

Performance Audit of Incurred Costs – University of Texas at Dallas

REPORT PREPARED BY COTTON & COMPANY LLP

NATIONAL SCIENCE FOUNDATION
OFFICE OF INSPECTOR GENERAL

December 9, 2021
OIG 22-1-002





AT A GLANCE

Performance Audit of Incurred Costs – University of Texas at Dallas
Report No. OIG 22-1-002
December 9, 2021

AUDIT OBJECTIVE

The National Science Foundation Office of Inspector General engaged Cotton & Company LLP (C&C) to conduct a performance audit of incurred costs at the University of Texas at Dallas (UTD) for the period September 1, 2017, to August 31, 2020. The auditors tested more than \$671,000 of the approximately \$37 million of costs claimed to NSF. The objective of the audit was to evaluate UTD’s award management environment to determine whether any further audit work was warranted, and to perform additional audit work, as determined appropriate. 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 UTD’s compliance with certain federal, NSF, and/or UTD regulations and policies when allocating expenses to NSF awards. The auditors questioned \$249,210 of costs claimed by UTD during the audit period. Specifically, the auditors found \$91,771 of inadequately supported expenses; \$70,604 of expenses not appropriately allocated to NSF awards; \$63,753 of expenses for which NSF approval was not obtained before transferring the award research to other organizations; and \$23,082 of unallowable expenses. The auditors also identified two compliance-related findings for which there were no questioned costs: non-compliance with UTD policies and insufficient controls related to the application of indirect cost rates. C&C is responsible for the attached report and the conclusions expressed in this report. NSF OIG does not express any opinion on the conclusions presented in C&C’s audit report.

RECOMMENDATIONS

The auditors included 6 findings in the report with associated recommendations for NSF to resolve the questioned costs and to ensure UTD strengthens administrative and management controls.

AUDITEE RESPONSE

UTD expressed varying levels of agreement and disagreement with the findings throughout the audit report, agreeing to reimburse NSF for \$29,011 in questioned costs, but disagreeing with the remaining \$220,199. UTD’s response is attached in its entirety to the report as Appendix A.

FOR FURTHER INFORMATION, CONTACT US AT OIGPUBLICAFFAIRS@NSF.GOV.



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

MEMORANDUM

DATE: December 9, 2021

TO: Dale Bell
Director
Division of Institution and Award Support

Jamie French
Director
Division of Grants and Agreements

FROM: Mark Bell [REDACTED]
Assistant Inspector General
Office of Audits

SUBJECT: Audit Report No. 22-1-002, University of Texas at Dallas

This memorandum transmits the Cotton & Company LLP (C&C) report for the audit of costs charged by the University of Texas at Dallas (UTD) to its sponsored agreements with the National Science Foundation during the period September 1, 2017, to August 31, 2020. The audit encompassed more than \$671,000 of the approximately \$37 million claimed to NSF during the period. The objective of the audit was to evaluate UTD's award management environment to determine whether any further audit work was warranted, and to perform additional audit work, as determined appropriate. 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 Office of Management and Budget Circular A-50, to develop a mutually agreeable resolution of the audit findings. The findings should not be closed until NSF determines that all recommendations have been adequately addressed and the proposed corrective actions have been satisfactorily implemented.

OIG Oversight of the Audit

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

- reviewed C&C's approach and planning of the audit;
- evaluated the qualifications and independence of the auditors;

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

We thank your staff for the assistance that was extended to the auditors during this audit. If you have any questions regarding this report, please contact Jae Kim at 703.292.7100 or OIGpublicaffairs@nsf.gov.

Attachment

cc:

Anneila Sargent
Ellen Ochoa
Victor McCrary
John Veysey
Ann Bushmiller
Christina Sarris

Karen Marrongelle
Judy Chu
Judy Hayden
Kim Silverman
Teresa Grancorvitz
Alex Wynnyk

Rochelle Ray
Charlotte Grant-Cobb
Allison Lerner
Lisa Vonder Haar
Ken Chason
Dan Buchtel

Ken Lish
Jae Kim
Jennifer Kendrick
Louise Nelson
Karen Scott

EXECUTIVE SUMMARY

The Cotton & Company audit team determined that the University of Texas at Dallas (UTD) 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 UTD policies. Specifically, the audit report includes six findings and a total of \$249,210 in questioned costs.

AUDIT OBJECTIVES

The National Science Foundation Office of Inspector General engaged Cotton & Company LLP to conduct a performance audit of incurred costs at UTD for the period of September 1, 2017, to August 31, 2020. The audit objectives included evaluating UTD'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 UTD's compliance with relevant federal regulations (2 Code of Federal Regulations [CFR] 200 and 2 CFR 220), NSF Proposal and Award Policies and Procedures Guides [PAPPGs] (NSF 11-1, 13-1, 14-1, 15-1, 16-1, 17-1, 18-1, and 19-1), NSF award terms and conditions, and UTD 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 \$249,210 of direct and indirect costs that UTD inappropriately claimed during the audit period, including:

- \$91,771 of inadequately supported expenses
- \$70,604 of expenses not appropriately allocated to NSF awards
- \$63,753 of expenses for which NSF approval was not obtained before transferring the award research to other organizations
- \$23,082 of unallowable expenses

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

- Non-compliance with UTD policies
- Insufficient controls related to the application of indirect cost rates

RECOMMENDATIONS

The audit report includes 24 recommendations for NSF's Director of the Division of Institution and Award Support related to resolving the \$249,210 in questioned costs and ensuring UTD strengthens its award management environment, as summarized in [Appendix D](#).

AUDITEE RESPONSE

UTD expressed varying levels of agreement and disagreement with the findings throughout the audit report, agreeing to reimburse NSF for \$29,011 in questioned costs, but disagreeing with the remaining \$220,199. UTD's response is attached in its entirety to the report as [Appendix A](#).

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Abbreviations

ACM\$	Award Cash Management \$ervice
CFR	Code of Federal Regulations
CI	Ciencia International
COE	Cost of Education
F&A	Facilities and Administrative
GRFP	Graduate Research Fellowships Program
IGDP	Instituto Geofísico Del Perú
ISP	Internal Service Provider
MTDC	Modified Total Direct Costs
NICRA	Negotiated Indirect Cost Rate Agreement
NSF	National Science Foundation
OIG	Office of Inspector General
PAPPG	Proposal and Award Policies and Procedures Guide
PI	Principal Investigator
POP	Period of Performance
UT	University of Texas
UTD	University of Texas at Dallas

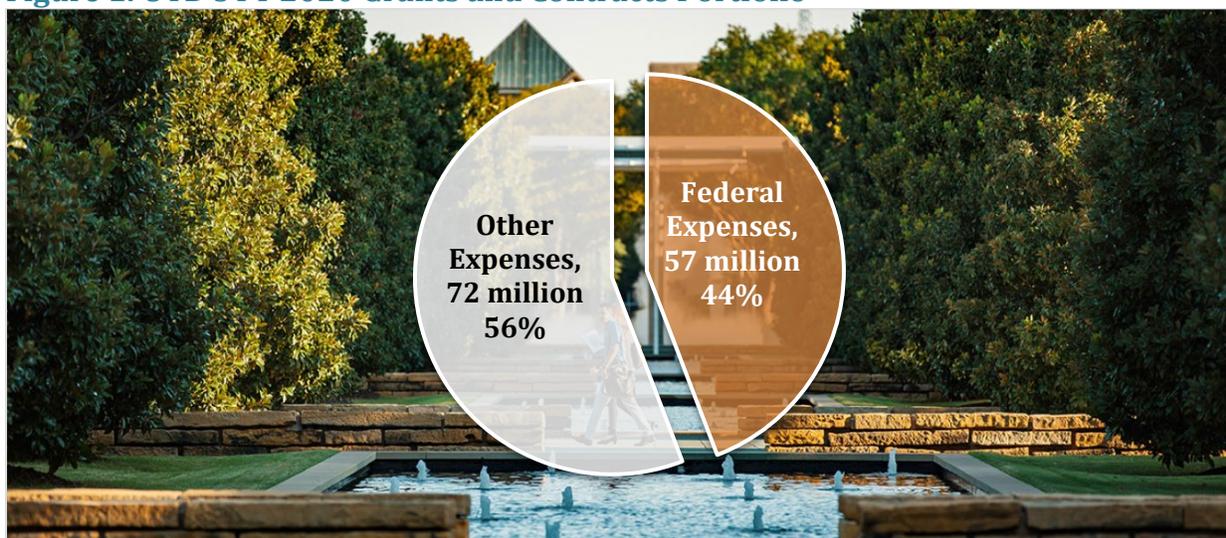
BACKGROUND

The National Science Foundation is an independent federal agency created “to promote the progress of science; to advance the national health, prosperity, and welfare; and 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 LLP (referred to as “we”) to conduct a performance audit of costs incurred by the University of Texas at Dallas (UTD). UTD is a public research university located in Richardson, Texas. In fiscal year (FY) 2020, UTD projected more than \$129 million in research expenditures from grants and contracts, with \$57 million expended from federal sources—including NSF—as noted in Figure 1.

Figure 1: UTD’s FY 2020 Grants and Contracts Portfolio



Source: The chart data is available on UTD’s Office of Research website (<https://research.utdallas.edu/industry>). The photo of UTD’s campus is publicly available on UTD’s website (<https://www.utdallas.edu/about-us/>).

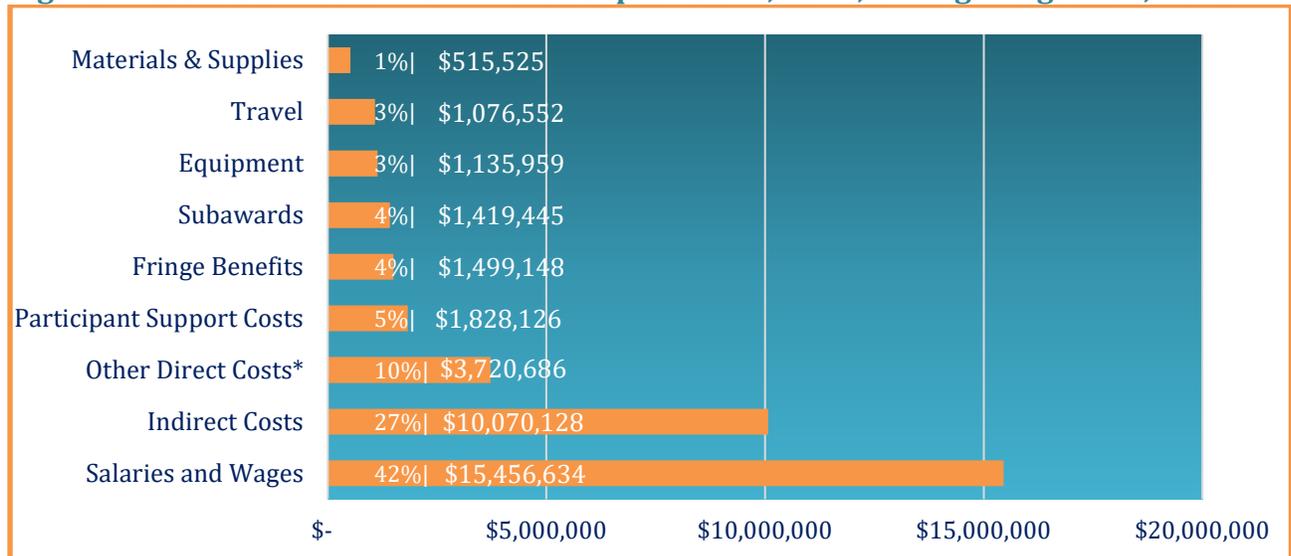
AUDIT SCOPE

This performance audit—conducted under Order No. 140D0420F0593—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*, 2018 Revision, issued by the Comptroller General of the United States.

The objectives of this performance audit were to evaluate UTD’s award management environment, 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 two phases in which we conducted this engagement: the Audit Survey Phase and the Audit Expanded Phase.

As illustrated in Figure 2, UTD provided general ledger data that supported the \$36.7 million in expenses UTD claimed on 254 NSF awards during our audit [period of performance](#) (POP) of September 1, 2017, to August 31, 2020.

Figure 2: Costs Claimed on NSF Awards September 1, 2017, through August 31, 2020¹



Source: Auditor analysis of accounting data provided by UTD, illustrating total costs (\$36,722,203) by expense type, using financial information to support costs incurred on NSF awards during the audit period.

*Other [Direct Costs](#) include Computer Services, [Consultant Services](#), [Publications](#), and Other Direct Costs.

We judgmentally selected 95 transactions totaling \$671,004² (see Table 1) and evaluated supporting documentation to determine whether the costs claimed on the NSF awards were [allocable](#), [allowable](#), [reasonable](#), and whether they were in conformity with NSF award terms and conditions, organizational policies, and applicable federal financial assistance requirements.

¹ The total award-related expenses reported in UTD’s general ledger exceeded the \$36,683,119 in NSF’s Award Cash Management Service (ACM\$). However, because the general ledger data materially reconciled to NSF’s ACM\$ records, we determined that the data was appropriate for the purposes of this engagement.

² The \$671,004 represents the total value of the 95 transactions selected for transaction-based testing. It does not represent the dollar base of the total costs reviewed during the audit.

Table 1: Summary of Selected Transactions

Budget Category	Transaction Count	Expense Amount ³
Consultant Services	14	\$149,353
Other Direct Costs	18	99,352
Subawards	6	59,298
Participant Support Costs	3	51,102
Salary and Wages	16	67,634
Equipment	3	67,075
Travel	18	69,656
Materials and Supplies	11	44,993
Indirect Costs	2	46,878
Computer Services	3	13,148
Publications	1	2,515
Total	<u>95</u>	<u>\$671,004</u>

Source: Auditor summary of selected transactions.

Additionally, we performed non-transaction-based cluster testing in two areas to evaluate whether: (1) UTD issued **subawards** to institutions that were not approved by appropriate NSF personnel and (2) UTD inappropriately applied **indirect costs** to participant support **travel costs**.

AUDIT RESULTS

We identified and questioned \$249,210 in costs that UTD charged to 25 NSF awards. We also identified charges UTD made to 26 NSF awards which resulted in non-compliance with federal, NSF, and UTD-specific policies and procedures but did not result in questioned costs. 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 and considerations.

Table 2: Summary of Questioned Costs by Finding Area

Finding Description	Questioned Costs
Inadequately Supported Expenses	\$91,771
Expenses Not Appropriately Allocated to NSF Awards	70,604
NSF Approval Not Obtained Before Transferring Award Research to Other Organizations	63,753
Unallowable Expenses	23,082
Non-Compliance with UTD Policies	-
Insufficient Controls Related to the Application of Indirect Cost Rates	-
Total	<u>\$249,210</u>

Source: Auditor summary of findings identified.

³ The expense amounts reported represent the total dollar value of the transactions selected for our sample and do not include the total fringe benefit or indirect costs applied to the sampled transactions, which were also tested for allowability.

We made 24 recommendations for NSF’s Director of the Division of Institution and Award Support related to resolving the \$249,210 in questioned costs and ensuring UTD strengthens its administrative and management procedures for monitoring federal funds. We communicated the results of our audit and the related findings and recommendations to UTD and NSF OIG. We included UTD’s response to this report in its entirety in [Appendix A](#).

