25 GPA required to be eligible for the Noyce scholarship.¹¹

Unallowable Long-Term Visa Expense

UA charged one NSF award for \$3,725 for a long-term visa, which is not allowable per federal regulations¹² and the NSF PAPPG,¹³ as illustrated in Table 6.

Table 6: Unallowable Long-Term Visa Expense

Expense Date	NSF Award No.	Expense Amount	Unallowable Expenses Associated With:	Notes
February 2022	[REDACTED]	\$3,725	Long-Term Student Visa	a

Source: Auditor summary of identified exception.

- a) In February 2022, UA charged NSF Award No. [REDACTED] for \$3,725 to apply for a student's long-term visa expense and the associated premium processing fee.

Conclusion

UA's policies, procedures, and internal controls did not always ensure that unallowable graduate student salary, participant support costs, scholarship/tuition, and long-term visa expenses were not charged to, or were removed from, NSF awards. Specifically, UA's policies did not ensure that:

- Retroactive salary expenses were charged based on the student's appointment and appropriately certified.
- Participant support cost funds were only used to support allowable costs incurred for NSF award participants.
- Tuition payments were allocated to NSF awards consistent with graduate student effort.
- Scholarship payments made to students that did not maintain the GPAs required to be eligible for the scholarship were removed from NSF awards.
- Long-term visa expenses were not charged to NSF awards.

¹¹ UA's *Robert Noyce Master Teaching Fellowships A-Plus Scholarship/Loan Agreement & Promissory Note* Noyce Scholarship/Loan Agreement, effective May 30, 2019, required this student to certify they understood and agreed that the scholarship assistance would end if they ceased to be enrolled as a full-time or part-time student or if they failed to maintain a minimum overall 3.25 GPA at the end of their graduate program.

¹² According to 2 CFR § 200.463(d), *Recruiting costs*, short-term, travel visa costs (as opposed to longer-term, immigration visas) are generally allowable expenses that may be proposed as a direct cost.

¹³ NSF PAPPG 19-1, Part II, Chapter XI, Section F.4, *Passports and Visas*, states NSF assumes no responsibility for securing passports or visas required by any person because of participation in an NSF-supported project. For restrictions concerning directly charging visa costs to an NSF award, see 2 CFR § 200.463.

We are therefore questioning \$29,567 of unallowable expenses charged to seven NSF awards. UA agreed to reimburse NSF for the \$29,567 in questioned costs, as illustrated in Table 7.

Table 7: Finding 1 Summary: Unallowable Expenses

NSF Award No.	Description	Fiscal Year	Questioned Costs			
			Direct	Indirect	Total	UA Agreed to Reimburse
██████	July 2021 Salary	2022	\$5,708	\$2,797	\$8,505	\$8,505
██████	February 2020 Doctoral Student Salary	2020	4,845	-	4,845	4,845
██████	September 2021 Non-Participant Support Costs	2022	1,890	-	1,890	1,890
██████	July 2022 Non-Participant Meals	2023	3,087	-	3,087	3,087
██████	August 2022 Non-Participant Lodging	2023	1,500	-	1,500	1,500
██████	May 2020 Tuition	2020	1,515	-	1,515	1,515
██████	September 2020 Scholarship	2021	4,000	-	4,000	4,000
██████	June 2021 Scholarship	2021	500	-	500	500
██████	February 2022 Long-Term Visa	2022	2,500	1,225	3,725	3,725
Total			<u>\$25,545</u>	<u>\$4,022</u>	<u>\$29,567</u>	<u>\$29,567</u>

Source: Auditor summary of identified exceptions.

Recommendations

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

- 1.1 Direct UA to provide documentation supporting that it has repaid or otherwise credited the \$29,567 in questioned graduate student salary, participant support, tuition/scholarship, and long-term visa costs for which it has agreed to reimburse NSF.
- 1.2 Direct UA to strengthen its procedures for processing retroactive salary adjustments. Updated procedures should ensure salary expenses are appropriately calculated at an employee's institutional base salary and appropriately certified for the period the salary was earned.
- 1.3 Direct UA to establish additional guidance regarding how to review expenses covered with participant support cost funding. This guidance should address how to segregate and account for costs UA is not allowed to cover using participant support cost funding, such as salary costs, and costs incurred for no-shows, conference mentors, and conference organizers. It should also address how UA will verify all non-participant travel expenses are charged to accounts that are included within its

Modified Total Direct Cost base to ensure its indirect cost rate is applied consistent with its Negotiated Indirect Cost Rate Agreement.

- 1.4 Direct UA to implement additional procedures to ensure that tuition/scholarship payments are appropriately charged to NSF awards. Additional procedures should require UA personnel to perform a review of all tuition/scholarship expenses charged to federal awards at the end of each tuition/scholarship period to verify that:
- Tuition/scholarships are allocated based on the student's actual effort during the period.
 - Expenses associated with recipients deemed ineligible for the tuition/scholarships received are removed from the NSF award(s) charged.
- 1.5 Direct UA to create additional resources that provide guidance regarding the allowability of visa fees on NSF awards. This guidance should address how UA will ensure it does not charge unallowable long-term visa fees to NSF awards and only charges NSF awards for short-term visa fees requested for individuals whose involvement is necessary to complete award objectives.

University of Alabama Response: UA agreed to reimburse NSF for the \$29,567 in questioned costs. Further, UA noted it will evaluate and strengthen its policies, procedures, resources, and training surrounding salary, participant support, tuition/scholarship, and long-term visa costs charged to NSF awards.

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

FINDING 2: INDIRECT COST RATES NOT APPROPRIATELY APPLIED

UA did not apply indirect cost rates consistent with its federally **Negotiated Indirect Cost Rate Agreements (NICRAs)** or relevant NSF program solicitations when charging direct expenses to four NSF awards. As a result, UA charged \$7,242 in unallowable indirect costs to three NSF awards and did not appropriately apply indirect cost rates to direct expenses charged to two NSF awards.

Indirect Cost Rates Not Appropriately Applied

UA inappropriately applied its indirect cost rate to participant support and **equipment** expenses that are not allowable in the **Modified Total Direct Cost (MTDC)** base, to which indirect cost rates should be applied, established in UA's NICRAs.¹⁴ As a result, UA charged \$4,961 in unallowable indirect costs to two NSF awards, as illustrated in Table 8.

¹⁴ UA's NICRAs dated June 2, 2015 and January 15, 2019, 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 8: Indirect Cost Rates Not Appropriately Applied

NSF Award Number	Expense Type	Expense Date(s)	Rate Applied (%)	Appropriate Rate (%)	Inappropriately Charged Indirect Costs	Notes
██████	Participant Support Costs	05/10/2020	49.00	0.00	\$4,043	a
██████	Equipment	04/14/2021	11.11	0.00	918	b

Source: Auditor summary of identified exceptions.

