

# Performance Audit of Incurred Costs – University of Pittsburgh

REPORT PREPARED BY WITHUMSMITH+BROWN, PC

NATIONAL SCIENCE FOUNDATION  
OFFICE OF INSPECTOR GENERAL

August 30, 2021  
OIG 21-1-019





## AT A GLANCE

Performance Audit of Incurred Costs – University of Pittsburgh

Report No. OIG 21-1-019

August 30, 2021

### AUDIT OBJECTIVE

The National Science Foundation Office of Inspector General engaged WithumSmith+Brown, PC (WSB) to conduct a performance audit of incurred costs at the University of Pittsburgh (Pitt) for the period March 1, 2016, to February 28, 2019. The auditors tested more than \$1 million of the approximately \$73.9 million of costs claimed to NSF. The objective of the audit was to determine if costs claimed by Pitt on NSF awards were allowable, allocable, reasonable, and in compliance with NSF award terms and conditions and federal financial assistance requirements. A full description of the audit's objective, scope, and methodology is attached to the report as Appendix B.

### AUDIT RESULTS

The report highlights concerns about Pitt's compliance with certain Federal and NSF award requirements. The auditors questioned \$106,659 of direct and indirect costs claimed by Pitt during the audit period. Specifically, the auditors found \$42,450 of unsupported costs, \$34,973 in purchases near or after award expiration, \$27,975 in unallocable and unreasonable costs, \$869 for the incorrect application of indirect cost rates, and \$392 in employee expenditures charged as participant support. WSB is responsible for the attached report and the conclusions expressed in it. NSF OIG does not express any opinion on the conclusions presented in WSB's audit report.

### RECOMMENDATIONS

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

### AUDITEE RESPONSE

Pitt agreed with the majority of findings throughout the report. Pitt'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:** August 30, 2021

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

Jamie French  
Director  
Division of Grants and Agreements  
[REDACTED]

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

**SUBJECT:** Audit Report No. 21-1-019, University of Pittsburgh

This memorandum transmits the WithumSmith+Brown, PC (WSB) report for the audit of costs charged by the University of Pittsburgh (Pitt) to its sponsored agreements with the National Science Foundation (NSF) during the period March 1, 2016, to February 28, 2019. The audit encompassed more than \$1 million of the approximately \$73.9 million claimed to NSF during the period. The objective of the audit was to determine if costs claimed by Pitt on NSF awards were allowable, allocable, reasonable, and in compliance with NSF award terms and conditions and federal financial assistance requirements. A full description of the audit's objective, scope, and methodology is attached to the report as Appendix B.

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

**OIG Oversight of the Audit**

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 Billy McCain at 703.292.7100 or [OIGpublicaffairs@nsf.gov](mailto:OIGpublicaffairs@nsf.gov).

#### Attachment

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# **University of Pittsburgh**

