

Performance Audit of Incurred Costs – Dartmouth College

REPORT PREPARED BY SIKICH CPA LLC





At a Glance

Performance Audit of Incurred Costs – Dartmouth College
OIG 24-1-007 | February 2, 2024

AUDIT OBJECTIVE

The National Science Foundation Office of Inspector General engaged Sikich CPA LLC (Sikich) to conduct a performance audit of costs that Dartmouth College (Dartmouth) incurred on 209 NSF awards during the period of October 1, 2019, to September 30, 2022. The auditors tested approximately \$1.1 million of the more than \$51.6 million of costs claimed during the period. The audit objective was to determine if costs claimed by Dartmouth on NSF awards were allowable, allocable, reasonable, and in compliance with NSF award terms and conditions and federal financial assistance requirements. A description of the audit's objective, scope, and methodology is attached to the report as Appendix B.

AUDIT RESULTS

The report highlights concerns about Dartmouth's compliance with certain federal and NSF award requirements, NSF award terms and conditions, and Dartmouth policies. The auditors questioned \$104,270 of costs claimed by Dartmouth during the audit period. Specifically, the auditors found \$104,120 of unallowable expenses and \$150 of inadequately supported expenses. The auditors also identified two compliance related findings for which there were no questioned costs: inaccurately identified participant support costs and non-compliance with Dartmouth policies. In addition to the four findings, the audit report includes one area for improvement for Dartmouth to consider related to insufficient controls over the application of indirect cost rates. 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 four findings and one area for improvement in the report with associated recommendations for NSF to direct Dartmouth to provide documentation supporting that it repaid or otherwise credited the questioned costs and to ensure Dartmouth strengthens administrative and management controls.

AUDITEE RESPONSE

Dartmouth agreed with the findings and to reimburse NSF for the \$104,270 in questioned costs. Dartmouth'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.



NATIONAL SCIENCE FOUNDATION
Office of Inspector General

MEMORANDUM

DATE: February 2, 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 for Audits

SUBJECT: Final Report No. 24-1-007, *Dartmouth College*

This memorandum transmits the Sikich CPA LLC (Sikich) report for the audit of costs charged by Dartmouth College (Dartmouth) to 209 NSF awards during the period of October 1, 2019, to September 30, 2022. The audit encompassed approximately \$1.1 million of the more than \$51.6 million of costs claimed during the period. The audit objective was to determine if costs claimed by Dartmouth 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 Billy McCain at 703-292-7100 or OIGPublicAffairs@nsf.gov.

Attachment

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

EXECUTIVE SUMMARY

The Sikich CPA LLC (formerly known as Cotton & Company Assurance and Advisory, LLC) audit team determined that Dartmouth College (Dartmouth) 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 Dartmouth policies and procedures. Specifically, the audit report includes four findings, one area for improvement, and a total of \$104,270 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 Dartmouth claimed during the period of October 1, 2019, to September 30, 2022. The audit objectives included evaluating Dartmouth’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 Dartmouth’s compliance with 2 Code of Federal Regulations (CFR) 200 (versions effective 12/26/2014 and 11/12/2020); NSF Proposal and Award Policies and Procedures Guides (PAPPGs) 16-1, 17-1, 18-1, 19-1, 20-1, and 22-1; NSF award terms and conditions; and Dartmouth 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 \$104,270 of direct and indirect costs that Dartmouth inappropriately claimed during the audit period, including:

- \$104,120 of unallowable expenses
- \$150 of inadequately supported expenses

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

- Inaccurately identified participant support costs
- Non-compliance with Dartmouth policies and procedures

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

- Insufficient controls related to the application of indirect cost rates

RECOMMENDATIONS

The audit report includes 9 recommendations and one consideration for NSF’s Director of the Division of Institution and Award Support related to resolving the \$104,270 in questioned costs and ensuring Dartmouth strengthens its award management environment, as summarized in [Appendix D](#).

AUDITEE RESPONSE

Dartmouth agreed with the findings in the report, agreeing to reimburse NSF for the \$104,270 in questioned costs. Dartmouth’s response is attached, in its entirety, to the report as [Appendix A](#).

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Abbreviations

ACM\$	Award Cash Management Service
CFR	Code of Federal Regulations
Dartmouth	Dartmouth College
FY	Fiscal Year
GAGAS	Generally Accepted Government Auditing Standards
GL	General Ledger
JSEP	Joint Science Education Project
MTDC	Modified Total Direct Cost
NICRA	Negotiated Indirect Cost Rate Agreement
NSF	National Science Foundation
OIG	Office of Inspector General
PAPPG	Proposal and Award Policies and Procedures Guide
POP	Period of Performance

BACKGROUND

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

Most federal agencies have an Office of Inspector General that provides independent oversight of the agency’s programs and operations. Part of NSF OIG’s mission is to conduct audits and investigations to prevent and detect fraud, waste, and abuse. In support of this mission, NSF OIG may conduct independent and objective audits, investigations, and other reviews to promote the economy, efficiency, and effectiveness of NSF programs and operations, as well as to safeguard their integrity. NSF OIG may also hire contractors to provide these audit services.

NSF OIG engaged 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 Dartmouth College (Dartmouth). Dartmouth is a private, nonprofit institution of higher education, located in Hanover, New Hampshire. In fiscal year (FY) 2022, Dartmouth reported \$166.7 million in sponsored award funding, with \$130 million received from government awards—including awards from NSF—as illustrated in **Figure 1**.

Figure 1: Dartmouth’s FY 2022 Sources of Sponsored Award Funding



Source: The chart data is supported by Dartmouth College’s FY 2022 Annual Report. https://www.dartmouth.edu/osp/docs/reports/fy22_annual_report.pdf The photo of Dartmouth’s campus is publicly available on Dartmouth’s website.