- a) In May 2020, UA charged NSF Award No. ██████ for \$8,250 in costs invoiced by a consultant for “Study Rewards.” As the invoiced funds awarded to pay the study rewards were budgeted to encourage participation in grant-related activities, these expenses should have been charged as participant support costs. However, because the costs were invoiced by a consultant, UA charged the expenses to the NSF award as consulting services, which are included in UA’s MTDC. As a result of this misclassification, UA inappropriately charged \$4,043 in indirect costs to the NSF award.
- b) In April 2021, UA inadvertently accounted for \$8,260 in capital equipment¹⁵ costs as materials and supplies, which are included in UA’s MTDC. As a result of this misclassification, UA inappropriately charged \$918 in indirect costs to NSF Award No. ██████. Further, as a result of inappropriately classifying the equipment, UA did not appropriately include the equipment in its annual inventory.¹⁶

Indirect Cost Rates Not Appropriately Applied to NSF’s Innovation Corps Awards

UA did not always apply indirect costs to **NSF’s Innovation Corps (I-Corps)** awards consistent with the NSF award budget and program solicitations.¹⁷ Specifically, although NSF I-Corps program solicitations note that indirect costs must be budgeted at 11.11 percent (\$5,000 in indirect costs/\$45,000 in direct costs), for at least two I-Corps awards, UA charged the \$5,000 in budgeted indirect costs to the NSF award at the award’s inception, rather than applying the 11.11 percent approved indirect cost rate. As a result, UA had charged \$2,281 in unallowable indirect costs to one NSF award as of the end of our audit period, as illustrated in Table 9.

¹⁵ According to UA’s Capitalization Policy, capital assets are defined as land, improvements to land, easements, buildings, building improvements, vehicles, machinery, equipment, books and maps, works of art and historical treasures, infrastructure, and all other tangible and intangible assets that are used in operations and that have initial useful lives extending beyond a single reporting period.

¹⁶ 2 CFR § 200.313 *Equipment*, Section (d) *Management requirements*, (2) a physical inventory of the property must be taken and the results reconciled with property records at least once every two years.

¹⁷ NSF 18-515 and NSF 21-552, *Innovation Corps – National Innovation Network Teams Program (I-Corps™ Teams)*, Section V.B. *Budgetary Information*, states recovery of indirect costs shall be limited to \$5,000 and that I-Corps budgets must include the correct indirect cost rate (i.e. \$5,000 / \$45,000 = 11.11%).

Table 9: Indirect Cost Rates Not Appropriately Applied to NSF's I-Corps Awards

NSF Award Number	Approved Indirect Cost Rate (%)	Indirect Costs Charged	Direct Costs Charged	Allowable Indirect Costs	Unallowable Indirect Costs	Notes
██████████	11.11	\$5,000	\$45,000	\$5,000	\$0	a
██████████	11.11	5,000	24,471	2,719	2,281	b

Source: Auditor summary of identified exceptions.

- a) In May 2019, UA posted a \$5,000 indirect expense to NSF Award No. ██████████ rather than applying the 11.11 indirect cost rate to MTDC as direct costs were charged to the award. As UA had claimed \$45,000 in direct expenses, as required to be eligible for the full \$5,000 in indirect costs claimed, as of the end of our audit POP, we are not questioning costs associated with this exception.
- b) In June 2021, UA posted a \$5,000 indirect expense to NSF Award No. ██████████ rather than applying indirect costs at 11.11 percent of MTDC charged to the award. Because UA had only incurred \$24,471 in MTDC base expenses as of the end of our audit POP, UA was only eligible for \$2,719 ($\$24,471 \times 11.11$ percent) of the indirect costs it had claimed during the POP. Accordingly, \$2,281 of the indirect costs charged to the award as of the end of the audit POP are not allowable.

Conclusion

UA did not have sufficient policies and procedures or internal controls in place to ensure it appropriately charged participant support and equipment costs to account codes that it excludes from its MTDC base. Further, UA's indirect cost rate application procedures are not designed to ensure that UA consistently applies indirect cost rates to I-Corps awards in compliance with NSF program solicitations. We are therefore questioning \$7,242 in inappropriately charged indirect costs and noting one compliance exception for the instances in which UA did not appropriately apply indirect cost rates. UA agreed to reimburse NSF for \$3,199 of the questioned costs but disagreed with the remaining \$4,043, as illustrated in Table 10.

Table 10: Finding 2 Summary: Indirect Cost Rates Not Appropriately Applied

NSF Award No.	Description	Fiscal Year	Questioned Costs			
			Direct	Indirect	Total	UA Agreed to Reimburse
██████████	May 2020 PSCs Included in MTDC	2020	\$0	4,043	4,043	\$0
██████████	April 2021 Equipment Included in MTDC	2021	-	918	918	918
██████████	Indirect Costs Not Appropriately Applied to I-Corps Awards	Various	-	-	-	-

NSF Award No.	Description	Fiscal Year	Questioned Costs			
			Direct	Indirect	Total	UA Agreed to Reimburse
██████	Indirect Costs Not Appropriately Applied to I-Corps Awards	Various	-	2,281	2,281	2,281
Total			<u>\$0</u>	<u>\$7,242</u>	<u>\$7,242</u>	<u>\$3,199</u>

Source: Auditor summary of identified exceptions.

Recommendations

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

- 2.1 Direct UA to provide documentation supporting that it has repaid or otherwise credited the \$3,199 in questioned indirect costs for which it has agreed to reimburse NSF.
- 2.2 Resolve the \$4,043 in questioned indirect costs and direct UA to repay or otherwise remove the sustained questioned costs from its NSF awards.
- 2.3 Direct UA to strengthen its policies, procedures, and internal control processes for applying its federally negotiated indirect cost rate to NSF awards. Updated procedures could include:
 - Creating additional review checklists designed to ensure that indirect costs are not applied to expenses that are supposed to be excluded from UA's Modified Total Direct Cost base.
 - Conducting training for individuals responsible for charging indirect costs to sponsored accounts that incur indirect costs. We suggest that UA conduct the training at least annually.
 - Requiring that personnel manually review material and supply expenses over \$5,000 charged to NSF awards to ensure that UA appropriately capitalizes equipment expenses.
- 2.4 Direct UA to create a formal policy or procedure for establishing the indirect cost rate to apply to NSF Innovation Corps awards, ensuring indirect costs are charged by applying the indirect cost rate approved by the relevant program solicitation.

University of Alabama Response: UA partially agreed with the finding, agreeing to reimburse NSF for \$3,199 of the questioned costs but disagreeing with the \$4,043 in questioned indirect costs for NSF Award No. ██████ UA stated that the study rewards invoiced by the consultants were incentive payments made to human subjects who participated in a research study rather than participant support costs. Specifically, UA noted that study rewards paid to human subjects do not meet the definition of participant

support costs per 2 CFR § 200.1 and noted that the proposal budget and budget justification properly categorized incentive costs as “participant recruitment and remuneration” within the “Other” cost category. As a result, UA believes the incentive payments were appropriately charged to the NSF award as consulting expenses and therefore, indirect costs were appropriately applied.