## **Audit of Incurred Costs**

### **National Science Foundation Office of Inspector General**

**August 27, 2021**

**OIG 21-1-019**

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## Abbreviations

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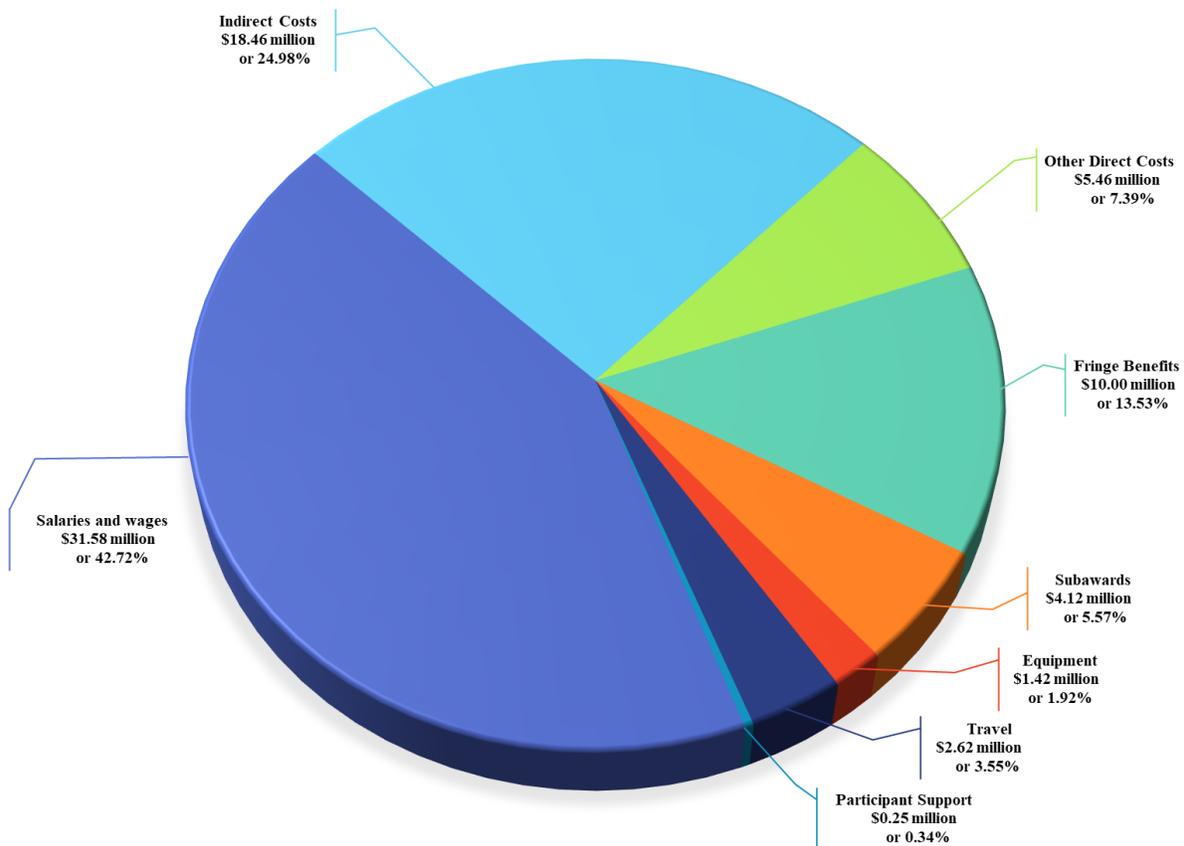
F&A	Facilities and Administrative (costs)
NICRA	Negotiated Indirect Cost Rate Agreement
PAPPG	Proposal and Award Policies and Procedures Guide
PI	Principal Investigator
Pitt	University of Pittsburgh

## 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.”<sup>1</sup> 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.

NSF awardees must follow federal and NSF award regulations and guidance in administering NSF awards. The University of Pittsburgh (Pitt) is a research university with annual awards and contracts that totaled approximately \$800 million per year. Between March 1, 2016, and February 28, 2019, Pitt claimed approximately \$73.9 million in expenditures on 434 NSF awards. See Figure 1 for an analysis of these costs by budget category.

**Figure 1. Costs Claimed by NSF Budget Category, March 1, 2016, to February 28, 2019**



Source: Auditor summary of accounting data provided by Pitt

<sup>1</sup> National Science Foundation Act of 1950, Pub. L. No. 81-507

## Results of Audit

NSF OIG engaged WithumSmith+Brown, PC (referred to as “we”) to audit the costs claimed by Pitt on NSF awards for the period beginning March 1, 2016 and ending February 28, 2019. In our testing of 228 judgmentally selected transactions, we identified 38 transactions totaling \$106,659 of questioned costs charged to 23 NSF awards. Pitt needs improved oversight in five areas to ensure costs claimed are reasonable, necessary, and in accordance with federal and NSF award requirements. Five of the areas include: 1) \$42,450 of unsupported costs; 2) \$34,973 in purchases near or after award expiration; 3) \$27,975 in unallocable and unreasonable costs; 4) \$869 for the incorrect application of indirect cost rates; and 5) \$392 in employee expenditures charged as participant support. See Appendix C for a schedule of questioned costs by finding and award.

### Finding 1: Unsupported Costs

We questioned seven transactions, charged to seven awards, totaling \$42,450, due to unsupported costs, in violation of federal requirements<sup>2</sup> and Pitt policy,<sup>3</sup> as shown in Table 1.

