

Performance Audit – Temple University

REPORT PREPARED BY WITHUMSMITH+BROWN, P.C

NATIONAL SCIENCE FOUNDATION
OFFICE OF INSPECTOR GENERAL

August 5, 2020
OIG 20-1-006





AT A GLANCE

Performance Audit – Temple University
Report No. OIG 20-1-006
August 5, 2020

AUDIT OBJECTIVE

The National Science Foundation Office of Inspector General engaged WithumSmith+Brown, P.C. (WSB) to conduct a performance audit at Temple University (Temple) for the period February 1, 2016, to January 31, 2019. The auditors tested \$203,800 of the \$38.8 million of costs claimed to NSF. The objective of the audit was to evaluate Temple'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 two concerns about Temple's compliance with certain Federal and NSF regulations when allocating expenses to NSF awards. The auditors questioned \$5,969 of costs claimed by Temple during the audit period. Specifically, the auditors found \$4,524 for a purchase incurred near award expiration and \$1,445 in unallocable travel. Based on the positive aspects of the internal control system, lack of reconciliation issues, minimal questioned costs, and the limited NSF expenditures over the 3-year period, we accepted WSB's recommendation to terminate the audit at the completion of the survey phase. WSB 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 WSB's audit report.

RECOMMENDATIONS

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

AUDITEE RESPONSE

Temple agreed with all of the findings in the report. Temple'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: August 5, 2020

TO: Dale Bell
Director
Division of Institution and Award Support

Jamie French
Director
Division of Grants and Agreements
[REDACTED]

FROM: Mark Bell
Assistant Inspector General
Office of Audits

SUBJECT: Audit Report No. 20-1-006, Temple University

This memorandum transmits the WithumSmith+Brown, P.C. (WSB) report for the audit of costs charged by Temple University (Temple) to its sponsored agreements with the National Science Foundation during the period February 1, 2016, to January 31, 2019. The audit encompassed \$203,800 of the \$38.8 million of costs claimed to NSF during the period. The objective of the audit was to evaluate Temple's award management environment to determine whether any further audit work was warranted, and to perform additional audit work, as determined appropriate. We accepted WSB's recommendation to terminate the audit at the completion of the survey phase.

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

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

- reviewed WSB'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 WSB, as necessary, to discuss audit progress, findings, and recommendations;
- reviewed the audit report prepared by WSB; 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 Kelly Stefanko at 703.292.7100 or OIGpublicaffairs@nsf.gov.

Attachment

cc:

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John Veysey
Ann Bushmiller
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Fleming Crim
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Alex Wynnyk
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Ken Lish
Kelly Stefanko
Jennifer Kendrick
Louise Nelson

Temple University

Performance Audit Survey of Incurred Costs

National Science Foundation Office of Inspector General

July 24, 2020

OIG 20-1-006

Table of Contents

Background	1
Results of Audit Survey	2
Finding 1: Purchase Near the Award Expiration	3
Recommendations	4
Awardee Response	4
Auditor's Additional Comments	4
Finding 2: Unallocable Travel	4
Recommendations	5
Awardee Response	6
Auditor's Additional Comments	6
Appendix A: Awardee Response	7
Appendix B: Objectives, Scope, Methodology, and Criteria.....	10
Methodology	10
Criteria.....	11
Appendix C: Questioned Costs Summary by Award	13

Abbreviations

Temple	Temple University
F&A	Facilities and Administrative (costs)
PI	Principal Investigator

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.”¹ NSF is also committed to ensuring an adequate supply of the Nation's scientists, engineers and science educators. NSF funds research and education in science and engineering by awarding grants and contracts to educational and research institutions in all parts of the United States.

