

# Performance Audit of Incurred Costs – Tennessee State University

NATIONAL SCIENCE FOUNDATION  
OFFICE OF INSPECTOR GENERAL

July 20, 2021  
OIG 21-1-017





## AT A GLANCE

### Performance Audit of Incurred Costs – Tennessee State University

Report No. OIG 21-1-017

Date July 20, 2021

#### AUDIT OBJECTIVE

We conducted a performance audit of incurred costs at Tennessee State University. The objective of this audit was to determine if costs claimed were allowable, allocable, reasonable, and in compliance with NSF award terms and conditions and applicable federal requirements.

#### AUDIT RESULTS

We identified instances of noncompliance with certain federal regulations, NSF policies, and university policies. Specifically, we questioned \$155,432 in direct and indirect costs claimed by TSU, including:

- \$121,797 of unsupported costs;
- \$16,885 of inappropriately allocated expenses;
- \$15,811 of inappropriately treated participant support costs; and
- \$939 of unsupported Award Cash Management Service draws.

We also identified one internal control finding and made associated recommendations to improve the information captured in time and effort reports and ensure the timely certification of these reports.

Please see Appendix C for a description of the questioned costs by finding.

#### RECOMMENDATIONS

We made 13 recommendations for NSF to resolve the questioned costs and to ensure TSU strengthens its administrative and management controls and processes.

#### AUDITEE RESPONSE

TSU expressed varying levels of agreement and disagreement with the findings throughout the report. TSU's response is attached in its entirety to the report as Appendix A.

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




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

**MEMORANDUM**

**DATE:** July 20, 2021

**TO:** Dale Bell  
Director  
Division of Institution and Award Support

Jamie French  
Director  
Division of Grants and Agreements

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

**SUBJECT:** Report No. 21-1-017, *Performance Audit of Incurred Costs – Tennessee State University*

Attached is the final report for the audit of costs charged by Tennessee State University (TSU) to its sponsored agreements with the National Science Foundation. This report includes 13 recommendations. We have included TSU's complete response to the report as an appendix.

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.

We appreciate the courtesies and assistance that was extended during this audit. If you have any questions regarding this report, please contact Keith Nackerud, Audit Manager, at 703.292.7100 or [oigpublicaffairs@nsf.gov](mailto:oigpublicaffairs@nsf.gov).

cc: Anneila Sargent	Judy Hayden	Victor McCrary	Ken Lish
John Veysey	Teresa Grancorvitz	Carrie Davison	Keith Nackerud
Ann Bushmiller	Kim Silverman	Karen Marrongelle	Billy McCain
Christina Sarris	Alex Wynnyk	Allison Lerner	Jae Kim
Fleming Crim	Rochelle Ray	Lisa Vonder Haar	Jennifer Kendrick
Judy Chu	Ellen Ochoa	Ken Chason	Louise Nelson
		Dan Buchtel	Karen Scott



## TABLE OF CONTENTS

Background .....	1
Audit Results .....	1
Finding 1: Unsupported Costs .....	2
Recommendations .....	3
Finding 2: Inappropriately Allocated Expenses .....	4
Recommendations .....	6
Finding 3: Inappropriate Treatment of Participant Support Costs .....	7
Recommendations .....	8
Finding 4: Unsupported Award Cash Management Service Draws.....	9
Recommendations .....	10
Finding 5: Inadequate Internal Controls Over Time and Effort Reporting.....	10
Recommendations .....	11
Appendix A: TSU’s Response .....	13
Appendix B: Objective, Scope, and Methodology .....	17
Appendix C: Summary of Questioned Costs by Finding .....	18

## ABBREVIATIONS

OMB	Office of Management and Budget
PAPPG	Proposal and Award Policies and Procedures Guide
PI	Principal Investigator



## Background

The National Science Foundation (NSF) is an independent federal agency created by Congress in 1950 “[t]o promote the progress of science; to advance the national health, prosperity, and welfare; and to secure the national defense” (Pub. L. No. 81-507). NSF is the funding source for approximately 24 percent of all federally supported basic research conducted by America’s colleges and universities. Each year, NSF supports an average of about 200,000 scientists, engineers, educators, and students at universities, laboratories, and field sites throughout the United States and the world.

The NSF Office of Inspector General (OIG) provides independent oversight of the agency’s programs and operations. Part of our mission is to conduct audits and investigations to prevent and detect fraud, waste, and abuse. In support of this mission, we conducted an audit of Tennessee State University (TSU) to determine if costs claimed were allowable, allocable, reasonable, and in compliance with NSF award terms and conditions and applicable federal financial assistance requirements. TSU is a public university located in Nashville, Tennessee. TSU had 27 NSF awards valued at \$15.5 million as of May 21, 2019. This audit focused on the approximately \$5.9 million in funds TSU drew down on 11 NSF awards through NSF’s Award Cash Management Service, during the period June 1, 2014, to July 25, 2019.

We communicated the results of our audit and the related findings and recommendations to TSU. We included TSU’s response to this report in its entirety as Appendix A.