**Table 1. Description of Questioned Transaction Due to Unsupported Costs**

Description	Award Number	Questioned Amount	Questioned Fringe	Questioned F&A	Questioned Total	Pitt Agreed to Reimburse
Materials and Supplies	██████	\$ 22,979	\$ --	\$ 4,579	\$ 27,558	\$ 27,558
Regular Earnings	██████	2,151	652	1,472	4,275	4,275
International Travel	██████	3,416	--	1,845	5,261	5,261
International Travel	██████	1,283	--	693	1,976	1,976
Domestic Travel	██████	1,152	--	622	1,774	1,774
Mileage	██████	884	--	--	884	884
Domestic Travel	██████	650	--	72	722	722
<b>Total</b>		<b>\$ 32,515</b>	<b>\$ 652</b>	<b>\$ 9,283</b>	<b>\$ 42,450</b>	<b>\$ 42,450</b>

Source: Auditor analysis of questioned transactions

<sup>2</sup> Per 2 CFR §200.302, expenditures must be supported by source documentation. Additionally, §200.333 states that financial records and supporting documents must be retained for a period of three years from the final expenditure report submission date. Per 2 CFR 215.21 (b)(2), financial management systems shall provide records that identify the source. Additionally, 2 CFR 215.53(b) states that, with limited exception, financial records and supporting documents shall be retained for a period of three years from final expenditure report submission date.

<sup>3</sup> Per University of Pittsburgh, Record Retention Requirements for University of Pittsburgh Business Managers Policy, financial records must be retained for 7 fiscal years. However, for purchases made on research accounts, business managers are to “preserve the historical information until grant or contract is closed or audit is conducted. Follow guidelines provided by funding agency.”

The questioned items include:

- Materials and supplies – \$27,558 on Award No. [REDACTED] for various supplies. Pitt did not provide adequate documentation to support the propriety of \$27,558 of supplies purchased near the end of the award.
- International travel – \$7,237 on Award Nos. [REDACTED] and [REDACTED] for international travel to [REDACTED] and [REDACTED]. Supporting documentation was not adequate to determine the propriety of the travel. Based on the information provided, we were unable to verify the allocability of the travel to the awards charged.
- Earnings – Regular and Supplemental – \$4,275 on NSF Award No. [REDACTED] for supplemental and regular earnings. Supporting documentation was not adequate to determine the base salary and/or the level of effort expended. Based on the information provided, we were unable to verify the allocability of the earnings to the award charged.
- Domestic travel – \$2,496 on Award Nos. [REDACTED] and [REDACTED] for domestic travel to [REDACTED] and [REDACTED]. Supporting documentation was not adequate to determine the allocability of the travel.
- Mileage – \$884 on Award No. [REDACTED] for unsupported mileage costs. Pitt did not provide sufficient documentation to support the mileage reimbursements.

Pitt did not retain or provide adequate documentation, which resulted in unallowable costs. Without a process to ensure that documentation is available and accessible in accordance with federal requirements, there is increased risk that funds may not be used as required to accomplish the necessary project objectives. Pitt concurred with the full \$42,450 of questioned costs, as illustrated in Table 1.

### ***Recommendations***

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

1. Direct Pitt to provide documentation supporting that it has repaid or otherwise credited the \$42,450 of questioned unsupported costs for which it has agreed to reimburse NSF.
2. Direct Pitt to strengthen the administrative and management controls, training, processes, and procedures related to maintaining a proper audit trail. These controls, training, processes, and procedures should include standards for collecting and retaining supporting documentation to ensure that all financial transactions can be traced back to the original source documentation.

### ***Summary of Awardee Response***

Pitt agreed with this finding. See Appendix A for the complete Pitt response.

### Auditor's Additional Comments

Pitt's comments are responsive to this finding. Once NSF determines that the recommendations have been adequately addressed and the \$42,450 in questioned costs have been resolved, this finding should be closed.

## Finding 2: Purchases Near or After Award Expiration

We questioned \$34,973 in materials and supplies, purchased or received, near or after the end of award periods, that were not allowable under federal regulations<sup>4</sup> and NSF Proposal and Award Policies and Procedures Guide (PAPPG).<sup>5</sup> Specifically, we questioned 19 transactions charged to eight awards, as shown in Table 2. The purchases do not appear reasonable, necessary, fully allocable, or to provide benefit to the awards charged.

