

# Performance Audit of Incurred Costs – Colorado School of Mines

REPORT PREPARED BY COTTON & COMPANY ASSURANCE AND ADVISORY, LLC

NATIONAL SCIENCE FOUNDATION  
OFFICE OF INSPECTOR GENERAL

September 23, 2022  
OIG 22-1-013





## AT A GLANCE

### Performance Audit of Incurred Costs – Colorado School of Mines

Report No. OIG 22-1-013

September 23, 2022

#### AUDIT OBJECTIVE

The National Science Foundation Office of Inspector General engaged Cotton & Company Assurance and Advisory, LLC (C&C) to conduct a performance audit of costs that the Colorado School of Mines (Mines) incurred on 50 NSF awards as of September 2, 2021. The auditors tested more than \$800,000 of the approximately \$21 million of costs claimed to NSF. The objective of the audit was to determine if costs claimed by Mines 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 Mines' compliance with certain federal and NSF terms and conditions. The auditors questioned \$10,260 of costs claimed by Mines during the audit period. Specifically, the auditors found \$5,081 of unallowable expenses, \$2,909 of indirect costs inappropriately applied, and \$2,270 of inadequately supported expenses. The auditors also identified two compliance related findings for which there were no questioned costs: non-compliance with federal requirements for pass-through entities and non-compliance with NSF terms and conditions. C&C is responsible for the attached report and the conclusions expressed in it. NSF OIG does not express any opinion on the conclusions presented in C&C's audit report.

#### RECOMMENDATIONS

The auditors included five findings and one area for improvement in the report with associated recommendations for NSF to resolve the questioned costs and ensure that Mines strengthens administrative and management controls.

#### AUDITEE RESPONSE

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

**FOR FURTHER INFORMATION, CONTACT US AT [OIGPUBLICAFFAIRS@NSF.GOV](mailto:OIGPUBLICAFFAIRS@NSF.GOV).**



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

**MEMORANDUM**

**DATE:** September 23, 2022

**TO:** Alex Wynnyk  
Acting Director  
Division of Institution and Award Support

Jamie French  
Director  
Division of Grants and Agreements



**FROM:** for Mark Bell  
Assistant Inspector General  
Office of Audits

**SUBJECT:** Audit Report No. 22-1-013, Colorado School of Mines

This memorandum transmits the Cotton & Company Assurance and Advisory, LLC (C&C) report for the audit of costs that the Colorado School of Mines (Mines) incurred on 50 NSF awards as of September 2, 2021. The auditors tested more than \$800,000 of the approximately \$21 million of costs claimed to NSF. The objective of the audit was to determine if costs claimed by Mines on NSF awards were allowable, allocable, reasonable, and in compliance with NSF award terms and conditions and federal financial assistance requirements. A full description of the audit's objective, scope, and methodology is attached to the report as Appendix B.

Please coordinate with our office during the 6-month resolution period, as specified by OMB Circular A-50, to develop a mutually agreeable resolution of the audit findings. The findings should not be closed until NSF determines that all recommendations have been adequately addressed and the proposed corrective actions have been satisfactorily implemented.

**OIG Oversight of the Audit**

C&C is responsible for the attached auditors' report and the conclusions expressed in this report. We do not express any opinion on the conclusions presented in C&C's audit report. To fulfill our responsibilities, we:

- reviewed C&C's approach and planning of the audit;

- evaluated the qualifications and independence of the auditors;
- monitored the progress of the audit at key points;
- coordinated periodic meetings with C&C, as necessary, to discuss audit progress, findings, and recommendations;
- reviewed the audit report prepared by C&C; and
- coordinated issuance of the audit report.

We thank your staff for the assistance that was extended to the auditors during this audit. If you have any questions regarding this report, please contact Keith Nackerud at 703.292.7100 or [OIGpublicaffairs@nsf.gov](mailto:OIGpublicaffairs@nsf.gov).

#### Attachment

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## EXECUTIVE SUMMARY

The Cotton & Company audit team determined that the Colorado School of Mines (Mines) needs improved oversight of the allocation and documentation of expenses charged to NSF awards to ensure costs claimed are reasonable, allocable, and allowable in accordance with all federal and NSF regulations, NSF award terms and conditions, and Mines policies. Specifically, the audit report includes five findings and one area for improvement, with a total of \$10,260 in questioned costs.

## AUDIT OBJECTIVES

The National Science Foundation Office of Inspector General engaged Cotton & Company Assurance and Advisory, LLC to conduct a performance audit of costs that Mines incurred on 50 awards that either ended or were close to the end of their period of performance. The audit objectives included evaluating Mines' award management environment, determining if costs claimed on NSF awards were allowable, allocable, reasonable, and in compliance with relevant Federal and NSF regulations, determining 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 Mines' compliance with relevant federal regulations (i.e., 2 Code of Federal Regulations [CFR] 200 and 2 CFR 220); NSF Proposal and Award Policies and Procedures Guides (PAPPGs) 15-1, 16-1, 17-1, 18-1, 19-1, and 20-1; NSF award terms and conditions; and Mines 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 \$10,260 of direct and indirect costs that Mines inappropriately claimed during the audit period, including:

- \$5,081 of unallowable expenses
- \$2,909 of indirect costs inappropriately applied
- \$2,270 of inadequately supported expenses

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

- Non-compliance with federal requirements for pass-through entities
- Non-compliance with NSF terms and conditions

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

- Recording employee leave

## RECOMMENDATIONS

The audit report includes 10 recommendations and one consideration for NSF's Director of the Division of Institution and Award Support related to resolving the \$10,260 in questioned costs and ensuring Mines strengthens its award management environment, as summarized in **Appendix D**.

## AUDITEE RESPONSE

Mines concurred with the majority of the findings throughout the audit report, agreeing to reimburse NSF for the full \$10,260 in questioned costs. Mines' response is

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## Abbreviations

<b>ACM\$</b>	Award Cash Management Service
█	█ University
<b>Mines</b>	Colorado School of Mines
<b>CFR</b>	Code of Federal Regulations
<b>FMS</b>	Financial Management System
<b>FY</b>	Fiscal Year
<b>GAGAS</b>	Generally Accepted Government Auditing Standards
<b>GL</b>	General Ledger
<b>GRFP</b>	Graduate Research Fellowship Program
<b>IHE</b>	Institute of Higher Education
<b>MTDC</b>	Modified Total Direct Costs
<b>NICRA</b>	Negotiated Indirect Cost Rate Agreement
<b>NSF</b>	National Science Foundation
<b>OIG</b>	Office of Inspector General
<b>PAPPG</b>	Proposal and Award Policies and Procedures Guide
█	University of █
<b>POP</b>	Period of Performance

## BACKGROUND

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

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

NSF OIG engaged Cotton & Company Assurance and Advisory, LLC (referred to as “we”) to conduct a performance audit of costs incurred by the Colorado School of Mines (Mines). Mines is a public research university focused on science and engineering and is located in Golden, Colorado. In fiscal year (FY) 2021, Mines reported \$259 million in operating revenues, with \$81 million of that amount obtained through grants and contracts—including grants from NSF—as illustrated in Figure 1.