## Audit Results

We tested 80 transactions, which represented \$305,526 in direct costs that TSU charged to NSF awards during the audit period. We determined that TSU needs improved oversight of the allocation and documentation of expenses charged to NSF awards. Improved oversight will help TSU ensure costs claimed are reasonable, allocable, allowable, and in accordance with all federal and NSF regulations, award terms and conditions, and TSU policies.

Additionally, we identified \$155,432 of questioned direct and indirect costs that TSU inappropriately claimed during the audit period, including:

- \$121,797 of unsupported costs;
- \$16,885 of inappropriately allocated expenses;
- \$15,811 of inappropriately treated participant support costs; and
- \$939 of unsupported Award Cash Management Service draws.

We also identified one internal control finding and made associated recommendations related to improving the information captured in time and effort reports and ensuring the timely certification of these reports.

We provide a description of the questioned costs by finding in Appendix C of this report.



## Finding 1: Unsupported Costs

TSU did not provide sufficient support for \$121,797 of costs on four NSF awards. Specifically, TSU lacked support for \$66,169 of stipend charges and \$55,628 of payroll charges.

### *Unsupported Stipend Costs*

TSU did not provide adequate documentation to support 11 stipends charged to NSF award No. [REDACTED].

Although TSU provided authorization forms to credit student accounts, TSU did not provide documentation to establish the appropriate amount or nature of these stipends as participant support costs, employment payments, or scholarships. Therefore, we questioned the direct and indirect costs associated with these 11 stipend charges<sup>1</sup> as shown in Table 1a.

**Table 1a. Summary of Unsupported Stipends**

NSF Award No.	Questioned Costs			TSU Agreed to Reimburse
	Direct	Indirect	Total	
[REDACTED]	\$20,550	\$ 8,631	\$29,181	\$ 8,631
[REDACTED]	\$ 8,713	\$ 3,659	\$12,372	\$ 3,659
[REDACTED]	\$ 5,500	\$ 2,310	\$ 7,810	\$ 2,310
[REDACTED]	\$ 3,000	\$ 1,260	\$ 4,260	\$ 1,260
[REDACTED]	\$ 2,500	\$ 1,050	\$ 3,550	\$ 1,050
[REDACTED]	\$ 2,500	\$ 1,050	\$ 3,550	\$ 1,050
[REDACTED]	\$ 1,000	\$ 420	\$ 1,420	\$ 420
[REDACTED]	\$ 1,000	\$ 420	\$ 1,420	\$ 420
[REDACTED]	\$ 945	\$ 397	\$ 1,342	\$ 397
[REDACTED]	\$ 540	\$ 227	\$ 767	\$ 227
[REDACTED]	\$ 350	\$ 147	\$ 497	\$ 147
<b>Total</b>	<b>\$46,598</b>	<b>\$19,571</b>	<b>\$66,169</b>	<b>\$ 19,571</b>

*Source: Auditor analysis of stipends costs*

### *Unsupported Payroll Costs*

Further, TSU did not provide time and effort reports to support 11 payroll charges. Although TSU provided various employee appointment forms to the auditors, these documents were not adequate to support the payroll charges or establish the allocability of the charges. TSU uses time and effort reports

<sup>1</sup> According to 2 CFR § 200.403(c), costs must be “consistent with policies and procedures that apply uniformly to both Federally-financed and other activities of the non-Federal entity” and 2 CFR 200.403(g), states that costs must be, “adequately documented.”



to support the documentation requirements of federal regulation<sup>2</sup> and are required by TSU policies.<sup>3</sup> We questioned the 11 payroll transactions that TSU did not support with time and effort reports, as shown in Table 1b.

**Table 1b. Summary of Unsupported Salary Costs**

NSF Award No.	Questioned Costs				TSU Agreed to Reimburse
	Direct	Fringe Benefits	Indirect	Total	
[REDACTED]	\$ 10,000	\$ 2,249	\$ 5,144	\$ 17,393	\$ 0
[REDACTED]	\$ 5,500	\$ 903	\$ 2,689	\$ 9,092	\$ 0
[REDACTED]	\$ 3,096	\$ 237	\$ 1,400	\$ 4,733	\$ 0
[REDACTED]	\$ 2,500	\$ 567	\$ 1,288	\$ 4,355	\$ 0
[REDACTED]	\$ 2,500	\$ 441	\$ 1,235	\$ 4,176	\$ 0
[REDACTED]	\$ 2,000	\$ 453	\$ 1,030	\$ 3,483	\$ 0
[REDACTED]	\$ 2,000	\$ 29	\$ 852	\$ 2,881	\$ 0
[REDACTED]	\$ 2,000	\$ (44) <sup>4</sup>	\$ 840	\$ 2,840	\$ 0
[REDACTED]	\$ 2,000	\$ 0	\$ 840	\$ 2,840	\$ 0
[REDACTED] <sup>5</sup>	\$ 1,580	\$ 121	\$ 714	\$ 2,415	\$ 2,415
[REDACTED]	\$ 1,000	\$ 0	\$ 420	\$ 1,420	\$ 0
<b>Total</b>	<b>\$ 34,176</b>	<b>\$ 5,000</b>	<b>\$16,452</b>	<b>\$ 55,628</b>	<b>\$ 2,415</b>

*Source: Auditor analysis of payroll costs*

TSU has policies and procedures in place to ensure it documents and adequately supports costs it charges to federal awards. However, TSU did not follow its policies and procedures, resulting in \$121,797 in questioned costs. TSU agreed to return \$21,986 of questioned costs to NSF but disagreed with the remaining \$99,811 in questioned costs, as illustrated in Tables 1a and 1b.