FINDING 1: INADEQUATELY SUPPORTED EXPENSES

UTD did not provide adequate documentation to support the allocability, [allowability](#), and reasonableness of \$91,771 in expenses charged to six NSF awards during the audit period, as required for the costs to be allowable per federal regulations⁴ and NSF [Proposal and Award Policies and Procedures Guides \(PAPPGs\)](#).⁵

Inadequately Supported Subaward Expenses

As illustrated in Table 3, UTD did not provide adequate financial management system documentation to support that \$88,160 in foreign organization subaward costs charged to three NSF awards represented actual, allowable expenditures, as required for the costs to be allowable per federal regulations.⁶

Table 3: Inadequately Supported Subaward Expenses

Expense Date	NSF Award No.	Subaward Invoice	Subawardee	Subawardee Financial Management Records Support	Notes
July 2018	██████	\$37,500	Instituto Geofísico Del Perú (IGDP)	\$0	a
April 2020	██████	33,500	Ciencia International (CI)	0	b
May 2020	██████	17,160	IGDP	0	c

Source: Auditor summary of identified exceptions.

⁴ According to 2 Code of Federal Regulations (CFR) 220, Appendix A, Section C.2 and 2 CFR § 200.403, *Factors affecting allowability of costs*, for a cost to be allowable it must be allocable and reasonable for the performance of the federal award. Additionally, according to 2 CFR 220, Appendix A, Section C.4. and 2 CFR §200.405, *Allocable Costs*, a cost is allocable to a particular cost objective if the goods or services involved are chargeable or assignable to the cost objective in accordance with relative benefits received. A cost is allocable to a sponsored agreement if it is incurred solely to advance the work under the sponsored agreement or federal award.

⁵ According to NSF PAPPGs 13-1 and 15-1 Part II, Chapter V, Section A, and 17-1 and 19-1, Chapter X, Section A, *Basic Considerations*, grantees should ensure that costs claimed under NSF grants are necessary, reasonable, allocable, and allowable under the applicable cost principles, NSF policy, or the program solicitation. Additionally, the grantee organization is responsible for ensuring that all costs charged to NSF awards meet the requirements of the grant terms and conditions.

⁶ According to 2 CFR § 200.302, *Financial Management*, a non-federal entity must have records that adequately identify the source and application of funds for federally funded activities. Furthermore, this section states that non-federal entity’s financial management systems must be sufficient to permit funds tracing to a level of expenditures to adequately establish that the entities used the funds according to federal statutes, regulations, and the federal award terms and conditions.

- a) In July 2018, UTD charged NSF Award No. [REDACTED] for \$37,500 of subaward expenses IGDP invoiced. Although IGDP provided an accounting report to support the invoiced expenses, the accounting report did not support \$37,500 of expenses, nor did it appear to cite any of the expenses included on the invoice submitted to UTD.
- b) In April 2020, UTD charged NSF Award No. [REDACTED] for \$33,500 of subaward expenses CI invoiced. Although CI was awarded a cost-reimbursable contract, CI did not provide any financial management records to support that the \$33,500 represented actual allowable costs it incurred on the award. Furthermore, as the amount CI invoiced represents exactly 25 percent of the subaward amount, the amount invoiced does not appear to be based on actual expenses.
- c) In May 2020, UTD charged NSF Award No. [REDACTED] for \$17,160 of subaward expenses IGPD invoiced. Although IGDP provided an accounting report to support the invoiced expenses, the report did not support \$17,160 of expenses, nor did it appear to cite any of the expenses included on the invoice IGDP submitted to UTD.

Inadequately Supported Internal Service Provider Rates

UTD did not provide adequate documentation to support the allowability of \$3,060 in internal service provider (ISP) expenses charged to two NSF awards. Specifically, the ISP’s rate sheets did not support the rates billed by the ISP as required for the ISP’s costs to be allowable per federal regulations⁷ and UTD Policy,⁸ as illustrated in Table 4.

Table 4: Inadequately Supported ISP Rates

Expense Date	NSF Award No.	ISP Rates Charged	ISP Rate Supported	Insufficient Documentation to Support ISP Rates for:	Notes
March 2018	[REDACTED]	\$200	Unable to Determine	Invoiced micro-lithography masks	a
September 2018	[REDACTED]	100,150,200	Unable to Determine	Invoiced micro-lithography masks	b

Source: Auditor summary of identified exceptions.

- a) In March 2018, UTD charged NSF Award No. [REDACTED] for \$1,224 in costs an ISP invoiced for the purchase of four micro-lithography masks. Although UTD provided a 2009 memo supporting the establishment of mask costs, it did not provide supporting documentation to show that it reviewed and adjusted these rates

⁷ According to 2 CFR §200.468 and 2 CFR 220, Appendix A. Section J.47, *Specialized service facilities*, the costs of services provided by highly complex or specialized facilities operated by the non-federal entity are allowable provided that the costs of such services, when material, are charged directly to applicable awards based on actual use of the services and a schedule of rates or established methodology that is adjusted at least biennially.

⁸ The UTD Policy on ISPs states that UTD may identify costs necessary to operate approved ISPs and charge customers based on approved rates that are designed to recover only the aggregate cost of the services.

biennially, nor that it designed the rates to recover only the aggregate cost of the masks.

- b) In September 2018, UTD charged NSF Award No. [REDACTED] for \$1,836 in costs an ISP invoiced for the purchase of 10 micro-lithography masks. Although UTD provided a 2009 memo supporting the establishment of mask costs, it did not provide supporting documentation to show that it reviewed and adjusted these rates biennially, nor that it designed the rates to recover only the aggregate cost of the masks.

Inadequately Supported Travel Expenses

UTD did not provide adequate supporting documentation to show that \$551 of travel costs charged to one NSF award were allowable per federal regulations⁹ and UTD Policy,¹⁰ as illustrated in Table 5.

Table 5: Inadequately Supported Travel Expenses

Expense Date	NSF Award No.	Expense Total	Insufficient Documentation to Support the Allowability of:	Notes
August 2018	[REDACTED]	\$551	Meals claimed while on travel	a

Source: Auditor summary of identified exceptions.

- a) In August 2018, UTD charged NSF Award No. [REDACTED] for \$551 for meals claimed by the Principal Investigator (PI) over 7 days that were not based on per diem or supported by receipts or payment confirmations with the actual costs or components of the meals.

Conclusion

UTD did not have appropriate policies, procedures, or internal controls in place to ensure that it received and maintained adequate documentation to support the allowability of all costs charged to federal awards. Specifically, UTD’s policies, procedures, and internal controls did not ensure that foreign subawardees appropriately invoiced UTD for cost-reimbursable subawards; that ISPs invoiced costs based on biennially-assessed rates; or that travelers maintained sufficient documentation to support the allowability of claimed meal expenses.

⁹ According to 2 CFR §200.474 (b), *Travel costs*, costs incurred by employees and officers for travel—including costs of lodging, other subsistence, and incidental expenses—must be considered reasonable and otherwise allowable only to the extent such costs do not exceed charges normally allowed by the non-federal entity in its regular operations, as per the non-federal entity’s written travel policy. In addition, if the non-federal entity charges the costs directly to the federal award, it must justify that the costs are reasonable and consistent with its established travel policy.

¹⁰ UTD’s Travel Expenses Policy states that all travel reimbursements must be for actual, reasonable, and necessary expenses, incurred for official University business and authorized by the appropriate supervisor. Specifically, UTD will reimburse employees in travel status overnight for the lesser of the actual cost of meals or the General Services Administration (GSA) meals allowance. UTD may only reimburse university faculty or staff for actual expenses incurred.

We are therefore questioning \$91,771 in costs UTD claimed on six NSF awards without supporting the expenses as reasonable, allocable, or allowable. UTD concurred with \$551 of the questioned costs but disagreed with the remaining \$91,220, as illustrated in Table 6.

Table 6: Finding 1 Summary: Inadequately Supported Expenses

NSF Award No.	Description	Fiscal Year	Questioned Costs			
			Direct	Indirect	Total	UTD Agreed to Reimburse
██████	July 2018 Subaward Expense	2018	\$37,500	\$0	\$37,500	\$0
██████	April 2020 Subaward Expense	2020	33,500	0	33,500	0
██████	May 2020 Subaward Expense	2020	17,160	0	17,160	0
██████	March 2018 ISP Masks	2018	800	424	1,224	0
██████	September 2018 ISP Masks	2019	1,200	636	1,836	0
██████	August 2018 Travel Meals	2018	360	191	551	551
Total			<u>\$90,520</u>	<u>\$1,251</u>	<u>\$91,771</u>	<u>\$551</u>

Source: Auditor summary of identified exceptions.

Recommendations

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

- 1.1 Resolve the \$91,220 in questioned inadequately supported subaward expenses, internal service provider rates, and meal expenses for which UTD has not agreed to reimburse NSF and direct UTD to repay or otherwise remove the sustained questioned costs from its NSF awards.
- 1.2 Direct UTD to provide documentation that it has repaid or otherwise credited the \$551 of questioned travel costs that it has agreed to reimburse.
- 1.3 Direct UTD to strengthen its policies and procedures for creating and retaining documentation, including introducing additional controls to help ensure that it appropriately creates and maintains all documentation necessary to support the allowability of expenses charged to sponsored programs. Updated procedures could include:
 - Updating its policies for establishing subawards in foreign countries to require subawardees to provide general ledger data to support all costs invoiced to UTD.

- Updating its current internal service provider policies and procedures to ensure only approved and assessed rates are invoiced and charged to federally-sponsored awards.
- Providing additional training to ensure UTD only reimburses travelers for allowable, supported meal costs.

University of Texas at Dallas Response: UTD agreed to reimburse NSF for \$551 of the inadequately supported expenses, but disagreed with the remaining \$91,220 in questioned costs. Specifically:

- ***Subaward Expenses:*** UTD disagreed with \$88,160 in questioned subaward costs, as it believes those expenses are allowable, beneficial, and directly attributable to the awards charged. Specifically, UTD concurred that the foreign subrecipients did not provide adequate documentation to support the entirety of expenses but noted that the PI and subrecipient PIs confirmed the expenses invoiced are allowable and attributable to the project. Furthermore, UTD noted there was no change in the scope of work or critical personnel on these projects and therefore, this finding should be reflected as a compliance issue with no questioned costs.

With regard to the recommendations for this finding, UTD stated that it regularly updates its policies to ensure compliance with laws, regulations, and guidance changes, and that it believes that the policies and procedures it currently has in place ensure expenses charged to federal awards are allowable, benefit the award, and are required to complete the research. However, UTD stated it will invest in personnel and conduct additional review of foreign subrecipients to strengthen its subrecipient monitoring.

- ***Internal Service Provider Rates:*** UTD disagreed with \$3,060 in questioned ISP costs, as it believes that sufficient documentation was provided to support the ISP rates billed. Specifically, UTD stated that it reviews aggregate billed ISP rates annually to ensure uniform application of charges to users and that it only records costs necessary to provide goods and services to the service centers.

With regard to the recommendations for this finding, UTD stated that its ISP policies and procedures meet the 2 CFR 200 standards and that it only charges approved rates to federally sponsored awards.

- ***Travel Expenses:*** UTD concurred with \$551 in questioned travel costs and with the associated recommendation, stating that it understands the importance of reviewing expenses to ensure costs are reasonable, allowable, and allocable.

Auditor's' Additional Comments: UTD believes that \$91,220 of the questioned costs should be allowable because the expenses benefitted the awards charged; however,

because UTD did not provide adequate documentation to support the allowability of these expenses, our position regarding this finding has not changed. Specifically:

- With regard to the \$88,160 in questioned subaward costs charged to NSF Award Nos. [REDACTED] and [REDACTED] although UTD stated that the PI and subrecipient PIs confirmed the amounts invoiced were allowable, these subrecipients did not provide accounting detail to support that the costs invoiced represented actual costs the subrecipients had incurred, as required on the cost reimbursable subaward contracts. Accordingly, our position regarding this exception has not changed.
- With regard to the \$3,060 in questioned ISP costs charged to NSF Award Nos. [REDACTED] and [REDACTED] although UTD stated that it annually reviews the aggregate ISP rates billed, UTD did not provide any documentation to support that it reviewed the 2009 memo it produced to support the rates billed on an annual basis. Further, UTD provided the ISP's 2018 rate sheet, which did not include the invoiced rate. Accordingly, our position regarding this finding has not changed.

FINDING 2: EXPENSES NOT APPROPRIATELY ALLOCATED TO NSF AWARDS

UTD did not support that it always allocated expenses to NSF awards based on the relative benefits the awards received, as required by federal regulations¹¹ and NSF PAPPGs.¹² As a result, UTD inappropriately allocated a total of \$70,604 in expenses to 11 NSF awards.

Inappropriately Allocated Purchases Near Grant Expiration

UTD did not document or provide a reasonable justification for the **allocation** methodology it used to charge \$54,690 of purchases made near grant expiration dates. Specifically, because UTD had little or no time to use the materials/**supplies** purchased to benefit the NSF awards charged,¹³ UTD does not appear to have charged the costs based on the relative benefits received by the awards, as illustrated in Table 7.

¹¹ According to 2 CFR 220, Appendix A, Section C.4. and 2 CFR §200.405, *Allocable Costs*, a cost is allocable to a particular cost objective if the goods or services involved are chargeable or assignable to such cost objective in accordance with relative benefits received or other equitable relationship. Subject to the foregoing, a cost is allocable to a sponsored agreement if it is incurred solely to advance the work under the sponsored agreement. Additionally, according to 2 CFR 220, Appendix A, Sections C.2 and C.3 and 2 CFR 200.403, for a cost to be allowable, it must be adequately documented and be necessary and reasonable for the performance of the federal award. See **Appendix E** of this report for additional factors affecting the allowability of costs.

¹² According to NSF PAPPGs 11-1, 13-1, 14-1, 15-1, and 16-1 Part II, Chapter V, Section A and NSF PAPPGs 17-1 Part II, Chapter X, Section A, *Basic Considerations*, expenditures under NSF cost reimbursement grants are governed by the federal cost principles and must conform to NSF policies, grant special provisions, and grantee internal policies. Grantees should ensure that costs claimed under NSF grants are necessary, reasonable, allocable, and allowable under the applicable cost principles, NSF policy, the program solicitation, or grant terms and conditions.

¹³ In addition to the allocation methodology for these expenses not appearing to be based on the relative benefits received, According to NSF PAPPGs 14-1 and 16-1, Part II, Chapter V, Section A.2.c, and 18-1, Part II, Chapter X, Section A.2.c, (not applicable to NSF Award No. [REDACTED] grantees should not typically purchase items of equipment, computing devices, or restock materials and supplies in anticipation of grant expiration where there is little or no time left for such items to be utilized in the actual conduct of the research.

Table 7: Inappropriately Allocated Purchases Near Grant Expiration

Expense Date	NSF Award No.	Expenses Near Grant Expiration			Notes
		Amount Charged	Percent Allocable	Amount Inappropriately Allocated	
August 2017	████████	\$16,490	Unable to Determine	\$16,490	a
August 2017	████████	8,649	Unable to Determine	8,649	b
August 2017	████████	7,527	Unable to Determine	7,527	c
August 2017	████████	7,116	Unable to Determine	7,116	d
August 2018	████████	1,599	Unable to Determine	1,599	e
September 2018	████████	2,006	Unable to Determine	2,006	f
June 2020	████████	9,016	Unable to Determine	9,016	g
July 2020	████████	2,287	Unable to Determine	2,287	h

Source: Auditor summary of identified exceptions.