**Figure 1: Mines’ FY 2021 Operating Revenue Sources**



Source: The chart data is available on Mines’ website (<https://www.mines.edu/controllers-office/wp-content/uploads/sites/92/2022/04/fy21-mines-fs.pdf>). The photo of Mines’ campus is publicly available on Mines’ website (<https://www.mines.edu/human-resources/w-mca/>).

## AUDIT SCOPE

This performance audit—conducted under Order No. 140D0421F0612—was designed to meet the objectives identified in the Objectives, Scope, and Methodology section of this report ([Appendix B](#)) and was conducted in accordance with *Generally Accepted Government Auditing Standards*, issued by the Comptroller General of the United States.

The objectives of this performance audit were to evaluate Mines’ award management environment, to determine if costs claimed on NSF awards were allowable, allocable, reasonable, and in compliance with relevant federal and NSF regulations, to determine whether any further audit work was warranted, and to perform any additional audit work, as determined appropriate. [Appendix B](#) provides detailed information regarding the audit objectives, scope, and methodology used for this engagement.

As illustrated in Figure 2, Mines provided general ledger (GL) data to support the \$20.9 million in expenses it claimed on 50 NSF awards from each award’s inception through September 2, 2021.

**Figure 2: Costs Mines Claimed on 50 NSF Awards<sup>1</sup>**



*Source:* Auditor analysis of accounting data Mines provided, illustrating the total costs (\$20,967,446) by expense type, to support costs incurred on the 50 NSF awards included within our audit scope during the audit period.

We judgmentally selected 48 transactions totaling \$848,830<sup>2</sup> (see Table 1) and evaluated supporting documentation to determine whether the costs claimed on the NSF awards

<sup>1</sup> The total award-related expenses that Mines reported in its GL exceeded the \$20,949,793 reported in NSF’s Award Cash Management Service (ACM\$). However, because the GL data materially reconciled to NSF’s ACM\$ records, we determined that the GL data was appropriate for the purposes of this engagement.

<sup>2</sup> The \$848,830 represents the total value of the 48 transactions selected for transaction-based testing. It does not represent the dollar base of the total costs reviewed during the audit.

were **allocable**, **allowable**, and **reasonable**, and whether they were in conformity with NSF award terms and conditions, organizational policies, and applicable federal financial assistance requirements.

**Table 1: Summary of Selected Transactions**

Budget Category	Transaction Count	Expense Amount <sup>3</sup>
Other Direct Costs	18	\$453,672
Equipment	4	155,756
Subawards	4	107,762
Salaries and Wages	9	60,927
Participant Support Costs	2	16,334
Materials and Supplies	3	14,453
Consultant Services	3	13,807
Travel	4	13,104
Indirect Costs	1	13,015
<b>Total</b>	<b><u>48</u></b>	<b><u>\$848,830</u></b>

Source: Auditor summary of selected transactions.

## AUDIT RESULTS

We identified and questioned \$10,260 in costs that Mines charged to three NSF awards. We also identified expenses that Mines charged to two NSF awards that did not result in questioned costs, but resulted in non-compliance with Mines-specific policies and procedures. Finally, we identified one area in which we did not note any instances of non-compliance, but in which Mines should consider strengthening its controls to ensure it appropriately records its employees' annual leave charged 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	\$5,081
Indirect Costs Inappropriately Applied	2,909
Inadequately Supported Expenses	2,270
Non-Compliance with Federal Requirements for Pass-Through Entities	-
Non-Compliance with NSF Terms and Conditions	-
<b>Total</b>	<b><u>\$10,260</u></b>

Source: Auditor summary of findings identified.

We made 10 recommendations and one consideration for NSF's Director of the Division of Institution and Award Support related to resolving the \$10,260 in questioned costs and ensuring Mines strengthens its administrative and management policies and procedures

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

for monitoring federal funds. We communicated the results of our audit and the related findings, recommendations, and consideration to Mines and NSF OIG. We included Mines' response to this report in its entirety in [Appendix A](#).

## FINDING 1: UNALLOWABLE EXPENSES

Mines charged two NSF awards a total of \$5,081 in [entertainment](#), [publication](#), and [scholarship](#) expenses that are not allowable under federal regulations<sup>4</sup> or [NSF Proposal and Award Policies and Procedures Guides \(PAPPGs\)](#).<sup>5</sup>

**Table 3: Unallowable Expenses**

Expense Date(s)	NSF Award No.	Unallowable Expenses	Unallowable Expenses Associated with:	Notes
January 2019	██████████	\$98	Entertainment Expenses	<b>a</b>
October 2020	██████████	2,483	Publication Costs	<b>b</b>
August 2021	██████████	2,500	Scholarship Provided to an Ineligible Participant	<b>c</b>

Source: Auditor summary of identified exceptions.

- a)** In January 2019, Mines charged NSF Award No. ██████████ for \$98 in unallowable entertainment<sup>6</sup> costs associated with kayak/canoe/paddle-board rentals provided to participants during their free time at an NSF award-related conference.
- b)** In October 2020, Mines charged NSF Award No. ██████████ for \$2,483 in publication costs incurred to publish a research article in a ██████████ publication that did not acknowledge the NSF award, which is required for the expense to be allowable.<sup>7</sup>
- c)** In August 2021, Mines charged NSF Award No. ██████████ for a \$2,500 scholarship provided to a student who dropped the required computer science minor that had made them eligible for the NSF scholarship award.<sup>8</sup>

<sup>4</sup> According to 2 Code of Federal Regulations (CFR) § 200.403, *Factors affecting allowability of costs*, in order for a cost to be allowable, it must be necessary and reasonable for the performance of the federal award.