Auditors’ Additional Comments: Our position regarding this finding has not changed. Specifically, with regard to the \$4,043 in questioned costs for NSF Award No. [REDACTED] because the study rewards were paid to individuals identified as participating in the research in the award budget, and as the project description stated 1,000 participants would be recruited, the study rewards appear to represent participant support costs. As participant support costs are to be excluded from UA’s MTDC base, our position regarding this finding has not changed.

FINDING 3: INADEQUATELY SUPPORTED EXPENSES

UA did not provide adequate documentation to support the allocability, allowability, and reasonableness of \$4,502 in utility and gift card expenses charged to two NSF awards during the audit period, as required for the costs to be allowable per federal regulations¹⁸ and NSF PAPPGs,¹⁹ as illustrated in Table 11.

Table 11: Inadequately Supported Expenses

Expense Date	NSF Award No.	Inadequately Supported Expenses	Insufficient Documentation to Support:	Notes
January 2021	[REDACTED]	\$4,202	Utility Invoice and Service Agreement	a
March 2021	[REDACTED]	300	Distribution of Gift Cards	b

Source: Auditor summary of identified exceptions.

- a)** In January 2021, UA charged NSF Award No. [REDACTED] for \$4,202 in off-campus utility expenses for electricity to be brought to streamside channels for grant related warming experiments. However, these utility expenses were not supported by an itemized invoice that detailed how the expense amount was calculated, nor a service agreement or other documentation to support how the rates were determined and/or verified as reasonable.
- b)** In March 2021, UA charged \$4,000 to NSF Award No. [REDACTED] for the purchase of 40 \$100 gift cards. Although UA provided documentation to support that 37 of the 40 gift cards were distributed to NSF award research participants, UA did not

¹⁸ According to 2 CFR § 200.403 (12/26/2014), *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.

¹⁹ NSF PAPPGs 17-1 and 19-1, Part II, Chapter X, Section A, *Basic Considerations*, states grantees should ensure all costs charged to NSF awards meet the requirements of the cost principles contained in 2 CFR § 200, Subpart E, grant terms and conditions, and any other specific requirements of both the award notice and the applicable program solicitation.

provide documentation to support the distribution of the remaining 3, or \$300 in gift cards.

Conclusion

UA did not have sufficient policies, procedures, or internal controls in place to ensure that it received and maintained adequate documentation to support utility or gift card expenses. Specifically, UA's policies, procedures, and internal controls do not require it to retain service agreements or obtain other sufficient documentation to support the reasonableness of utility expenses. Further, its gift card policies and procedures do not ensure all gift cards purchased with NSF award funds are distributed to support the NSF award charged or that costs associated with undistributed gift cards are removed from the NSF awards charged. We are therefore questioning \$4,502 in inadequately supported expenses charged to two NSF awards. UA agreed to reimburse NSF for \$300 of the questioned costs but disagreed with the remaining \$4,202, as illustrated in Table 12.

Table 12: Finding 3 Summary: Inadequately Supported Expenses

NSF Award No.	Description	Fiscal Year	Questioned Costs			
			Direct	Indirect	Total	UA Agreed to Reimburse
██████	January 2021 Off-Campus Utilities	2021	\$2,820	\$1,382	\$4,202	\$0
██████	March 2021 Gift Cards	2021	300	-	300	300
Total			<u>\$3,120</u>	<u>\$1,382</u>	<u>\$4,502</u>	<u>\$300</u>

Source: Auditor summary of identified exceptions.

Recommendations

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

- 3.1 Direct UA to provide documentation supporting that it has repaid or otherwise credited the \$300 in questioned gift card expenses for which it has agreed to reimburse NSF.
- 3.2 Resolve the \$4,202 in questioned inadequately supported utility expenses and direct UA to repay or otherwise remove the sustained questioned costs from its NSF awards.
- 3.3 Direct UA to strengthen its policies and procedures for creating and retaining documentation to support utility expenses and the disbursement of all purchased gift cards. Updated policies and procedures could include:
 - Obtaining and retaining detailed invoices with calculations from utility companies and establishing agreements with all service providers.

- Creating and retaining documentation to ensure that gift cards are appropriately distributed and/or refunded to the NSF award.

University of Alabama Response: UA partially agreed with the finding, agreeing to reimburse NSF for \$300 of the questioned gift card costs but disagreeing with the \$4,202 in questioned utility expenses for NSF Award No. [REDACTED]

With respect to the questioned utility expenses, although UA acknowledged that the vendor invoice did not include the utility rate to support how the expense amount was calculated, because the invoice supports the total amount billed by the provider, UA believes these costs should be allowable. Specifically, UA noted that the service provider only maintains report details for the past two years and has indicated that usage data for that invoice is no longer available.

Auditors' Additional Comments: Our position regarding this finding has not changed. With regard to the \$4,202 in questioned costs for NSF Award No. [REDACTED] because UA did not obtain documentation to support the utility rate charged to the award, we are unable to verify the costs are reasonable or allowable consistent with NSF or federal regulations. Accordingly, our position regarding this finding has not changed.

FINDING 4: IPA ASSIGNMENT NOT APPROPRIATELY ESTABLISHED OR ACCOUNTED FOR

UA did not appropriately establish or charge NSF for one **Intergovernmental Personal Act (IPA)** assignment during the audit period. Specifically, although NSF approved the IPA agreement executed for NSF Award No. [REDACTED] to allow a UA professor to remain on UA's payroll while assigned to perform work at NSF, we noted the following issues with the executed IPA agreement:

- As a result of UA inappropriately estimating the employee's salary increase when completing the IPA Assignee Cost Data sheet,²⁰ the \$153,566 annual salary identified within the employee's IPA agreement was not consistent with their actual institutional base salary (IBS) of \$152,850 during their assignment.²¹
- Although UA agreed to cost share 10 percent of the IPA employee's salary, as requested per the IPA agreement template, the cost share calculation included in the IPA agreement supports that only 7.5 percent of the employee's salary would be cost shared.²²

²⁰ NSF's *IPA Assignee Cost Data* states that certified salary must be the actual salary paid by the institution and should not include estimated salary increases.

²¹ UA's *Finance and Operations Payroll Services Records* states the total IBS for this UA professor from 10/01/2021 to 05/15/2022 was \$152,850.06 for a 9-month appointment.

²² According to the IPA Agreement between NSF and UA, 10 percent of the employee's annual salary and fringe benefits were to be cost shared. However, the calculation within the IPA agreement only represented a cost share amount of 7.5 percent, as follows: \$243,657 (total cost of assignment) – 225,382 (NSF award amount) = \$18,275, that UA agreed to cost share. \$18,275 (UA cost share)/\$243,657 (total cost of assignment) = 7.5 percent, rather than 10 percent.