<https://home.dartmouth.edu/news/2021/07/strategic-master-plan-now-available-online>

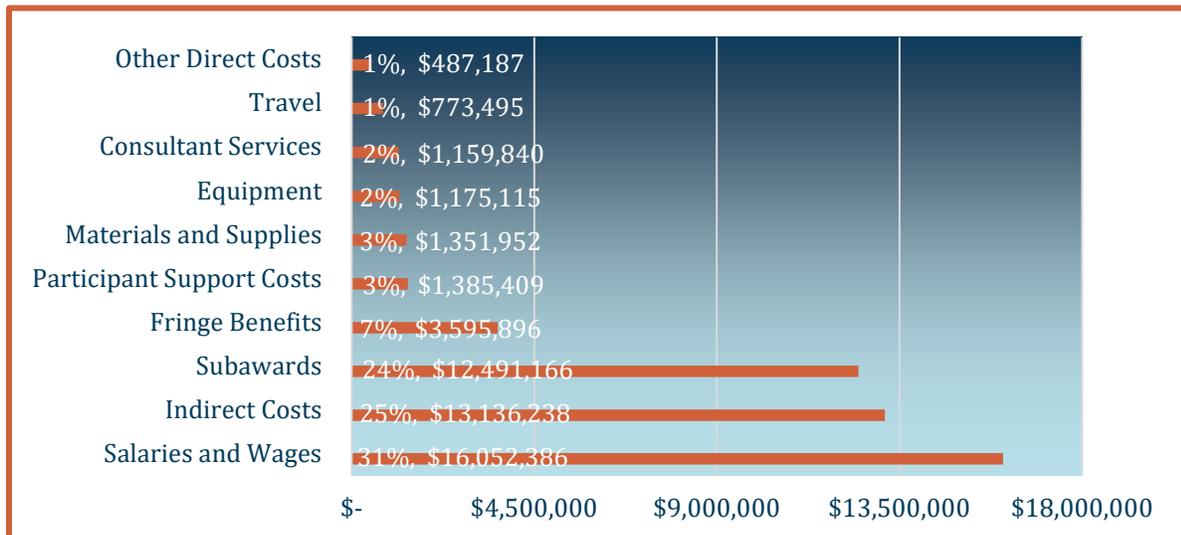
AUDIT SCOPE

This performance audit—conducted under Order No. 140D0422F0876—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 Dartmouth’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, Dartmouth provided general ledger (GL) data to support the \$51.6 million in expenses it claimed on 209 NSF awards during our audit [period of performance \(POP\)](#) of October 1, 2019, to September 30, 2022.

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



Source: Auditor analysis of accounting data Dartmouth provided, illustrating the total costs (\$51,608,684) by expense type, to support costs claimed on NSF awards during the audit period. The Other Direct Costs category includes other direct costs and publications.

¹ The \$51,609,289 that Dartmouth claimed in NSF’s Award Cash Management Service (ACM\$) exceeded the total award-related expenses Dartmouth reported in its GL. However, because the GL data materially reconciled to NSF’s ACM\$ records, we determined that the GL data was appropriate for the purposes of this engagement. Refer to the [Objectives, Scope, and Methodology](#) section of this report for additional details.

We judgmentally selected 40 transactions totaling \$1,091,926² (see Table 1) and evaluated supporting documentation to determine whether the costs claimed on the NSF awards were **allocable**, **allowable**, and **reasonable**, and whether they were in conformity with NSF award terms and conditions, organizational policies, and applicable federal financial assistance requirements.

Table 1: Summary of Selected Transactions

Budget Category	Transaction Count	Expense Amount ³
Equipment	4	\$363,621
Subawards	2	297,452
Salaries and Wages	10	146,443
Consultant Services	2	76,624
Other Direct Costs	7	48,047
Indirect Costs	2	39,570
Travel	4	35,850
Publications	1	31,177
Materials and Supplies	3	22,730
Participant Support Costs	2	16,529
Fringe Benefits	3	13,883
Total	<u>40</u>	<u>\$1,091,926</u>

Source: Auditor summary of selected transactions.

AUDIT RESULTS

We identified and questioned \$104,270 in costs Dartmouth charged to four NSF awards. We also identified expenses Dartmouth charged to four NSF awards that did not result in **questioned costs** but did result in non-compliance with Dartmouth-specific policies and procedures. Finally, we identified one area in which Dartmouth should consider strengthening its controls to ensure it does not overcharge indirect costs to NSF awards in the future. See Table 2 for a summary of questioned costs by finding area, **Appendix C** for a summary of questioned costs by NSF award, and **Appendix D** for a summary of all recommendations.

Table 2: Summary of Questioned Costs by Finding Area

Finding Description	Questioned Costs
Unallowable Expenses	\$104,120
Inadequately Supported Expenses	150
Participant Support Costs Not Accurately Identified	-
Non-Compliance with Dartmouth Policies and Procedures	-
Total	<u>\$104,270</u>

Source: Auditor summary of findings identified.

² The \$1,091,926 represents the total value of the 40 transactions selected for transaction-based testing and does not represent the dollar base of the total costs reviewed during the audit.

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

We made 9 recommendations and identified one consideration for NSF’s Director of the Division of Institution and Award Support related to resolving the \$104,270 in questioned costs and ensuring Dartmouth strengthens its administrative and management procedures for monitoring federal funds. We communicated the results of our audit and the related findings and recommendations to Dartmouth and NSF OIG. We included Dartmouth’s response to this report, in its entirety, in [Appendix A](#).

FINDING 1: UNALLOWABLE EXPENSES

Dartmouth charged three NSF awards a total of \$104,120 in [subaward](#) and [travel](#) costs that were unallowable per federal regulations⁴ and [NSF Proposal and Award Policies and Procedures Guides \(PAPPGs\)](#).⁵

Unallowable Subaward Expenses

Dartmouth charged one NSF award for \$82,595 in subaward expenses for a subaward that was not approved by NSF, as required for the subaward expenses to be allowable per the NSF PAPPG,⁶ as illustrated in Table 3.