<sup>5</sup> NSF PAPPGs 16-1, Part II, Chapter V, and 18-1, Part II, Chapter X, Section A, *Basic Considerations*, state that grantees should ensure that all costs charged to NSF awards meet the requirements of the applicable federal cost principles, grant terms and conditions, and any other specific requirements of both the award notice and the applicable program solicitation.

<sup>6</sup> According to 2 CFR § 200.438, *Entertainment costs*, costs of entertainment, including amusement, diversion, and social activities, and any associated costs, are unallowable, except where specific costs that might otherwise be considered entertainment have a programmatic purpose and are authorized either in the approved budget for the federal award or with prior written approval of the federal awarding agency.

<sup>7</sup> NSF PAPPG 18-1, Part II, Chapter XI, Section E, *Publication/Distribution of Grant Materials*, 4.a, states that the grantee is responsible for assuring that an acknowledgment of NSF support is made in any publication (including web pages) of any material based on or developed under this project.

<sup>8</sup> According to 2 CFR § 200.466, *Scholarships and student aid costs*, costs of scholarships, fellowships, and other programs of student aid at Institutions of Higher Education (IHEs) are allowable when the student is enrolled in an advanced degree program at a non-federal entity or affiliated institution and the activities of the student in relation to the federal award are related to the degree program.

## Conclusion

Mines did not have sufficient policies and procedures or internal controls in place to ensure it only charged allowable costs to NSF awards. Specifically, Mines' procedures did not always ensure that it removed entertainment costs from invoices before charging conference expenses to NSF awards, that it only charged NSF awards for publications that recognized the NSF award charged as a funding source, or that it verified students remained eligible for NSF award scholarships.

We are therefore questioning \$5,081 of unallowable expenses charged to two NSF awards. Mines concurred with the \$5,081 in questioned costs, as illustrated in Table 4.

**Table 4: Finding 1 Summary: Unallowable Expenses**

NSF Award No.	Description	Fiscal Year(s)	Questioned Costs			Mines Agreed to Reimburse
			Direct	Indirect	Total	
██████	January 2019 Entertainment Expenses	2019	\$98	\$0 <sup>9</sup>	\$98	\$98
██████	October 2020 Publication Costs	2021	1,650	833	2,483	2,483
██████	August 2021 Scholarship Provided to an Ineligible Participant	2022	2,500	-	2,500	2,500
<b>Total</b>			<b><u>\$4,248</u></b>	<b><u>\$833</u></b>	<b><u>\$5,081</u></b>	<b><u>\$5,081</u></b>

*Source: Auditor summary of identified exceptions.*

## Recommendations

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

- 1.1. Direct Mines to provide documentation supporting that it has repaid or otherwise credited the \$5,081 in questioned entertainment, publication, and scholarship expenses for which Mines has agreed to reimburse NSF.
- 1.2. Direct Mines to strengthen its processes and procedures surrounding the approval and allowability of conference expenses. Updated procedures could include implementing additional reviews of all costs charged by conference providers or additional training to individuals responsible for processing conference expenses to ensure that Mines charges any costs incurred for entertainment purposes to non-sponsored funding sources prior to charging conference costs to NSF awards.

<sup>9</sup> We questioned the associated indirect costs in Finding 2.

- 1.3. Direct Mines to establish clear guidance regarding the allowability of publication expenses on NSF awards, including the requirement to acknowledge specific NSF award funding sources.
- 1.4. Direct Mines to strengthen its processes and procedures surrounding the allocation of scholarship expenses to NSF awards. Updated procedures should ensure that Mines only charges NSF awards for scholarships provided to eligible students.

**Colorado School of Mines Response:** Although Mines noted that it has processes and procedures in place to reasonably ensure expenses charged to sponsored programs are allowable in accordance with sponsor regulations, it agreed to reimburse NSF for the \$5,081 in questioned unallowable expenses. Further, Mines noted that it intends to update its procedures to add additional reviews to scholarship recipient qualifications and that it will provide training to campus partners regarding publication and entertainment cost requirements.

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

## **FINDING 2: INDIRECT COSTS INAPPROPRIATELY APPLIED**

Mines charged one NSF award a total of \$2,909 in indirect costs it inappropriately applied to **participant support costs** that should not have been included in Mines' **Modified Total Direct Cost (MTDC)** base—to which indirect costs are applied—per federal regulations,<sup>10</sup> NSF PAPPGs,<sup>11</sup> or Mines' **Negotiated Indirect Cost Rate** Agreements (NICRAs).<sup>12</sup>

**Table 5: Indirect Costs Inappropriately Applied to Participant Support Costs**

Expense Date(s)	NSF Award No.	Indirect Costs Inappropriately Applied to:	Questioned Costs	Notes
April 2018 and January 2019	██████████	Participant Support Costs	\$2,909	a

Source: Auditor summary of identified exception.

- a) Between April 2018 and January 2019, Mines charged NSF Award No. ██████████ for conference-related expenses without appropriately separating the \$5,760<sup>13</sup> in costs it incurred to support NSF award participants from the costs it incurred to support the Mines employees who attended the conference. As a result, Mines inappropriately applied \$2,909 in indirect costs to participant support costs.

<sup>10</sup> According to 2 CFR § 200.68, *Modified Total Direct Costs (MTDC)*, MTDCs exclude participant support costs.

<sup>11</sup> NSF PAPPG 16-1, Part I, Chapter II, Section C.2.g.(v), *Participant Support*, states that indirect costs (F&A) are not allowed on participant support costs and that participant support costs must be accounted for separately, should an award be made.

<sup>12</sup> Mines' NICRAs dated May 2, 2016, and June 28, 2018, state that MTDCs shall exclude participant support costs.

<sup>13</sup> This amount includes the \$98 in unallowable entertainment expenses questioned in Finding 1. We calculated this amount as follows: \$6,616 in direct conference costs/23 conference attendees = \$288 per person. \$288 per person \* 20 participants = \$5,760 in costs that Mines should have charged as participant support costs.

## Conclusion

Mines did not have sufficient policies and procedures or internal controls in place to ensure it always charged participant support costs to account codes that it correctly excluded from its MTDC base.

We are therefore questioning \$2,909 in inappropriately applied indirect costs charged to one NSF award. Mines concurred with the \$2,909 in questioned costs, as illustrated in Table 6.