- The salary amounts UA charged to the NSF award and the subsequent amounts drawn in Award Cash Management Service (ACM\$) were not always consistent with the amounts that should have been drawn based on the employee's IBS or the IPA assignment. Further, the amounts did not always appropriately consider UA's approved cost share amount.

Conclusion

UA did not have adequate procedures or controls in place to ensure that it complied with the IPA assignment policies and procedures when charging salary costs to the IPA award. Because UA noted that it has contributed more than 10 percent of the employee's salary as cost share, we are not questioning any costs; however, we are noting a compliance exception because UA did not appropriately establish the IPA assignment for one NSF award, as illustrated in Table 13.

Table 13: Finding 4 Summary: IPA Assignment Not Appropriately Established or Accounted For

NSF Award No.	Description	Fiscal Year
██████████	IPA Assignment Not Appropriately Established or Accounted For	2021

Source: Auditor summary of identified exception.

Recommendations

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

- 4.1 Direct UA to develop specific guidance to follow when executing and drawing down funding for Intergovernmental Personal Act assignments. This guidance should be developed to ensure:
 - Intergovernmental Personal Act assignments are established utilizing the employee's approved institutional base salary.
 - UA's agreed-upon cost share amount is appropriately calculated.
 - UA appropriately charges the NSF award for the employee's salary, less any agreed-upon cost share amount, and draws down funding from NSF based on its actual expenses.

University of Alabama Response: UA did not agree with this finding and specifically noted that it provided documentation to confirm the following:

- Although the actual base salary effective 10/01/2021 varied slightly from the estimate provided to NSF, UA identified the assignee's current base salary and estimated base salary based in the IPA assignee cost data sheet it submitted to NSF.

- The calculations on the IPA assignee cost data sheet support that the 10 percent cost share amount was correct based on the fiscal obligations were approved by NSF.
- Actual costs incurred were charged to the NSF award.
- UA met the 10 percent cost share obligation based on actual costs incurred.

Auditors' Additional Comments: Our position regarding this finding has not changed. Specifically, although UA noted it appropriately established the IPA assignment for the NSF award, because the salary amount was not appropriately established, the cost share calculation was incorrect, and UA's ACM\$ draws were not consistent with the salary costs that should have been charged to the award, as detailed in the finding above, our position regarding this finding has not changed.

FINDING 5: NON-COMPLIANCE WITH UA'S TUITION, STIPENDS, AND OTHER STUDENT PAYMENTS POLICY

UA did not always comply with—or did not always document its compliance with—its Tuition, Stipends, and Other Student Payments Policy,²³ which requires the Principal Investigator (PI) to complete and sign a Contract and Grant Tuition form for graduate and undergraduate tuition payments when incurring costs charged to two NSF awards, as illustrated in Table 14.

Table 14: Non-Compliance with UA's Tuition, Stipends, and Other Student Payments Policy

NSF Award No.	Fiscal Year	Expense Date	Tuition, Stipends, and Other Student Payments Compliance Exception:	Notes
██████	2020	September 2020	Lack of Contract and Grant Tuition Form	a
██████	2021	June 2021	Lack of Contract and Grant Tuition Form	b

Source: Auditor summary of identified exceptions.

- In September 2020, UA charged NSF Award No. ██████ for \$235,900 in Noyce scholarships without completing a Contract and Grant Tuition form to document all the students who received scholarships or fellowships charged to the grant.
- In June 2021, UA charged NSF Award No. ██████ for \$76,900 in scholarship stipends for the Noyce scholarship without completing a Contract and Grant Tuition form to document all the students who received scholarships or fellowships charged to the grant.

²³ UA's *Tuition, Stipends, and Other Student Payments Policy* states that undergraduate tuition payments and other student Scholarship and Fellowship charges to grants, contracts, or cost share funds (whether for graduate or undergraduate students) must be documented by use of the Contract and Grant Tuition form. This form must be signed by the PI.

Conclusion

UA did not have sufficient procedures in place to ensure that PIs consistently documented and approved undergraduate tuition payments. Because these instances of non-compliance did not result in UA charging unallowable costs to NSF awards, we are not questioning any costs related to these exceptions. However, we are noting compliance exceptions for the two instances in which UA did not comply with its internal Tuition, Stipends, and Other Student Payments Policy when charging costs to two NSF awards, as illustrated in Table 15.

Table 15: Finding 5 Summary: Non-Compliance with UA's Tuition, Stipends, and Other Student Payments Policy

NSF Award No.	Compliance Exception Identified	Fiscal Year
██████	Non-Compliance with UA's Tuition, Stipends, and Other Student Payments Policy	2020
██████	Non-Compliance with UA's Tuition, Stipends, and Other Student Payments Policy	2021

Source: Auditor summary of identified exceptions.

Recommendations

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

- 5.1 Direct UA to implement procedures or internal controls to ensure Principal Investigators appropriately document and approve tuition payments.

University of Alabama Response: UA partially agreed with the finding, stating that while its current practice is not formally documented, because the purpose of these NSF awards was to provide the sampled scholarships, the form referenced in UA policy is not required. Specifically, UA noted that its current procedures for approving scholarship expenses for these programs use an alternative method of PI approval and that it will update its policies and procedures to ensure they align with its practices.

Auditors' Additional Comments: Our position regarding this finding has not changed as UA's policy applicable during our audit POP states that the Contract and Grant Tuition Form must be completed and approved by the PI for all student tuition, stipend, and other student payments.

AREA FOR IMPROVEMENT: SUMMER SALARY APPOINTMENT NOT APPROPRIATELY ESTABLISHED

In the summer of 2022, UA established an employee's summer salary at an annual salary rate of \$195,300, rather than based on the employee's IBS of \$207,300, without providing a justification for how the summer salary appointment amount was established.

Table 16: Salary Appointment Not Appropriately Established

NSF Award Number	Fiscal Year	Annual Salary Paid	Employee's IBS	Difference
	2022	\$195,300	\$207,300	(\$12,000)

Source: Auditor summary of identified exception.

Conclusion

Because UA did not establish the annual salary at an amount over the employee's IBS, which is unallowable per the NSF PAPPG,²⁴ we are not noting a finding. However, we are noting an **area for improvement**, as UA's lack of a documented process for establishing summer salary appointments not based on an employee's IBS could cause UA to charge unallowable costs to NSF awards if UA was to establish a summer salary at a rate above an employee's IBS in the future.

Consideration

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

- Directing UA to develop formal procedures and/or internal controls surrounding how to establish summer salary appointments to ensure salary earned at a rate above an employee's institutional base salary is not charged to NSF awards.