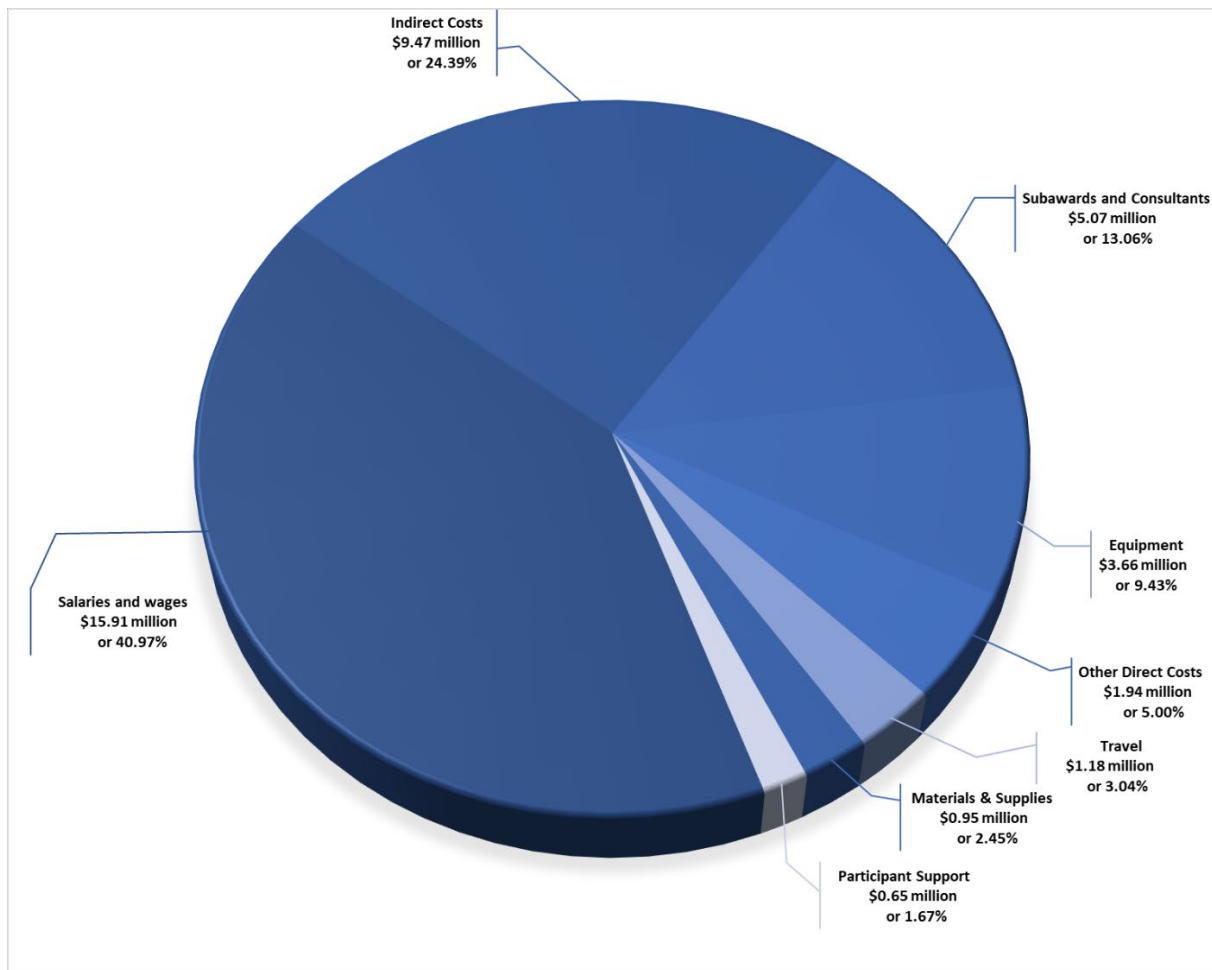
The NSF Office of Inspector General conducts audits, investigations, and other reviews to prevent and detect fraud, waste, and abuse. Each year, NSF OIG conducts several audits to determine whether awardees comply with the financial and administrative terms and conditions of their awards and agreements. These include audits of grants, contracts, and cooperative agreements that NSF has awarded to various types of institutions.

WithumSmith+Brown, PC, under contract with NSF OIG, conducted an audit survey of the costs claimed by Temple University (Temple) on NSF awards between February 1, 2016, and January 31, 2019. Temple is a public institution with history dating to 1884; its mission is to create knowledge through teaching, research, and other endeavors. In FY 2018, Temple reported \$128.2 million of total Research and Development expenditures, of which NSF funded \$14.6 million.

Between February 1, 2016, and January 31, 2019, Temple claimed approximately \$39 million of costs on 210 NSF awards. See Figure 1 for an analysis of these costs by budget category.