## Recommendations

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

<sup>2</sup> 2 CFR § 200.430(h)(8)(i), states that “Charges to Federal awards for salaries and wages must be based on records that accurately reflect the work performed.”

<sup>3</sup> According to the TSU Time and Effort Reporting policy, all faculty and staff whose salary is charged to federally sponsored projects must complete and submit time and effort reports. In addition, the TSU Graduate Assistant Handbook REVISED 209.201 policy states that it is the Supervisor’s responsibility to certify and approve/sign graduate assistants’ time and effort reports.

<sup>4</sup> TSU adjusted the fringe benefit; therefore, we did not include the fringe benefit in the questioned cost calculation.

<sup>5</sup> This cost was transferred from NSF award [REDACTED] to NSF award [REDACTED]. Although award [REDACTED] was not in the original audit scope, the questioned cost was sampled from NSF award [REDACTED] which is in the audit scope.



1. Resolve the \$99,811 in questioned unsupported stipend and payroll costs, and direct TSU to repay or otherwise remove the sustained questioned costs from its NSF awards.
2. Direct TSU to provide documentation supporting that it has repaid or otherwise credited the \$21,986 in questioned unsupported stipend and payroll costs, for which it has agreed to reimburse NSF.
3. Direct TSU to strengthen the administrative and management controls and processes over obtaining and maintaining sufficient supporting documentation.

### Summary of TSU's Response

TSU believes that the unsupported stipends are valid participant support costs, but that these costs were inappropriately charged to the operations fund, there by accruing indirect costs. TSU stated that the costs should have been charged to the participant support fund that does not accrue indirect costs. As a result, TSU agreed that \$19,571 of indirect costs should not have been charged to the award and agreed to return the \$19,571 to NSF. Regarding the unsupported salary costs, TSU believes that 10 of the 11 payroll transactions are allowable, allocable, and reasonable. TSU believes that the time and effort reports were completed as required but due to staffing and personnel changes, the original reports could not be located. For the one remaining unsupported salary cost, TSU agreed to return the \$2,415 to NSF.

### OIG Comments

OIG's position regarding the unsupported stipend and salary costs has not changed. TSU did not provide documentation to validate its claim that the costs charged to the award were participant support costs and has not provided the student attendance sheets referenced in their response. Based on the documentation TSU provided, it was not possible to establish what the stipend payment amounts were based on or whether the payment amounts were related to participant support, employment, or scholarships. Regarding the unsupported salary, TSU was unable to provide documentation to support the salary charges. Because federal regulations require costs to be adequately documented and supported, OIG's position has not changed.

## Finding 2: Inappropriately Allocated Expenses

TSU allocated \$16,885 of expenses to four NSF awards that did not receive proportional benefits from the costs charged. Of this amount, \$11,371 related to charges for equipment and supply costs, \$2,797 related to payroll costs, and \$2,717 related to unallowable general ledger costs. Federal regulations<sup>6</sup> and NSF policy<sup>7</sup> require expenses to be allocated to awards based on the benefit that the award receives.

<sup>6</sup> According to 2 CFR § 200.403(a), a cost must be necessary, reasonable and allocable to be allowable under a federal award. In addition, according to 2 CFR § 200.405(a), "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 the relative benefits received."

<sup>7</sup> PAPPG 15-1, Part II, Chapter V.A.2.c states in part that award recipients typically should not purchase items of equipment, computing devices, or restock materials and supplies in anticipation of the end date of the grant where there is little or no time left for such items to be utilized in the actual conduct of the research. \_\_\_\_\_





### *Equipment Inappropriately Allocated*

TSU charged NSF award [REDACTED] for \$11,371 in expenses it incurred to purchase equipment & supplies near the award's expiration date. TSU had little time to use the purchases on the awards charged and should not have allocated the full costs of the items to the awards. Specifically:

- On July 14, 2018, TSU purchased a Dell workstation for \$8,832, and two Dell monitors for \$435 and \$290, respectively. TSU charged the full costs of these purchases to NSF award No. [REDACTED]. The Principal Investigator (PI) stated that his previous workstation failed in June 2018, but acknowledged that he used the new workstation for multiple projects. As the workstation and monitors were delivered on July 20, 2018, and the NSF award expired on August 31, 2018, the purchases were only available for 3 percent of the award period (42 of 1,095 days).<sup>8</sup> As such, it was not appropriate to allocate the full costs of the workstation and monitors to the award.
- On July 30, 2018, TSU purchased a Dell computer for \$1,536 and allocated the full expense to NSF award No. [REDACTED]. As the computer was delivered on August 6, 2018, and the NSF award expired on August 31, 2018, the computer was only available for 2 percent of the award period (25 of 1,095 days).<sup>9</sup> As such, it was not appropriate to allocate the full cost of the computer to the award.