**Table 2. Purchases Received Near or After the Award Expiration**

Description	Award Number	Questioned Invoice	Questioned F&A	Questioned Total	Days Remaining	Pitt Agreed to Reimburse
Mass Flow Controllers	██████████	\$ 4,979	\$ 2,564	\$ 7,543	10	\$ --
Smart Actuator	██████████	3,500	1,890	5,390	2	5,390
DLR Assays	██████████	2,907	1,497	4,404	13	4,404
Peptides	██████████	2,797	1,440	4,237	(16)	4,237
Silica Gel	██████████	2,132	1,098	3,230	2	3,230
Apple Laptop and Accessories	██████████	1,576	812	2,388	23	2,388
Computer	██████████	1,544	834	2,378	(21)	2,378
Centrifuge	██████████	1,149	592	1,741	(13)	1,741
Battery Pack	██████████	1,034	558	1,592	(38)	1,592
Cathode Replacement	██████████	708	365	1,073	2	--
Computer Accessories	██████████	658	339	997	75	997
<b>Total</b>		<b>\$ 22,984</b>	<b>\$ 11,989</b>	<b>\$ 34,973</b>		<b>\$ 26,357</b>

Source: Auditor analysis of questioned transactions

<sup>4</sup> According to 2 CFR Part 220, Appendix A, §C.2 and C.3, costs must be reasonable and allocable. A reasonable cost is necessary and reflects the action that a prudent person would have taken under the circumstances prevailing when the cost was incurred. Additionally, according to 2 CFR §200.405(a) and 2 CFR Part 220, Appendix A, §C.4, a cost is allocable if cost was chargeable or assignable in accordance with relative benefits received. According to 2 CFR §200.403(a), a cost must be necessary, reasonable and allocable to be allowable under a Federal award.

<sup>5</sup> According to NSF PAPPG 15-1, Part II, Chapter V.A.2.c, grantees should not purchase items in anticipation of grant expiration where there is little or no time left for the items to be utilized in the actual conduct of the research. Additionally, per NSF PAPPGs 11-01 and 13-01, Chapter V.3.B, materials and supplies are items that are necessary to carry out the project.

The questioned items include:

- Mass Flow Controllers – \$7,543 on NSF award No. [REDACTED] for two mass flow controllers and an associated power supply/readout unit that were estimated to be delivered on December 21, 2016, on an award that expired on December 31, 2016. The items were available for less than 1 percent of the award period (10 out of 1,460 days). Given the limited time remaining, this charge does not appropriately reflect the relative benefits received by the award.
- Smart Actuator – \$5,390 on NSF Award No. [REDACTED] for the purchase of a smart actuator on June 28, 2018, on an award that expired on June 30, 2018. The smart actuator was purchased 2 days prior to the award expiration and therefore could not benefit this award. Per Pitt, this should have been purchased using internal development funds.
- DLR Assays – \$4,404 on NSF Award No. [REDACTED] for the purchase of DLR Assays on August 18, 2017, on an award that expired on August 31, 2017. The supplies were available for less than 1 percent of the award period (13 out of 1,460 days). Given the limited time remaining, this charge does not appropriately reflect the relative benefits received by the award.
- Peptides – \$4,237 on NSF Award No. [REDACTED] for the purchase of peptides that were ordered on January 19, 2016, and shipped on February 16, 2016, on an award that expired on January 31, 2016. The peptides were received after the award expiration and therefore could not benefit this award.
- Silica Gel – \$3,230 on NSF Award No. [REDACTED] for the purchase of silica gel on August 29, 2017, on an award that expired on August 31, 2017. The supplies were available for less than 1 percent of the award period (2 out of 1460 days). Given the limited time remaining, this charge does not appropriately reflect the relative benefits received by the award.
- Apple Laptop and Accessories – \$2,388 on NSF Award No. [REDACTED] for the purchase of an iPad Pro, 3-year Apple Care, Apple Pencil, and Apple Smart Keyboard on August 8, 2016, on an award that expired on August 31, 2016. The tablet and accessories were available for 1 percent of the award period (23 out of 1,826 days). Given the limited time remaining, this charge does not appropriately reflect the relative benefits received by the award.
- Computer – \$2,378 on NSF Award No. [REDACTED] for the purchase of a computer that was ordered on May 21, 2018, on an award that expired on April 30, 2018. The item was purchased 21 days after the award expiration and therefore could not benefit this award. Per Pitt, a cost overrun in the amount of \$21,757 was removed from the award in January 2019. However, no support was provided to show that this specific purchase was removed.
- Centrifuge – \$1,741 on NSF Award No. [REDACTED] for the purchase of a centrifuge that was shipped on July 13, 2016, on an award that expired on June 30, 2016. The item was received after the award expiration and therefore could not benefit this award.
- Battery Pack – \$1,592 on NSF Award No. [REDACTED] for the purchase of a battery pack on August 7, 2018, on an award that expired on June 30, 2018. The battery pack was purchased 38 days after the award expiration and therefore could not benefit this award.