- a)** In August 2017, UTD charged NSF Award No. ██████████ for \$16,490—or 100 percent—of the costs incurred for the purchase of lab supplies it did not receive until the final day of the award’s POP.
- b)** In August 2017, UTD charged NSF Award No. ██████████ for \$8,649—or 100 percent—of costs incurred to purchase chemicals and lab supplies it did not receive until the final day of the award’s POP.
- c)** In August 2017, UTD charged NSF Award No. ██████████ for \$7,527—or 100 percent—of the costs incurred for the purchase of lab supplies it did not receive until the final 3 days of the award’s POP.
- d)** In August 2017, UTD charged NSF Award No. ██████████ for \$7,116—or 100 percent—of the costs incurred to purchase a precision cutter it did not receive until the final 84 days of the award’s POP, and that does not appear to have been necessary to achieve the objectives of this award.
- e)** In August 2018, UTD charged NSF Award No. ██████████ for \$1,599—or 100 percent—of the costs incurred to purchase a digital camera it did not receive until the final 24 days of the award’s POP.
- f)** In September 2018, UTD charged NSF Award No. ██████████ for \$2,006—or 100 percent—of the costs incurred to purchase 450 coaxial connectors and 1,000 ceramic capacitors, which UTD did not receive until the final 5 days of the award’s POP and did not provide sufficient documentation to support how all of the supplies were used to conduct research testing prior to the end of the award POP.
- g)** In June 2020, UTD charged NSF Award No. ██████████ for \$9,016—or 100 percent—of the costs incurred to purchase materials it did not receive until after the award’s POP had expired.

- h)** In July 2020, UTD charged NSF Award No. [REDACTED] for \$2,287—or 100 percent—of the costs incurred for the purchase of supplies it did not receive until the final 2 days of the award’s POP.

Inappropriately Allocated Travel Expenses

As illustrated in Table 8, UTD could not support that it appropriately allocated \$15,528 of travel costs charged to five NSF awards based on the relative benefits received by the awards, as required for the travel costs to be allowable per federal regulations¹⁴ and UTD policy.¹⁵

Table 8: Inappropriately Allocated Travel Expenses

Expense Date	NSF Award No.	Travel Expenses			Notes
		Amount Charged	Percent Allocable	Amount Inappropriately Allocated	
June 2018	[REDACTED]	\$4,939	Unable to Determine	\$4,939	a
July 2018	[REDACTED]	1,033	Unable to Determine	1,033	b
August 2018	[REDACTED]	528	Unable to Determine	528	c
June 2019	[REDACTED]	4,036	Unable to Determine	4,036	d
July 2019	[REDACTED]	3,680	Unable to Determine	3,680	e
April 2020	[REDACTED]	1,312	Unable to Determine	1,312	f

Source: Auditor summary of identified exceptions.

- a)** In June 2018, UTD charged NSF Award No. [REDACTED] for \$4,939—or 100 percent—of travel costs for an employee to travel and present a publication that acknowledged three funding sources. As UTD did not document or provide a reasonable justification for why 100 percent of the costs should be allocable to only one of the three acknowledged awards, we are unable to determine how much of the expense is allocable to this award.
- b)** In July 2018, UTD charged NSF Award No. [REDACTED] for \$1,033—or 100 percent—of travel costs for an employee to travel and present a publication that acknowledged four funding sources. As UTD did not document or provide a reasonable justification for why 100 percent of the costs should be allocable to only one of the four acknowledged awards, we are unable to determine how much of the expense is allocable to this award.

¹⁴ According to 2 CFR 220, Appendix A, Section J.53 and 2 CFR §200.474, travel costs are the expenses for transportation, lodging, subsistence, and related items incurred by employees who are in travel status on official business of the non-federal entity. If these costs are charged directly to the federal award, documentation must justify that: (1) The individual’s participation is necessary to the federal award, and (2) The costs are reasonable and consistent with non-federal entity’s established travel policy.

¹⁵ According to the UTD Travel Expenses Policy, all travel reimbursements must be for actual, reasonable, and necessary expenses, incurred for official University business and authorized by the appropriate supervisor.

- c) In August 2018, UTD charged NSF Award No. [REDACTED] for \$528—or 100 percent—of the airfare costs it incurred for an employee to travel and present a publication that acknowledged two funding sources. As UTD did not document or provide a reasonable justification for why 100 percent of the costs should be allocable to only one of the two acknowledged awards, we are unable to determine how much of the expense is allocable to this award.
- d) In June 2019, UTD charged NSF Award No. [REDACTED] for \$4,036—or 100 percent—of the airfare costs incurred for a student to present a paper at a conference that acknowledged two funding sources. As UTD did not document or provide a reasonable justification for why 100 percent of the costs should be allocable to only one of the two acknowledged awards, we are unable to determine how much of the expense is allocable to this award.
- e) In July 2019, UTD inadvertently charged NSF Award No. [REDACTED] for \$3,680—or 100 percent—of the costs claimed for the PI to travel from [REDACTED] to UTD that were not allocable to this award.
- f) In April 2020, UTD inadvertently charged NSF Award No. [REDACTED] for \$1,312—or 100 percent—of the costs claimed by a participant for travel expenses that UTD stated were not allocable to this award.

Documented Allocation Methodology Not Followed

UTD did not always charge expenses to NSF awards in a manner consistent with the allocation methodology it documented. As a result, UTD charged two NSF awards for \$386 of unallocable costs, as illustrated in Table 9:

Table 9: Documented Allocation Methodology Not Followed

Expense Date	NSF Award No.	Allocation Methodology Not Followed			Notes
		Amount Charged	Amount Allocable	Amount Inappropriately Allocated	
July 2018	[REDACTED]	\$14,600	\$14,392	\$208	a
September 2019	[REDACTED]	1,772	1,594	178	b

Source: Auditor summary of identified exceptions.

- a) In July 2018, UTD charged NSF Award No. [REDACTED] for \$208 of unallocable repair and maintenance costs as a result of charging the NSF award for 76 percent of the total expenses it had incurred, rather than the 75 percent it documented as allocable to this award.
- b) In September 2019, UTD charged NSF Award No. [REDACTED] for \$178 of unallocable travel costs as a result of charging the NSF award for 56 percent of the total expenses in had incurred, rather than the 50 percent it documented as allocable to this award.

Conclusion

UTD does not have sufficient policies and procedures or internal controls in place to ensure that it allocates—or documents that it has allocated—costs based on the relative benefits each NSF award receives. Furthermore, UTD procedures did not always ensure that it allocated costs in a manner consistent with established allocation methodologies.

We are therefore questioning \$70,604 of inappropriately allocated expenses charged to 11 NSF awards. UTD concurred with \$5,378 of the questioned costs but disagreed with the remaining \$65,226, as illustrated in Table 10.

Table 10: Finding 2 Summary: Expenses Not Appropriately Allocated to NSF Awards

NSF Award No.	Description	Fiscal Year	Questioned Costs			UTD Agreed to Reimburse
			Direct	Indirect	Total	
	August 2017 Lab Supplies	2017	\$10,778	\$5,712	\$16,490	\$0
	August 2017 Chemicals and Lab Supplies	2017	5,653	2,996	8,649	0
	August 2017 Lab Supplies	2017	4,920	2,607	7,527	0
	August 2017 Precision Cutter	2017	4,651	2,465	7,116	0
	August 2018 Digital Camera	2018	1,045	554	1,599	0
	September 2018 Supplies	2019	1,311	695	2,006	0
	June 2020 Materials	2020	5,893	3,123	9,016	0
	July 2020 Supplies	2020	1,495	792	2,287	0
	June 2018 Travel	2018	3,228	1,711	4,939	0
	July 2018 Travel	2018	675	358	1,033	0
	August 2018 Airfare	2018	345	183	528	0
	June 2019 Airfare	2019	2,638	1,398	4,036	0
	July 2019 Airfare	2019	2,405	1,275	3,680	3,680 ¹⁶
	April 2020 Participant Travel	2020	1,312	0	1,312	1,312 ¹⁷
	July 2018 Maintenance/Repair Expense	2018	136	72	208	208
	September 2019 Travel	2020	116	62	178	178
Total			<u>\$46,601</u>	<u>\$24,003</u>	<u>\$70,604</u>	<u>\$5,378</u>

Source: Auditor summary of identified exceptions.

Recommendations

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

¹⁶ UTD noted it charged the airfare expense to the NSF project in error and has agreed to reimburse the grant for the entirety of the airfare expense.

¹⁷ UTD noted it charged the participant travel costs to the NSF project in error and has agreed to reimburse the grant for the entirety of the expense.

- 2.1 Resolve the \$65,226 in questioned materials and supplies and travel costs for which UTD has not agreed to reimburse NSF and direct UTD to repay or otherwise remove the sustained questioned costs from its NSF awards.
- 2.2 Direct UTD to provide documentation supporting that it has repaid or otherwise credited the \$5,378 of questioned airfare, participant, repair, and travel costs for which it has agreed to reimburse NSF.
- 2.3 Direct UTD to strengthen its controls and processes for supporting the allocation of expenses to sponsored projects. Updated processes could include:
 - Requiring Principal Investigators or other designated staff to both document and justify the allocation methodologies used when charging expenses to sponsored projects near the grant expiration date.
 - Implementing standard procedures that require reviewers to assess publications presented during sponsored travel to determine which awards benefitted from the presentation before determining which funding source(s) to charge the expenses to.
 - Providing training on how to assess and document the methodology used to allocate expenses across each sponsored award.
- 2.4 Direct UTD to strengthen its controls and processes for ensuring it allocates travel and other direct cost expenses in accordance with its documented allocation methodology.

University of Texas at Dallas Response: UTD agreed to reimburse NSF for \$5,378 of the inadequately supported expenses, but disagreed with the remaining \$65,226 in costs questioned. Specifically:

- ***Purchases Near Grant Expiration:*** UTD disagreed with \$54,690 in questioned material and supply costs as it believes the costs were necessary and beneficial to the awards charged at the time they were purchased. Further, UTD stated that it performs a monthly “90-day expiration alters” process to proactively review costs near or after award expiration.
- ***Travel Expenses:*** UTD noted that it partially concurred with these findings and recommendations, agreeing to \$4,992 in questioned costs, but noting that it believes that portions of the \$10,536 in remaining questioned costs are allowable and allocable to the projects charged.
- ***Documented Allocation Methodology Not Followed:*** UTD concurred with \$386 in questioned costs and associated recommendation stating that it will reeducate award administrators on policies and procedures associated with travel expenses.

Auditors' Additional Comments: UTD stated that at least a portion of the \$65,226 in questioned costs it did not agree with should be allowable; however, because UTD did not provide documentation or reasonable justifications to support that these questioned costs were appropriately allocated to the awards charged, our position regarding this finding has not changed. Specifically:

- With regard to the \$54,690 in questioned purchases near grant expiration: while UTD attests that the questioned costs were necessary and benefited the awards at the time of purchase, because UTD did not document or provide reasonable justifications to support it allocated these purchases to the NSF awards based on the relative benefit received by the awards charged, our position regarding this finding has not changed.
- With regard to the \$10,536 in questioned travel costs that UTD did not agree to reimburse, while UTD attests that a portion of the costs should be allowable, because UTD did not provide documentation to support which portion(s) of the travel costs should be allocable to the awards charged, our position regarding this finding has not changed.

FINDING 3: NSF APPROVAL NOT OBTAINED BEFORE TRANSFERRING AWARD RESEARCH TO OTHER ORGANIZATIONS

UTD did not obtain NSF’s approval before issuing subawards to two organizations to conduct portions of NSF-funded award research. Specifically, UTD did not formally request approval to contract or transfer research to these organizations in the original grant proposal or through subsequent requests submitted to NSF via the NSF FastLane system, as required by NSF’s PAPPGs.¹⁸ As a result, UTD inappropriately charged \$63,753 in unallowable subaward expenses to three NSF awards, as illustrated in Table 11.

Table 5: Subawards Not Appropriately Approved

Expense Dates	NSF Award No.	Subaward Expenses	Subawardee	Notes
August 2018 – June 2019	██████████	\$17,284	University ██████████	a
December 2019 – June 2020	██████████	39,853	University ██████████	b
December 2019 – July 2020	██████████	6,616	University ██████████	c

Source: Auditor summary of identified exceptions.

¹⁸ According to NSF PAPPG 15-1 Part II, Chapter II, Section B and NSF PAPPG 17-1 and 19-1 Part II, Chapter VII, Section B, if it becomes necessary to subaward or transfer part of an NSF award after NSF makes a grant, the grantee shall submit, at a minimum: (a) a clear description of the work to be performed by each subrecipient and (b) a separate budget and budget justification for each subaward. The Authorized Organizational Representative must sign and submit the request via NSF’s electronic systems. NSF will indicate authorization with an amendment to the grant signed by the Grants Officer.

- a) Between August 2018 and June 2019, UTD charged NSF Award No. [REDACTED] for \$17,284 of expenses for a subaward UTD issued to the University [REDACTED] without NSF approval.
- b) Between December 2019 and June 2020, UTD charged NSF Award No. [REDACTED] for \$39,853 of expenses for a subaward UTD issued to the University [REDACTED] without NSF approval.
- c) Between December 2019 and July 2020, UTD charged NSF Award No. [REDACTED] for \$6,616 of expenses for a subaward UTD issued to the [REDACTED] without NSF approval.

Conclusion

UTD did not have appropriate policies and procedures or internal controls in place to ensure that it formally requested approval to transfer NSF award research to other organizations before it issued subawards on NSF grants.

We are therefore questioning \$63,753 of unapproved subaward expenses claimed on three NSF awards, as illustrated in Table 12.

Table 6: Finding 3 Summary: NSF Approval Not Obtained Before Transferring Award Research to Other Organizations

NSF Award No.	Description	Fiscal Year(s)	Questioned Costs			UTD Agreed to Reimburse
			Direct	Indirect	Total	
[REDACTED]	August 2018 - June 2019 Subaward Expenses	2018 – 2019	\$17,284	\$0	\$17,284	\$0
[REDACTED]	December 2019 - June 2020 Subaward Expenses	2020	26,603	13,250	39,853	0
[REDACTED]	December 2019 - July 2020 Subaward Expenses	2020	4,324	2,292	6,616	0
Total			<u>\$48,211</u>	<u>\$15,542</u>	<u>\$63,753</u>	<u>\$0</u>

Source: Auditor summary of identified exceptions.

Recommendations

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

- 3.1 Resolve the \$63,753 in questioned subaward expenses for which UTD has not agreed to reimburse NSF and direct UTD to repay or otherwise remove the sustained questioned costs from its NSF awards.

3.2 Direct UTD to strengthen the administrative and management internal controls and procedures over transferring significant parts of NSF-funded research to other organizations. Updated procedures could include:

- Establishing procedures that require UTD to verify that, for any subaward under an NSF grant awarded to UTD, 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 FastLane request to transfer the research or effort.
- Requiring periodic training for Principal Investigators and other personnel permitted to issue subaward agreements under NSF awards.

University of Texas at Dallas Response

UTD disagreed with the \$63,753 in questioned subaward costs, noting that because the costs benefitted the awards charged, the subaward projects were coordinated by personnel named in the NSF budget proposals, and there were no changes in the approved scope of work, this finding should be a compliance issue with no questioned costs. Specifically:

- With regard to \$17,284 in questioned subaward costs on NSF Award No. [REDACTED] UTD believes the costs should be allowable as the Program Officer approved the annual report covering the period September 1, 2017 to August 31, 2018, which identified the University [REDACTED] as a partner organization and detailed the PI's transfer.
- With regard to \$39,853 in questioned subaward costs on NSF Award No. [REDACTED] UTD believes the costs should be allowable as the Program Officer approved the annual report covering the period September 1, 2018 to August 31, 2020, which identified [REDACTED] as a partner organization and detailed the PI's transfer. Further, UTD stated that the Program Officer approved the PI's transfer and the addition of a subcontract to [REDACTED].
- With regard to \$6,616 in questioned subaward costs on NSF Award No. [REDACTED] UTD believes the costs are allowable, as UTD reported the collaboration in the annual progress report it submitted to NSF, which it believes constitutes both notice and effective approval by NSF.