Table 3: Unallowable Subaward Expenses

Expense Date(s)	NSF Award No.	Cumulative Subaward Expenses	Description of Unallowable Costs Associated With:	Notes
March – September 2022	██████████	\$82,595	Unapproved Subaward	a

Source: Auditor summary of identified exception.

- a) From March through September 2022, Dartmouth charged NSF Award No. ██████████ for \$82,595 in subaward expenses invoiced under a subaward that was not approved by NSF.⁷

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

⁵ According to NSF PAPPGs 17-1, 19-1, and 20-1, 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.

⁶ According to NSF PAPPG 20-1, Part I, Chapter II, Section C.2.g(vi)(e), *Subawards*, no portion of the proposed activity may be subawarded or transferred to another organization without prior written NSF authorization. The PAPPGs also state that such authorization must be provided either through inclusion of the subaward(s) on an NSF award budget or by receiving written prior approval from the cognizant NSF Grants Officer after an award is issued.

⁷ Although Dartmouth requested approval for the subaward through research.gov, the approval request was rejected by NSF.

Unallowable Travel Expenses

Dartmouth charged two NSF awards for \$21,525 in travel expenses that were either not reasonable or did not benefit the awards charged. These travel expenses are therefore unallowable per federal regulations⁸ and NSF PAPPs,⁹ as illustrated in Table 4.

Table 4: Unallowable Travel Expenses

Expense Date(s)	NSF Award No.	Unallowable Total	Unallowable Expenses Associated With:	Notes
September 2019 – July 2022	██████████	20,534	Cancelled Travel Expenses	a
October 2020	██████████	\$891	Premium Airfare	b
October 2020	██████████	100	Hotel Receipt Variance	c

Source: Auditor summary of identified exceptions.

- a)** From September 2019 through July 2022, Dartmouth charged NSF Award No. ██████████ for over \$24,000 in direct travel costs incurred in preparation for individuals to travel to ██████████ and ██████████ for the Joint Science Education Project (JSEP) 2019 trip and to ██████████ and ██████████ for the JSEP 2022 trip. Although Dartmouth credited a portion of these travel costs back to NSF after both trips were cancelled,¹⁰ it did not process credits to remove the remaining \$20,534 in travel expenses that did not benefit the award.
- b)** In October 2020, Dartmouth charged NSF Award No. ██████████ for \$891 for a premium class airfare ticket, which is unallowable as Dartmouth did not document the existence of any circumstances that would result in the premium class airfare being allowable.¹¹

⁸ According to 2 CFR § 200.474 (12/26/2014), *Travel costs*, costs are allowable only to the extent that such costs do not exceed charges normally allowed by the non-federal entity in its regular operations in accordance with the non-federal entity's written travel policy. Further, the regulations note that if these costs are charged directly to the federal award, documentation must justify that the individual's participation is necessary to the federal award and that the costs are reasonable and consistent with the non-federal entity's established travel policy.

⁹ NSF PAPPs 17-1 Part II, Chapter X, Section C.5 and 19-1, Part II, Chapter X, Section C.3., *Travel and Temporary Dependent Care Costs*, state costs of employees on travel status are limited to those specifically authorized by 2 CFR § 200.474. Additionally, NSF PAPPs 17-1 and 19-1, Part II, Chapter XI, Section F.1.a.(ii), *Travel to Foreign Countries*, state the difference between economy airfare and a higher-class airfare is unallowable.

¹⁰ The 2019 trip was cancelled due to a disruption in logistics for getting to ██████████ and ██████████ and the 2022 trip was cancelled two days prior to the start of travel due to flight cancellations and Coronavirus Disease 2019 cases.

¹¹ According to 2 CFR § 200.474 (12/26/2014) (d), *Commercial air travel*, airfare costs in excess of the basic least expensive unrestricted accommodations class offered by commercial airlines are unallowable except when such accommodations would: (i) Require circuitous routing; (ii) Require travel during unreasonable hours; (iii) Excessively prolong travel; (iv) Result in additional costs that would offset the transportation savings; or (v) Offer accommodations not reasonably adequate for the traveler's medical needs. Further, this regulation notes that the non-federal entity must justify and document these conditions on a case-by-case basis in order for the use of first-class or business-class airfare to be allowable in such cases.

- c) In October 2020, Dartmouth charged NSF Award No. [REDACTED] for \$100¹² in unallowable lodging expenses claimed for a graduate student to take part in an [REDACTED] [REDACTED] expedition. Specifically, Dartmouth charged the award for \$281 in lodging expenses, which was based on the amount supported by the student’s booking confirmation. However, the hotel receipt provided only supported \$181 in actual lodging expenses were incurred.

Conclusion

Dartmouth’s policies, procedures, and internal controls were not sufficient to ensure that it only charged NSF awards for allowable subaward and travel costs. We are therefore questioning \$104,120 of unallowable expenses charged to three NSF awards, which Dartmouth agreed to reimburse, as illustrated in Table 5.

Table 5: Finding 1 Summary: Unallowable Expenses

NSF Award No.	Description	Fiscal Year(s)	Questioned Costs			Dartmouth Agreed to Reimburse
			Direct	Indirect	Total	
[REDACTED]	March – September 2022 Subaward	2022 – 2023	\$82,595	\$0	\$82,595	\$82,595
[REDACTED]	September 2019 – July 2022 Travel	2020 – 2022	18,580	1,954	20,534	20,534
[REDACTED]	October 2020 Premium Airfare	2021	550	341	891	891
[REDACTED]	October 2020 Lodging	2021	62	38	100	100
Total			<u>\$101,787</u>	<u>\$2,333</u>	<u>\$104,120</u>	<u>\$104,120</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 Dartmouth to provide documentation supporting that it has repaid or otherwise credited the \$104,120 in questioned subaward and travel costs for which it has agreed to reimburse NSF.
- 1.2 Direct Dartmouth to strengthen its review procedures and internal controls over transferring significant parts of NSF-funded research to other organizations. Updated procedures could include:

¹² We calculated this amount as follows: \$174 charged per the booking confirmation - \$112 supported by the itemized hotel receipt = \$62 difference. \$62 in direct costs for lodging that are unallowable on NSF Award No. [REDACTED] * 1.62 percent (indirect cost rate application) = \$100.