¹ *National Science Foundation Act of 1950*, Pub. L. No. 81-507

Figure 1. Costs Claimed by NSF Budget Category, February 1, 2016, to January 31, 2019



Source: Auditor summary of accounting data provided by Temple

Results of Audit Survey

During the survey phase of this engagement, we became familiar with Temple's internal controls, processes, policies, and applicable Federal regulations and selected a limited judgmental sample of 27 transactions. This sample was used to assist in the evaluation of the control environment across various budget areas, and to ensure that the expenditures were in accordance with Federal guidelines.

In our testing, we identified two transactions totaling \$5,969 of questioned costs charged to two NSF awards. Improved oversight is needed in two areas to ensure costs claimed are reasonable, necessary, and in accordance with Federal and NSF award requirements. The two areas are: 1) \$4,524 for a purchase near the award expiration; and 2) \$1,445 in unallocable travel. See Appendix C for a schedule of questioned costs by award.

Based on the positive aspects of the internal control system, lack of reconciliation issues, minimal questioned costs, and the limited NSF expenditures over the 3-year period, we recommended terminating the audit at the completion of the survey phase. NSF OIG accepted this recommendation.

Finding 1: Purchase Near the Award Expiration

We questioned \$4,524 for a purchase near the end of the award period for items that did not appear reasonable, necessary, or allocable to the award charged and was not in compliance with NSF requirements.

Materials and Supplies Purchased and Received at the End of the Award

We identified one transaction, charged to one award, totaling \$4,524 for the purchase of battery cyclers near the end of the award expiration that did not appear reasonable or allocable² to the NSF award charged, as shown in Table 1.

Table 1. Questioned Transaction Near the Award Expiration

Description	Questioned Invoice	Questioned F&A	Questioned Total	Days Remaining	Temple Agreed to Reimburse
Battery Cyclers	\$ 2,900	\$ 1,624	\$ 4,524	3	\$ 4,524

Source: Auditor analysis of questioned transactions

These items were charged to the NSF award, when the award received little, if any, benefit during the award period of performance. The timing of the purchase, and subsequent receipt of the items, lead us to conclude that the purchase was not necessary, reasonable, fully allocable, or prudent for the administration of the award. Specifically, the battery cyclers were purchased June 14, 2017, and delivered on June 27, 2017, on an award that expired June 30, 2017.

Per Temple, the award was for the development of solid battery electrolytes. To complete the final assessment, the purchased battery cyclers were required. As such, Temple felt that this purchase was essential and necessary, even at the end of the award.

However, according to the NSF policies, a “grantee should not purchase items of equipment, computing devices, or restock materials and supplies in anticipation of grant expiration where there

² According to 2 CFR Part 220, Appendix A, §C.2 and C.3, costs “must be reasonable; they must be allocable to sponsored agreements Major considerations involved in the determination of the reasonableness of a cost are: whether or not the cost is of a type generally recognized as necessary for the operation of the institution or the performance of the sponsored agreement....” Additionally, according to 2 CFR Part 220, Appendix A, §C.4, “[a] cost is allocable to a particular cost objective (i.e., a specific function, project, sponsored agreement, department, or the like) if the goods or services involved are chargeable or assignable to such cost objective in accordance with relative benefits received....”

is little or no time left for such items to be utilized in the actual conduct of the research.”³ The battery cyclers were available for less than 1 percent of the award period (3 out of 1,081 days).

Temple personnel did not adequately review this questioned expenditure, which resulted in unreasonable costs. Additional oversight procedures should be adopted to review expenditures charged near the end of the award period. Having improved oversight processes will help ensure costs are reasonable and allowable, thus reducing the risk that funds may not be used as required to accomplish the necessary project objectives in accordance with Federal and NSF requirements. Temple has agreed to remove the \$4,524 of the questioned costs from the award.

Recommendations

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

1. Direct Temple to provide support that it has credited or repaid the \$4,524 of questioned material and supply costs.
2. Direct Temple to strengthen the administrative and management procedures over expenditures near the end of an award. Processes could include requiring Temple to review all materials and supplies purchased during the final 90 days of an award’s period of performance to evaluate whether the costs are allocable in accordance with all relevant Federal and sponsor-specific regulations before charging the expenses to a sponsored project.

Awardee Response

Temple agrees with this finding. See Appendix A for the complete Temple response.

Auditor’s Additional Comments

Temple’s comments are responsive to this finding. Once NSF determines the recommendations have been adequately addressed and the \$4,524 in questioned costs have been resolved, this finding should be closed.