While UTD disagreed with the finding, it did state that it would strengthen its subrecipient monitoring procedures by providing comprehensive reviews of related expenses and reinforcing existing and updated policies.

Auditors' Additional Comments: UTD believes the subaward costs should be allowable as the subcontractors were identified in annual reports it submitted to NSF Program Officers. Because UTD did not receive approval to issue these subawards from NSF Grants Officers

via NSF’s FastLane system, as required by NSF PAPPGs, our position regarding this finding has not changed.

FINDING 4: UNALLOWABLE EXPENSES

UTD charged eight NSF awards a total of \$23,082 in travel, **fringe benefit**, indirect cost, and Graduate Research Fellowship Program (GRFP) expenses that are unallowable per federal regulations¹⁹ and NSF PAPPGs.²⁰

Unallowable Travel Expenses

As illustrated in Table 13, UTD charged six NSF awards a total of \$18,217²¹ in unallowable travel expenses. Specifically, the incurred expenses were not for business-only travel, compliant with the **Fly America Act**, compliant with UTD’s effort requirements for travel, or limited to the least-cost flight option, as required for the travel costs to be allowable per federal regulations,²² NSF PAPPGs,²³ and UTD policy.²⁴

Table 73: Unallowable Travel Expenses

Expense Date	NSF Award No.	Expense Total	Unallowable Travel Expenses Associated With:	Notes
October 2017	██████	\$2,023	Personal travel not separated from business travel	a
August 2018	██████	2,901	Personal travel and non-U.S. flag carrier	b
August 2018	██████	1,706	A student that was not expending effort on the award during the time of travel	c

¹⁹ According to 2 CFR 220, Appendix A, Sections C.2, C.3, and C.4.d(4) and 2 CFR §200.403, *Factors affecting allowability of costs*, for a cost to be allowable, it must be adequately documented, necessary, and reasonable for the performance of the federal award. See **Appendix E** of this report for additional factors affecting the allowability of costs.

²⁰ According to NSF PAPPGs 13-1, 15-1, and 16-1 Part II, Chapter V, Section A and 17-1, 18-1 and 19-1 Part II, Chapter X, Section A, *Basic Considerations*, expenditures under NSF cost reimbursement grants are governed by the federal cost principles and must conform to NSF policies, grant special provisions, and grantee internal policies. Grantees should ensure that costs claimed under NSF grants are necessary, reasonable, allocable, and allowable under the applicable cost principles, NSF policy, program solicitation, or grant terms and conditions.

²¹ As we previously questioned the \$4,036 in unallowable travel costs in Finding 2, we are only questioning \$14,181 of the \$18,217 in unallowable travel expenses.

²² According to 2 CFR 220, Appendix A, Section J.53 and 2 CFR §200.474, *Travel costs*, costs incurred by employees and officers for travel must be considered reasonable and otherwise allowable only to the extent such costs do not exceed charges normally allowed by the non-federal entity in its regular operations as the result of the non-federal entity’s written travel policy. In addition, if these costs are charged directly to the federal award, documentation must justify that: (1) the individual’s participation is necessary to the federal award and (2) the costs are reasonable and consistent with the non-federal entity’s established travel policy.

²³ According to NSF PAPPGs 13-1 Part II, Chapter VI, Section G, NSF PAPPGs 15-1 and 16-1 Part II, Chapter VI, Section F, and NSF PAPPGs 17-1 and 19-1, Part II, Chapter XI, Section F, *International Considerations and Use of U.S.-Flag Air Carriers*, in accordance with the Fly America Act (49 USC 40118), NSF funding assisting the expense of any air transportation of persons or property to, from, between, or within a country other than the U.S. must be performed by or under a code-sharing arrangement with a U.S.-flag air carrier, if available.

²⁴ According to the UTD Travel Expenses Policy, all travel reimbursements must be for actual, reasonable, and necessary expenses incurred for official University business and authorized by the appropriate supervisor.

Expense Date	NSF Award No.	Expense Total	Unallowable Travel Expenses Associated With:	Notes
August 2018	██████████	725	Personal lodging and meal expenses	d
April 2019	██████████	1,338	Non-U.S. flag carrier	e
June 2019	██████████	4,036	Upgraded airfare	f
February 2020	██████████	5,488	A student that was not expending effort on the award during the time of travel	g

Source: Auditor summary of identified exceptions.

- a) In October 2017, UTD charged NSF Award No. ██████████ for \$2,023 in airfare costs for a student to attend a conference. Although the student’s attendance at the conference appears allocable to the award, the travel included personal travel before and after the conference. UTD did not provide documentation showing it did not incur additional costs as a result of the extended travel dates.
- b) In August 2018, UTD charged NSF Award No. ██████████ for \$2,901 in unallowable travel costs including \$1,028 in lodging for dates that did not have a business purpose and \$1,873 for an ██████████ airline ticket that did not comply with the Fly America Act.
- c) In August 2018, UTD charged NSF Award No. ██████████ for \$1,706 in travel costs incurred for a graduate student to attend a conference and disseminate research results. In addition to this trip not appearing allocable to the award charged—as the NSF award annual report did not include the publication the traveler presented—because the student did not expend any effort on this award during the time of travel, these travel costs are not allowable per UTD policy.
- d) In August 2018, UTD charged NSF Award No. ██████████ for \$725 in unallowable travel costs, including \$572 in lodging costs incurred before the conference and without a business purpose, \$107 for meal costs claimed on travel days that do not appear to have had a business purpose, and \$46 for breakfast when the traveler missed the conference-provided breakfast.
- e) In April 2019, UTD charged NSF Award No. ██████████ for \$1,338 in ██████████ airfare costs that did not comply with the Fly America Act.
- f) In June 2019, UTD charged NSF Award No. ██████████ for \$4,036 in costs incurred for premium airfare and did not maintain documentation to support the allowable cost for economy-class airfare.
- g) In February 2020, UTD charged NSF Award No. ██████████ for \$5,488 in travel costs incurred for a student who was not expending any effort on the NSF award to attend a conference, which is not allowable per UTD policy.

Unallowable Fringe Benefit Costs

UTD charged one NSF award for \$7,532 in fringe benefits it did not charge in accordance with UTD policy,²⁵ as illustrated in Table 14.

Table 84: Unallowable Fringe Benefit Costs

Expense Date	NSF Award No.	Expense Total	Allowable Fringe	Notes
June 2020	██████████	\$7,532	\$0	a

Source: Auditor summary of identified exceptions.

- a) In June 2020, UTD charged NSF Award No. ██████████ for \$7,532 for a one-time fringe benefit cost to correct a prior-year error that resulted in UTD charging the fringe benefits to the award before they were earned.

Unallowable Indirect Costs

As illustrated in Table 15, UTD charged one NSF award a total of \$709 in indirect costs it inappropriately applied to **participant support costs** it should not have accounted for as **Modified Total Direct Costs (MTDCs)**, to which indirect costs are applied, per federal regulations²⁶ and NSF PAPPG.²⁷

Table 95: Unallowable Indirect Costs

Expense Date	NSF Award No.	Expense Total	Indirect Costs Applied	Notes
April 2019	██████████	\$1,338	\$709	a

Source: Auditor summary of identified exceptions.

- a) In April 2019, UTD charged NSF Award No. ██████████ for \$709 in indirect costs it inappropriately applied to participant support costs.

Unallowable GRFP Expense

UTD charged one NSF award for \$660 in Cost of Education (COE) expenses in excess of the COE allowance permitted by the NSF program solicitation,²⁸ as illustrated in Table 16.

²⁵ According to the UTD Allowable Costs Policy, the actual costs for fringe benefits are charged (billed) to the sponsored project at the time the costs are incurred; the amount charged is based on salary, selected benefit package, and other variables applicable to the individual employee.

²⁶ According to 2 CFR 200.68, 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.

²⁷ According to NSF PAPPG 19-1, Part I, Chapter II, Section C.2.g (v), *Budget and Budget Justification: Participant Support*, participant support costs must be specified, itemized, and justified in the budget justification section of the proposal. Indirect costs (Facilities & Administrative [F&A]) are not usually allowed on participant support costs unless the grantee's current, federally-approved indirect cost rate agreement provides for allocation of F&A to participant support costs. Participant support costs must be accounted for separately should an award be made.

²⁸ According to GRFP Program Solicitation No. NSF 16-588, Section B. Budgetary Information, the institutional COE allowance is \$12,000 per tenure year per Fellow.

Table 106: Unallowable GRFP Expense

Expense Date	NSF Award No.	COE Allowance Charged	COE Allowance	Notes
July 2018	██████████	\$12,660	\$12,000	a

Source: Auditor summary of identified exceptions.

- a) In July 2018, UTD charged \$12,660 for a COE allowance to NSF Award No. ██████████—or \$660 more than the \$12,000 allowed per the NSF GRFP solicitation.

Conclusion

UTD did not have sufficient policies and procedures or internal controls in place to ensure that it only charged allowable expenses to NSF awards. Specifically, UTD’s procedures did not always ensure that it only charged NSF awards for travel, fringe benefit, indirect, and COE expenses in a manner consistent with NSF and UTD policies and procedures.

We are therefore questioning \$23,082 of unallowable expenses charged to eight NSF awards which UTD agreed to reimburse, as illustrated in Table 17.

Table 117: Finding 4 Summary: Unallowable Expenses

NSF Award No.	Description	Fiscal Year	Questioned Costs			UTD Agreed to Reimburse
			Direct	Indirect	Total	
██████████	October 2017 Airfare	2018	\$1,322	\$701	\$2,023	\$2,023
██████████	August 2018 Airfare	2018	1,896	1,005	2,901	2,901
██████████	August 2018 Travel	2018	1,115	591	1,706	1,706
██████████	August 2018 Lodging and Meals	2018	474	251	725	725
██████████	April 2019 Airfare	2019	1,338	0 ²⁹	1,338	1,338
██████████	June 2019 Airfare	2019	0	0	0 ³⁰	0
██████████	February 2020 Travel	2020	3,587	1,901	5,488	5,488
██████████	June 2020 Fringe Benefits	2020	4,923	2,609	7,532	7,532
██████████	April 2019 Indirects Applied to Participant Airfare	2019	0	709	709	709
██████████	July 2018 GRFP COE Allowance	2018	660	0	660	660
Total			<u>\$15,315</u>	<u>\$7,767</u>	<u>\$23,082</u>	<u>\$23,082</u>

Source: Auditor summary of identified exceptions.

²⁹ See the Unallowable Indirect Cost finding for the \$709 of questioned indirect costs associated with this unallowable participant airfare expense.

³⁰ As we are already questioning the entirety of this expense in Finding 2, we are not questioning any costs associated with this finding.

Recommendations

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

- 4.1 Direct UTD to provide documentation supporting that it has repaid or otherwise credited the \$23,082 in questioned fringe benefit, travel, indirect costs, and Cost of Education allowance costs for which UTD has agreed to reimburse NSF.
- 4.2 Direct UTD to strengthen its processes and procedures surrounding the booking and approval of travel expenses. Updated procedures could include:
 - Requiring travelers to document the business purpose of each day of a planned trip before purchasing airfare so UTD can evaluate whether it must perform a travel comparison indicating personal travel did not increase airfare costs.
 - Establishing controls within its travel reporting system to ensure costs are not charged to the award for travel by employees or students not exerting effort on the award at the time of travel.
 - Implementing additional reviews for all airfare purchases so the reviewer must verify airfare is for an economy class ticket and complies with the Fly America Act before charging the expense to an NSF award.
 - Requiring periodic training regarding the types of expenses that are allowable and unallowable for business travel.
- 4.3 Direct UTD to establish controls surrounding its participant support costs to ensure it appropriately charges travel for participants to accounts that are not included in its modified total direct cost base, and therefore do not incur indirect costs.
- 4.4 Direct UTD to strengthen its procedures and internal controls surrounding the application of fringe benefits on employee **salary**. Updated procedures could include an annual assessment of fringe benefit adjustments and fringe benefit charges above a specific threshold.
- 4.5 Direct UTD to strengthen its procedures and internal controls surrounding the administration of Graduate Research Fellowship Program Cost of Education funding. Updated procedures could include:
 - Conducting annual training with key personnel involved in the Graduate Research Fellowship Program to ensure individuals are aware of the approved stipend and cost of education allowances permitted by the relevant program solicitation each year.

- Conducting periodic reviews of fellowship/stipend allowances to ensure the automatic payments do not exceed the federal/program limits.

University of Texas at Dallas Response: UTD concurred with this finding and the associated recommendations, noting that it will review applicable policies and procedures to identify areas where enhancements can be made to strengthen internal controls. Further, UTD stated that it will reeducate award administrators on policies and procedures to ensure costs charged to sponsored awards are allowable and reasonable.

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

FINDING 5: NON-COMPLIANCE WITH UTD POLICIES

UTD did not always comply with—or did not always document its compliance with—its internal subaward, procurement, travel, **equipment**, cost transfer, salary, and MTDC policies and procedures when incurring costs charged to NSF awards.

Non-Compliance with UTD Subaward Policies

As illustrated in Table 18, we identified 11 instances in which UTD did not comply with its internal subaward policies and procedures requiring PI approval of subaward invoices³¹ and the execution of risk assessment monitoring procedures.³²

Table 128: Non-Compliance with UTD Subaward Policies

Expense Date	NSF Award Number	Fiscal Year	Subaward Policy Compliance Exception	Notes
June 2018	██████████	2018	Untimely Invoice Approval by PI	a
July 2018	██████████	2018	Untimely Invoice Approval by PI	b
August 2018	██████████	2018	Untimely Invoice Approval by PI	c
December 2019	██████████	2020	Untimely Invoice Approval by PI	d
February 2020	██████████	2020	Untimely Invoice Approval by PI	e
March 2020	██████████	2020	Untimely Invoice Approval by PI	f
March 2020	██████████	2020	Untimely Invoice Approval by PI	g
July 2020	██████████	2020	Untimely Invoice Approval by PI	h
May 2020	██████████	2020	Untimely Invoice Approval by PI	i
June 2020	██████████	2020	Untimely Invoice Approval by PI	j
September 2018	██████████	2019	Lack of Risk Assessment	k

Source: Auditor summary of identified instances of non-compliance with UTD’s subaward policies.

³¹ UTD’s Subrecipient Monitoring Policy requires that the PI review and approve subrecipient invoices, including expenditures, to ensure charges are allowable, allocable, reasonable, and within the POP. Additionally, UTD’s “Preparing the Budget” guidance states that, following the execution of a subcontract, the department/PI must approve the incoming invoice before the Procurement Office issues payment.

³² UTD’s Subrecipient Monitoring Policy requires UTD to perform a risk assessment determination during the subrecipient monitoring process.