- Establishing procedures that require Dartmouth to verify that—for any subaward under an NSF grant awarded to Dartmouth—it specifically obtains approval from the NSF Grants Officer prior to issuing a subaward. This could be completed either as part of the NSF grant budget or through a formal research.gov request to transfer the research or effort.
- Requiring periodic training for Principal Investigators or other personnel permitted to issue subaward agreements under NSF awards.

1.3 Direct Dartmouth to strengthen its procedures and internal controls for reviewing and charging travel expenses. Specifically, Dartmouth could consider:

- Establishing policies or procedures that justify charging travel expenses to specific NSF awards by confirming travel charged to an award contributes to the award objectives. This could also include providing best practices on how to document any credits or refunds received as a result of cancelled or altered travel to ensure refunds and credits are returned to the appropriate funding source(s).
- Implementing additional reviews for all airfare purchases that require the reviewer to verify that all airfare charged to NSF awards are for economy class tickets and do not represent unallowable premium class airfare tickets.
- Establishing controls to ensure that amounts reimbursed for lodging are based on actual receipts obtained after the trip is completed, rather than booking confirmations or invoices received prior to travel.

Dartmouth College Response: Dartmouth agreed to reimburse NSF for the \$104,120 in questioned costs and stated it has already refunded NSF for \$87,958 of the unallowable subaward and travel expenses. Further, Dartmouth noted it has implemented additional internal controls to verify NSF approval is obtained prior to issuing any subawards. Dartmouth also stated it will improve its policies and procedures surrounding cancelled travel on federal awards and that it will enhance training and improve procedures related to the use of premium airfare, documentation of travel costs, and verification that receipts match expenses.

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

FINDING 2: INADEQUATELY SUPPORTED EXPENSES

Dartmouth did not provide adequate documentation to support the allowability of a \$150 cash incentive payment charged to one NSF award, as required for the costs to be allowable per federal regulations¹³ and NSF PAPPGs,¹⁴ as illustrated in Table 6.

Table 6: Inadequately Supported Cash Incentive Payment

Expense Date	NSF Award No.	Amount	Insufficient Documentation to Support:	Notes
February 2022	██████████	150	Cash Incentive Payment	a

Source: Auditor summary of identified exception.

- a) In February 2022, Dartmouth charged NSF Award No. ██████████ for \$150 for a cash incentive payment made to a participant who completed a research interview without documenting the cash payment consistent with the requirements within Dartmouth’s *Research Participants Payments Policies and Procedures*.¹⁵

Conclusion

Dartmouth’s procedures for approving cash incentive payments were not sufficient to ensure it created or maintained adequate documentation to support its compliance with its internal policies for cash incentive payments. We are therefore questioning \$150 in inadequately supported expenses charged to one NSF award, which Dartmouth agreed to reimburse, as illustrated in Table 7.

Table 7: Finding 2 Summary: Inadequately Supported Expenses

NSF Award No.	Description	Fiscal Year	Questioned Costs			Dartmouth Agreed to Reimburse
			Direct	Indirect	Total	
██████████	February 2022 Cash Incentive Payment	2022	\$150	\$0	\$150	\$150
Total			<u>\$150</u>	<u>\$0</u>	<u>\$150</u>	<u>\$150</u>

Source: Auditor summary of identified exception.

¹³ According to 2 CFR § 200.403 (Revised 11/12/2020), *Factors affecting allowability of costs*, (a), for a cost to be allowable, it must be allocable and reasonable for the performance of the federal award. Further, section (g) states that, in order for a cost to be allowable, it must be adequately documented.

¹⁴ NSF PAPPG 20-1 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.

¹⁵ According to Dartmouth’s *Research Participant Payments Policy and Procedures*, for studies involving one-time cash payments, documentation in the study file should include payee name, address, and social security number, as well as documentation showing receipt of payment by recipient, with participant’s signature. The documentation can be a single receipt per recipient or listing with participants’ signature and verification of amount received.

Recommendations

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

- 2.1 Direct Dartmouth to provide documentation supporting that it has repaid or otherwise credited the \$150 in questioned inadequately supported expenses for which it has agreed to reimburse NSF.
- 2.2 Direct Dartmouth to strengthen its procedures for creating and retaining documentation to support cash incentive payments. Updated procedures should ensure that the individuals responsible for providing cash incentives appropriately create and maintain all documentation required per Dartmouth's *Research Participants Payments Policies and Procedures*.

Dartmouth College Response: Dartmouth agreed to reimburse NSF for the \$150 in questioned costs and noted that it has recently updated its policies to strengthen controls and documentation requirements surrounding research participant payments.

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

FINDING 3: PARTICIPANT SUPPORT COSTS NOT ACCURATELY IDENTIFIED

Dartmouth did not accurately identify **participant support cost** activities in its **financial management system**, as required by federal regulations¹⁶ and the NSF PAPPG.¹⁷ Specifically, Dartmouth inappropriately charged \$1,522 in costs incurred to support a program director's (a non-participant's) travel costs to the account code it established to track participant support cost activity for NSF Award No. [REDACTED].