**Table 6: Finding 2 Summary: Indirect Costs Inappropriately Applied**

NSF Award No.	Description	Fiscal Year(s)	Questioned Costs			Mines Agreed to Reimburse
			Direct	Indirect	Total	
██████████	April 2018 – January 2019 Indirect Costs Charged to Participant Support Costs	2018, 2019	\$0	\$2,909	\$2,909	\$2,909
<b>Total</b>			<u>\$0</u>	<u>\$2,909</u>	<u>\$2,909</u>	<u>\$2,909</u>

*Source: Auditor summary of identified exception.*

## Recommendations

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

- 2.1. Direct Mines to provide documentation that it has repaid or otherwise credited the \$2,909 in questioned indirect costs for which it has agreed to reimburse NSF.
- 2.2. Direct Mines to strengthen its monitoring procedures and internal control processes for applying indirect costs to federal awards. Updated procedures could include implementing an annual review process for costs charged to awards that include funding for participant support costs to ensure Mines is appropriately separating participant-related expenses in accounts that it has excluded from its Modified Total Direct Cost base.

**Colorado School of Mines Response:** Mines agreed to reimburse NSF for the \$2,909 in questioned indirect costs inappropriately applied to participant support costs. Specifically, Mines noted that the participant support costs were charged to the incorrect account code and that it has since moved the expense to the appropriate account where indirect costs are not applied.

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

### FINDING 3: INADEQUATELY SUPPORTED EXPENSES

Mines did not provide adequate documentation to support the **allocability, allowability,** and reasonableness of \$2,270 in expenses charged to one NSF award during the audit period, as required for the costs to be allowable per federal regulations<sup>14</sup> and NSF PAPPGs.<sup>15</sup>

**Table 7: Inadequately Supported Expenses**

Expense Date(s)	NSF Award No.	Expense Total	Insufficient Documentation to Support the:	Notes
May 2016	██████████	\$2,270	Allowability and Allocability of Catering Expenses	a

Source: Auditor summary of identified exception.

- a) In May 2016, Mines charged NSF Award No. ██████████ for \$2,270 in catering costs included in an invoice it received from the University of ██████████ that were not supported by itemized receipts and/or participant lists that supported the costs were reasonable, allocable, or allowable on the NSF award.

### Conclusion

Mines did not require external vendors to provide itemized receipts, participant lists, and/or other documentation to support all invoiced costs necessary to support the allowability of the expenses incurred by the vendor before paying vendor invoices and charging the costs to NSF awards.

We are therefore questioning \$2,270 charged to one NSF award that Mines did not support represented reasonable, allocable, or allowable expenses. Mines concurred with the \$2,270 in questioned costs, as illustrated in Table 8.

**Table 8: Finding 3 Summary: Inadequately Supported Expenses**

NSF Award No.	Description	Fiscal Year(s)	Questioned Costs			
			Direct	Indirect	Total	Mines Agreed to Reimburse
██████████	May 2016 Catering Expenses	2016	\$2,270	\$0	\$2,270	\$2,270
<b>Total</b>			<u>\$2,270</u>	<u>\$0</u>	<u>\$2,270</u>	<u>\$2,270</u>

Source: Auditor summary of identified exception.

<sup>14</sup> According to 2 CFR § 200.403, *Factors affecting allowability costs*, for a cost to be allowable, it must be necessary and reasonable for the performance of the federal award and it must be adequately documented.

<sup>15</sup> NSF PAPPG 15-1, Part II, Chapter V, Section A, *Basic Considerations*, states that expenditures under NSF cost-reimbursement grants are governed by the federal cost principles and must conform with NSF policies where articulated in the grant terms and conditions, grant special provisions, and grantee internal policies.

## Recommendations

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

- 3.1. Direct Mines to provide documentation supporting that it has repaid or otherwise credited the \$2,270 in questioned catering costs for which it has agreed to reimburse NSF.
- 3.2. Direct Mines to strengthen its policies and procedures for requesting and retaining documentation, including introducing additional controls to help ensure that it appropriately requests, reviews, and maintains all documentation necessary to support the allowability of catering expenses charged to sponsored programs, including those expenses invoiced by outside vendors.

**Colorado School of Mines Response:** Mines agreed to reimburse NSF for the \$2,270 in questioned inadequately supported expenses. Additionally, Mines noted that since 2016, when this expense was incurred, it has updated its policies and procedures to require that all expenses be supported by appropriate documentation, include a business purpose, and comply with sponsor requirements.

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

## FINDING 4: NON-COMPLIANCE WITH FEDERAL REQUIREMENTS FOR PASS-THROUGH ENTITIES

Mines did not appropriately conduct, or document that it conducted, a **risk assessment** prior to issuing NSF sponsored **subawards** in compliance with federal requirements for pass-through entities.<sup>16</sup>

**Table 9: Subawards Issued Before Mines Performed a Risk Assessment**

NSF Award No.	Subaward Effective Date	Subawardee	Notes
██████████	April 2019	██████████ University ██████████	<b>a</b>
██████████	July 2019	University of ██████████	<b>b</b>

*Source: Auditor summary of identified exceptions.*

- a) In April 2019, Mines issued a subaward to ██████████ to perform work on NSF Award No. ██████████ without first performing—or documenting that it performed—a risk assessment.
- b) In July 2019, Mines issued a subaward to ██████████ to perform work on NSF Award No. ██████████ without first performing—or documenting that it performed—a risk assessment.

<sup>16</sup> According to 2 CFR § 200.331, (b), *Subrecipient and contractor determinations*, pass-through entities are required to evaluate each subrecipient’s risk of noncompliance with federal statutes, regulations, and the terms and conditions of the subaward for purposes of determining the appropriate subrecipient monitoring.

## Conclusion

Prior to September 2019, Mines did not have a process in place that required it to document its completion of subawardee risk assessments.

Because these instances of non-compliance did not directly result in Mines charging unallowable costs to NSF awards, we are not questioning any costs related to these exceptions. However, we are noting a compliance finding for the two instances in which we were unable to verify whether Mines performed the required subawardee risk assessments, as illustrated in Table 10.

**Table 10: Finding 4 Summary: Non-Compliance with Federal Requirements for Pass-Through Entities**

NSF Award No.	Description	Fiscal Year(s)	Questioned Costs			
			Direct	Indirect	Total	Mines Agreed to Reimburse
██████	April 2019 ██████ Subaward	2019	\$0	\$0	\$0	\$0
██████	July 2019 ██████ Subaward	2020	-	-	-	-
<b>Total</b>			<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>

*Source: Auditor summary of identified exceptions.*

## Recommendation

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

- 4.1 Direct Mines to ensure that it has appropriately performed—and has documented that it performed—risk assessments for all active subawards issued prior to the implementation of its September 2019 subaward policy.