- a) In June 2018, UTD charged NSF Award No. [REDACTED] for \$6,943 in subaward expenses [REDACTED] University billed within an invoice that the PI did not approve until May 2021, in response to the audit.
- b) In July 2018, UTD charged NSF Award No. [REDACTED] for \$37,500 in subaward expenses [REDACTED] billed within an invoice that the PI did not approve until October 2021, in response to the audit.
- c) In August 2018, UTD charged NSF Award No. [REDACTED] for \$73,494 in subaward expenses the University [REDACTED] billed within an invoice that the PI did not approve until September 2018, after UTD paid the invoice.
- d) In December 2019, UTD charged NSF Award No. [REDACTED] for \$21,186 in subaward expenses [REDACTED] University billed within an invoice that the PI did not approve until May 2021, in response to the audit.
- e) In February 2020, UTD charged NSF Award No. [REDACTED] for \$44,590 in subaward expenses [REDACTED] University billed by within an invoice that the PI did not approve until August 2021, in response to the audit.
- f) In March 2020, UTD charged NSF Award No. [REDACTED] for \$5,654 in subaward expenses [REDACTED] University billed within an invoice that the PI did not approve until May 2021, in response to the audit.
- g) In March 2020, UTD charged NSF Award No. [REDACTED] for \$10,545 in subaward expenses the University [REDACTED] billed within an invoice that the PI did not approve until October 2021, in response to the audit.
- h) In July 2020, UTD charged NSF Award No. [REDACTED] for \$6,698 in subaward expenses the University [REDACTED] billed within an invoice that the PI did not approve until September 2020, after UTD paid the invoice.
- i) In May 2020, UTD charged NSF Award No. [REDACTED] for \$6,410 in subaward expenses [REDACTED] University billed within an invoice that the PI did not approve until October 2021, in response to the audit.
- j) In June 2020, UTD charged NSF Award No. [REDACTED] for \$12,540 in subaward expenses [REDACTED] billed within an invoice that the PI did not approve until October 2021, in response to the audit.
- k) In September 2018, UTD charged NSF Award No. [REDACTED] for \$28,063 in subaward expenses from the University [REDACTED]. Prior to issuance of the subaward to the University [REDACTED], UTD failed to execute risk assessment and monitoring procedures.

Non-Compliance with UTD Procurement Policies

We identified 11 instances in which UTD did not comply with its procurement policies and procedures requiring the completion of an Authorization of Professional Services Form³³ before service provision, as illustrated in Table 19.

Table 19: Non-Compliance with UTD Procurement Policies

Expense Date	NSF Award No.	UTD Policy Violated	Notes
August 2017		Payments to Non-Employees Policy	a
September 2017		Payments to Non-Employees Policy	b
February 2018		Payments to Non-Employees Policy	c
July 2018		Payments to Non-Employees Policy	d
February 2019		Payments to Non-Employees Policy	e
April 2019		Payments to Non-Employees Policy	f
August 2019		Payments to Non-Employees Policy	g
November 2019		Payments to Non-Employees Policy	h
January 2020		Payments to Non-Employees Policy	i
January 2020		Payments to Non-Employees Policy	j
April 2020		Payments to Non-Employees Policy	k

Source: Auditor summary of identified instances of non-compliance with UTD’s procurement policies.

- a)** In August 2017, UTD charged \$8,718 in professional services to NSF Award No. [REDACTED] related to an \$8,718 purchase order with [REDACTED] without first obtaining an authorization for professional services.
- b)** In September 2017, UTD charged \$19,800 in contract services to NSF Award No. [REDACTED] related to a \$19,800 purchase order with [REDACTED]. without first obtaining an authorization for professional services.
- c)** In February 2018, UTD charged \$9,785 in professional services to NSF Award No. [REDACTED] related to a \$9,785 purchase order with the University [REDACTED] without first obtaining an authorization for professional services.
- d)** In July 2018, UTD charged \$18,250 in contract services to NSF Award No. [REDACTED] related to an \$18,250 purchase order with [REDACTED] without first obtaining an authorization for professional services.
- e)** In February 2019, UTD charged \$9,881 in professional services to NSF Award No. [REDACTED] related to a \$50,429 purchase order with the University [REDACTED] without first obtaining an authorization for professional

³³ UTD’s Payments to Non-Employees Policy states that for services to be provided by a non-employee, the Authorization for Professional Services Form must be completed prior to the date on which the proposed services are to be provided.

services.

- f) In April 2019, UTD charged \$6,568 in professional services to NSF Award No. [REDACTED] related to a \$50,429 purchase order with the University [REDACTED] without first obtaining an authorization for professional services.
- g) In August 2019, UTD charged \$14,674 in professional services to NSF Award No. [REDACTED] related to a \$95,812 purchase order with the University [REDACTED] without first obtaining an authorization for professional services.
- h) In November 2019, UTD charged \$1,888 in professional services to NSF Award No. [REDACTED] related to a \$4,000 purchase order with [REDACTED] without first obtaining an authorization for professional services.
- i) In January 2020, UTD charged \$20,000 in professional services to NSF Award No. [REDACTED] related to a \$20,000 purchase order with the [REDACTED] without first obtaining an authorization for professional services.
- j) In January 2020, UTD charged \$5,146 in professional services to NSF Award No. [REDACTED] related to a \$6,675 purchase order with the University [REDACTED] without first obtaining an authorization for professional services.
- k) In April 2020, UTD charged \$10,000 in professional services to NSF Award No. [REDACTED] related to a \$10,000 purchase order with a [REDACTED] University professor without first obtaining an authorization for professional services or providing a requisition and justification of the professional services.

Non-Compliance with UTD Travel Policies

We identified four instances in which UTD did not comply with its internal travel policies and procedures requiring timely authorizations for domestic,³⁴ international,³⁵ and student³⁶ travel, as illustrated in Table 20.

³⁴ According to UTD's Travel Policy, travel must be authorized in writing prior to incurring any travel related expenses. Faculty and staff may use the Domestic Travel Authorization Form or other methods to document approval for domestic travel.

³⁵ According to UTD's Travel Guide, the Office of International Education (OIE) and the sponsoring Department must provide advance approval for any foreign travel reservations. Additionally, UTD's Travel Policy requires the submission of all forms and requirements at least 15 business days prior to departure. Travelers must obtain travel authorization prior to departure and should not make travel arrangements without appropriate authorization.

³⁶ According to UTD's Policy for Travel and Risk Related Activities, members of the faculty, staff, or sponsored student organizations must submit a completed Student Travel Request Authorization Form and all required documents and information to the appropriate administrator for approval. Whenever possible, the request should be submitted at least 5 working days before travel to the activity or event.

Table 20: Non-Compliance with UTD Travel Policies

Expense Date	NSF Award No.	UTD Policy Violated	Notes
August 2017		Travel Policy	a
August 2018		Policy for Travel and Risk Related Activities	b
September 2019		Travel Guide and Travel Policy	c
April 2020		Travel Policy	d

Source: Auditor summary of identified instances of non-compliance with UTD’s travel policies.

- a) In August 2017, UTD charged NSF Award No. [REDACTED] for \$6,691 of the PI’s domestic research travel without documented approval.
- b) In August 2018, UTD charged NSF Award No. [REDACTED] for \$2,424 of a student’s domestic research travel without Student Travel Request Authorization Form approval.
- c) In September 2019, UTD charged NSF Award No. [REDACTED] for \$1,158 of a PI’s foreign conference travel without obtaining International Travel Authorization Form approval 15 days in advance.
- d) In April 2020, UTD charged NSF Award No. [REDACTED] for \$19,204 of employee domestic travel without documented approval.

Non-Compliance with UTD Equipment Policies

We identified one instance in which UTD did not comply with its equipment policies and procedures requiring a physical inventory of **capital** assets,³⁷ as illustrated in Table 21.

Table 21: Non-Compliance with UTD Equipment Policies

Expense Date	NSF Award No.	UTD Policy Violated	Notes
February 2019		Property Administration Policy	a

Source: Auditor summary of identified instances of non-compliance with UTD equipment policies.

- a) In February 2019, UTD charged NSF Award No. [REDACTED] for \$9,120 for equipment it had not tagged or included in the annual inventory.

Non-Compliance with UTD Cost Transfer Policies

We identified one instance in which UTD did not comply with its cost transfer policies and procedures requiring PI approval of sponsored project cost transfers,³⁸ as illustrated in Table 22.

³⁷ UTD’s Property Administration Policy states UTD must conduct a physical inventory of all UTD personal property once each fiscal year in accordance with state law. Such property includes capital assets, \$5,000 per single unit, and an estimated useful life of more than one year.

³⁸ UTD’s Cost Transfer Policy states that the PI has a fiduciary responsibility for the management and administration of the sponsored project in accordance with sponsor and University guidelines, and, therefore, the PI must approve all cost transfers.

Table 22: Non-Compliance with UTD Cost Transfer Policies

Expense Date	NSF Award No.	UTD Policy Violated	Notes
April 2020	██████████	Cost Transfer Policy	a

Source: Auditor summary of identified instances of non-compliance with UTD cost transfer policies.

- a) In April 2020, UTD transferred \$1,312 of participant travel expenses to NSF Award No. ██████████ without obtaining PI approval.

Non-Compliance with UTD Salary Policies

We identified two instances in which UTD did not comply with its internal salary policies and procedures requiring effort to be certified within 45 days,³⁹ as illustrated in Table 23.

Table 23: Non-Compliance with UTD Salary Policies

Expense Date	NSF Award No.	UTD Policy Violated	Certified Effort Due Date	Certified Effort Date	Days Between Dates	Notes
June 2019	██████████	Sponsored Projects Compensation Confirmation Policy	2/27/2020	5/5/2020	69	a
July 2019	██████████	Sponsored Projects Compensation Confirmation Policy	2/27/2020	5/6/2020	70	b

Source: Auditor summary of identified instances of non-compliance with UTD salary policies.

- a) In June 2019, UTD charged NSF Award No. ██████████ for \$11,730 in salary expenses for an employee who had not certified an effort report within 45 days of payment.
- b) In July 2019, UTD charged NSF Award No. ██████████ for \$9,889 in salary expenses for an employee who had not certified an effort report within 45 days of payment.

Non-Compliance with the UTD’s Negotiated Indirect Cost Rate Agreement

UTD did not apply its indirect cost rate to the first \$25,000 of subaward costs charged to three NSF awards in a manner consistent with UTD’s MTDC base cost per its **Negotiated Indirect Cost Rate Agreement (NICRA)**⁴⁰ or UTD policy,⁴¹ as illustrated in Table 24.

³⁹ UTD’s Sponsored Projects Compensation Confirmation Policy states the PI or Co-PI must return the Sponsored Projects Compensation Confirmation Document to the Office of Research within 45 days of distribution.

⁴⁰ UTD’s NICRAs dated July 24, 2012, and February 4, 2016, were effective during the instances identified and noted that the MTDCs consist of all **salaries and wages**, fringe benefits, materials, supplies, services, travel, and subawards up to the first \$25,000 of each subaward.

⁴¹ UTD’s Grant Process Frequently Asked Questions Policy states UTD calculates indirect costs on the first \$25,000 of each subcontract/subrecipient agreement over the life of the subcontract/subrecipient agreement.

Table 24: Non-Compliance with UTD’s NICRA

Award Number	Subawardee	Total Subaward Costs Charged to Award	Total Subaward Costs Eligible for Indirect Costs	Total Subaward Costs Included in MTDC
██████████	University of Arizona	\$17,284	\$17,284	\$0
██████████	Instituto Geofísico del Perú	\$29,700	\$25,000	\$0
██████████	University of Texas – Southwestern Medical Center	\$31,689	\$25,000	\$24,992

Source: Auditor summary of identified instances of non-compliance with UTD’s NICRA.

Conclusion

UTD did not have adequate procedures in place to ensure that it consistently complied with its subaward, procurement, travel, equipment, cost transfer, salary, and indirect cost policies and procedures.

As a result, we identified 33 instances in which UTD did not comply with its internal policies when charging costs to NSF awards, as illustrated in Table 25.

Table 25: Finding 5 Summary: Non-Compliance with UTD Policies

NSF Award No.	Compliance Exception Identified	Transaction Date
██████████	Non-Compliance with UTD Subaward Policies	June 2018
██████████	Non-Compliance with UTD Subaward Policies	July 2018
██████████	Non-Compliance with UTD Subaward Policies	August 2018
██████████	Non-Compliance with UTD Subaward Policies	December 2019
██████████	Non-Compliance with UTD Subaward Policies	February 2020
██████████	Non-Compliance with UTD Subaward Policies	March 2020
██████████	Non-Compliance with UTD Subaward Policies	March 2020
██████████	Non-Compliance with UTD Subaward Policies	July 2020
██████████	Non-Compliance with UTD Subaward Policies	May 2020
██████████	Non-Compliance with UTD Subaward Policies	June 2020
██████████	Non-Compliance with UTD Subaward Policies	September 2018
██████████	Non-Compliance with UTD Procurement Policies	August 2017
██████████	Non-Compliance with UTD Procurement Policies	September 2017
██████████	Non-Compliance with UTD Procurement Policies	February 2018
██████████	Non-Compliance with UTD Procurement Policies	July 2018
██████████	Non-Compliance with UTD Procurement Policies	February 2019
██████████	Non-Compliance with UTD Procurement Policies	April 2019
██████████	Non-Compliance with UTD Procurement Policies	August 2019
██████████	Non-Compliance with UTD Procurement Policies	November 2019
██████████	Non-Compliance with UTD Procurement Policies	January 2020

NSF Award No.	Compliance Exception Identified	Transaction Date
	Non-Compliance with UTD Procurement Policies	January 2020
	Non-Compliance with UTD Procurement Policies	April 2020
	Non-Compliance with UTD Travel Policies	August 2017
	Non-Compliance with UTD Travel Policies	August 2018
	Non-Compliance with UTD Travel Policies	September 2019
	Non-Compliance with UTD Travel Policies	April 2020
	Non-Compliance with UTD Equipment Policies	February 2019
	Non-Compliance with UTD Cost Transfer Policies	April 2020
	Non-Compliance with UTD Salary Policies	June 2019
	Non-Compliance with UTD Salary Policies	July 2019
	Non-Compliance with UTD's NICRA	August 2018 – June 2019
	Non-Compliance with UTD's NICRA	June 2020
	Non-Compliance with UTD's NICRA	July 2020

Source: Auditor summary of identified instances of non-compliance with UTD's policies.

Recommendations

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

- 5.1 Direct UTD to strengthen its administrative and management procedures for subaward expenses to ensure that the Principal Investigators approve subawardee invoices prior to UTD issuing payments.
- 5.2 Direct UTD to strengthen its administrative and management procedures for subrecipients to ensure that it applies risk assessments to established subawards that follow the *Uniform Guidance* issuance and subawards that remain ongoing.
- 5.3 Direct UTD to strengthen its administrative and management procedures surrounding consultant services to ensure that it completes the Authorization for Professional Services Form and receives proper approval prior to work beginning and payments being made to consultants.
- 5.4 Direct UTD to strengthen its administrative and management procedures for travel to ensure travelers complete the appropriate Domestic Travel Authorization, Student Travel Request Authorization, and International Travel Authorization Request forms and approves the forms timely for all applicable travel.
- 5.5 Direct UTD to strengthen its administrative and management procedures for equipment to ensure that it tags and includes all items that meet the definition of a capital asset in the annual inventory and provide documentation to support that the item's existence was verified when performing inventory checks for capital assets/equipment in the process of being fabricated.

- 5.6 Direct UTD to strengthen its administrative and management procedures for cost transfers to ensure it does not transfer costs to an award without Principal Investigator approval.
- 5.7 Direct UTD to strengthen its administrative and management procedures to ensure employees certify effort within 45 days of the date their activity reports become available for certification.
- 5.8 Direct UTD to strengthen its administrative and management procedures for applying indirect cost rates on subrecipient expenses to ensure it applies indirect costs to the first \$25,000 invoiced.