University of Alabama Response: UA partially agreed with this area for improvement, noting that faculty members have the discretion to request summer salary at any amount up to 33 percent of their IBS. However, UA stated it will revise the *Institutional Base Salary for Sponsored Projects Policy* to establish procedures for summer salary appointments.

Auditors' Additional Comments: Our position regarding this area for improvement has not changed. Specifically, UA does not currently have a documented process for establishing summer salary appointments that ensures employees do not establish appointments at amounts that exceed their IBS.

Sibich CPA LLC

May 17, 2024

²⁴ NSF PAPPG 18-1, Part I, Chapter II, Section C.2.g.(i)(a), *Senior Personnel Salaries and Wages Policy*, states that NSF limits the salary compensation requested in the proposal budget for senior personnel to no more than two months of their regular salary in any one year. If anticipated, any compensation for such personnel in excess of two months must be disclosed in the proposal budget, justified in the budget justification, and specifically approved by NSF in the award notice budget.

APPENDIX A: UA'S RESPONSE

May 7, 2024

Sikich CPA LLP
333 John Carlyle Street, Suite 500
Alexandria, VA 22314

Attention: Megan Mesko, CPA, CFE

Dear Ms. Mesko:

The University of Alabama appreciates the opportunity to work with the National Science Foundation (NSF) Office of Inspector General and Sikich CPA to examine its internal controls and sponsored programs administration. The University takes its obligation to administer NSF awards in compliance with all applicable laws, regulations, and agency requirements seriously. As such, the University appreciates the recommendations and opportunities to evaluate and improve existing policies and procedures.

Enclosed please find University responses to questioned costs, findings, and areas of improvement. The University looks forward to working with NSF during the resolution process.

Sincerely,

DocuSigned by:
Jennifer R. Camp
5D880442F57148D
Jennifer R. Camp, CRA
Associate VP, Research Administration

DocuSigned by:
Bryan W. Boudouris
D0607FD0340E4D1
Bryan Boudouris, PhD
Vice President for Research & Economic Development

CC: Cheryl Mowdy
Interim Vice President for Finance & Operations

The University of Alabama NSF Audit Report Response

Finding 1: Unallowable Expenses

The University of Alabama (UA) has internal controls in place that reasonably assure that expenses charged to sponsored awards are allowable, allocable, reasonable, and necessary. UA will evaluate and strengthen policies, procedures, resources, and training as referenced below.

NSF Award No.	Description	Questioned Costs	UA Response
██████	Salary	\$8,505	<p>UA will reimburse NSF for this expense.</p> <p>While the employee's effort provided direct benefit to the NSF award, there is an opportunity for UA to review and revise procedures related to changes in planned effort to ensure the information clearly supports payroll expenditures and effort certification.</p>
██████	Doctoral Student Salary	\$4,845	<p>UA will reimburse NSF for this expense.</p> <p>The employee's effort directly benefited the project and it is allowable and allocable to this NSF award. This is a unique circumstance where the payroll expenses were allocated in error to the associated fund number dedicated to participant support costs and the award has now ended.</p> <p>UA will develop guidance that addresses how to properly segregate and account for costs that UA is not allowed to cover using funding budgeted for participant support costs. UA will educate Principal Investigators and post-award administrators regarding the appropriate classification of participant support costs.</p>
██████	Non-Participant Support Costs	\$1,890	<p>UA will reimburse NSF for this expense.</p> <p>UA will develop guidance that addresses how UA will verify non-participant expenses and charge these costs to funds within its Modified Total Direct Cost base, not funds segregated for participant support costs only. UA will educate Principal Investigators and post-award administrators regarding the appropriate classification of participant support costs.</p>

NSF Award No.	Description	Questioned Costs	UA Response
	Non-Participant Meals	\$3,087	<p>UA will reimburse NSF for this expense.</p> <p>Non-participant meals (i.e., for mentors) are related to a training workshop specifically described in the planned scope of work and budget for this NSF award. This is a unique circumstance where the training and workshop meals for all attendees, including participants, were included on the vendor invoices and allocated to the fund segregated for participant support costs.</p> <p>UA will develop guidance that addresses how UA will verify non-participant expenses and charge these costs to funds within its Modified Total Direct Cost base, not funds segregated for participant support costs only. UA will educate Principal Investigators and post-award administrators regarding the appropriate classification of participant support costs.</p>
	Non-Participant Lodging	\$1,500	<p>UA will reimburse NSF for this expense.</p> <p>UA will develop guidance that addresses how UA will verify non-participant expenses and charge these costs to funds within its Modified Total Direct Cost base, not funds segregated for participant support costs only. UA will educate Principal Investigators and post-award administrators regarding the appropriate classification of participant support costs.</p>
	Tuition	\$1,515	<p>UA will reimburse NSF for this expense.</p> <p>UA will evaluate and improve processes related to allocation of tuition to ensure UA personnel review expenses and verify that the costs align with actual effort charged to the NSF award.</p>
	Scholarship	\$4,000	<p>UA will reimburse NSF for this expense.</p> <p>The student did not maintain the GPA requirement of the program. The student's note transferred to a repayable loan to UA in accordance with terms and conditions outlined in the promissory note, which are reimbursed to NSF.</p>

NSF Award No.	Description	Questioned Costs	UA Response
██████	Scholarship	\$500	<p>UA will reimburse NSF for this expense.</p> <p>The student did not maintain the GPA requirement of the program. The student's note transferred to a repayable loan to UA in accordance with terms and conditions outlined in the promissory note, which are reimbursed to NSF.</p>
██████	Long-Term Visa	\$3,725	<p>UA will reimburse NSF for this expense.</p> <p>The employee's offer letter included reference to this specific NSF award. Additionally, effort certification supported that this employee worked 100% effort on this NSF award.</p> <p>UA will update guidance to address unallowable charges on NSF awards such as long-term visa fees.</p>

Finding 2: Indirect Cost Rates Not Appropriately Applied

UA has internal controls and procedures in place for applying indirect cost rates to all direct costs that should be included within the Modified Total Direct Cost Base in accordance with its Negotiated Indirect Cost Rate Agreement. UA will evaluate and strengthen processes related to the application of indirect costs on NSF I-Corps awards as referenced below.

NSF Award No.	Description	Questioned Costs	UA Response
██████	Participant Support Costs	\$4,043	<p>UA does not agree with this finding.</p> <p>These expenses are related to study rewards, also known as incentive payments, to human subjects who participate in a research study. Study rewards to human subjects do not meet the definition of participant support costs in 2 CFR 200. §200.1 defines Participant support costs as follows, "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."</p>

NSF Award No.	Description	Questioned Costs	UA Response
			The proposal budget and budget justification properly categorized incentive costs in the "Other" category with the heading "participant recruitment and remuneration." Actual study incentive costs were allocated correctly to the NSF award, including the correct application of indirect costs.
	Equipment	\$918	UA will reimburse NSF for this expense. UA will create review checklists to assist employees with application of the correct account code to ensure the correct application of indirect costs.
	I-Corps awards	\$0	UA agrees with this finding. UA will establish different processes for charging indirect costs on NSF I-Corps awards to ensure that indirect cost expenditures align with actual direct costs incurred.
	I-Corps awards	\$2,281	UA will reimburse NSF for this expense. UA will establish different processes for charging indirect costs on NSF I-Corps awards to ensure that indirect cost expenditures align with actual direct costs incurred.