**Colorado School of Mines Response:** Mines did not state whether it agreed or disagreed with this finding, but stated it performs risk assessments on all subrecipients prior to issuing subawards. Mines noted that it updated its subrecipient procedures in September 2019 to provide additional instructions on the performance and documentation of risk assessments. Further, Mines noted that it launched a new software in October 2020 to track subawards and document its risk assessments and, at the time of the software launch, Mines verified all active subawards had completed and documented risk assessments.

**Auditors’ Additional Comments:** Our position regarding this finding has not changed. Although Mines noted that it has since verified that risk assessments have been performed on both ██████ and ██████ as Mines did not provide documentation to support risk assessments were made prior to issuing the April 2019 ██████ and July 2018 ██████ subawards, our position regarding this finding has not changed.

## FINDING 5: NON-COMPLIANCE WITH NSF TERMS AND CONDITIONS

Mines did not disburse **Graduate Research Fellowship Program (GRFP)** stipends in accordance with NSF award terms and conditions.<sup>17</sup> Specifically, Mines distributed GRFP stipends under NSF Award No. [REDACTED] on a semester basis (i.e., distributing one-third of the annual GRFP stipend amount, or \$11,333.33, in each of the spring, summer, and fall semesters), rather than on a monthly basis (i.e., distributing one-twelfth of the annual GRFP stipend amount, or \$2,833.33, each month), as required by the GRFP solicitation.<sup>18</sup>

### Conclusion

Mines stated that it pays GRFP stipends on a semester basis because its financial system prevents it from processing fellowship payments on a monthly basis. As such, Mines performs a reconciliation each semester through which unallowable payments made to students who are no longer enrolled at Mines are identified and removed from sponsored projects.

Because Mines did pay the GRFP fellows the full \$34,000 stipend due to each student during the program year, we are not questioning any costs related to this exception. However, because Mines' GRFP stipend payment process did not comply with GRFP requirements, we are noting a compliance finding, as illustrated in Table 11.

**Table 11: Finding 5 Summary: Non-Compliance with NSF Terms and Conditions**

NSF Award No.	Compliance Exception Identified	Fiscal Year(s)
[REDACTED]	GRFP Stipends Not Appropriately Disbursed	2019, 2020, 2021

Source: Auditor summary of identified exception.

### Recommendation

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

- 5.1 Direct Mines to update its current procedures and internal controls to ensure that it disburses its Graduate Research Fellowship Program stipends to recipients in accordance with NSF's Graduate Research Fellowship Program terms and conditions. Updated procedures should require Mines to update or modify its internal processes to ensure it disburses Graduate Research Fellowship Program stipends in accordance with relevant NSF program terms and conditions.

<sup>17</sup> NSF PAPP17-1, Part II, Chapter X, Section A, *Basic Considerations*, states that grantees should ensure that all costs charged to NSF awards meet the requirements of the applicable federal cost principles, grant terms and conditions, and any other specific requirements of both the award notice and the applicable program solicitation.

<sup>18</sup> According to GRFP Solicitation 15-597, Part III, the institution receives up to a \$46,000 award per fellow who uses the fellowship support in a fellowship year. The solicitation states that the GRFP stipend is "currently \$34,000 for a 12-month tenure period, prorated in whole-month increments of \$2,833. The cost-of-education allowance to the institution is currently \$12,000 per year of fellowship support."

**Colorado School of Mines Response:** Although Mines acknowledged that the GRFP terms and conditions state the stipends should be distributed on a monthly basis, Mines disagreed with this finding. Specifically, Mines noted that, due to financial system limitations, Mines cannot distribute monthly GRFP stipends. As such, Mines provides GRFP stipends on a semester basis (fall, spring, and summer) in an advanced lump sum to ensure fellows do not have stipends unreasonably withheld, causing financial hardship, which it believes is the intention of the GRFP monthly payment requirement. Further, Mines noted that, following each semester, the fellowships are reconciled to ensure that any students who have dropped out mid-semester do not continue to receive a stipend and that Mines can adjust the previous semester’s cost allocation to remove any unallowable expenses. Accordingly, although Mines noted that it is unable to meet the exact requirement of the GRFP stipend schedule, it believes it maintains the intention of the requirement without adding any additional financial risk to NSF.

**Auditors’ Additional Comments:** Although Mines believes it meets the intentions of the GRFP terms and conditions, as Mines is not distributing stipends in accordance with the GRFP terms and conditions, and as Mines did not receive NSF approval for the alternative stipend distribution strategy, our position regarding this finding has not changed.

#### **AREA FOR IMPROVEMENT: RECORDING EMPLOYEE LEAVE**

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Mines’ financial management system (FMS) did not appropriately record **salary** costs charged to one NSF award. Specifically, we identified one instance where an employee earned a regular salary while performing work on NSF Award No. [REDACTED] during December 2016 and January 2017, but their salary costs were inappropriately charged to the NSF award within a “[REDACTED] Annual Leave Payment” account by Mines’ FMS.

Per Mines, the employee’s regular salary payments were charged to the “[REDACTED] Annual Leave Payment” account because its FMS does not post annual leave when it is taken, but instead when leave requests are approved by the supervisor. As a result, although the sampled employee took their 184 hours’ leave between July 2016 and November 2016—before the NSF award’s **period of performance (POP)** became effective—because the employee’s supervisor did not approve the employee’s leave requests until December 2016, its FMS charged the next 184 hours of salary earned by the employee—or hours that the employee had dedicated to NSF Award No. [REDACTED]—to the “[REDACTED] Annual Leave Payment” account, despite these hours not being leave-related.

#### **Conclusion**

Because the 184 hours in leave costs charged to the NSF award did relate to the regular salary that the employee earned while dedicating effort to the NSF award during the grant’s POP, we did not question any costs or note an exception. However, we are noting an area for improvement with respect to how Mines’ FMS currently records employee leave, as its current process can result in employee leave costs not being charged in the period the leave was taken and as it can result in regular salary costs being inappropriately recorded within its “[REDACTED] Annual Leave Payment” account.

## Consideration

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

- Directing Mines to update its current procedures for recording leave taken by employees who allocate effort to federal awards to ensure that: (1) Mines is recording annual leave payments in the period in which the employee takes the leave; and (2) Mines' financial system accurately reflects the type(s) of salary costs it is charging to federal awards.