Finding 2: Unallocable Travel

We questioned \$1,445 in travel costs that did not appear to be allocable, reasonable, or necessary for the award charged and were not in compliance with NSF requirements.

Travel Was Not Allocable

We questioned one transaction, charged to one award, totaling \$1,445, for travel expenses that did

³ *NSF Proposal and Award Policies and Procedures Guide* (NSF-14-1), Part II, Award & Administration Guide, Chapter V.A.2c

not appear to be necessary, reasonable, or allocable for the administration of the award.⁴

Specifically, we noted \$1,445 for travel expenses for the Principal Investigator (PI) to attend a conference held from June 14 to 16, 2011, in █████, █████. While in █████, the PI charged lodging and per diem to the award from June 11 to 18, 2011. The expenses include 8 days of per diem and lodging for the 3-day conference. Based on the conference dates, we question the benefit to the award for two of the nights prior to the conference (June 11 and 12) and a night after the conference (June 17). The documentation provided by Temple was insufficient to support the allocability of the additional nights charged to the NSF award. Therefore, we question \$1,355 for 3 nights of lodging and per diem that did not benefit the award. Additionally, the PI charged 100 percent of per diem on the first and last day of travel when only 75 percent should have been charged; therefore, we question the difference. See Table 2 for a summary of the unallocable travel.

Table 2. Questioned Unallocable Travel

Description	Questioned Invoice	Questioned F&A	Questioned Total	Temple Agreed to Reimburse
Lodging (June 11, 12, and 17)	\$ 524	\$ 293	\$ 817	\$ 817
Per diem (June 11, 12, and 17)	345	193	538	538
25 percent of per diem (June 13 and 18)	58	32	90	90
Total Questioned	\$927	\$ 518	\$ 1,445	\$ 1,445

Source: Auditor analysis of questioned transactions

Per Temple, the PI met with a potential collaborator a couple of days before and after the conference to exchange ideas and to discuss the possibility of working together. However, no documentation was provided to support the benefit to the award.

Temple personnel did not adequately review this questioned expenditure, which resulted in unallocable costs. Additional oversight procedures should be adopted to review and document travel expenditures. Having improved oversight processes will help ensure costs are reasonable and allocable, thus reducing the risk that funds may not be used as required to accomplish the necessary project objectives in accordance with Federal and NSF requirements. Temple has agreed to remove the \$1,445 of the questioned costs from the award.

Recommendations

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

⁴ According to 2 CFR Part 220, Appendix A, §C.2 and C.3, costs “must be reasonable; they must be allocable to sponsored agreements Major considerations involved in the determination of the reasonableness of a cost are: whether or not the cost is of a type generally recognized as necessary for the operation of the institution or the performance of the sponsored agreement....” Additionally, according to 2 CFR Part 220, Appendix A, §C.4, “[a] cost is allocable to a particular cost objective (i.e., a specific function, project, sponsored agreement, department, or the like) if the goods or services involved are chargeable or assignable to such cost objective in accordance with relative benefits received....”

1. Direct Temple to provide support that it has credited or repaid the \$1,445 of questioned travel costs.
2. Direct Temple to strengthen the administrative and management procedures over travel expenditures. Processes could include requiring Temple to review all travel days before and after conference dates to evaluate the allocability to the award in accordance with all relevant Federal regulations before charging the expenses to a sponsored project.

Awardee Response

Temple agrees with this finding. See Appendix A for the complete Temple response.

Auditor's Additional Comments

Temple's comments are responsive to this finding. Once NSF determines the recommendations have been adequately addressed and the \$1,445 in questioned costs have been resolved, this finding should be closed.

A handwritten signature in blue ink that reads 'Withum Smith+Brown, PC'.

July 24, 2020

Appendix A: Awardee Response



1801 N. Broad Street
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Phone: 215-204-6875
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**Office of the Vice President
for Research**

July 1, 2020

Eric Strauss
Partner
WithumSmith + Brown

Reference: Temple Response to Draft Report on the Performance Audit Survey of Incurred Costs

Dear Mr. Strauss:

On behalf of the NSF OIG, WithumSmith+Brown conducted an audit survey of the costs claimed by Temple on NSF awards between February 1, 2016 and January 31, 2019. During the audit period, Temple claimed approximately \$39 million of costs. The audit resulting in two questioned costs totaling \$5,696.