In addition to these costs not being accurately tracked within Dartmouth's financial management system, because Dartmouth charged these non-participant support costs to a participant support cost account, it did not apply its indirect cost rate to its **Modified Total Direct Cost (MTDC)** base in a manner consistent with its **Negotiated Indirect Cost Rate Agreements (NICRAs)**.¹⁸

Conclusion

Although Dartmouth's procedures require it to review the allowability of expenses prior to making payments, its procedures do not ensure expenses are appropriately segregated into participant and non-participant support cost accounts within Dartmouth's financial

¹⁶ According to 2 CFR § 200.302 (12/26/2014), *Financial management*, a grantee's financial management system must provide records that accurately identify the source and application of federally-funded activities.

¹⁷ According to NSF PAPPG 20-1 Part II, Chapter VIII, Section A, *Standards for Financial Management*, NSF grantees are required to have financial management systems which meet the requirements of 2 CFR § 200.302.

¹⁸ Dartmouth's NICRAs dated May 22, 2018, April 26, 2019, June 23, 2020, February 10, 2021, and September 9, 2022, state that MTDCs consist of all direct salaries and wages, applicable fringe benefits, materials and supplies, services, travel, and up to the first \$25,000 of each subaward.

management system. As Dartmouth was able to provide documentation to support that it had sufficient non-participant costs to cover the director’s portion of the lodging expenses, we are not questioning any costs associated with this finding. However, we are noting a compliance exception, as Dartmouth’s current process for approving invoices does not ensure expenses are appropriately accounted for within its financial management system, as illustrated in Table 8.

Table 8: Finding 3 Summary: Participant Support Costs Not Accurately Identified

NSF Award No.	Description	Fiscal Year(s)	Questioned Costs			
			Direct	Indirect	Total	Dartmouth Agreed to Reimburse
██████████	Participant Support Costs Not Accurately Identified	2022	\$0	\$0	\$0	\$0

Source: Auditor summary of identified exception.

Recommendation

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

- 3.1 Direct Dartmouth to establish additional guidance regarding how to review invoices and receipts that include participant support costs. This guidance should address how to segregate and account for costs Dartmouth is not allowed to cover using participant support cost funding, such as costs incurred for its employees. It should also address how Dartmouth 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.

Dartmouth College Response: Dartmouth agreed with this finding and stated it will continue to provide training and reinforce the timely review of expenses and appropriate use of accounts.

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

FINDING 4: NON-COMPLIANCE WITH DARTMOUTH POLICIES AND PROCEDURES

Dartmouth did not always comply with—or did not always document its compliance with—its internal policies and procedures when incurring costs charged to three NSF awards.

Non-Compliance with Dartmouth’s Business Expense Policy

We identified one instance in which Dartmouth did not comply with its *Business Expense Policy*, which requires travelers to provide itemized lodging receipts,¹⁹ as illustrated in Table 9.

¹⁹ According to Dartmouth’s *Business Expense Policy*, when reporting expenses for lodging, the itemized hotel receipt must be submitted with the business expense report.

Table 9: Non-Compliance with Dartmouth's Business Expense Policy

Expense Date	NSF Award No.	Business Expense Policy Compliance Exception	Notes
October 2020	██████████	Missing Itemized Lodging Receipt	a

Source: Auditor summary of identified exception.

- a) In October 2020, Dartmouth charged NSF Award No. ██████████ for \$763 in travel expenses for a graduate student to take part in an ██████████ expedition. Although Dartmouth provided documentation to support the amount paid at the time of booking, Dartmouth did not provide an itemized receipt to support the hotel stay as required per its policy.

Non-Compliance with Dartmouth's Sole Source and Competitive Bid Policy

We identified one instance in which Dartmouth did not comply with its *Sole Source and Competitive Bid Policy*, which requires submission of a Sole Source Justification Form for purchases with an aggregate expenditure amount greater than \$10,000 if normal bidding procedures are forgone,²⁰ as illustrated in Table 10.

Table 10: Non-Compliance with Dartmouth's Sole Source and Competitive Bid Policy

Expense Date	NSF Award No.	Sole Source and Competitive Bid Policy Compliance Exception	Notes
October 2021	██████████	No Sole Source Justification Form	a

Source: Auditor summary of identified exception.

- a) In October 2021, Dartmouth charged NSF Award No. ██████████ for \$31,177 in survey costs invoiced by a vendor selected through a sole source procurement. Although the vendor did appear to be appropriately selected, Dartmouth did not provide a copy of the Sole Source Justification Form required per its policy.

Non-Compliance with Dartmouth's Research Participant Payments Policy and Procedures

We identified one instance in which Dartmouth did not comply with its *Research Participant Payments Policies and Procedures*, which defines acceptable mechanisms for initiating payments to individuals as Dartmouth check, petty cash fund, reloadable debit cards, or gift cards,²¹ as illustrated in Table 11.

²⁰ According to Dartmouth's *Sole Source and Competitive Bid Policy*, a sole source purchase requires the requisitioning department to furnish documentation to justify why the technical characteristics inherent in the item make it essential to purchase the particular good or service. Written documentation of some form of price or cost analysis is required on all sole source purchases with an aggregate expenditure in excess of \$10,000.

²¹ According to Dartmouth's *Research Participant Payments Policy and Procedures*, acceptable mechanisms for initiating payments to subjects are listed on "General documentation requirements for all participant payments," and alternate mechanisms should not be used without consultation and approval by the Controller's Office. Further, this policy and procedure document defines the following as acceptable forms of payment: Dartmouth check, petty cash, reloadable debit card, gift cards, drawing, and other items of value.

Table 11: Non-Compliance with Dartmouth’s Research Participant Payments Policy and Procedures

Expense Date	NSF Award No.	Research Participant Payments Policy and Procedures Compliance Exception	Notes
February 2022	██████████	Participant Incentive Payments Made from Personal Funds	a

Source: Auditor summary of identified exception.

- a) In February 2022, Dartmouth charged NSF Award No. ██████████ for gift card expenses associated with incentives paid to participants who completed research interviews. Although the majority of the incentive payments appeared allowable,²² one of the gift card costs charged to the award was distributed to a Dartmouth employee rather than to award participants, as required per Dartmouth’s policy. Dartmouth noted that it issued the gift card to the employee received because the employee had paid five award participants using personal checks and cash, rather than paying the participants using one of the approved payment mechanisms within Dartmouth’s *Research Participant Payments Policy and Procedures*.