### *Payroll Inappropriately Allocated*

TSU also charged NSF award No. [REDACTED] and No. [REDACTED] for \$2,797 of unallocable payroll expenses. Specifically:

- TSU allocated \$1,420 of payroll costs to NSF award No. [REDACTED] in October 2018. However, during this time period, the time and effort report supporting the student's effort indicated that the student was fully committed to NSF award No. [REDACTED].
- TSU allocated \$812 in salary costs to NSF award No. [REDACTED]. TSU charged 32.26% of an employee's effort to the award rather than the correct allocation of 28.07% that was supported by the time and effort report. This resulted in a charge of \$6,250 instead of \$5,438 causing an inappropriate allocation of \$1,377, including \$812 of direct costs, \$158 of associated fringe benefits, and \$407 of associated indirect costs.

### *Unallocable General Ledger Costs*

Additionally, TSU charged NSF award No. [REDACTED] \$2,717 in costs that did not benefit the award. Specifically, TSU charged –

<sup>8</sup> NSF award No. [REDACTED]'s period of performance was from September 1, 2015 to August 31, 2018.

<sup>9</sup> NSF award No. [REDACTED]'s period of performance was from September 1, 2015 to August 31, 2018.



- \$1,420 in stipend costs that did not benefit the NSF award;
- \$1,119 in meals that were not allowable on NSF awards; and
- \$178 in application costs that did not benefit the NSF award.

TSU has policies and procedures in place to ensure that it properly allocates costs to the benefitting award. However, TSU did not follow its policies and procedures, resulting in \$16,885 of questioned direct and indirect costs charged to NSF awards. TSU agreed to return \$5,514 but disagreed with the remaining \$11,371 in questioned costs, as illustrated in Table 2.

**Table 2. Summary of Inappropriately Allocated Expenses**

NSF Award No.	Questioned Costs				TSU Agreed to Reimburse
	Direct	Fringe Benefits	Indirect	Total	
	\$ 8,493	N/A	\$ 0	\$ 8,493	\$ 0
	\$ 1,536	N/A	\$ 645	\$ 2,181	\$ 0
	\$ 418	N/A	\$ 0	\$ 418	\$ 0
	\$ 279	N/A	\$ 0	\$ 279	\$ 0
	\$ 1,000	\$ 0	\$ 420	\$ 1,420	\$ 1,420
	\$ 812	\$ 158	\$ 407	\$ 1,377	\$ 1,377
	\$ 1,000	N/A	\$ 420	\$ 1,420	\$ 1,420
	\$ 788	N/A	\$ 331	\$ 1,119	\$ 1,119
	\$ 125	N/A	\$ 53	\$ 178	\$ 178
<b>Total</b>	<b>\$14,451</b>	<b>\$ 158</b>	<b>\$ 2,276</b>	<b>\$16,885</b>	<b>\$ 5,514</b>

*Source: Auditor analysis of TSU equipment and materials and supplies costs*

## Recommendations

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

1. Resolve the \$11,371 in inappropriately allocated equipment costs, and direct TSU to repay or otherwise remove the sustained questioned costs from its NSF awards.
2. Direct TSU to provide documentation supporting that it has repaid or otherwise credited the \$5,514 in questioned payroll and general ledger costs, for which it has agreed to reimburse NSF.
3. Direct TSU to strengthen its administrative and management controls and processes over the proper allocation of costs.



## Summary of TSU's Response

Regarding the equipment costs, TSU believes that 100% of the equipment costs were allocable to the award charged because the equipment was necessary to carry out the objectives of the award. Regarding the payroll and general ledger costs, TSU agreed to return the \$5,514 to NSF.

## OIG Comments

OIG's position regarding the inappropriately allocated equipment costs has not changed. Although TSU stated that the equipment was necessary to carry out the award objectives, the equipment was only available for 3 percent and 2 percent of the award, respectively. As the cost of the equipment was not allocated based on the relative benefits received, we continue to question the 100% allocation of the costs to the award.

## Finding 3: Inappropriate Treatment of Participant Support Costs

TSU inappropriately used \$15,811 in funding provided for participant support costs from three NSF awards to cover non-participant expenses.<sup>10</sup> Specifically:

- On June 27, 2016, TSU used \$9,200 of funding budgeted for participant support costs under NSF award No. [REDACTED] to purchase four Dell computers;
- On April 5, 2016, TSU used \$3,000 of funding budgeted for participant support costs under NSF award No. [REDACTED] to purchase 2 NP-View Software Licenses and 5 hours of training for the software;
- On November 18, 2015, TSU used \$1,720 of funding budgeted for participant support costs under NSF award No. [REDACTED] to purchase ten USB devices with connectors;
- On November 4, 2016, TSU used \$681 of funding budgeted for participant support costs under NSF award No. [REDACTED] to purchase food and utensils for a STEM faculty luncheon;
- On September 15, 2016, TSU used \$545 of funding budgeted for participant support costs under NSF award No. [REDACTED] for a TSU employee's payroll costs;
- On June 29, 2016, TSU paid a high school student \$1,000 for participation in summer research that should have been charged to participant support. However, TSU inappropriately charged the \$1,000 to the operations fund of NSF award No. [REDACTED] and inappropriately recovering \$420 in associated indirect costs<sup>11</sup>; and

<sup>10</sup> NSF PAPPGs 15-1 and 16-1, Part I, Chapter II, Section C.2.g.(v) state that participant support costs are direct costs for items such as stipends or subsistence allowances, travel allowances, and registration fees that the grantee paid to or on behalf of participants or trainees (but not employees) in connection with NSF-sponsored conferences or training projects. Funds provided for participant support may not be used for other categories of expense without specific prior NSF written approval. Additionally, 2 CFR § 200.1 states that participant support costs are 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.