University of Texas at Dallas Response: While UTD noted that it generally concurred with this finding, it did note that it disagreed with some exceptions. Specifically:

- UTD disagreed with the exception identified in Table 18, note k, related to a lack of risk assessment for a subaward issued on NSF Award No. [REDACTED] noting that it incurred the subaward expenses between 2013 and 2016, prior to the establishment of the cited 2017 risk assessment procedure.
- UTD disagreed with the exceptions previously identified in Table 18, notes l and m, which pertained to two instances for NSF Award [REDACTED] to a lack of budget, statement of work, and subrecipient commitment forms. Specifically, UTD stated that the executed subawards included statements of work and budgets, and that it used the subaward letters in place of letters of commitment, as requiring an additional letter of commitment in these two instances would have produced administrative burden and duplicative effort.
- UTD disagreed with the exception identified in Table 21, related to failure to comply with UTD's Property Administration Policy, noting that the equipment transfer form provided supports that this item was not an asset.

Auditors' Additional Comments: We removed two of the non-compliance with subaward exceptions from the draft report. However, our position regarding the other findings has not changed. Specifically:

- With regard to the exception noted in Table 18, note k: because UTD received supplemental funding for NSF Award No. [REDACTED] in 2016, which noted that costs incurred on this award must comply with 2 CFR § 200, and because UTD did not support that it did not use supplemental funds to cover subaward costs paid after it received the funding supplement, our position regarding this finding has not changed. Specifically, because the scope of the sampled subaward agreement covered expenses claimed after the 2 CFR § 200 requirements became applicable on this award, UTD was required to comply with 2 CFR § 200.332(b), which requires entities to evaluate each subrecipient's risk of noncompliance with federal statutes, regulations, and the subaward terms and conditions.

- We removed two exceptions where we had previously identified a lack of budget, statement of work, and subrecipient commitment form for subawards issued on NSF Award [REDACTED] as UTD does appear to have appropriately completed required subaward forms.
- With regard to the exception identified in Table 21, although UTD noted that the sampled equipment was not an asset, because the item purchased was greater than \$5,000 and has an estimated useful life of more than 1 year, per UTD policies, UTD should have considered this item a capital asset. As this item meets the definition of a capital asset, and as capital assets are required to be included in UTD's personal property inventory each FY, our position regarding this finding has not changed. However, because UTD did note that the purchased item was going to be installed into a larger piece of equipment, we did update recommendation 5.5.

FINDING 6: INSUFFICIENT CONTROLS RELATED TO THE APPLICATION OF INDIRECT COST RATES

UTD did not have sufficient controls in place to ensure it and its subawardees consistently applied indirect costs using approved indirect cost rate(s), as required by federal regulations⁴² or NSF award specific guidance.

Insufficient Controls Related to the Application of Indirect Cost Rates on Innovation Corps (I-Corps) Awards

UTD applied an 11 percent indirect cost rate on I-Corps Award No. [REDACTED] rather than the 10 percent indirect cost rate included in the I-Corps award budget and NSF program solicitation.⁴³

Insufficient Controls Related to the Application of Indirect Cost Rates by Subawardees

UTD allowed its subawardees to apply budgeted indirect cost rates rather than the rates in effect when the subawards were issued. As a result, two UTD subawardees inappropriately applied budgeted indirect cost rates to two NSF awards, as illustrated in Table 26.⁴⁴

⁴² According to 2 CFR 200, Appendix III, Section C.7. *Fixed Rates for the Life of the Sponsored Agreement*, federal agencies must use the negotiated rates in effect at the time of the initial award throughout the life of the federal award.

⁴³ According to the NSF Solicitation 18-515, Part V – Proposal Preparation and Submission Instructions, Section B. Budgetary Information, Indirect Cost (F&A) Limitations, the recovery of indirect costs shall be limited to \$5,000. As such, this program requires mandatory **cost sharing**, and is therefore an exception to NSF's cost sharing policy. NSF Award No. [REDACTED] is an I-Corps award and the grant budget includes \$5,000 for indirect costs and \$45,000 for direct costs ($\$5,000/\$45,000 = 11.11\%$).

⁴⁴ NSF also requires Institutions of Higher Education to use the NICRA in effect as of the date of the award throughout the life of the award. See NSF PAPPG 19-1, Part I, Chapter II, Section C.2.g. (viii).

Table 26: Insufficient Controls Related to the Application of Indirect Cost Rates by Subawardees

NSF Award No.	Subawardee	Subawardee Applied Rate (%)	Subawardee Appropriate Rate (%)
██████	Pennsylvania State University	51.90	59.86
██████	University of Texas – Southwestern Medical Center	62.00	63.00

Source: Auditor summary of identified instances of indirect costs applied using budgeted indirect cost rates.

Conclusion

UTD did not have sufficient controls surrounding the application and monitoring of indirect costs rates applied to I-Corps awards and subawardee invoices.

Because UTD did not overcharge NSF for indirect costs during the audit period, we did not question any costs associated with this finding. However, we are noting a compliance exception, as UTD’s current indirect cost rate application policies, procedures, and internal controls do not comply with federal and NSF regulations, as illustrated in Table 27.

Table 27: Finding 6 Summary: Insufficient Controls Related to the Application of Indirect Cost Rates

NSF Award No.	Compliance Exception Identified	Fiscal Year
██████	Insufficient Controls Related to the Application of Indirect Cost Rates on I-Corps Awards	2019
██████	Insufficient Controls Related to the Application of Indirect Cost Rates by Subawardees	2020
██████	Insufficient Controls Related to the Application of Indirect Cost Rates by Subawardees	2020 - 2021

Source: Auditor summary of identified instances of indirect costs applied using rates in effect prior to the NSF award date.

Recommendations

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

- 6.1 Direct UTD to update its current practices for applying indirect costs to Innovation Corps awards to ensure it uses the appropriate rate.
- 6.2 Direct UTD to update its current practices for monitoring NSF award subrecipients to ensure subrecipients apply appropriate indirect cost rates on invoices.

University of Texas at Dallas Response: UTD concurred with this finding and associated recommendations, noting that it will strengthen its subrecipient monitoring procedures to include a more in-depth review of subrecipients' expenses.

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

COTTON & COMPANY LLP



Megan Mesko, CPA, CFE
Partner
December 6, 2021

APPENDIX A: UTD'S RESPONSE

November 11, 2021

Cotton & Company LLP
333 John Carlyle Street, Suite 500
Alexandria, Virginia 22314

Attention: Megan Mesko, CPA, CFE

RE: The University of Texas at Dallas (UTD) of ("University") Performance Audit of Incurred Costs for National Science Foundation (NSF) awards for the period September 1, 2017 to August 31, 2020.

This representation letter is provided in correlation with Cotton & Company of the audit of the UTD's incurred Costs for National Science and Foundation (NSF) awards for the period September 1, 2017, to August 31, 2020.

The financial support provided by NSF supports the advancement of cutting-edge research discoveries and technologies at UTD. The University is committed to financial stewardship and obligations to administer funding per applicable laws, regulations, policies, and requirements.

The audit process is a critical component of UTD's operations, validating internal controls and identifying areas requiring enhancements. It is within this context that we have thoroughly reviewed the auditors' findings and recommendations. Although we do not agree with each determination, we welcome the guidance and opportunities to strengthen our sponsored programs procedures. The University is committed to remaining compliant with applicable policies and procedures, specifically the "*Office of Management and Budget 2 CFR 200 Uniform Administrative Requirements, Cost Principles and Audit Requirements for Federal Awards*" (*Uniform Guidance*) and *NSF Proposal & Award Policies and Procedures*.

We appreciate the opportunity to include the management's perspective on the draft audit report and look forward to working with NSF in the resolution process.

Please find UTD's management responses to the questioned costs identified in the "*NSF University Audit Formal Draft Report*" issued October 26, 2021.

Sincerely,



Joseph J. Pancluzzi, PhD
Vice President for Research and Innovation

FINDING 1: INADEQUATELY SUPPORTED EXPENSES

UTD did not provide adequate documentation to support the allocability, allowability, and reasonableness of \$91,771 in expenses charged to six NSF awards during the audit period, as required for the costs to be allowable per federal regulation and NSF Proposal & Award Policies & Procedures Guides (PAPPGs).

University Response: The University concurs, in general with this finding, except for the specific finding(s) referenced, as listed below:

1A.1. AUDITOR FINDING: As illustrated in Table 3, UTD did not provide adequate financial management system documentation to support that \$88,160 in foreign organization subaward costs charged to three NSF awards represented actual, allowable expenditures, as required for the costs to be allowable per federal regulations.

Table 1: Inadequately Supported Subaward Expenses

Expense Date	NSF Award No.	Subaward Invoice	Subawardee	Subawardee Financial Management Records Support	Notes
July 2018		\$37,500	Instituto Geofísico Del Perú (IGDP)	\$0	a
April 2020		33,500	Ciencia Internacional (CI)	0	b
May 2020		17,160	IGDP	0	c

Source: Auditor summary of identified exceptions.

1A.2. UNIVERSITY RESPONSE: UTD concurs that the foreign sub-recipient did not provide adequate documentation to support the entirety of the expenses. However, the documentation provided does illustrate that the costs are allowable and directly attributable to the project, as confirmed by the Principal Investigator (PI) and sub-recipient PI. Additionally, UTD notes that since there were no changes in the scope of work or critical personnel and all subaward costs benefited the NSF awards charged, *this finding should be considered a compliance issue with no questioned costs.*

UTD has policies and procedures to ensure that expenses charged to federal awards are allowable, benefit the award, and are required to complete the research. Moreover, UTD stated that it updates policies at regular or necessary intervals to ensure compliance as laws, regulations, and guidelines change.

UTD will invest in personnel to strengthen its sub-recipient monitoring by providing comprehensive reviews of related expenses and reinforcing existing and updated policies.

Foreign sub-recipients will be subject to further evaluation due to the inherent risk of foreign involvement.

- 1B.1. AUDITOR FINDING:** UTD did not provide adequate documentation to support the allowability of \$3,060 in internal service provider (ISP) expenses charged to two NSF awards. Specifically, the ISP’s rate sheets did not support the ISP’s rates as required for the ISP costs to be allowable per federal regulations and UTD Policy, as illustrated in Table 4

Table 2: Inadequately Supported ISP Rates

Expense Date	NSF Award No.	ISP Rates Charged	ISP Rate Supported	Insufficient Documentation to Support ISP Rates for:	Notes
March 2018		\$200	Unable to Determine	Invoiced micro-lithography masks	a
September 2018		100,150,200	Unable to Determine	Invoiced micro-lithography masks	b

Source: Auditor summary of identified exceptions.

- 1B.2. UNIVERSITY RESPONSE:** UTD does not concur with this finding. Aggregate rates are reviewed annually to ensure uniform application of charges to users, and only costs necessary to provide goods and services are recorded to centers. Documentation supporting aggregate costs of masks and associated rates, beyond rate establishment memo, was delivered during fieldwork.

UTD insists that the policies and procedures associated with Internal Service Providers meet the standards outlined in the *Office of Management and Budget 2 CFR 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*. Only approved rates are charged to federally sponsored awards.

- 1C.1. AUDITOR FINDING:** UTD did not provide adequate supporting documentation to show that \$551 of travel costs charged to one NSF award were allowable per federal regulations and UTD Policy, as illustrated in Table 5.

Table 5: Inadequately Supported Travel Expenses

Expense Date	NSF Award No.	Expense Total	Insufficient Documentation to Support the Allowability of:	Notes
August 2018		\$551	Meals claimed while on travel	a

Source: Auditor summary of identified exceptions.

- 1C.2. UNIVERSITY RESPONSE:** UTD concurs with this finding and recommendation. The University understands the importance of reviewing expenses to ensure costs are reasonable, allowable, and allocable. In the expenditure review process, the Office of Research will ensure that appropriate documentation is obtained to support the expenses allocated to the award.

FINDING 2: EXPENSES NOT APPROPRIATELY ALLOCATED TO NSF AWARDS

UTD did not support that it always allocated expenses to NSF awards based on the relative benefits the awards received, as required by federal regulations and NSF PAPPGs. As a result, UTD inappropriately allocated a total of \$70,604 in expenses to 11 NSF awards.

University Response: The University concurs, in general with this finding, except for the specific finding(s) referenced, as listed below:

2A.1 AUDITOR FINDING: UTD did not document or provide a reasonable justification for the allocation methodology it used to charge \$54,690 of purchases made near grant expiration dates. Specifically, because UTD had little or no time to use the materials/supplies purchased to benefit the NSF awards charged,

UTD does not appear to have charged the costs based on the relative benefits received by the awards, as illustrated in Table 7.

Table 7: Inappropriately Allocated Purchases Near Grant Expiration

Expense Date	NSF Award No.	Expenses Near Grant Expiration			Notes
		Amount Charged	Percent Allocable	Amount Inappropriately Allocated	
August 2017		\$16,490	Unable to Determine	\$16,490	a
August 2017		8,649	Unable to Determine	8,649	b
August 2017		7,527	Unable to Determine	7,527	c
August 2017		7,116	Unable to Determine	7,116	d
August 2018		1,599	Unable to Determine	1,599	e
September 2018		2,006	Unable to Determine	2,006	f
June 2020		9,016	Unable to Determine	9,016	g
July 2020		2,287	Unable to Determine	2,287	h

Source: Auditor summary of identified exceptions.

2A.2 UNIVERSITY RESPONSE: UTD does not concur with the finding. UTD attests the questioned costs were necessary and benefited the award at the time of purchase and are considered reasonable, allowable, and allocable under Uniform Guidance, NSF policies, and terms and conditions of the awards issued. In addition, to ensure compliance UTD performs a monthly “90-day expiration alerts” process to aid in a proactive review with Award Administrators purchasing near or after award expiration.

2B.1 AUDITOR FINDING: As illustrated in Table 8, UTD could not support that it appropriately allocated \$15,528 of travel costs charged to five NSF awards based on the relative benefits received by the awards, as required for the travel costs to be allowable per federal regulations and UTD policy.

Table 8: Inappropriately Allocated Travel Expenses

Expense Date	NSF Award No.	Travel Expenses			Notes
		Amount Charged	Percent Allocable	Amount Inappropriately Allocated	
June 2018		\$4,939	Unable to Determine	\$4,939	a
July 2018		1,033	Unable to Determine	1,033	b
August 2018		528	Unable to Determine	528	c
June 2019		4,036	Unable to Determine	4,036	d
July 2019		3,680	Unable to Determine	3,680	e
April 2020		1,312	Unable to Determine	1,312	f

Source: Auditor summary of identified exceptions.

2B.2 UNIVERSITY RESPONSE: UTD concurs in part with the finding and recommendations. The University believes that the entire amount should not be discounted. Portions are allowable and allocable on the project since documentation does cite the award referenced.

2C.1 AUDITOR FINDING: UTD did not always charge expenses to NSF awards in a manner consistent with the allocation methodology it documented. As a result, UTD charged two NSF awards for \$386 of unallocable costs, as illustrated in Table 9:

Table 9: Documented Allocation Methodology Not Followed

Expense Date	NSF Award No.	Allocation Methodology Not Followed			Notes
		Amount Charged	Amount Allocable	Amount Inappropriately Allocated	
July 2018		\$14,600	\$14,392	\$208	a
September 2019		1,772	1,594	178	b

Source: Auditor summary of identified exceptions.

2C.2 UNIVERSITY RESPONSE: UTD concurs with the finding and recommendation. UTD will take the opportunity to re-educate Award Administrators on the policies and procedures associated with Travel expenses.