Conclusion

Dartmouth did not have adequate procedures or internal controls in place to ensure that it consistently complied with its business expense, sole source and competitive bid, and research participant payments policies and procedures. Because these instances of non-compliance did not directly result in Dartmouth charging unallowable costs to NSF awards, or resulted in costs questioned within a different finding, we are not questioning any costs related to these exceptions. However, we are noting compliance exceptions for the three instances in which Dartmouth did not comply with its internal policies and procedures when charging costs to three NSF awards, as illustrated in Table 12.

Table 12: Finding 4 Summary: Non-Compliance with Dartmouth’s Policies and Procedures

NSF Award No.	Compliance Exception Identified	Fiscal Year(s)
██████████	Missing Itemized Lodging Receipt	2021
██████████	No Sole Source Justification Form	2022
██████████	Participant Incentive Payments Made from Personal Funds	2022

Source: Auditor summary of identified exceptions.

Recommendation

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

²² See [Finding 2](#), *Inadequately Supported Expenses*.

- 4.1 Direct Dartmouth to strengthen its internal controls to ensure that itemized lodging receipts are obtained for travel lodging and appropriately submitted with the business expense report.
- 4.2 Direct Dartmouth to provide annual training for employees on sole source and competitive bidding procedures to ensure employees are aware of the documentation requirements when executing a sole source procurement.
- 4.3 Direct Dartmouth to strengthen its review procedures for incentive payments to ensure that research participants/subjects are appropriately paid in accordance with Dartmouth policy prior to the expenses being charged to NSF awards.

Dartmouth College Response: Dartmouth agreed with this finding and stated it will enhance training and improve procedures related to the documentation of travel costs and enhance procedures around the collection and retention of Sole Source Justification Forms, as applicable. Additionally, Dartmouth noted that it has recently updated its policy to strengthen controls and documentation requirements surrounding research participant payments.

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

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

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

As a result, Dartmouth did not document that it verified one subawardee’s use of its proposed indirect cost rate would not cause Dartmouth to overcharge NSF for indirect costs, as illustrated in Table 13.

Table 13: Proposed Indirect Cost Rates Applied

NSF Award Number	Award Date	Transaction Date	Rate Applied (%)	Appropriate Rate (%) ²³
[REDACTED]	11/01/2018 ²⁴	05/04/2021	53.00	55.00

Source: Auditor summary of identified exception.

²³ The subawardee’s NICRA dated October 19, 2018, established a final indirect cost rate of 53.00 percent for on-campus organized research from July 1, 2017, to June 30, 2018, and a predetermined indirect cost rate of 55.00 percent for on-campus organized research from July 1, 2019, to June 30, 2021.

²⁴ This date represents the effective date of the NSF award and the subaward agreement used to determine the appropriate indirect cost rate in effect per the subawardee’s NICRA.

Conclusion

Because this instance of a Dartmouth subawardee charging indirect costs using a proposed rate did not directly result in Dartmouth charging unallowable costs to the NSF award, we are not noting a finding. However, we are noting an **area for improvement**, as Dartmouth's lack of a formal process and/or procedure for allowing subawardees to apply proposed indirect cost rates could cause Dartmouth to charge unallowable costs to NSF awards if its subawardees' indirect cost rates were to decrease in the future.

Consideration

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

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

Dartmouth College Response: Dartmouth agreed with this area for improvement and stated it will develop and follow a documented procedure to verify subawardees follow their approved NICRAs, ensuring the government is not overcharged.

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

Sibich CPA LLC

(formerly known as Cotton & Company Assurance and Advisory, LLC)

1/19/2024

APPENDIX A: DARTMOUTH'S RESPONSE



Dartmouth College

*Office of Sponsored Projects
11 Rope Ferry Road, HB 6210
Hanover, NH 03755*

TELEPHONE (603) 646 - 3007
FAX (603) 646 - 9694
EMAIL: sponsored.projects@dartmouth.edu

December 15, 2023

To Cotton & Company Assurance and Advisory, LLC
333 John Carlyle Street, Suite 500
Alexandria, Virginia 22314

Attention: Megan Mesko, CPA, CFE

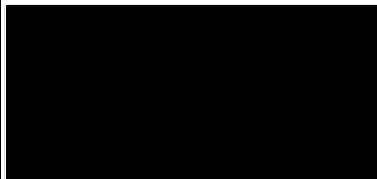
Dear Ms. Mesko,

On behalf of the Trustees of Dartmouth College, I am writing to provide our formal response to the draft report including responses to each of the findings. As we expressed to you at the start of the audit process, we understand and appreciate the importance of the work of the National Science Foundation Office of Inspector General and Cotton & Company in conducting performance audits and evaluating award management. Thank you for your time in addressing questions throughout the audit process. Dartmouth College takes sponsored award compliance seriously and works to continuously improve processes to enhance stewardship of federal funds. We appreciate the opportunity to strengthen our controls in response to the recommendations of the auditors.

Dartmouth agrees that the auditor's findings have highlighted some areas for improvement, and we have already considered and acted upon ways to enhance our policies and controls. Please see the comments on the attached pages.

Dartmouth has already reimbursed NSF \$82,595 via ACM\$ and additional credits from vendors in the amount of \$5,363. Dartmouth will reimburse NSF another \$16,312.

Sincerely,



Jill Mortali
Director, Office of Sponsored Projects

FINDING 1: UNALLOWABLE EXPENSES

Dartmouth College has internal controls in place that assure that expenses charged to sponsored awards are allowable, reasonable and allocable. Our policies and procedures are designed to comply with sponsor terms and conditions. The auditors have identified several areas for improvement and training or enhancements to policies or procedures which will be implemented as necessary.