**Colorado School of Mines Response:** Mines did not respond to this suggested area for improvement.

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

COTTON & COMPANY ASSURANCE AND ADVISORY, LLC



Megan Mesko, CPA, CFE  
Partner  
September 12, 2022

## **APPENDIX A: MINES' RESPONSE**

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Date: August 11, 2022

To: Attn: Megan Mesko, CPA, CFE  
 Cotton & Company  
 333 John Carlyle Street, Suite 500  
 Alexandria, Virginia 22314

From: Johanna Eagan, Director  
 Office of Research Administration

Subject: Mines' Responses to NSF Audit Findings

In response to the NSF Audit Report prepared by Cotton & Company, the Colorado School of Mines ("Mines") provides the following comments:

**FINDING 1: UNALLOWABLE EXPENSES**

Mines charged two NSF awards a total of \$5,081 in scholarships, publication costs, and entertainment expenses that are not allowable under federal regulations or NSF Proposal and Award Policies and Procedures Guides (PAPPGs).

Expense Date	NSF Award No.	Unallowable Expense	Unallowable Expenses Associated With:
August 2021		\$2,500	Scholarship Provided to an Ineligible Participant
October 2020		2,483	Publication Costs
January 2019		98	Entertainment Expenses

**Mines Response:** Mines agrees that the three expenses identified are not allowable. We have removed the expenses and returned the funds to NSF. Mines has processes and procedures that, to the extent reasonable, ensure that expenses posted to our sponsored programs are allowable based on sponsor regulations. Mines will update our procedures to provide additional reviews on scholarship recipients ensuring that all qualifications are met during the life of the award. We will also provide additional training to our campus partners related to publication requirements and entertainment costs.

**FINDING 2: INDIRECT COSTS INAPPROPRIATELY APPLIED**

Mines charged one NSF award a total of \$2,909 in indirect costs it inappropriately applied to participant support costs that should not have been included in Mines' Modified Total Direct Cost (MTDC) base—to which indirect costs are applied—per federal regulations, NSF PAPPGs, or Mines' Negotiated Indirect Cost Rate Agreements (NICRAs).

Expense Date(s)	NSF Award No.	Indirect Costs Inappropriately Applied to:	Questioned Costs
April 2018 and January 2019	[REDACTED]	Participant Support Costs	\$2,909

**Mines Response:** Mines agrees that the expense identified was for participant support and therefore should not have charged indirect costs. To manage participant support costs, Mines sets up two cost codes; one for main project expenses that incur IDC and one for the participant support costs that do not incur IDC. In this instance, the expense was accidentally posted to the main cost code. Mines has moved the expense to its appropriate participant support cost code where no IDC was incurred. Mines has policies and procedures in place to adequately ensure that participant support costs are not charged IDC.

**FINDING 3: INADEQUATELY SUPPORTED EXPENSES**

Mines did not provide adequate documentation to support the allocability, allowability, and reasonableness of \$2,270 in expenses charged to one NSF award during the audit period, as required for the costs to be allowable per federal regulations and NSF PAPPGs.

Expense Date	NSF Award No.	Expense Total	Insufficient Documentation to Support the:
May 2016	[REDACTED]	\$2,270	Allowability and Allocability of Catering Expenses

**Mines Response:** Mines agrees that the expense identified above did not have sufficient documentation to support the allowability of the cost on the NSF award. Mines has removed the expense and returned the funds to NSF. This expense posted in 2016. Since then, Mines has updated our policies and procedures to ensure that all expenses have appropriate supporting documentation to evaluate the business purpose and compliance with sponsor requirements.

**FINDING 4: NON-COMPLIANCE WITH FEDERAL REQUIREMENTS FOR PASS-THROUGH ENTITIES**

Mines did not appropriately conduct, or document that it conducted, a risk assessment prior to issuing NSF sponsored subawards in compliance with federal requirements for pass-through entities.

NSF Award No.	Subaward Effective Date	Subawardee
[REDACTED]	April 2019	[REDACTED] University [REDACTED]
[REDACTED]	July 2019	University of [REDACTED]

**Mines Response:** Mines performs risk assessments on all subrecipients prior to issuing a subaward, per federal requirements. In September 2019, Mines updated its subrecipient procedures to provide additional instructions on the performance and the documentation of the risk assessments. The subawards identified were issued and closed by August 2019 prior to the updated requirements. In October 2020, Mines launched a new software to track subawards that documents our risk assessments. As part of the launch of this system, Mines verified all active subawards had completed and documented risk assessments.

**FINDING 5: NON-COMPLIANCE WITH NSF TERMS AND CONDITIONS**

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Mines did not disburse Graduate Research Fellowship Program (GRFP) stipends in accordance with NSF award terms and conditions. Specifically, Mines distributed GRFP stipends under NSF Award No. [REDACTED] on a semester basis (i.e., distributing one-third of the annual GRFP stipend amount, or \$11,333.33, in each of the spring, summer, and fall semesters), rather than on a monthly basis (i.e., distributing one-twelfth of the annual GRFP stipend amount, or \$2,833.33, each month), as required by the GRFP solicitation.

**Mines Response:** Mines disagrees with this finding. Mines acknowledges that the GRFP terms and conditions state that stipends should be distributed on a monthly basis. The intention of the requirement is to ensure that fellows do not have their stipends unreasonably withheld, causing financial hardship. Due to limitations with the Mines financial system, we cannot distribute them monthly. To meet the spirit of the requirement, Mines provides them on a semester basis (fall, spring, summer) in *an advanced* lump sum. Between every semester, the fellowships are reconciled to ensure that if a student drops out mid semester 1) they don't continue to receive a stipend and 2) Mines adjusts the previous semester's cost allocation to remove any unallowable expenses. This procedure applies to all Mines managed fellowship programs. While Mines is unable to meet the exact requirement of the GRFP stipend schedule, we have maintained the spirit of the requirement without any additional financial risk to NSF.

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

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POP; and (2) reviewing the parameters that Mines used to extract transaction data from its accounting systems. We identified several discrepancies between the amounts supported by Mines' GL and the amounts that Mines claimed per NSF's ACM\$ system. However, because the GL data materially reconciled to NSF's ACM\$ records, we found Mines' computer-processed data to be sufficiently reliable for the purposes of the audit. We did not identify any exceptions with the parameters that Mines used to extract the accounting data.