<sup>11</sup> NSF PAPPGs 15-1 and 16-1, Part I, Chapter II, Section C.2.g.(v) state any additional categories of participant support costs other than those described in 2 CFR § 200.75, such as incentives, gifts, souvenirs and memorabilia, must be justified in the budget justification, and such costs will be closely scrutinized by NSF. \_\_\_\_\_



- In September of 2016 TSU used \$245 of participant support cost funding under NSF award No. [REDACTED] to purchase gift cards and lanyards. However, TSU did not justify these gifts and promotional materials in its proposal, as required by NSF<sup>12</sup>.

TSU does not have sufficient policies and procedures or internal controls in place to ensure that it treats participant support costs appropriately and to prevent assessing indirect costs to participant support costs, resulting in \$15,811 in questioned costs. TSU agreed to return \$420 but disagreed with the remaining \$15,391 in questioned costs, as illustrated in Table 3.

**Table 3. Summary of Inappropriately Treated Participant Support Costs**

NSF Award No.	Questioned Costs			TSU Agreed to Reimburse
	Direct	Indirect	Total	
[REDACTED]	\$ 9,200	\$ 0	\$ 9,200	\$ 0
[REDACTED]	\$ 3,000	\$ 0	\$ 3,000	\$ 0
[REDACTED]	\$ 1,720	\$ 0	\$ 1,720	\$ 0
[REDACTED]	\$ 681	\$ 0	\$ 681	\$ 0
[REDACTED]	\$ 545	\$ 0	\$ 545	\$ 0
[REDACTED]	\$ 0	\$ 420	\$ 420	\$ 420
[REDACTED]	\$ 245	\$ 0	\$ 245	\$ 0
<b>Total</b>	<b>\$15,391</b>	<b>\$ 420</b>	<b>\$15,811</b>	<b>\$ 420</b>

Source: Auditor analysis of TSU participant support and operations costs

## Recommendations

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

1. Resolve the \$15,391 in questioned participant support costs, and direct TSU to repay or otherwise remove the sustained questioned costs from its NSF awards.
2. Direct TSU to provide documentation supporting that it has repaid or otherwise credited the \$420 in indirect costs, for which it has agreed to reimburse NSF.
3. Direct TSU to update its administrative and management processes and internal control procedures related to assigning participant support costs within its accounting system.

<sup>12</sup> NSF PAPPGs 15-1 and 16-1, Part I, Chapter II, Section C.2.g.(v) state any additional categories of participant support costs other than those described in 2 CFR § 200.75, such as incentives, gifts, souvenirs and memorabilia, must be justified in the budget justification, and such costs will be closely scrutinized by NSF. \_\_\_\_\_



**Summary of TSU’s Response**

TSU believes that \$15,146 of questioned participant support costs should be allowable, as the costs were inappropriately charged to the participant support fund instead of the operations fund of the NSF awards. TSU agreed that these were not valid participant support charges but believes they were valid operations charges which should have indirect costs allocated to them. Regarding the \$245 spent on gift cards and lanyards, TSU believes this cost is allowable as it was discussed with the program director in advance. Regarding the \$420 of questioned indirect costs on award No. [REDACTED], TSU agreed to return the funds to NSF.

**OIG Comments**

OIG’s position regarding the inappropriate treatment of the participant support costs has not changed. NSF’s PAPPG defines participant support costs and that written approval is required for reallocation of funds provided for participant support costs. TSU did not provide any support that they sought or received NSF’s approval to reallocate funds from the participant support cost category to a different budget category. In regard to the \$245 spent on lanyards and gift cards, OIG’s position has not changed. TSU did not provide the required budget justification for these items or documentation of the program director’s approval. Regarding the \$420 of questioned indirect costs which TSU agreed to return, OIG’s position regarding this matter has not changed.

**Finding 4: Unsupported Award Cash Management Service Draws**

During the audit period, TSU drew down \$939 from NSF’s Award Cash Management Service (ACMS) that did not reconcile with expenses recorded in TSU’s general ledger. TSU noted that the \$939 discrepancy was related to an accounting error and that it has refunded this amount to NSF.

Federal regulations require a cost to benefit the federal award and be properly supported.<sup>13</sup> TSU has policies and procedures in place to ensure that costs are supported and benefit the award. However, TSU did not follow its policies and procedures, resulting in \$939 in questioned costs. TSU agreed with the \$939 of the questioned costs, as illustrated in Table 4.