Below please find Temple's response to the two questioned costs.

Finding 1: Purchase Near the Award Expiration

Withum questioned \$4,524 for a purchase near the end of the award period for items that did not appear reasonable, necessary, or allocable to the award charged and was not in compliance with NSF requirements.

Temple's Response to the Questioned Cost

Withum identified one transaction, charged to one award, totaling \$4,524 for the purchase of battery cyclers near the end date of the project. The Principal Investigator used the batter cyclers exclusively for the NSF award as the final test of practical viability of the materials generated under the award. Given the timing of the purchase, a request to extend the project for a short duration should have been requested.

Temple agrees that this cost should not be charged to the project, and it was removed from the project on August 29, 2017. As such, NSF was not charged for this equipment once the final closeout, reconciliation, and draw was complete.

We still plan to strengthen our internal controls, as outlined below, to minimize purchases near the end date.

Temple's Plan to Mitigate Future Purchases Near the End Date

Temple has a thorough closeout process that reviews grant expenditures prior to the submission of the final report or invoice. This includes a review of fringe and indirect calculations, expenses in unallowable categories or that deviate from the sponsor budget, and expenses after the end date, for example. Adjustments are made prior to submission of the report or invoice and the final balance is approved by the Principal Investigator.

Equipment purchases over \$5,000 require an additional layer of approval from Research Administration, and a purchase close to the end date would be questioned and denied if not allowed by the sponsor.

To ensure equipment purchases under \$5,000 are not charged near the end date of the project, Temple has revised the closeout packet to include expenses charged to all equipment codes within 90 days of the project end date. The Principal Investigator will be asked to remove those expenses or provide a justification as to how it benefited the project within the project period timeline. Research Administration will evaluate whether the justification is reasonable, and will request prior approval from the sponsor when needed.

Furthermore, prior to the end date of award, the Principal Investigator receives a notification that serves as a reminder to request a no-cost extension, should one be needed. This notification will be revised to include language that should any work be performed after the sponsor approved project end date, and there is no continuation award, a no cost extension should be requested to align with the work performed.

Finding 2: Unallocable Travel

Withum questioned \$1,445 in travel costs that did not appear to be allocable, reasonable, or necessary for the award charged and were not in compliance with NSF requirements.

Temple's Response to the Questioned Cost

While the travel days prior to and after the conference may have been appropriate and benefited the project, Temple agrees that there is not sufficient supporting documentation of the collaboration and benefit to the project. As such, we will be removing the questioned travel costs from the award, and subsequently will return the funds to NSF.

Temple's Plan to Mitigate Future Unallocable Travel

Reimbursement for travel expenses includes a multi-level approval. The Office of the Vice President (OVPR) meets with the department business managers regularly to review sponsor regulations and requirements. As the business manager reviews and approves travel reimbursement and receipts, we have discussed with them of the need to limit conference travel to the dates of the conference. If additional travel is needed for collaboration, this should be established in advance of the trip and documentation of the meeting and outcome is required.

Furthermore, during the closeout process outlined above, any deviation from the budget related to travel would be questioned and a justification will be required. For extended trips, we will ensure proper documentation is in place to substantiate the travel costs.

Thank you for your consideration of Temple's response. If you have any questions or need additional documentation, please contact Allison Shah at 312-714- [REDACTED] or Allison.shah@temple.edu.

Sincerely,

[REDACTED]

Allison Shah
Associate Vice President for Research Administration
Temple University
Allison.shah@temple.edu

Appendix B: Objectives, Scope, Methodology, and Criteria

Objectives

The NSF OIG Office of Audits engaged WithumSmith+Brown, PC to conduct an audit survey. The objectives of the audit survey were to evaluate Temple's award management environment to determine whether additional audit work was warranted, and to perform any additional audit work, as determined appropriate.

Scope

The survey phase included assessing the allowability, allocability, and reasonableness of costs claimed by Temple through the Award Cash Management Service for the 3-year period beginning February 1, 2016, through January 31, 2019. All award transactions comprising all costs claimed to NSF during this period were obtained from Temple. This provided a universe of \$38,832,661, with more than 43,000 transactions, across 210 individual NSF awards. For transaction testing, we judgmentally selected 27 transactions, totaling \$203,800, and used a data analytics approach to identify potential risk areas and to select a limited judgmental sample across a variety of expense types and budget categories.