Finding 3: Inadequately Supported Expenses

UA understands the importance of maintaining adequate documentation and has internal controls in place that reasonably assure the documentation adequately supports expenses charged to sponsored awards. UA will evaluate and strengthen document retention procedures as referenced below.

NSF Award No.	Description	Questioned Costs	UA Response
	Off-Campus Utilities	\$4,202	UA agrees, in part, with this finding. The experimental design of this NSF award explicitly describes the necessity for utilities at an off-campus location thereby demonstrating how the costs directly benefited the NSF award. Documentation provided supports the total amount billed by the provider and charged to the award. UA

NSF Award No.	Description	Questioned Costs	UA Response
			<p>requests an exception for the need to reimburse NSF for these costs. UA acknowledges that the vendor invoice did not include the utility rate to support how the expense amount was calculated. UA's online account with the service provider only reports details for the past two years. UA contacted the service provider for additional support; the provider indicated that usage data for that invoice is no longer available.</p> <p>UA will retain detailed invoices that support how the utility amounts are calculated.</p>
	Gift Cards	\$300	<p>UA will reimburse NSF for this expense.</p> <p>UA will retain documentation to ensure that gift cards are appropriately distributed and/or refunded to the NSF award.</p>

Finding 4: IPA Assignment Not Appropriately Established or Accounted For

UA has procedures in place to ensure adherence with NSF program requirements. In this particular instance pertaining to an NSF Intergovernmental Personnel Act (IPA) assignment, UA correctly completed the required IPA assignee cost data sheet and agreed to the fiscal obligations calculated and prepared by NSF in the subsequent agreement.

NSF Award No.	Description	UA Response
	IPA Assignment	<p>UA does not agree with this finding.</p> <p>Documentation was provided to confirm the following:</p> <ul style="list-style-type: none"> • UA submitted the IPA assignee cost data sheet to NSF with both the assignee's current base salary at the time of submission and estimated base salary based on the anticipated raise amount to be effective 10/1/2021; • NSF prepared the fiscal obligations section of the IPA based on their review of the IPA assignee cost data sheet and returned the agreement to UA for execution; • The special pay conditions section of the IPA states that, "Amendments to permit increases in institution salary and fringe benefits are allowed subject to NSF policy limitations"; Calculations support that the 10% cost share amount was correct based on the salary

NSF Award No.	Description	UA Response
		<p>amount NSF applied in the fiscal obligations section of the IPA;</p> <ul style="list-style-type: none"> The actual base salary effective 10/1/2021 varied slightly from the estimate previously provided to NSF; and, Actual costs incurred were charged to the NSF award; UA met the 10% cost share obligation based on actual costs incurred.

Finding 5: Non-Compliance With UA's Tuition, Stipends, And Other Student Payments Policy

UA has established policies and procedures in place related to payment of tuition, stipends, and other student payments on sponsored awards. UA will evaluate and strengthen policies and procedures as referenced below.

NSF Award No.	Description	UA Response
	Non-Compliance with UA's Tuition, Stipends, and Other Student Payments Policy	<p>UA agrees, in part, with this finding.</p> <p>The purpose of this NSF award is specific to scholarship programs. Due to the UA process for payment of stipends/scholarships through this type of program, the form referenced in UA policy is not required. These programs use an alternative method of Principal Investigator approval.</p> <p>UA will review and update policies and procedures to ensure they align with practice.</p>
	Non-Compliance with UA's Tuition, Stipends, and Other Student Payments Policy	<p>UA agrees, in part, with this finding.</p> <p>The purpose of this NSF award is specific to scholarship programs. Due to the UA process for payment of stipends/scholarships through this type of program, the form referenced in UA policy is not required. These programs use an alternative method of Principal Investigator approval.</p> <p>UA will review and update policies and procedures to ensure they align with practice.</p>

Area for Improvement: Summer Salary Appointment Not Appropriately Established

UA has established policies that define institutional base salary (IBS) and the appropriate application of IBS during summer appointments for 9-month employees. UA will evaluate and strengthen related policies and procedures as referenced below.

NSF Award No.	Description	UA Response
	Salary Appointment	<p>UA agrees, in part, with this area of improvement.</p> <p>UA's <i>Budget Procedures for Grants and Contracts</i> clearly states that, "A faculty member on a 9-month appointment can request summer salary up to 33% of his/her institutional base salary." UA will revise the <i>Institutional Base Salary for Sponsored Projects</i> policy to establish procedures for summer salary appointments.</p>

APPENDIX B: OBJECTIVES, SCOPE, AND METHODOLOGY

Objectives

The NSF OIG Office of Audits engaged Sikich CPA LLC (formerly known as Cotton & Company Assurance and Advisory, LLC and herein referred to as “we”), to conduct an audit of the costs the University of Alabama (UA) 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 UA’s award management environment; determine if costs claimed are 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

The audit population included approximately \$40.1 million in expenses that UA claimed on 242 NSF awards during our audit POP of November 1, 2019, through October 31, 2022.

Methodology

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

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

management systems did not substantially comply with applicable requirements.

- UA provided detailed transaction-level data to support \$40,129,401 in costs charged to NSF awards during the period, which was less than the \$40,129,649 UA claimed in ACM\$ for the 242 awards. This data resulted in a total audit universe of \$40,129,401 in expenses claimed on 242 NSF awards.
 - Because the \$248 variance was immaterial and the GL data materially reconciled to NSF's ACM\$ records, we determined that the GL data was appropriate for the purposes of this engagement.
- Obtaining and reviewing all available accounting and administrative policies and procedures, external audit reports, desk review reports, and other relevant information that UA and NSF OIG provided, as well as any other relevant information that was available online.
- Summarizing our understanding of federal, NSF, and UA-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 UA's internal controls within the audit's scope solely to understand the directives or policies and procedures UA has in place to ensure that charges against NSF awards complied with relevant federal regulations, NSF award terms and conditions, and UA policies.
- Providing UA with a list of 42 transactions that we selected based on the results of our data analytics and requesting that UA provide documentation to support each transaction.
- Reviewing the supporting documentation UA 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,²⁵ NSF,²⁶ and UA policies.²⁷
- Holding virtual interviews and walkthroughs with UA in July 2023 to discuss payroll (including fringe benefits and effort reporting), travel, participant support costs,

²⁵ We assessed UA'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.