**Table 4. Summary of Questioned Inappropriate Draw Downs**

NSF Award No.	Questioned Draw Downs	
	Excess Draw Down Amount	TSU Agreed to Reimburse
[REDACTED]	\$ 939	\$939
<b>Total</b>	<b>\$ 939</b>	<b>\$939</b>

*Source: Auditor reconciliation of TSU actual costs to amounts received from NSF*

<sup>13</sup> 2 CFR § 200.403 (g) states that a cost “Be adequately documented” and 2 CFR § 200.405 states that a cost is allocable to a federal award if the goods or services involved are chargeable to the federal award, “in accordance with the relative benefits received.”



## Recommendations

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

1. Direct TSU to provide documentation supporting that it has repaid or otherwise credited the \$939 in questioned unsupported Award Cash Management Service drawdowns, for which it has agreed to reimburse NSF.
2. Direct TSU to update its administrative and management processes and internal control procedures surrounding the Award Cash Management Service system.

## Summary of TSU's Response

TSU agreed with this finding noting it has already reimbursed NSF for the questioned costs. TSU believes this was an isolated error and that it has internal controls in place to provide reasonable assurance that drawdowns from ACM\$ reconcile to the total expenses accumulated.

## OIG Comments

OIG's position regarding this finding has not changed.

## Finding 5: Inadequate Internal Controls Over Time and Effort Reporting

TSU provided 14 time and effort reports which were not certified in accordance with TSU internal policies and procedures. TSU policy requires time and effort reports be certified three times per year, however, we found 14 instances where this did not occur.<sup>14</sup> For example, TSU did not certify one time and effort report submitted for the period June 2017 through August 2017 until almost three years later, on April 24, 2020. Although the certifications were late, TSU eventually certified the work and as a result we did not question the payroll charges associated with these reports.

We also identified 7 additional time and effort reports that did not contain pertinent information, such as fund codes, NSF award numbers, or work descriptions. This information helps establish that these charges are allocable to and benefitted the applicable sponsored award.<sup>15</sup>

TSU has policies in place to ensure that time and effort reports are certified in a timely manner. However, TSU did not follow its policies, resulting in a violation of its own time and effort report certification process, as shown in Table 5.

---

<sup>14</sup> The TSU Restricted Fund Accounting, Time and Effort Reporting (5.11.12) and Banner Electric Effort Certification Module User's Guide, dated February 1, 2015, require that effort reports be certified 3 times per year (January through May, June through August, and September through December).

<sup>15</sup> According to 2 CFR § 200.430(h)(8)(i), "Charges to Federal awards for salaries and wages must be based on records that accurately reflect the work performed."



**Table 5. Summary of Time and Effort Report Certification Non-Compliance**

NSF Award No.	Effort Certification Period	Effort Certification Date
[REDACTED]	June through August of 2017	4/24/2020
	June through August of 2017	4/24/2020
	September through December of 2017	4/24/2020
	January through June of 2017	5/06/2020
	January through May of 2017	4/25/2020
	September through December of 2018	4/29/2020
	September through December of 2018	4/26/2020
	June through August of 2018	No date
	September through December of 2017	4/25/2020
	June through August of 2015	5/14/2020
	September through December of 2015	5/14/2020
	September through December of 2015	5/14/2020
	June through August of 2017	5/14/2020
	September through December of 2017	4/24/2020
<b>Total</b>	<b>14 Effort Reports</b>	

*Source: Auditor analysis of TSU payroll costs*

## Recommendations

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

1. Direct TSU to strengthen the administrative and management procedures over certifying time and effort reports in a timely manner.
2. Direct TSU to strengthen the administrative and management procedures to require the inclusion of pertinent information on time and effort reports such as fund codes, award numbers, and work descriptions.

## Summary of TSU’s Response

TSU agreed to strengthen the administrative and management procedures over certifying time and effort reports in a timely manner. While TSU believes that procedures are in place for time and effort reporting, additional emphasis will be placed on maintaining the time and effort records and being able to retrieve them upon request. Specifically, TSU stated it will enhance the University’s labor effort reporting system by:

1. Updating and revising policies as needed to ensure full compliance with federal regulations,



2. Providing employee training to ensure cognizant department and academic staff fully understand their effort reporting responsibilities so that established procedures are accurately and consistently implemented,
3. Providing adequate oversight of the effort reporting process, and
4. Introducing additional internal controls to help ensure that TSU appropriately creates and maintains all documentation necessary to support the allowability of expenses charged to sponsored programs.

**OIG Comments**

OIG's position regarding this finding has not changed.





## Appendix A: TSU's Response

DocuSign Envelope ID: EDEF8FD9-1A87-4E57-B5C8-3CC72D8D622B



"Think. Work. Serve."  
Tennessee State University  
3500 John A. Merritt Blvd.  
Nashville, TN 37209

Keith Nackerud  
Audit Manager & Contracting Officer's Representative  
National Science Foundation  
Office of Inspector General  
2415 Eisenhower Avenue  
Alexandria, Virginia 22314

Dear Mr. Nackerud,

Tennessee State University (TSU) appreciates the opportunity to work with the National Science Foundation Office of Inspector General to examine its research accounting practices.