The audit survey work was conducted at the auditors' offices and onsite at Temple in Philadelphia, PA. Onsite fieldwork was conducted in October 2019. At the conclusion of our fieldwork, we provided a summary of our survey results to NSF OIG personnel for review. We also provided the summary of questioned costs to Temple personnel to ensure that they were aware of each issue and did not have additional documentation or information to provide to support the questioned costs.

Temple management is responsible for establishing and maintaining effective internal control to help ensure that Federal award funds are used in compliance with laws, regulations, and award terms. In planning and performing our audit survey, we considered Temple's internal control solely to understand the policies and procedures relevant to the financial reporting and administration of NSF awards. We also evaluated Temple's compliance with laws, regulations, and award terms applicable to the items selected for testing, but not to express an opinion on the effectiveness of Temple's internal control over award financial reporting and administration. Accordingly, we do not express an opinion on the effectiveness of Temple's internal control over its award financial reporting and administration.

Methodology

At our request, Temple provided detailed transaction data for all costs charged to NSF awards between February 1, 2016, through January 31, 2019. Per the approved survey plan, we reviewed available accounting and administration policies and procedures, relevant documented management initiatives, previously issued external audit reports and desk review reports, and schedules and reconciliations prepared by Temple and verified them against supporting accounting records.

We assessed the reliability of the data provided by Temple by 1) comparing costs charged to NSF award accounts within Temple's accounting records to net expenditure drawdowns submitted to the Award Cash Management Service for the defined period; 2) performing general ledger to sub-ledger reconciliations of accounting data; and 3) reviewing and testing the parameters Temple used to extract transaction data from its accounting records and systems. Based on our review, we found Temple's computer-processed data sufficiently reliable for the purposes of this audit survey.

We reviewed NSF's computer-processed data and found it to be sufficiently reliable for the purposes of this audit survey. We did not review or test whether the data contained in, or controls over, NSF's databases were accurate or reliable; however, the independent auditor's report on NSF's financial statements for fiscal years 2016, 2017, and 2018 found no reportable instances in which NSF's financial management systems did not substantially comply with applicable requirements.

We conducted onsite walk-throughs and interviews to gain an understanding of Temple's systems, processes, policies, and procedures. These interviews and walk-throughs were planned to assess the design of the controls and Temple's ability to detect, deter, and prevent errors and irregularities.

We selected a limited judgmental sample of 27 items across a variety of expense types and budget categories. The transactions identified for testing were provided to Temple, with a request for the documentation to support each transaction. We reviewed the supporting documentation provided by Temple and evaluated the allowability, allocability, and reasonableness of each transaction. When necessary, we requested additional supporting documentation. We also obtained explanations and justifications from knowledgeable personnel until we had sufficient support to assess the allowability, allocability, and reasonableness of each transaction.

Based on the positive aspects of the internal control system, lack of reconciliation issues, minimal questioned costs, and the limited NSF expenditures over the 3-year period, we recommended terminating the audit after the survey phase's completion. NSF OIG accepted our recommendation.

This performance audit survey was conducted in accordance with *Generally Accepted Government Auditing Standards*. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for the conclusions based on the audit objective. The auditors believe that the evidence obtained provides a reasonable basis for the conclusions based on the audit objectives.

Criteria

We assessed if Temple's compliance with its internal policies and procedures, as well as the following:

- 2 CFR Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*
- 2 CFR Part 220, *Cost Principles for Educational Institutions* (Office of Management and Budget Circular A-21)

- 2 CFR Part 215, *Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations* (Office of Management and Budget Circular A-110)
- *NSF Proposal and Award Policies and Procedures Guide* (includes the *Grant Proposal Guide* and *Award and Administration Guide*)
- NSF Award Specific Terms and Conditions
- NSF Federal Demonstration Partnership Research Terms and Conditions

Appendix C: Questioned Costs Summary by Award

Award Number	Direct Costs Questioned	Indirect Costs Questioned	Total Questioned	Total Unsupported
Finding 1: Purchases Near Award Expiration				
██████	\$ 2,900	\$ 1,624	\$ 4,524	\$ --
Finding 2: Unallocable Travel				
██████	927	518	1,445	--
Total	\$ 3,827	\$ 2,142	\$ 5,969	\$ --



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