FINDING 3: NSF APPROVAL NOT OBTAINED BEFORE TRANSFERRING AWARD RESEARCH TO OTHER ORGANIZATIONS

UTD did not obtain NSF's approval before issuing subawards to two organizations to conduct portions of NSF-funded award research. Specifically, UTD did not formally request approval to contract or transfer research to these organizations in the original grant proposal or through subsequent requests submitted to NSF via the NSF FastLane system, as required by NSF's PAPPGs. As a result, UTD inappropriately charged \$63,753 in unallowable subaward expenses to three NSF awards, as illustrated in Table 11.

Table 3: Subawards Not Appropriately Approved

Expense Dates	NSF Award No.	Subaward Expenses	Subawardee	Notes
August 2018 – June 2019	[REDACTED]	\$17,284	University [REDACTED]	a
December 2019 – June 2020	[REDACTED]	39,853	University [REDACTED]	b
December 2019 – July 2020	[REDACTED]	6,616	University [REDACTED]	c

Source: Auditor summary of identified exceptions.

University Response: The University does not concur with this finding.

3A.1 AUDITOR FINDING: UTD did not have appropriate policies and procedures or internal controls in place to ensure that it formally requested approval to transfer NSF award research to other organizations before it issued subawards on NSF grants.

3B.2 UNIVERSITY RESPONSE: UTD does not concur with this finding. The University believes the reported expenses support the projects coordinated and conducted by named personnel. Additionally, UTD notes that since there were no changes in the scope of work or personnel, and all subaward costs benefited the NSF awards, this finding should be considered a compliance issue.

Specifically:

- In regards to the \$17,284 in questioned subaward costs under NSF Award No. [REDACTED] UTD believes the charges are allowable due to the annual report covering the period September 1, 2017 to August 31, 2018 in which The University [REDACTED] is listed as a partner organization and detailed [REDACTED] transfer. Furthermore, the Program Officer approved the annual reports.

- Concerning the \$39,853 in questioned subaward costs under NSF Award No. [REDACTED] UTD believes the expenses are allowable because the PI informed the Program Officer of his move to the University [REDACTED] in 2018. The Program Officer approved the transfer and the addition of a subcontract to [REDACTED]. UTD provided an email affirming these events. In addition, the annual reports covering the period September 1, 2018 to August 31, 2020 included information regarding [REDACTED] transfer to [REDACTED] and listed [REDACTED] as a partner organization. The Program Officer approved the annual reports before the occurrence of the questioned expenses.
- Concerning the \$6,616 in questioned subaward costs under NSF Award No. [REDACTED] UTD believes the costs are allowable as UTD reported its collaboration in the annual progress report submitted to NSF. UTD believes it constitutes both notice to and effective approval by NSF.

UTD will invest in personnel to strengthen its sub-recipient monitoring by providing comprehensive reviews of related expenses and reinforcing existing and updated policies

FINDING 4: UNALLOWABLE EXPENSES

UTD charged eight NSF awards a total of \$23,082 in travel, fringe benefit, indirect cost, and Graduate Research Fellowship Program (GRFP) expenses that are unallowable per federal regulations and NSF PAPPGs.

University Response: The University concurs with this finding and recommendations. UTD will review applicable policies and procedures to identify areas where enhancements can be made to strengthen internal controls. UTD will re-educate Award Administrators on policies and procedures in reference to direct charging sponsored awards to ensure allowable, allowable and reasonable in respect to the direct benefit received throughout the grant life cycle.

FINDING 5: NON-COMPLIANCE WITH UTD POLICIES

UTD did not always comply with—or did not always document its compliance with—its internal subaward, procurement, travel, equipment, cost transfer, salary, and MTDC policies and procedures when incurring costs charged to NSF awards.

University Response: The University concurs, in general with this finding, except for the specific finding(s) referenced, as listed below:

- 5A.1 AUDITOR FINDING:** As illustrated in Table 18, we identified 13 instances in which UTD did not comply with its internal subaward policies and procedures requiring PI approval of subaward invoices, the execution of risk assessment monitoring procedures, and obtaining and maintaining subawardee documentation in support of the subaward agreement.

Table 48: Non-Compliance with UTD Subaward Policies

Expense Date	NSF Award Number	Fiscal Year	Subaward Policy Compliance Exception	Notes
June 2018		2018	Untimely Invoice Approval by PI	a
July 2018		2018	Untimely Invoice Approval by PI	b
August 2018		2018	Untimely Invoice Approval by PI	c
December 2019		2020	Untimely Invoice Approval by PI	d
February 2020		2020	Untimely Invoice Approval by PI	e
March 2020		2020	Untimely Invoice Approval by PI	f
March 2020		2020	Untimely Invoice Approval by PI	g
July 2020		2020	Untimely Invoice Approval by PI	h
May 2020		2020	Untimely Invoice Approval by PI	i
June 2020		2020	Untimely Invoice Approval by PI	j
September 2018		2019	Lack of Risk Assessment	k
January 2020		2020	Lack of Budget, Statement of Work, and Subrecipient Commitment	l
June 2020		2020	Lack of Budget, Statement of Work, and Subrecipient Commitment	m

Source: Auditor summary of identified instances of non-compliance with UTD’s subaward policies.

5A.2 UNIVERSITY RESPONSE: UTD does not concur with this finding specifically the items listed below:

- Finding 5: Table 18: Subsection K. The subaward expense occurred in 2013-2016. At that time, risk assessment and monitoring procedures were not part of the subaward process; the internal control procedure was established in 2017.
- Finding 5: Table 18: Subsections L and M. In both instances, the subawards were added to existing awards. The budget and statement of work were obtained and included in the subaward. The executed subaward is used in place of a letter of commitment as both contain the official subrecipient commitment to the project. It is an administrative burden and duplicative effort, both to UTD and the sub-recipient, to require a letter of commitment that is not included or needed when adding to an existing award. It is more expeditious and streamlined to substitute the executed subaward for the letter of commitment.

UTD will invest in personnel to strengthen its sub-recipient monitoring by providing comprehensive reviews of related expenses and reinforcing existing and updated policies.

5B.1 AUDITOR FINDING: We identified one instance in which UTD did not comply with its equipment policies and procedures requiring a physical inventory of capital assets, as illustrated in Table 21.

Table 21: Non-Compliance with UTD Equipment Policies

Expense Date	NSF Award No.	UTD Policy Violated	Notes
February 2019		Property Administration Policy	a

Source: Auditor summary of identified instances of non-compliance with UTD equipment policies.

5B.2 UNIVERSITY RESPONSE: The University does not concur with this finding. The UTD signed Equipment Transfer form is included in the documentation and states it was not an asset.

FINDING 6: INSUFFICIENT CONTROLS RELATED TO THE APPLICATION OF INDIRECT COST RATES

UTD did not have sufficient controls in place to ensure it and its subawardees consistently applied indirect costs using approved indirect cost rate(s), as required by federal regulation and/or NSF award specific guidance.

University Response: The University concurs with this finding and recommendation. UTD has policies and procedures to ensure expenses charged to federal awards are allowable, benefit the award, and are reasonable for the completion of the research. Moreover, UTD states that it reviews and updates policies at regular intervals to ensure compliance with changes in laws, regulations, and guidelines.

Additional personnel will be added specifically to strengthen sub-recipient monitoring and provide more in-depth review of all expenses related to subrecipients.

APPENDIX B: OBJECTIVES, SCOPE, AND METHODOLOGY

OBJECTIVES

The NSF OIG Office of Audits engaged Cotton & Company LLP (referred to as “we”) to conduct an audit survey, the objectives of which were to evaluate UTD’s award management environment, to determine whether any further audit work was warranted and recommend a path forward as described in the task order performance work statement, and to perform any additional audit work determined appropriate.

SCOPE

The audit population included approximately \$36.7 million in expenses UTD claimed on 254 NSF awards during our audit period of performance, September 1, 2017, to August 31, 2020.

METHODOLOGY

Based on the objectives and scope of the audit, we conducted this engagement in two phases, as follows:

Audit Survey Phase

After obtaining NSF OIG’s approval for our audit plan, we performed the audit survey steps outlined in the original audit plan. Generally, these steps included:

- Assessing the reliability of the general ledger data that UTD provided by comparing the costs charged to NSF awards per UTD’s accounting records to the reported net expenditures reflected in the ACM\$ drawdown requests.
 - Our work required us to rely on computer-processed data obtained from UTD and NSF OIG. NSF OIG provided award data that UTD reported through ACM\$ during our audit period.
 - We assessed the reliability of the general ledger data that UTD provided by (1) comparing the costs charged to NSF awards per UTD’s accounting records to the reported net expenditures reflected in the ACM\$ drawdown requests that UTD submitted to NSF during the audit survey POP; and (2) reviewing the parameters that UTD used to extract transaction data from its accounting systems. We identified several discrepancies between the amounts supported by UTD’s general ledger and the amounts that UTD claimed per NSF’s ACM\$ system; however, we found UTD’s computer-processed data to be sufficiently reliable for the purposes of the audit survey, as UTD was able to provide justification for all discrepancies identified and we did not identify any issues with the parameters that UTD 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 2020 found no reportable instances in which NSF's financial management systems did not substantially comply with applicable requirements.

- UTD provided detailed transaction-level data to support all costs charged to NSF awards during the period. This data resulted in a total audit universe of \$36,722,202 in expenses claimed on 254 NSF awards.
- Obtaining and reviewing all available accounting and administrative policies and procedures, external audit reports, desk review reports, and other relevant information UTD and NSF OIG provided, as well as any other relevant information that was available online.
- Summarizing our understanding of federal-, NSF-, and UTD-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 UTD's internal controls, within the audit's scope, solely to understand the directives or policies and procedures UTD has in place to ensure that charges against NSF awards complied with relevant federal regulations, NSF award terms, and UTD policies.
- Evaluating the strengths and weaknesses of the policies and procedures that UTD has in place to control the inherent, fraud, and control risks identified for each budget category.
- Providing UTD with a list of 45 transactions that we selected based on the results of our data analytics and requesting that UTD provide documentation to support each transaction.
- Reviewing the supporting documentation UTD 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,⁴⁵ NSF,⁴⁶ and UTD policies.⁴⁷

⁴⁵ We assessed UTD's 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 [OMB] Circular A-21), as appropriate.

⁴⁶ We assessed UTD's compliance with NSF PAPPGs 10-1, 11-1, 13-1, 14-1, 15-1, 16-1, 17-1, 18-1, and 19-1 and with NSF award-specific terms and conditions, as appropriate.

⁴⁷ We assessed UTD's compliance with internal UTD policies and procedures surrounding costs budgeted for or charged to NSF awards.

- Holding virtual interviews and walkthroughs with UTD in December 2020 to discuss payroll (including effort reporting), fringe benefits, travel, participant support costs, procurement, equipment (including an inventory check), the GRFP 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).
- Preparing an organizational risk assessment that (1) summarized the results of our planning/initial fieldwork, (2) included areas of elevated risk of noncompliance that we identified in the organization's award management environment, and (3) contained our recommendations for expanded testing.

Expanded Testing Audit Phase

Based on the areas of elevated risk of noncompliance identified during the survey phase, we determined that we should perform further audit procedures that included:

- Conducting additional data analytics, evaluating the results of the analytics, and re-running analytical tests, as necessary.
- Selecting an additional audit sample of 50 transactions.
- Conducting additional fieldwork, which included providing the list of 50 transactions to UTD and requesting and reviewing supporting documentation until we had obtained sufficient, appropriate evidence to enable us to assess the allowability of each sampled transaction.
- Conducting additional audit work in two areas to evaluate whether UTD (1) issued subawards to institutions that were not approved by appropriate NSF personnel and (2) inappropriately applied indirect costs to participant support travel expenses.

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 UTD personnel to ensure that UTD 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 from September 2020 to August 2021 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 that are valid, accurate, appropriate, and complete with respect to the 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.

APPENDIX C: SUMMARY OF QUESTIONED COSTS

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

Finding	Description	Questioned Costs		Total
		Unsupported	Unallowable	
1	Inadequately Supported Expenses	\$0	\$91,771	\$91,771
2	Expenses Not Appropriately Allocated to NSF Awards	-	70,604	70,604
3	NSF Approval Not Obtained Before Transferring Award Research to Other Organizations	-	63,753	63,753
4	Unallowable Expenses	-	23,082	23,082
5	Non-Compliance with UTD Policies	-	-	-
6	Insufficient Controls Related to the Application of Indirect Cost Rates	-	-	-
Total		<u>\$0</u>	<u>\$249,210</u>	<u>\$249,210</u>

Source: Auditor summary of identified exceptions.

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	UTD Agreed to Reimburse
	4	\$5,469	\$2,899	\$8,368	\$2,901
	1	675	358	1,033	-
	1	1,115	591	1,706	1,706
	1	800	424	1,224	-
	1	1,311	695	2,006	-
	2	1,495	792	2,287	-
	4	26,002	13,780	39,782	-
	2	1,181	626	1,807	208
	1	-	-	-	-
	3	2,660	1,410	4,070	4,070
	1	-	-	-	-
	2	834	442	1,276	1,276
	2	116	62	178	178
	2	2,638	1,398	4,036	-
	1	-	-	-	-
	3	17,284	-	17,284	-
	1	-	-	-	-
	1	5,893	3,123	9,016	-
	2	2,405	1,275	3,680	3,680
	1	3,587	1,901	5,488	5,488
	3	-	-	-	-
	1	-	-	-	-
	1	-	-	-	-
	1	1,200	636	1,836	-
	3	37,500	-	37,500	-
	1	26,603	13,250	39,853	-
	1	-	-	-	-
	2	1,312	-	1,312	1,312
	2	-	-	-	-
	1	660	-	660	660
	2	-	-	-	-
	1	4,923	2,609	7,532	7,532
	1	-	-	-	-
	1	4,324	2,292	6,616	-
	1	-	-	-	-
	3	17,160	-	17,160	-
	1	-	-	-	-
	4	-	-	-	-
	1	33,500	-	33,500	-

NSF Award No.	No. of Transaction Exceptions	Questioned Direct Costs	Questioned Indirect Costs	Questioned Total	UTD Agreed to Reimburse
	1	-	-	-	-
	2	-	-	-	-
	1	-	-	-	-
Grand Total	71	<u>\$200,647</u>	<u>\$48,563</u>	<u>\$249,210</u>	<u>\$29,011</u>

Source: Auditor summary of identified exceptions.