- Cathode Replacement – \$1,073 on NSF Award No. [REDACTED] for the purchase of a cathode replacement that was shipped on December 29, 2016, 2 days prior to the award expiration on December 31, 2016. The item was shipped 2 days prior to the award expiration and therefore could not benefit this award.
- Computer accessories – \$997 in Award No. [REDACTED] for the purchase of a monitor and docking station on June 17, 2016, on an award that expired on August 31, 2016. According to Pitt, this replaced a failing laptop and allowed the PI to continue working on this award, but this computer was not used exclusively on this NSF award. The computer, charged 100 percent to this NSF award, was only available for 5 percent of the award period (75 out of 1,460 days). Given the limited time remaining, this charge does not appropriately reflect the relative benefits received by the award.

Pitt personnel did not adequately review these questioned expenditures, which resulted in unreasonable costs. Enhanced oversight procedures and controls should be adopted to review expenditures charged near or after the end of the award period. Having improved oversight processes ensures 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 PAPPG requirements. Pitt concurred with \$26,357 of the questioned costs but disagreed with the remaining \$8,616, as illustrated in Table 2.

### ***Recommendations***

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

1. Resolve the \$8,616 of questioned material and supply costs for which Pitt has not agreed to reimburse NSF and direct Pitt to repay or otherwise remove the sustained questioned costs from its NSF awards.
2. Direct Pitt to provide documentation supporting that it has repaid or otherwise credited the \$26,357 of questioned material and supply costs for which it has agreed to reimburse NSF.
3. Direct Pitt to strengthen the administrative and management controls, training, processes, and procedures over expenditures near the end of an award. Processes could include requiring Pitt to review all materials/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.

### ***Summary of Awardee Response***

Pitt disagreed with our conclusions regarding the allowability of \$8,616 in questioned costs on one NSF award. Specifically:

- Pitt did not agree with the questioned costs of \$7,543 on NSF Award No. [REDACTED] for the acquisition of Mass Flow Controllers 10 days prior to the end of the award. Pitt asserted that the purchase was critical to the completion of the project and was due to a malfunction of existing equipment caused by a power outage. The malfunctioning equipment had been

acquired years earlier with funding provided by the U.S. Department of Energy, thus the award did receive the relative benefit of the equipment despite having incurred the replacement cost near expiration.

- Pitt did not agree with the questioned cost of \$1,073 on NSF Award No. [REDACTED] for the Cathode Replacement 1 day prior to the end of the award. As noted above, this expenditure was also for the emergency replacement component of the Mass Spectrometer which malfunctioned due to a power outage. The Mass Spectrometer was critical to the Principal Investigator's research.

Pitt asserted that these purchases were necessary to complete the goals of the project and, because the equipment failure caused by the power outage was unplanned, that Pitt did not have the lead time necessary to request a no-cost extension.

Pitt agreed with the remaining \$26,357 of questioned costs in this audit finding. See Appendix A for the complete Pitt response.

#### *Auditor's Additional Comments*

Our position remains unchanged concerning the questioned costs of \$7,543 for Mass Flow Controllers and \$1,073 for the Cathode Replacement. The items were charged 100 percent to the NSF award when they were received 10 days and 1 day prior, respectively, to the award expiration on December 31, 2016. Charging the full cost of the items to this NSF award does not appear reasonable.

For the remaining \$26,357, Pitt's comments are responsive to this finding. Once NSF determines that the recommendations have been adequately addressed and the \$34,973 in questioned costs have been resolved, this finding should be closed.

### **Finding 3: Unallocable and Unreasonable Costs**

We questioned eight transactions, charged to seven awards, totaling \$27,975, for various unallocable or unreasonable purchases and travel expenditures.<sup>6</sup> These purchases do not appear reasonable, necessary, fully allocable, or to provide benefit to the awards charged, as shown in Table 3.