TSU takes very seriously its obligations to administer NSF awards in compliance with all applicable laws, policies, and requirements. As such, TSU welcomes recommendations and opportunities to improve its research accounting practices.

TSU is committed to continuing to enhance policies and procedures surrounding its research accounting practices. To that end, the University is assessing each recommendation from the report and, with input from NSF during the resolution process, will seek to implement those that will enhance its current compliance environment. We look forward to discussing these costs and providing any requested additional supporting information to NSF as part of the resolution process.

TSU agrees to reimburse the NSF \$28,859 in questioned costs identified in the report. We do not agree with \$126,573 of questioned costs.

In closing, we appreciate this opportunity to respond to the NSF Performance Audit of Incurred Costs. TSU has a strong commitment to integrity and stewardship and takes the audit process seriously. We believe the results of this audit will help assist TSU in strengthening its sponsored programs administrative management policies and procedures.

Sincerely,

DocuSigned by:  
*Frances Williams*  
Associate Vice President for Research  
Tennessee State University

DocuSigned by:  
*Douglas Allen*  
Vice President for Business and Finance  
Tennessee State University

Page 1 \_\_\_\_\_



## Finding 1: Unsupported Costs

### TSU Response

*TSU does not agree with this finding or the auditor's recommendation to repay the questioned costs of \$121,797.*

#### *Regarding Unsupported Stipend Costs:*

*With regard to the \$66,169 questioned costs illustrated in Table 1a charged to award [REDACTED] TSU does not agree with this finding.*

*These costs are participant support cost. All costs paid on "Authorizations to Credit Forms" were to participants in workshops/conferences/training at different educational levels of educational and social/cultural engineering recruitment and retention efforts. This is the form TSU used for documentation. In addition, Student Attendance Sheets further corroborate the documentation of their participation.*

*TSU believes that the questioned costs should be allowable as, these costs were inappropriately charged to the operations fund of award [REDACTED] instead of the participant support fund of NSF award [REDACTED]. This inadvertently caused indirect costs to be charged. TSU agrees that \$19,571 of indirect costs should not have been charged on these participant award costs and agrees to return the \$19,571 to NSF.*

#### *Regarding Unsupported Payroll Costs:*

*With regard to the \$55,628 questioned costs illustrated in Table 1b charged to awards [REDACTED] [REDACTED] and [REDACTED], TSU does not agree with this finding.*

*TSU strongly believes that 10 of the 11 payroll transactions are valid for each award and the costs were allowable, allocable, and reasonable. TSU believes that the time and effort reports were done as required but due to staffing and personnel changes, the original reports have not been located. As such, these 10 transactions have been reviewed and the time and effort certified at this time. For the one award related to award [REDACTED] TSU does agree to return the \$2,415 to NSF.*



## Finding 2: Inappropriately Allocated Expenses

### TSU Response

#### *Regarding Equipment Inappropriately Allocated:*

*With regard to the \$1,536 and \$8,832 questioned costs, TSU does not agree with this finding. TSU believes that 100 percent of the equipment costs are allocable to the award charged because the equipment was necessary to carry out the objectives of the award.*

#### *Regarding Payroll Inappropriately Allocated:*

*With regard to the \$1,420 and \$1,377 questioned costs, TSU agreed with this finding and agrees to return the funds to NSF.*

#### *Regarding Unallocable General Ledger Costs:*

*With regard to the \$1,420, \$1,119 and \$178 questioned costs, TSU agreed with this finding and agrees to return the funds to NSF.*

## Finding 3: Inappropriate Treatment of Participant Support Costs

### TSU Response

*With regard to the \$9,200, \$3,000, \$1,720, \$681 and \$545 questioned participant support costs charged to award [REDACTED] identified in the sub-finding, TSU believes that the questioned costs should be allowable as, these costs were inappropriately charged to the participant support fund of award [REDACTED] instead of the operations fund of NSF award [REDACTED]. TSU agrees that these are not valid participant support charges but are valid operations charges which should have also had indirect costs allocated to them.*

*With regard to the \$420 questioned costs, TSU agreed with this finding and agrees to return the funds to NSF.*

*With regard to the \$245 questioned participant support costs charged to award [REDACTED] identified in the sub-finding, TSU believes that the questioned costs should be allowable as, these costs were discussed with the NSF program director in advance and TSU had the approval to purchase these promotional items.*



#### **Finding 4: Unsupported Award Cash Management Service Draws**

##### **TSU Response**

*TSU agreed with the \$939 questioned costs for this finding. TSU has already reimbursed NSF for the questioned costs. TSU believes this was an isolated error and that it has internal controls in place to provide reasonable assurance that drawdowns in ACMS reconcile to the total expenses accumulated.*

#### **Finding 5: Inadequate Internal Controls Over Time and Effort Reporting**

##### **TSU Response**

*TSU agrees to strengthen the administrative and management procedures over certifying time and effort reports in a timely manner. While TSU believes that procedures are in place for time and effort reporting, additional emphasis will be placed on maintaining the time and effort records and being able to retrieve them upon request.*