- We found NSF's computer-processed data to be sufficiently reliable for the purposes of this audit. We did not review or test whether the data contained in NSF's databases or the controls over NSF's databases were accurate or reliable; however, the independent auditor's report on NSF's financial statements for FY 2021 found no reportable instances in which NSF's financial management systems did not substantially comply with applicable requirements.
- Mines provided detailed transaction-level data to support \$20,967,446 in costs charged to NSF awards during the period, which was greater than the \$20,949,793 Mines claimed in ACM\$ for the 50 awards. This data resulted in a total audit universe of \$20,967,446 in expenses claimed on 50 NSF awards.
- Obtaining and reviewing all available accounting and administrative policies and procedures, external audit reports, desk review reports, and other relevant information that Mines and NSF OIG provided, as well as any other relevant information that was available online.
- Summarizing our understanding of federal, NSF, and Mines-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 Mines' internal controls, within the audit's scope, solely to understand the directives or policies and procedures Mines has in place to ensure that charges against NSF awards complied with relevant federal regulations, NSF award terms, and Mines policies.
- Providing Mines with a list of 48 transactions that we selected based on the results of our data analytics and requesting that Mines provide documentation to support each transaction.

- Reviewing the supporting documentation Mines provided and requesting additional documentation as necessary to ensure we obtained sufficient, appropriate evidence to assess the allowability of each sampled transaction under relevant federal,<sup>19</sup> NSF,<sup>20</sup> and Mines policies.<sup>21</sup>
- Holding virtual interviews and walkthroughs with Mines in February 2022 to discuss payroll (including effort reporting), fringe benefits, travel, participant support costs, procurement, equipment (including an inventory check), Graduate Research Fellowship Program, other direct costs (e.g., patent, relocation, recruiting, interest, advertising/public relations, entertainment, fundraising, lobbying, selling/marketing, and training costs), grant close-out procedures, subawards, ACM\$ processing, indirect costs, and other general policies (e.g., pre- and post-award costs, program income, whistle-blower information, research misconduct, and conflict of interest policies).
- Summarizing the results of our fieldwork and confirming that we did not identify any extraordinary circumstances that justified the need for a second audit phase.<sup>22</sup>

At the conclusion of our fieldwork, we provided a summary of our results to NSF OIG personnel for review. We also provided the summary to Mines personnel to ensure that Mines was aware of each of our findings and that it did not have additional documentation to support the questioned costs.

We conducted this performance audit in accordance with *Generally Accepted Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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<sup>19</sup> We assessed Mines' compliance with 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, and 2 CFR Part 220, Cost Principles for Educational Institutions (Office of Management and Budget Circular A-21), as appropriate.

<sup>20</sup> We assessed Mines' compliance with NSF PAPPs 14-1, 15-1, 16-1, 17-1, 18-1, 19-1, and 20-1 and with NSF award-specific terms and conditions, as appropriate.

<sup>21</sup> We assessed Mines' compliance with internal Mines policies and procedures surrounding costs budgeted for or charged to NSF awards.

<sup>22</sup> Based on the areas of elevated risk of noncompliance identified during the initial phase, we determined that there was no need for any expanded audit phase.

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

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

Finding	Description	Questioned Costs		Total
		<i>Unsupported</i>	<i>Unallowable</i>	
1	Unallowable Expenses	\$0	\$5,081	\$5,081
2	Indirect Costs Inappropriately Applied	-	2,909	2,909
3	Inadequately Supported Expenses	-	2,270	2,270
4	Non-Compliance with Federal Requirements for Pass Through Entities	-	-	-
5	Non-Compliance with NSF Terms and Conditions	-	-	-
<b>Total</b>		<b><u>\$0</u></b>	<b><u>\$10,260</u></b>	<b><u>\$10,260</u></b>

Source: Auditor summary of questioned costs by finding.

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

NSF Award No.	No. of Transaction Exceptions	Questioned Direct Costs	Questioned Indirect Costs	Questioned Total	Mines Agreed to Reimburse
██████████	1	\$2,270	\$0	\$2,270	\$2,270
██████████	3	2,598	2,909	5,507	5,507
██████████	1	-	-	-	-
██████████	1	1,650	833	2,483	2,483
██████████	2	-	-	-	-
<b>Total</b>	<b><u>8</u></b>	<b><u>\$6,518</u></b>	<b><u>\$3,742</u></b>	<b><u>\$10,260</u></b>	<b><u>\$10,260</u></b>

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

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

Finding Description	Award No.	Expense Description	Questioned Direct Costs	Questioned Indirect Costs	Total Questioned Costs	Mines Agreed to Reimburse
1) Unallowable Expenses	██████	January 2019 Entertainment Expenses	\$98	\$0	\$98	\$98
	██████	October 2020 Publication Costs	1,650	833	2,483	2,483
	██████	August 2021 Scholarship Provided to an Ineligible Participant	2,500	-	2,500	2,500
2) Indirect Costs Inappropriately Applied	██████	April 2018- January 2019 Indirect Costs Charged to Participant Support Costs	-	2,909	2,909	2,909
3) Inadequately Supported Expenses	██████	May 2016 Catering Expenses	2,270	-	2,270	2,270
4) Non-Compliance with Federal Requirements for Pass-Through Entities	██████	April 2019 █████ Subaward	-	-	-	-
	██████	July 2019 █████ Subaward	-	-	-	-
5) Non-Compliance with NSF Terms and Conditions	██████	GRFP Stipends Not Appropriately Disbursed	-	-	-	-
<b>Total</b>			<b><u>\$6,518</u></b>	<b><u>\$3,742</u></b>	<b><u>\$10,260</u></b>	<b><u>\$10,260</u></b>

Source: Auditor summary of identified exceptions.