²⁶ We assessed UA's compliance with NSF Proposal and Award Policies and Procedures Guides (PAPPGs) 13-1, 16-1, 17-1, 18-1, 19-1, 20-1, and 22-1 and with NSF award-specific terms and conditions, as appropriate.

²⁷ We assessed UA's compliance with internal UA policies and procedures surrounding costs budgeted for or charged to NSF awards.

procurement, equipment (including an inventory check), other direct costs (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.²⁸

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 UA personnel to ensure that UA 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.

²⁸ Based on the areas of elevated risk of non-compliance identified during the initial phase, we determined that there was no need for an expanded audit phase.

APPENDIX C: SUMMARY OF QUESTIONED COSTS

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

Finding	Description	Questioned Costs		Total
		<i>Unsupported</i>	<i>Unallowable</i>	
1	Unallowable Expenses	\$0	\$29,567	\$29,567
2	Indirect Cost Rates Not Appropriately Applied	-	7,242	7,242
3	Inadequately Supported Expenses	-	4,502	4,502
4	IPA Assignment Not Appropriately Established or Accounted For	-	-	-
5	Non-Compliance with UA's Tuition, Stipends, and Other Student Payments Policy	-	-	-
Total		<u>\$0</u>	<u>\$41,311</u>	<u>\$41,311</u>

Source: Auditor summary of questioned costs by finding.

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

NSF Award No.	No. of Transaction Exceptions	Questioned Direct Costs	Questioned Indirect Costs	Questioned Total	UA Agreed to Reimburse
	2	\$6,360	\$ -	\$6,360	\$6,360
	1	2,820	1,382	4,202	-
	2	4,000	-	4,000	4,000
	1	1,500	-	1,500	1,500
	1	-	-	-	-
	1	300	-	300	300
	2	5,587	1,225	6,812	6,812
	2	500	-	500	500
	1	1,890	-	1,890	1,890
	1	-	-	-	-
	1	5,708	2,797	8,505	8,505
	1	-	4,043	4,043	-
	1	-	918	918	918
	1	-	2,281	2,281	2,281
	1	-	-	-	-
Total	<u>19</u>	<u>\$28,665</u>	<u>\$12,646</u>	<u>\$41,311</u>	<u>\$33,066</u>

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

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

Finding No.	NSF Award No.	Description	Fiscal Year(s)	Direct	Indirect	Total	UA Agreed to Reimburse
1) Unallowable Expenses	██████	July 2021 Salary	2022	\$5,708	\$2,797	\$8,505	\$8,505
	██████	February 2020 Doctoral Student Salary	2020	4,845	-	4,845	4,845
	██████	September 2021 Non-Participant Support Costs	2022	1,890	-	1,890	1,890
	██████	July 2022 Non-Participant Meals	2023	3,087	-	3,087	3,087
	██████	August 2022 Non-Participant Lodging	2023	1,500	-	1,500	1,500
	██████	May 2020 Tuition	2020	1,515	-	1,515	1,515
		September 2020 Scholarship	2021	4,000	-	4,000	4,000
		June 2021 Scholarship	2021	500	-	500	500
		February 2022 Long-Term Visa	2022	2,500	1,225	3,725	3,725
2) Indirect Cost Rates Not Appropriately Applied	██████	May 2020 PSCs Included in MTDC	2020	-	4,043	4,043	-
	██████	April 2021 Equipment Included in MTDC	2021	-	918	918	918
	██████	Indirect Costs Not Appropriately Applied to I-Corps Awards	Various	-	-	-	-
	██████	Indirect Costs Not Appropriately Applied to I-Corps Awards	Various	-	2,281	2,281	2,281
3) Inadequately Supported Expenses	██████	January 2021 Off-Campus Utilities	2021	2,820	1,382	4,202	-
	██████	March 2021 Gift Cards	2021	300	-	300	300
4) IPA Assignment Not Appropriately Established or Accounted For	██████	IPA Assignment Not Appropriately Established or Accounted For	2021	-	-	-	-

Finding No.	NSF Award No.	Description	Fiscal Year(s)	Direct	Indirect	Total	UA Agreed to Reimburse
5) Non-Compliance with UA's Tuition, Stipends, and Other Student Payments Policy	██████	Non-Compliance with UA's Tuition, Stipends, and Other Student Payments Policy	2020	-	-	-	-
	██████	Non-Compliance with UA's Tuition, Stipends, and Other Student Payments Policy	2021	-	-	-	-
Total				<u>\$28,655</u>	<u>\$12,646</u>	<u>\$41,311</u>	<u>\$33,066</u>

Source: Auditor summary of identified exceptions.

APPENDIX D: SUMMARY OF RECOMMENDATIONS AND CONSIDERATIONS

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

- 1.1 Direct UA to provide documentation supporting that it has repaid or otherwise credited the \$29,567 in questioned graduate student salary, participant support, tuition/scholarship, and long-term visa costs for which it has agreed to reimburse NSF.
- 1.2 Direct UA to strengthen its procedures for processing retroactive salary adjustments. Updated procedures should ensure salary expenses are appropriately calculated at an employee's institutional base salary and appropriately certified for the period the salary was earned.
- 1.3 Direct UA to establish additional guidance regarding how to review expenses covered with participant support cost funding. This guidance should address how to segregate and account for costs UA is not allowed to cover using participant support cost funding, such as salary costs, and costs incurred for no-shows, conference mentors, and conference organizers. It should also address how UA will verify all non-participant travel expenses are charged to accounts that are included within its Modified Total Direct Cost base to ensure its indirect cost rate is applied consistent with its Negotiated Indirect Cost Rate Agreement.
- 1.4 Direct UA to implement additional procedures to ensure that tuition/scholarship payments are appropriately charged to NSF awards. Additional procedures should require UA personnel to perform a review of all tuition/scholarship expenses charged to federal awards at the end of each tuition/scholarship period to verify that:
 - Tuition/scholarships are allocated based on the student's actual effort during the period.
 - Expenses associated with recipients deemed ineligible for the tuition/scholarships received are removed from the NSF award(s) charged.
- 1.1 Direct UA to create additional resources that provide guidance regarding the allowability of visa fees on NSF awards. This guidance should address how UA will ensure it does not charge unallowable long-term visa fees to NSF awards and only charges NSF awards for short-term visa fees requested for individuals whose involvement is necessary to complete award objectives.
- 2.1 Direct UA to provide documentation supporting that it has repaid or otherwise credited the \$3,199 in questioned indirect costs for which it has agreed to reimburse NSF.
- 2.2 Resolve the \$4,043 in questioned indirect costs and direct UA to repay or otherwise remove the sustained questioned costs from its NSF awards.