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<sup>6</sup> According to 2 CFR Part 220, Appendix A, §C.2 and C.3, costs must be reasonable and allocable. A reasonable cost is necessary and reflects the action that a prudent person would have taken under the circumstances prevailing when the cost was incurred. Additionally, according to 2 CFR §200.405(a) and 2 CFR Part 220, Appendix A, §C.4, a cost is allocable if cost was chargeable or assignable in accordance with relative benefits received. According to 2 CFR §200.403(a), a cost must be necessary, reasonable and allocable to be allowable under a Federal award.

**Table 3. Summary of Unallocable and Unreasonable Costs**

Description	Award Number	Questioned Invoice	Questioned F&A	Questioned Total	Pitt Agreed to Reimburse
Catering for Conference		\$ 8,424	\$ --	\$ 8,424	\$8,424
RehaStim2 Stimulator		7,999	--	7,999	7,999
Travel to [REDACTED]		2,330	1,223	3,553	1,863
Apple Computer		1,879	1,015	2,894	--
Apple Computer		1,718	928	2,646	2,646
Travel to [REDACTED]		691	356	1,047	1,047
Travel to Pittsburgh, PA		814	--	814	814
Airfare to [REDACTED]		388	210	598	598
<b>Total</b>		<b>\$ 24,243</b>	<b>\$ 3,732</b>	<b>\$ 27,975</b>	<b>\$ 23,391</b>

Source: Auditor analysis of questioned transactions

Specifically, we questioned:

- \$8,424 on NSF Award No. [REDACTED] for catering for a conference that was charged to the award in error. Per Pitt, “this should not have been charged to the award, charge was planned to be charged to an internal discretionary account.”
- \$7,999 on NSF Award No. [REDACTED] for a RehaStim2 Stimulator that was charged to the award in error. Per Pitt, "the equipment was used on the project but shouldn't have been charged to the grant, PI wanted it charged to his internal developmental funds."
- \$3,553 on NSF Award No. [REDACTED] for travel to [REDACTED] and [REDACTED] from June 15 to July 6, 2016 to attend conferences. The individual purchased two plane tickets, one arriving in [REDACTED] on June 16, 2016 and departing July 6, 2016, the other arriving in [REDACTED] on June 26, 2016 and returning to [REDACTED] on June 28, 2016. The conference in [REDACTED] began June 27, 2016 and ended June 30, 2016; the individual only attended 1.5 days of the 4-day conference. The [REDACTED] conference took place on July 1, 2016, after the award expiration on June 30, 2016. The traveler’s arrival in [REDACTED] on the afternoon of June 16, 2016, was 11 days before the [REDACTED] conference began, and departure from [REDACTED] the afternoon of July 6, 2016 was 6 days after the award expired on June 30, 2016. The traveler only attended conferences on 2.5 of the 21 trip days, and one of the conference days occurred after the award expired. As 18.5, or 88 percent, of the trip days were for personal time, we determined the trip was primarily personal and, as such, not reasonable or allocable to this award. Therefore, we questioned the entire \$3,553 in airfare and other related trip expenditures. Pitt concurred with \$1,863 of the travel charges.
- \$2,894 on Award No. [REDACTED] for the purchase of an Apple computer. Per the budget, a computer was to be purchased and used to "conduct proposed numerical simulations, write journal articles and make presentations". However, in addition to the requested Apple computer, another laptop computer and 2 iPads had previously been purchased on this award. Per the response received, this computer was not used exclusively for this research.

Therefore, we questioned the \$2,894 for the purchase of the additional Apple computer, which was not prudent, necessary, allocable, or reasonable.

- \$2,646 on NSF Award No. [REDACTED] for a MacBook Pro that was charged to the award in error. Per Pitt, “this should not have been purchased on this project and will need to be transferred off.”
- \$1,047 on NSF Award No. [REDACTED] for two nights’ lodging, three days parking, and per diem in [REDACTED] [REDACTED] that did not benefit the NSF award. The traveler arrived in [REDACTED] on June 29 and departed on July 3. Lodging, parking, and per diem were charged to the award for July 1 to July 3, after the award expiration on June 30, 2016, and therefore could not benefit this award.
- \$814 on NSF Award No. [REDACTED] for two nights’ lodging that did not benefit the award. The individual traveled to Pittsburgh, PA to attend a conference from March 17-19, 2017. Lodging was charged to the award for six nights, March 16-22, 2017. Pitt did not provide justification for charging two additional nights of lodging after the conference had ended.
- \$598 on NSF Award No. [REDACTED] for airfare from [REDACTED] to [REDACTED]. The individual purchased airfare from Pittsburgh, PA to [REDACTED] from June 1-16, 2016. They also purchased airfare from [REDACTED] to [REDACTED] from June 5-12, 2016. The purpose of the travel was to attend a conference in [REDACTED]. No other expenses were charged to the award for the travel to [REDACTED] and this stopover did not benefit the NSF award. We questioned the flight from Pittsburgh, PA to [REDACTED] as it was not prudent, necessary, allocable, or reasonable.