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

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

- 1.1. Direct Mines to provide documentation supporting that it has repaid or otherwise credited the \$5,081 in questioned entertainment, publication, and scholarship expenses for which Mines has agreed to reimburse NSF.
- 1.2. Direct Mines to strengthen its processes and procedures surrounding the approval and allowability of conference expenses. Updated procedures could include implementing additional reviews of all costs charged by conference providers or additional training to individuals responsible for processing conference expenses to ensure that Mines charges any costs incurred for entertainment purposes to non-sponsored funding sources prior to charging conference costs to NSF awards.
- 1.3. Direct Mines to establish clear guidance regarding the allowability of publication expenses on NSF awards, including the requirement to acknowledge specific NSF award funding sources.
- 1.4. Direct Mines to strengthen its processes and procedures surrounding the allocation of scholarship expenses to NSF awards. Updated procedures should ensure that Mines only charges NSF awards for scholarships provided to eligible students.
- 2.1 Direct Mines to provide documentation that it has repaid or otherwise credited the \$2,909 in questioned indirect costs for which Mines has agreed to reimburse NSF.
- 2.2 Direct Mines to strengthen its monitoring procedures and internal control processes for applying indirect costs to federal awards. Updated procedures could include implementing an annual review process for costs charged to awards that include funding for participant support costs to ensure Mines is appropriately separating participant-related expenses in accounts that it has excluded from its Modified Total Direct Cost base.
- 3.1 Direct Mines to provide documentation supporting that it has repaid or otherwise credited the \$2,270 in questioned catering costs for which it has agreed to reimburse NSF.
- 3.2 Direct Mines to strengthen its policies and procedures for requesting and retaining documentation, including introducing additional controls to help ensure that it appropriately requests, reviews, and maintains all documentation necessary to support the allowability of catering expenses charged to sponsored programs, including those expenses invoiced by outside vendors.
- 4.1 Direct Mines to ensure that it has appropriately performed—and has documented that it performed—risk assessments for all active subawards issued prior to the implementation of its September 2019 subaward policy.

5.1 Direct Mines to update its current procedures and internal controls to ensure that it disburses its Graduate Research Fellowship Program (GRFP) stipends to recipients in accordance with NSF's GRFP terms and conditions. Updated procedures should require Mines to update or modify its internal processes to ensure it disburses GRFP stipends in accordance with relevant NSF program terms and conditions.

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

- Directing Mines to update its current procedures for recording leave taken by employees who allocate effort to federal awards to ensure that: (1) Mines is recording annual leave payments in the period in which the employee takes the leave; and (2) Mines' financial system accurately reflects the type(s) of salary costs Mines is charging to federal awards.

## **APPENDIX E: GLOSSARY**

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

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

**Return to the term's initial use.**

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

**Return to the term's initial use.**

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

**Return to the term's initial use.**

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

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

**Return to the term's initial use.**

**Entertainment Costs.** Costs of entertainment, including amusement, diversion, and social activities and any associated costs are unallowable, except where specific costs that might otherwise be considered entertainment have a programmatic purpose and are authorized either in the approved budget for the federal award or with prior written approval of the

federal awarding agency. (2 CFR § 200.438).

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

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

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

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

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

**Graduate Research Fellowship Program (GRFP).** The NSF GRFP recognizes and supports outstanding graduate students in NSF-supported STEM disciplines who are pursuing research-based master's and doctoral degrees at accredited US institutions. The five-year fellowship includes three years of financial support including an annual stipend of \$34,000 and a cost of education allowance of \$12,000 to the institution. (<https://www.nsfgrfp.org/>)

[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 Costs (MTDC).** This refers to all direct salaries and wages, applicable fringe benefits, materials and supplies, services, travel, and up to the first \$25,000 of each subaward (regardless of the POP of the subawards under the award). MTDC excludes equipment, capital expenditures, charges for patient care, rental costs,

tuition remission, scholarships and fellowships, participant support costs and the portion of each subaward in excess of \$25,000. Other items may only be excluded when necessary to avoid a serious inequity in the distribution of indirect costs, and with the approval of the cognizant agency for indirect costs (2 CFR § 200.68).

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

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

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

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

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

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

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

**Proposal & Award Policies & Procedures Guide (PAPPG).** Comprises documents relating to NSF's proposal and award process for the assistance programs of NSF. The PAPPG, in conjunction with the applicable standard award conditions incorporated by reference in award, serve as the NSF's implementation of 2 CFR § 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*. If the PAPPG and the award conditions are silent on a specific area covered by 2 CFR § 200, the requirements specified in 2 CFR § 200 must be followed (NSF PAPPG 18-1).

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

**Publication Costs.** Costs for electronic and print media, including distribution, promotion, and general handling, are allowable. If these costs are not identifiable with a particular cost objective, they should be allocated as indirect costs to all benefiting activities of the non-federal entity.

Page charges for professional journal publications are allowable where:

- (1) The publications report work supported by the federal government.
- (2) The charges are levied impartially on all items published by the journal, whether or not under a federal award.

- (3) The non-federal entity may charge the federal award before closeout for the costs of publication or sharing of research results if the costs are not incurred during the POP of the federal award. (2 CFR § 200.461).

[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.](#)

**Risk Assessment.** All pass-through entities must evaluate each subrecipient's risk of noncompliance with Federal statutes, regulations, and the terms and conditions of the subaward for purposes of determining the appropriate subrecipient monitoring, which may include consideration of such factors as:

- (1) The subrecipient's prior experience with the same or similar subawards;
- (2) The results of previous audits including whether or not the subrecipient receives a Single Audit, and the extent to which the same or similar subaward has been audited as a major program;
- (3) Whether the subrecipient has new personnel or new or substantially changed systems; and
- (4) The extent and results of Federal awarding agency monitoring (*e.g.*, if the subrecipient also receives Federal awards directly from a Federal awarding agency). (2 CFR § 200.332).

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

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

- (1) Is reasonable for the services rendered and conforms to the established written policy of the non-federal entity consistently applied to both federal and non-federal activities.
- (2) Follows an appointment made in accordance with a non-federal entity's laws or rules or written policies and meets the requirements of federal statute, where applicable.
- (3) Is determined and supported as provided in Standards for Documentation of Personnel Expenses, when applicable. (2 CFR § 200.430).

### Return to the term's initial use.

**Scholarships.** Costs of scholarships, fellowships, and other programs of student aid at IHEs are allowable only when the purpose of the Federal award is to provide training to selected participants and the charge is approved by the Federal awarding agency. However, tuition remission and other forms of compensation paid as, or in lieu of, wages to students performing necessary work are allowable provided that:

- (1) The individual is conducting activities necessary to the Federal award;
- (2) Tuition remission and other support are provided in accordance with established policy of the IHE and consistently provided in a like manner to students in return for similar activities conducted under Federal awards as well as other activities; and
- (3) During the academic period, the student is enrolled in an advanced degree program at a non-Federal entity or affiliated institution and the activities of the student in relation to the Federal award are related to the degree program;
- (4) The tuition or other payments are reasonable compensation for the work performed and are conditioned explicitly upon the performance of necessary work; and
- (5) It is the IHE's practice to similarly compensate students under Federal awards as well as other activities. (2 CFR § 200.466).

### 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.



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