- 2.3 Direct UA to strengthen its policies, procedures, and internal control processes for applying its federally negotiated indirect cost rate to NSF awards. Updated procedures could include:
- Creating additional review checklists designed to ensure that indirect costs are not applied to expenses that are supposed to be excluded from UA's Modified Total Direct Cost base.
 - Conducting training for individuals responsible for charging indirect costs to sponsored accounts that incur indirect costs. We suggest that UA conduct the training at least annually.
 - Requiring that personnel manually review material and supply expenses over \$5,000 charged to NSF awards to ensure that UA appropriately capitalizes equipment expenses.
- 2.4 Direct UA to create a formal policy or procedure for establishing the indirect cost rate to apply to NSF Innovation Corps awards, ensuring indirect costs are applied at the indirect cost rate approved by the relevant program solicitation.
- 3.1 Direct UA to provide documentation supporting that it has repaid or otherwise credited the \$300 in questioned gift card expenses for which it has agreed to reimburse NSF.
- 3.2 Resolve the \$4,202 in questioned inadequately supported utility expenses and direct UA to repay or otherwise remove the sustained questioned costs from its NSF awards.
- 3.3 Direct UA to strengthen its policies and procedures for creating and retaining documentation to support utility expenses and the disbursement of all purchased gift cards. Updated policies and procedures could include:
- Obtaining and retaining detailed invoices with calculations from utility companies and establishing agreements with all service providers.
 - Creating and retaining documentation to ensure that gift cards are appropriately distributed and/or refunded to the NSF award.
- 4.1 Direct UA to develop specific guidance to follow when executing and drawing down funding for Intergovernmental Personal Act assignments. This guidance should be developed to ensure:
- Intergovernmental Personal Act assignments are established utilizing the employee's approved institutional base salary.
 - UA's agreed-upon cost share amount is appropriately calculated.

- UA appropriately charges the NSF award for the employee's salary, less any agreed-upon cost share amount, and draws down funding from NSF based on its actual expenses.

5.1 Direct UA to implement procedures or internal controls to ensure Principal Investigators appropriately document and approve tuition payments.

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

- Directing UA to develop formal procedures and/or internal controls surrounding how to establish summer salary appointments to ensure salary earned at a rate above an employee's institutional base salary is not charged to NSF awards.

APPENDIX E: GLOSSARY

Allocable cost.

2 CFR 200, Uniform Administrative Requirements, Cost Principles, and Audit

Requirements for Federal Awards: 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).

2 CFR 220, Cost Principles for Educational Institutions: A cost is allocable to a particular cost objective (*i.e.*, a specific function, project, sponsored agreement, department, or the like) if the goods or services involved are chargeable or assignable to such cost objective in accordance with relative benefits received or other equitable relationship. Subject to the foregoing, a cost is allocable to a sponsored agreement if it is incurred solely to advance the work under the sponsored agreement; it benefits both the sponsored agreement and other work of the institution, in proportions that can be approximated through use of reasonable methods, or it is necessary to the overall operation of the institution and, in light of the principles provided in this Appendix, is deemed to be assignable in part to sponsored projects. (2 CFR 220, Appendix A, Section C.4)

Return to the term's initial use.

Factors affecting allowability of costs.

2 CFR 220, Cost Principles for Educational Institutions: The tests of allowability of costs under these principles are: they must be reasonable; they must be allocable to sponsored agreements under the principles and methods provided herein; they must be given consistent treatment through application of those generally accepted accounting principles appropriate to the circumstances; and they must conform to any limitations or exclusions set forth in these principles or in the sponsored agreement as to types or amounts of cost items. (2 CFR 220, Appendix A, Section C.2)²⁹

2 CFR 200, Uniform Administrative Requirements, Cost Principles, and Audit

Requirements for Federal Awards: 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

²⁹ Applicable to NSF Award No. [REDACTED]

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).³⁰

[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.](#)

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

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

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

[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

³⁰ Applicable to all awards identified in the report, with the exception of NSF Award No. [REDACTED]

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.](#)

NSF's Innovation Corps (I-Corps). NSF's I-Corps program is an immersive, entrepreneurial training program that facilitates the transformation of invention to impact. This immersive, seven-week experiential training program prepares scientists and engineers to extend their focus beyond the university laboratory — accelerating the economic and societal benefits of NSF-funded and other basic research projects that are ready to move toward commercialization. (<https://new.nsf.gov/funding/initiatives/i-corps>).

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

NSF Intergovernmental Personal Act (IPA) Assignments. NSF IPA assignees are usually detailed to work at the Foundation for a designated amount of time. Assignees remain on the home institution's payroll in an active pay status while assigned to NSF. Salary and benefits continue to be administered by the home institution. IPA assignees are not federal employees but are subject to provisions of law governing the ethics and conduct of federal employees. (<https://new.nsf.gov/careers/rotator-programs/intergovernmental-personnel-act-ipa-assignments>).

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

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

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

Period of Performance (POP). The time during which the non-federal entity may incur

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

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

Proposal & Award Policies & Procedures Guide (PAPPG). Comprises documents relating to NSF's proposal and award process for the assistance programs of NSF. The PAPPG, in conjunction with the applicable standard award conditions incorporated by reference in award, serve as the NSF's implementation of 2 CFR § 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*. If the PAPPG and the award conditions are silent on a specific area covered by 2 CFR § 200, the requirements specified in 2 CFR § 200 must be followed. (NSF PAPPG 20-1).

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

Questioned Cost. A cost that is questioned by the auditors because of an alleged violation of a provision of a law, regulation, contract, grant, cooperative agreement, or other agreement or document governing the expenditure of funds; a finding that, at the time of the audit, such cost is not supported by adequate document; or a finding that the expenditure of funds for the intended purpose is unnecessary or unreasonable. (2 CFR 200.1).

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

Reasonable Cost. 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.](#)

Robert Noyce Teacher Scholarship Program. This NSF sponsored program provides funding to institutions of higher education to provide scholarships, stipends, and programmatic support to recruit and prepare Science Technology Engineering and Math (STEM) majors and professionals to become K-12 teachers. The program seeks to increase the number of K-12 teachers with strong STEM content knowledge who teach in high-need school districts. (<https://www.nsfnoyce.org/>).

[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. (2 CFR § 200.430).

[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, no later than June 28, 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.

Contact Us

Address:

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

Phone: 703-292-7100

Website: oig.nsf.gov

Follow us on X (formerly Twitter): twitter.com/nsfoig

Congressional, media, and general inquiries: OIGPublicAffairs@nsf.gov

Freedom of Information Act inquiries: FOIAOIG@nsf.gov

Report Fraud, Waste, or Abuse

Report violations of laws, rules, or regulations; mismanagement; and research misconduct involving NSF operations or programs via our Hotline:

- File online report: oig.nsf.gov/contact/hotline
- Anonymous Hotline: 1-800-428-2189
- Mail: 2415 Eisenhower Avenue, Alexandria, VA 22314 ATTN: OIG HOTLINE

Have a question about reporting fraud, waste, or abuse? Email 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.