NSF Award No.	Questioned Costs			Dartmouth Response
	Direct	Indirect	Total	
██████████	\$82,595	\$0	\$82,595	Dartmouth concurs with the determination that this expense is unallowable, and we have already reimbursed NSF \$82,595 via ACM\$. Dartmouth has implemented an additional internal control to verify that NSF approval is in place prior to issuing any subaward.
██████████	18,580	1,954	20,534	With respect to cancelled travel, we note that credits totaling \$5,363 have already been applied to the award. We agree to further refund to NSF \$15,171. Dartmouth will improve our policies and procedures with respect to costs associated with cancelled travel on federal awards.
██████████	550	341	891	Dartmouth agrees with this finding. Dartmouth will enhance training and improve procedures around use of premium airfare and documentation of travel costs.
██████████	62	38	100	Dartmouth agrees with this finding. Dartmouth will enhance training and procedures around matching receipts to expenses as required under our travel policy.

FINDING 2: INADEQUATELY SUPPORTED EXPENSES

Inadequately Supported Cash Incentive Payment

Expense Date	NSF Award No.	Amount	Dartmouth Response
February 2022	██████████	150	Dartmouth agrees with the finding. Dartmouth has recently updated the policy for research participant payments to strengthen controls and documentation.

COMPLIANCE EXCEPTIONS:

FINDING 3: PARTICIPANT SUPPORT COSTS NOT ACCURATELY IDENTIFIED

Finding 3 Summary: Participant Support Costs Not Accurately Identified

NSF Award No.	Questioned Costs			Dartmouth Response
	Direct	Indirect	Total	
██████████	\$0	\$0	\$0	With respect to this compliance exception, Dartmouth concurs that non-participant costs had been charged to the appropriate NSF award but inadvertently charged to a project account string established to track participant support costs. Dartmouth will continue to provide training and reinforce timely review of expenses and appropriate use of accounts.

Finding 4: Non-Compliance with Dartmouth Policies and Procedures

Non-Compliance with Dartmouth's *Business Expense Policy*

Expense Date	NSF Award No.	Dartmouth Response
October 2020	██████████	As stated in Finding 1, Dartmouth will enhance training and improve procedures documentation of travel costs.

Non-Compliance with Dartmouth's *Sole Source and Competitive Bid Policy*

Expense Date	NSF Award No.	Dartmouth Response
October 2021	██████████	Dartmouth will enhance procedures around collection and retention of sole source forms as applicable.

Non-Compliance with Dartmouth's *Research Participant Payments Policy and Procedures*

Expense Date	NSF Award No.	Dartmouth Response
February 2022	██████████	As noted in finding 2, Dartmouth agrees with the finding. Dartmouth has recently updated the policy for research participant payments to strengthen controls and documentation.

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

Proposed Indirect Cost Rates Applied

NSF Award Number	Award Date	Transaction Date	Rate Applied (%) ¹	Appropriate Rate (%)
██████████	11/01/2018	05/04/2021	53.00	55.00

Dartmouth response:

Dartmouth agrees to develop and follow a documented procedure ensuring sub-awardees follow their negotiated indirect cost rate agreement and that Dartmouth can assure that the government is not overcharged.

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 Dartmouth College (Dartmouth) claimed on NSF awards during the audit period of performance (POP) of October 1, 2019, through September 30, 2022. The objectives of the audit were to evaluate Dartmouth’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 \$51.6 million in expenses Dartmouth claimed on 209 NSF awards during our audit period of October 1, 2019, through September 30, 2022.

METHODOLOGY

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

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

management systems did not substantially comply with applicable requirements.

- Dartmouth provided detailed transaction-level data to support \$51,608,684 in costs charged to NSF awards during the period, which was less than the \$51,609,289 Dartmouth claimed in ACM\$ for the 209 awards. This data resulted in a total audit universe of \$51,608,684 in expenses claimed on 209 NSF awards.
 - Dartmouth provided GL data to support the majority of the costs claimed and provided documentation to support that most of the \$605 variance related to a \$563 credit posted to Dartmouth’s GL in September 2019 to remove excess expenses from its GL that were never claimed in ACM\$. Because the expenses Dartmouth removed from its GL exceeded the NSF award amount, and Dartmouth never drew down these funds in ACM\$, we did not note an exception.
 - Because the remaining 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 Dartmouth and NSF OIG provided, as well as any other relevant information that was available online.
- Summarizing our understanding of federal, NSF, and Dartmouth-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 Dartmouth’s internal controls within the audit’s scope solely to understand the directives or policies and procedures Dartmouth has in place to ensure that charges against NSF awards complied with relevant federal regulations, NSF award terms and conditions, and Dartmouth policies.
- Providing Dartmouth with a list of 40 transactions that we selected based on the results of our data analytics and requesting that Dartmouth provide documentation to support each transaction.
- Reviewing the supporting documentation Dartmouth 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 Dartmouth policies.²⁷

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

²⁵ We assessed Dartmouth's compliance with 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.

²⁶ We assessed Dartmouth's compliance with NSF Proposal and Award Policies and Procedures Guides (PAPPGs) 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 Dartmouth's compliance with internal Dartmouth policies and procedures surrounding costs budgeted for or charged to NSF awards.