*Specifically, TSU will take the following steps directed toward enhancing the University's labor effort reporting system by:*

- 1. Updating and revising policies as needed to ensure full compliance with Federal regulations,*
- 2. Providing employee training to ensure cognizant department and academic staff fully understand their effort reporting responsibilities so that established procedures are accurately and consistently implemented,*
- 3. Providing adequate oversight of the effort reporting process, and*
- 4. Introducing additional internal controls to help ensure that TSU appropriately creates and maintains all documentation necessary to support the allowability of expenses charged to sponsored programs.*



## Appendix B: Objective, Scope, and Methodology

The objective of this performance audit was to determine if costs claimed by TSU were allowable, allocable, reasonable, and in compliance with NSF award terms and conditions and applicable federal requirements. To accomplish this objective, we examined costs claimed on 11 TSU awards during the period June 1, 2014, to July 25, 2019, and judgmentally tested a sample of 80 transactions totaling \$305,526.

We obtained and relied on computer-processed data from TSU and NSF during our audit. TSU provided detailed transaction data for costs charged to NSF awards. We assessed the reliability of the TSU data by (1) interviewing TSU staff knowledgeable about the data, (2) reviewing information about the data and the system that produced them, and (3) performing reconciliations and testing of various data elements. We obtained NSF data by directly accessing NSF's various data systems. We corroborated the audit data with other sources and determined that the data were sufficiently reliable for the purposes of this audit.

In assessing the allowability of TSU's costs claimed, we also gained an understanding of the internal controls significant to the scope and objective of this audit. We determined that each of the components were significant to the audit objective: control environment, risk assessment, control activities, information and communication, and monitoring. We assessed the controls through interviewing TSU staff; reviewing policies and procedures; reviewing and reconciling general ledger and payroll ledger transactions; reviewing accounting system documentation; and conducting transaction testing.

We also assessed TSU's compliance with the following:

- OMB, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (2 CFR, Part 200);
- *NSF Proposal and Award Policies and Procedures Guide*;
- *NSF Cooperative Agreement Financial & Administrative Terms and Conditions*, effective January 4, 2010; and
- TSU policies and procedures, as appropriate.

We conducted this performance audit between July 2019 and July 2021 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 our findings and conclusions, based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions.

We held an exit conference with TSU management on May 11, 2021.

Kenneth Lish, Director, Contract Audits; Keith Nackerud, Audit Manager; Billy McCain, Audit Manager; Jae Kim, Senior Auditor; Emma Bright, Audit Manager; Brittany Moon, Senior Auditor; Jennifer Miller, Director, Compliance Analytics; Ruth Gonzalez, Data Analytics Project Manager; Dan Buchtel, Deputy Assistant Inspector General for Audits; Ashley Lippolis Aviles, Communications Analyst; and Darrell Drake, Independent Report Referencer made key contributions to this audit.



### Appendix C: Summary of Questioned Costs by Finding

Finding	Description	Questioned Costs		Total
		Unsupported	Unallowable	
1	Unsupported Costs	\$ 121,797	\$ 0	\$ 121,797
2	Inappropriately Allocated Expenses	\$ 0	\$ 16,885	\$ 16,885
3	Inappropriate Treatment of Participant Support Costs	\$ 0	\$ 15,811	\$ 15,811
4	Unsupported Award Cash Management Service Draws	\$ 939	\$ 0	\$ 939
5	Inadequate Internal Controls Over Time and Effort Reporting	\$ 0	\$ 0	\$ 0
<b>Total</b>		<b>\$ 122,736</b>	<b>\$ 32,696</b>	<b>\$ 155,432</b>

Source: Auditor summary of questioned transactions.



## About NSF OIG

We promote effectiveness, efficiency, and economy in administering the Foundation's programs; detect and prevent fraud, waste, and abuse within NSF or by individuals who receive NSF funding; and investigate allegations of research misconduct. NSF OIG was established in 1989, in compliance with the *Inspector General Act of 1978*, as amended. Because the Inspector General reports directly to the National Science Board and Congress, the Office is organizationally independent from the Foundation.

### Obtaining Copies of Our Reports

To view this and any of our other reports, please visit our website at [www.nsf.gov/oig](http://www.nsf.gov/oig).

### Connect with Us

For further information or questions, please contact us at [OIGpublicaffairs@nsf.gov](mailto:OIGpublicaffairs@nsf.gov) or 703.292.7100. Follow us on Twitter at [@nsfoig](https://twitter.com/nsfoig). Visit our website at [www.nsf.gov/oig](http://www.nsf.gov/oig).

### Report Fraud, Waste, Abuse, or Whistleblower Reprisal

- File online report: <https://www.nsf.gov/oig/report-fraud/form.jsp>
- Anonymous Hotline: 1.800.428.2189
- Email: [oig@nsf.gov](mailto:oig@nsf.gov)
- Mail: 2415 Eisenhower Avenue, Alexandria, VA 22314 ATTN: OIG HOTLINE



NATIONAL SCIENCE FOUNDATION  
OFFICE OF INSPECTOR GENERAL