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	UTD Agreed to Reimburse
1) Inadequately Supported Expenses	[REDACTED]	July 2018 Subaward Expense	\$37,500	\$0	\$37,500	\$0
		April 2020 Subaward Expense	33,500	-	33,500	-
		May 2020 Subaward Expense	17,160	-	17,160	-
		March 2018 ISP Masks	800	424	1,224	-
		September 2018 ISP Masks	1,200	636	1,836	-
		August 2018 Travel Meals	360	191	551	551
		2) Expenses Not Appropriately Allocated to NSF Awards	[REDACTED]	August 2017 Lab Supplies	10,778	5,712
August 2017 Chemicals and Lab Supplies	5,653			2,996	8,649	-
August 2017 Lab Supplies	4,920			2,607	7,527	-
August 2017 Precision Cutter	4,651			2,465	7,116	-
August 2018 Digital Camera	1,045			554	1,599	-
September 2018 Supplies	1,311			695	2,006	-
June 2020 Materials	5,893			3,123	9,016	-
July 2020 Supplies	1,495			792	2,287	-
June 2018 Travel	3,228			1,711	4,939	-
July 2018 Travel	675			358	1,033	-
August 2018 Airfare	345			183	528	-
June 2019 Airfare	2,638			1,398	4,036	-
July 2019 Airfare	2,405			1,275	3,680	3,680
April 2020 Participant Travel	1,312			-	1,312	1,312
July 2018 Maintenance/ Repair Expense	136			72	208	208
September 2019 Travel	116			62	178	178
3) NSF Approval Not Obtained Before Transferring Award Research to	[REDACTED]	August 2018 - June 2019 Subaward Expenses	17,284	-	17,284	-
		December 2019 - June 2020 Subaward Expenses	26,603	13,250	39,853	-
		December 2019 - July 2020 Subaward Expenses	4,324	2,292	6,616	-

Finding Description	Award No.	Expense Description	Questioned Direct Costs	Questioned Indirect Costs	Total Questioned Costs	UTD Agreed to Reimburse
Other Organizations						
4) Unallowable Expenses		October 2017 Airfare	1,322	701	2,023	2,023
		August 2018 Airfare	1,896	1,005	2,901	2,901
		August 2018 Travel	1,115	591	1,706	1,706
		August 2018 Lodging and Meals	474	251	725	725
		April 2019 Airfare	1,338	-	1,338	1,338
		June 2019 Airfare	-	-	-	-
		February 2020 Travel	3,587	1,901	5,488	5,488
		June 2020 Fringe Benefits	4,923	2,609	7,532	7,532
		April 2019 Indirects Applied to Participant Airfare	-	709	709	709
		July 2018 GRFP COE Allowance	660	-	660	660
5) Non-Compliance with UTD Policies		Non-Compliance with UTD Subaward Policies	-	-	-	-
		Non-Compliance with UTD Subaward Policies	-	-	-	-
		Non-Compliance with UTD Subaward Policies	-	-	-	-
		Non-Compliance with UTD Subaward Policies	-	-	-	-
		Non-Compliance with UTD Subaward Policies	-	-	-	-
		Non-Compliance with UTD Subaward Policies	-	-	-	-
		Non-Compliance with UTD Subaward Policies	-	-	-	-
		Non-Compliance with UTD Subaward Policies	-	-	-	-
		Non-Compliance with UTD Subaward Policies	-	-	-	-

Finding Description	Award No.	Expense Description	Questioned Direct Costs	Questioned Indirect Costs	Total Questioned Costs	UTD Agreed to Reimburse
	██████	Non-Compliance with UTD Subaward Policies	-	-	-	-
	██████	Non-Compliance with UTD Subaward Policies	-	-	-	-
	██████	Non-Compliance with UTD Procurement Policies	-	-	-	-
	██████	Non-Compliance with UTD Procurement Policies	-	-	-	-
	██████	Non-Compliance with UTD Procurement Policies	-	-	-	-
	██████	Non-Compliance with UTD Procurement Policies	-	-	-	-
	██████	Non-Compliance with UTD Procurement Policies	-	-	-	-
	██████	Non-Compliance with UTD Procurement Policies	-	-	-	-
	██████	Non-Compliance with UTD Procurement Policies	-	-	-	-
	██████	Non-Compliance with UTD Procurement Policies	-	-	-	-
	██████	Non-Compliance with UTD Procurement Policies	-	-	-	-
	██████	Non-Compliance with UTD Procurement Policies	-	-	-	-
	██████	Non-Compliance with UTD Procurement Policies	-	-	-	-
	██████	Non-Compliance with UTD Travel Policies	-	-	-	-
	██████	Non-Compliance with UTD Travel Policies	-	-	-	-

Finding Description	Award No.	Expense Description	Questioned Direct Costs	Questioned Indirect Costs	Total Questioned Costs	UTD Agreed to Reimburse
	██████	Non-Compliance with UTD Travel Policies	-	-	-	-
	██████	Non-Compliance with UTD Travel Policies	-	-	-	-
	██████	Non-Compliance with UTD Equipment Policies	-	-	-	-
	██████	Non-Compliance with UTD Cost Transfer Policies	-	-	-	-
	██████	Non-Compliance with UTD Salary Policies	-	-	-	-
	██████	Non-Compliance with UTD Salary Policies	-	-	-	-
	██████	Non-Compliance with UTD's NICRA	-	-	-	-
	██████	Non-Compliance with UTD's NICRA	-	-	-	-
	██████	Non-Compliance with UTD's NICRA	-	-	-	-
6) Insufficient Controls Related to the Application of Indirect Cost Rates	██████	Insufficient Controls Related to the Application of Indirect Cost Rates on I-Corps Awards	-	-	-	-
	██████	Insufficient Controls Related to the Application of Indirect Cost Rates by Subawardees	-	-	-	-
	██████	Insufficient Controls Related to the Application of Indirect Cost Rates by Subawardees	-	-	-	-
Total			<u>\$200,647</u>	<u>\$48,563</u>	<u>\$249,210</u>	<u>\$29,011</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 Resolve the \$91,220 in questioned inadequately supported subaward expenses, internal service provider rates, and meal expenses for which UTD has not agreed to reimburse NSF and direct UTD to repay or otherwise remove the sustained questioned costs from its NSF awards.
- 1.2 Direct UTD to provide documentation that it has repaid or otherwise credited the \$551 of questioned travel costs that it has agreed to reimburse.
- 1.3 Direct UTD to strengthen its policies and procedures for creating and retaining documentation, including introducing additional controls to help ensure that it appropriately creates and maintains all documentation necessary to support the allowability of expenses charged to sponsored programs. Updated procedures could include:
 - Updating its policies for establishing subawards in foreign countries to require subawardees to provide general ledger data to support all costs invoiced to UTD.
 - Updating its current internal service provider policies and procedures to ensure only approved and assessed rates are invoiced and charged to federally-sponsored awards.
 - Providing additional training to ensure UTD only reimburses travelers for allowable, supported meal costs.
- 2.1 Resolve the \$65,226 in questioned materials and supplies, travel, and other direct costs for which UTD has not agreed to reimburse NSF and direct UTD to repay or otherwise remove the sustained questioned costs from its NSF awards.
- 2.2 Direct UTD to provide documentation supporting that it has repaid or otherwise credited the \$5,378 of questioned airfare and participant travel costs for which it has agreed to reimburse NSF.
- 2.3 Direct UTD to strengthen its controls and processes for supporting the allocation of expenses to sponsored projects. Updated processes could include:
 - Requiring Principal Investigators or other designated staff to both document and justify the allocation methodologies used when charging expenses to sponsored projects near the grant expiration date.
 - Implementing standard procedures that require reviewers to assess publications presented during sponsored travel to determine which awards benefitted from the presentation before determining which funding source(s) to charge the expenses to.

- Providing training on how to assess and document the methodology used to allocate expenses across each sponsored award.
- 2.4 Direct UTD to strengthen its controls and processes for ensuring it allocates travel and other direct cost expenses in accordance with its documented allocation methodology.
- 3.1 Resolve the \$63,753 in questioned subaward expenses for which UTD has not agreed to reimburse NSF and direct UTD to repay or otherwise remove the sustained questioned costs from its NSF awards.
- 3.2 Direct UTD to strengthen the administrative and management internal controls and procedures over transferring significant parts of NSF-funded research to other organizations. Updated procedures could include:
- Establishing procedures that require UTD to verify that, for any subaward under an NSF grant awarded to UTD, 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 FastLane request to transfer the research or effort.
 - Requiring periodic training for Principal Investigators and other personnel permitted to issue subaward agreements under NSF awards.
- 4.1 Direct UTD to provide documentation supporting that it has repaid or otherwise credited the \$23,082 in questioned fringe benefit, travel, indirect costs, and Cost of Education allowance costs for which UTD has agreed to reimburse NSF.
- 4.2 Direct UTD to strengthen its processes and procedures surrounding the booking and approval of travel expenses. Updated procedures could include:
- Requiring travelers to document the business purpose of each day of a planned trip before purchasing airfare so UTD can evaluate whether it must perform a travel comparison indicating personal travel did not increase airfare costs.
 - Establishing controls within its travel reporting system to ensure costs are not charged to the award for travel by employees or students not exerting effort on the award at the time of travel.
 - Implementing additional reviews for all airfare purchases so the reviewer must verify airfare is for an economy class ticket and complies with the Fly America Act before charging the expense to an NSF award.

- Requiring periodic training regarding the types of expenses that are allowable and unallowable for business travel.
- 4.3 Direct UTD to establish controls surrounding its participant support costs to ensure it appropriately charges travel for participants to accounts that are not included in its modified total direct cost base, and therefore do not incur indirect costs.
- 4.4 Direct UTD to strengthen its procedures and internal controls surrounding the application of fringe benefits on employee salary. Updated procedures could include an annual assessment of fringe benefit adjustments and fringe benefit charges above a specific threshold.
- 4.5 Direct UTD to strengthen its procedures and internal controls surrounding the administration of Graduate Research Fellowship Program Cost of Education funding. Updated procedures could include:
- Conducting annual training with key personnel involved in the Graduate Research Fellowship Program to ensure individuals are aware of the approved stipend and Cost of Education allowances permitted by the relevant program solicitation each year.
 - Conducting periodic reviews of fellowship/stipend allowances to ensure the automatic payments do not exceed the federal/program limits.
- 5.1 Direct UTD to strengthen its administrative and management procedures for subaward expenses to ensure that the Principal Investigators approve subawardee invoices prior to UTD issuing payments.
- 5.2 Direct UTD to strengthen its administrative and management procedures for subrecipients to ensure that it applies risk assessments to established subawards that follow the *Uniform Guidance* issuance and subawards that remain ongoing.
- 5.3 Direct UTD to strengthen its administrative and management procedures surrounding consultant services to ensure that it completes the Authorization for Professional Services Form and receives proper approval prior to work beginning and payments being made to consultants.
- 5.4 Direct UTD to strengthen its administrative and management procedures for travel to ensure travelers complete the appropriate Domestic Travel Authorization, Student Travel Request Authorization, and International Travel Authorization Request forms and approves the forms timely for all applicable travel.
- 5.5 Direct UTD to strengthen its administrative and management procedures for equipment to ensure that it tags and includes all items that meet the definition of a capital asset in the annual inventory or provide documentation to support that the

item's existence was verified when performing inventory checks for capital assets/equipment in the process of being fabricated.

- 5.6 Direct UTD to strengthen its administrative and management procedures for cost transfers to ensure it does not transfer costs to an award without Principal Investigator approval.
- 5.7 Direct UTD to strengthen its administrative and management procedures to ensure employees certify effort within 45 days of the date their activity reports become available for certification.
- 5.8 Direct UTD to strengthen its administrative and management procedures for applying indirect cost rates on subrecipient expenses to ensure it applies indirect costs to the first \$25,000 invoiced.
- 6.1 Direct UTD to update its current practices for applying indirect costs to Innovation Corps awards to ensure it uses the appropriate rate.
- 6.2 Direct UTD to update its current practices for monitoring NSF award subrecipients to ensure subrecipients apply appropriate indirect cost rates on invoices.

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) and (2 CFR Revision § 200.1).

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 220, Appendix A, Section C.2.).

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.

Capital expenditures means expenditures to acquire capital assets or expenditures to make additions, improvements, modifications, replacements, rearrangements,

reinstallations, renovations, or alterations to capital assets that materially increase their value or useful life (2 CFR § 200.13).

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

Consultant Services (Professional Service costs). This refers to costs of professional and consultant services rendered by persons who are members of a particular profession or possess a special skill, and who are not officers or employees of the non-federal entity, are allowable, subject to paragraphs (b) and (c) when reasonable in relation to the services rendered and when no contingent upon recovery of the costs from the federal government.

In determining the allowability of costs in a particular case, no single factor or any special combination of factors is necessarily determinative; however, the following factors are relevant:

- 1) The nature and scope of the service rendered in relation to the service required.
- 2) The necessity of contracting for the service, considering the non-federal entity's capability in the particular area.
- 3) The past pattern of such costs, particularly in the years prior to federal awards.
- 4) The impact of federal awards on the non-federal entity's business.
- 5) Whether the proportion of federal work to the non-federal entity's total business is such as to influence the non-federal entity in favor of incurring the cost, particularly where the services rendered are not of a continuing nature and have little relationship to work under federal awards.
- 6) Whether the service can be performed more economically by direct employment rather than contracting.
- 7) The qualifications of the individual or concern rendering the service and the customary fees charged, especially on non-federally funded activities.
- 8) Adequacy of the contractual agreement for the service (e.g., description of the service, estimate of time required, rate of compensation, and termination provisions) (2 CFR § 200.459) and (2 CFR Revision § 200.459).

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

Cost Sharing. This refers to the portion of project costs not paid by federal funds (unless otherwise authorized by federal statute) (2 CFR § 200.29).

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

Direct Costs. Costs that can be identified specifically with a particular final cost objective—such as a federal award—or other internally- or externally-funded activity, or that can be directly assigned to such activities relatively easily with a high degree of accuracy. Costs

incurred for the same purpose in like circumstances must be treated consistently as either direct or indirect (F&A) costs (2 CFR § 200.413).

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

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

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

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

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

Fly America Act. All air travel and cargo transportation services funded by the federal government are required to use a "U.S. flag" air carrier service (49 U.S.C. 40118).

[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) and (2 CFR Revision § 200.431).

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

Indirect (F&A) Costs. This refers to those costs incurred for a common or joint purpose benefitting more than one cost objective, and not readily assignable to the cost objectives

specifically benefitted, without effort disproportionate to the results achieved. To facilitate equitable distribution of indirect expenses to the cost objectives served, it may be necessary to establish a number of pools of indirect (F&A) costs. Indirect (F&A) cost pools must be distributed to benefitted cost objectives on bases that will produce an equitable result in consideration of relative benefits derived (2 CFR § 200.56).

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

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 period of performance (POP) of the subawards under the award). MTDC excludes equipment, capital expenditures, charges for patient care, rental costs, tuition remission, scholarships and fellowships, participant support costs and the portion of each subaward in excess of \$25,000. Other items may only be excluded when necessary to avoid a serious inequity in the distribution of indirect costs, and with the approval of the cognizant agency for indirect costs (2 CFR § 200.68) and (2 CFR Revision § 200.1).

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

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

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

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

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

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

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

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

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

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, 2 CFR § 220 Appendix A, C.3.).

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

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

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

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

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

including an agreement that the pass-through entity considers a contract (2 CFR § 200.92) and (2 CFR Revision § 200.1).

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

Supplies. All tangible personal property other than those described in § 200.33 Equipment. A computing device is a supply if the acquisition cost is less than the lesser of the capitalization level established by the non-federal entity for financial statement purposes or \$5,000, regardless of the length of its useful life (2 CFR § 200.94).

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

Travel costs. Expenses for transportation, lodging, subsistence, and related items incurred by employees who are in travel status on official business of the non-federal entity. Such costs may be charged on an actual cost basis, on a per diem or mileage basis in lieu of actual costs incurred, or on a combination of the two, provided the method used is applied to an entire trip and not to selected days of the trip, and results in charges consistent with those normally allowed in like circumstances in the non-federal entity's non-federally funded activities and in accordance with non-federal entity's written travel reimbursement policies. Notwithstanding the provisions of § 200.444 *General costs of government*, travel costs of officials covered by that section are allowable with the prior written approval of the federal awarding agency or pass-through entity when they are specifically related to the federal award (2 CFR § 200.474).

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

U.S. Flag Air Carrier. An air carrier holding a certificate under section 401 of the Federal Aviation Act of 1958 (49 U.S.C. App. 1371) (48 CFR § 47.401).

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



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