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

APPENDIX C: SUMMARY OF QUESTIONED COSTS

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

Finding	Description	Questioned Costs		Total
		<i>Unsupported</i>	<i>Unallowable</i>	
1	Unallowable Expenses	\$0	\$104,120	\$104,120
2	Inadequately Supported Expenses	-	150	150
3	Participant Support Costs Not Accurately Identified	-	-	-
4	Non-Compliance with Dartmouth Policies and Procedures	-	-	-
Total		<u>\$0</u>	<u>\$104,270</u>	<u>\$104,270</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	Dartmouth Agreed to Reimburse
██████	3	\$612	\$379	\$991	\$991
██████	1	18,580	1,954	20,534	20,534
██████	2	-	-	-	-
██████	1	-	-	-	-
██████	1	82,595	-	82,595	82,595
██████	2	150	-	150	150
Total	<u>10</u>	<u>\$101,937</u>	<u>\$2,333</u>	<u>\$104,270</u>	<u>\$104,270</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	Dartmouth Agreed to Reimburse
1) Unallowable Expenses	██████	March – September 2022 Subaward	2022 – 2023	\$82,595	\$0	\$82,595	\$82,595
	██████	September 2019 – June 2022 Travel	2020 - 2022	18,580	1,954	20,534	20,534
	██████	October 2020 Premium Airfare	2021	550	341	891	891
	██████	October 2020 Lodging	2021	62	38	100	100
2) Inadequately Supported Expenses	██████	February 2022 Cash Incentive Payment	2022	150	-	150	150
3) Participant Support Costs Not Accurately Identified	██████	Participant Support Costs Not Accurately Identified	2022	-	-	-	-
4) Non-Compliance with Dartmouth Policies and Procedures	██████	Missing Itemized Lodging Receipt	2021	-	-	-	-
	██████	No Sole Source Justification Form	2022	-	-	-	-
	██████	Participant Incentive Payments Made from Personal Funds	2022	-	-	-	-
Total				<u>\$101,937</u>	<u>\$2,333</u>	<u>\$104,270</u>	<u>\$104,270</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 Dartmouth to provide documentation supporting that it has repaid or otherwise credited the \$104,120 in questioned subaward and travel costs for which it has agreed to reimburse NSF.
- 1.2 Direct Dartmouth to strengthen its review procedures and internal controls over transferring significant parts of NSF-funded research to other organizations. Updated procedures could include:
 - Establishing procedures that require Dartmouth to verify that—for any subaward under an NSF grant awarded to Dartmouth—it specifically obtains approval from the NSF Grants Officer prior to issuing a subaward. This could be completed either as part of the NSF grant budget or through a formal research.gov request to transfer the research or effort.
 - Requiring periodic training for Principal Investigators or other personnel permitted to issue subaward agreements under NSF awards.
- 1.3 Direct Dartmouth to strengthen its procedures and internal controls for reviewing and charging travel expenses. Specifically, Dartmouth could consider:
 - Establishing policies or procedures that justify charging travel expenses to specific NSF awards by confirming travel charged to an award contributes to the award objectives. This could also include providing best practices on how to document any credits or refunds received as a result of cancelled or altered travel to ensure refunds and credits are returned to the appropriate funding source(s).
 - Implementing additional reviews for all airfare purchases that require the reviewer to verify that all airfare charged to NSF awards are for economy class tickets and do not represent unallowable premium class airfare tickets.
 - Establishing controls to ensure that amounts reimbursed for lodging are based on actual receipts obtained after the trip is completed, rather than booking confirmations or invoices received prior to travel.
- 2.1 Direct Dartmouth to provide documentation supporting that it has repaid or otherwise credited the \$150 in questioned inadequately supported expenses for which it has agreed to reimburse NSF.
- 2.2 Direct Dartmouth to strengthen its procedures for creating and retaining documentation to support cash incentive payments. Updated procedures should ensure that the individuals responsible for providing cash incentives appropriately

create and maintain all documentation required per Dartmouth's *Research Participants Payments Policies and Procedures*.

- 3.1 Direct Dartmouth to establish additional guidance regarding how to review invoices and receipts that include participant support costs. This guidance should address how to segregate and account for costs Dartmouth is not allowed to cover using participant support cost funding, such as costs incurred for its employees. It should also address how Dartmouth 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.
- 4.1 Direct Dartmouth to strengthen its internal controls to ensure that itemized lodging receipts are obtained for travel lodging and appropriately submitted with the business expense report.
- 4.2 Direct Dartmouth to provide annual training for employees on sole source and competitive bidding procedures to ensure employees are aware of the documentation requirements when executing a sole source procurement.
- 4.3 Direct Dartmouth to strengthen its review procedures for incentive payments to ensure that research participants/subjects are appropriately paid in accordance with Dartmouth policy prior to the expenses being charged to NSF awards.

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

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

APPENDIX E: GLOSSARY

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

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

Return to the term's initial use.

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

Return to the term's initial use.

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

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.](#)

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

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

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

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

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

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

Negotiated Indirect Cost Rate. Generally charged to federal awards through the development and application of an indirect cost rate. In order to recover indirect costs related to federal awards, most organizations must negotiate an indirect cost rate with the federal agency that provides the preponderance of funding, or Health and Human Services (HHS) in the case of colleges and universities. (NSF Office of Budget, Finance, and Award Management).

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

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

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

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

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

NSF Proposal and Award Policies and Procedures Guide (PAPPG). Comprises documents relating to NSF's proposal and award process for the assistance programs of NSF. The PAPPG, in conjunction with the applicable standard award conditions incorporated by reference in award, serve as the NSF's implementation of 2 CFR § 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*. If the PAPPG and the award conditions are silent on a specific area covered by 2 CFR § 200, the requirements specified in 2 CFR § 200 must be followed. (NSF PAPPG 22-1).

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

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

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

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

Travel costs. Expenses for transportation, lodging, subsistence, and related items incurred by employees who are in travel status on official business of the non-federal entity. (2 CFR § 200.474).

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

Unsupported Cost. A cost that is questioned because the auditors found that, at the time of the audit, such cost is not supported by adequate documentation. Unsupported Cost is a subset of and included in Questioned Costs.

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

National Defense Authorization Act

General Notification

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

If you find your business entity or non-governmental organization was specifically identified in this report and wish to submit comments under the above-referenced statute, please send your response within 30 days of the publication date of this report to OIGPL117-263@nsf.gov, no later than March 8, 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.

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