Pitt personnel did not adequately review these expenditures, which resulted in unallocable and unreasonable costs charged to the awards. Enhanced oversight procedures and controls should be adopted to review expenditures charged to the awards. Having improved oversight processes ensures costs are reasonable and allowable, thus reducing the risk that funds may not be used as required to accomplish the project objectives in accordance with federal regulations and NSF PAPPG requirements.<sup>7</sup> Pitt concurred with \$23,391 of the questioned costs but disagreed with the remaining \$4,584, as illustrated in Table 3.

### ***Recommendations***

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

1. Resolve the \$4,584 of questioned unallocable and unreasonable costs for which Pitt has not agreed to reimburse NSF and direct Pitt to repay or otherwise remove the sustained questioned costs from its NSF awards.
2. Direct Pitt to provide documentation supporting that it has repaid or otherwise credited the \$23,391 of questioned unallocable and unreasonable costs for which it has agreed to reimburse NSF.

<sup>7</sup> According to NSF PAPPGs 11-1, 15-1, 16-1, Part II Chapter II Section A.1, and 17-1, Chapter X Section A, grantees are responsible for ensuring that all costs charged to NSF awards meet the requirements of the applicable cost principles, grant terms and conditions, and requirements of the award terms and conditions and the applicable program solicitation.

3. Direct Pitt to strengthen the administrative and management controls, training, processes, and review procedures for the NSF award expenditures.

### ***Summary of Awardee Response***

Pitt disagreed with our conclusions regarding the allowability of \$4,584 in questioned costs on two NSF awards. Specifically:

- Pitt did not agree with the questioned cost of \$3,553 on NSF Award No. [REDACTED] for travel to [REDACTED] [REDACTED]. This expenditure was for a 21-day trip spanning June 15, 2016 to July 6, 2016 covering attendance at two conferences, one of which took place after the end-date of the award. Pitt was able to isolate those costs related to the portion of the trip occurring after the end-date of the award and asserted that the costs incurred for the meeting in [REDACTED] [REDACTED] were reasonable, allowable, and allocable to the award. Pitt agreed to refund \$1,863 of the total questioned costs.
- Pitt did not agree with the questioned cost of \$2,894 on NSF Award No. [REDACTED] for the purchase of an Apple Computer. The computer was purchased as the minimum necessary to replace an earlier model to conduct numerical simulations as proposed. Pitt asserted that neither the NSF PAPPG nor the Uniform Guidance require computers be used exclusively on a federal award. Pitt further asserted the purchase was prudent in that the minimum necessary was purchased to meet the objectives of the award.

Pitt agreed with the remaining \$23,391 of questioned costs in this audit finding.

See Appendix A for the complete Pitt response.

### ***Auditor's Additional Comments***

Our position regarding this finding has not changed. Specifically:

- Regarding the \$3,553 for the travel to [REDACTED] [REDACTED] the traveler only attended conferences on 2.5 of the 21 trip days, and one of the conference days occurred after the award expired on June 30, 2016. As 18.5, or 88 percent, of the trip days were for personal time, we determined the trip was primarily personal and, as such, not reasonable or allocable to this award. Therefore, we continue to question the entire \$3,553 in airfare and other related trip expenditures.
- Regarding the \$2,894 for the purchase of an Apple computer, in addition to the requested Apple computer, another laptop computer and two iPads had previously been purchased on this award. Per the response received, this computer was not used exclusively for this research. Therefore, we questioned the \$2,894 for the purchase of the additional Apple computer, which was not prudent, necessary, allocable, or reasonable.

For the remaining \$23,391, Pitt's comments are responsive to this finding. Once NSF determines that the recommendations have been adequately addressed and the \$27,975 in questioned costs have been resolved, this finding should be closed.

## Finding 4: Incorrect Application of Indirect Cost Rates

We found Pitt did not have controls in place to apply the Negotiated Indirect Cost Rate Agreement (NICRA) rates that were in effect as of the award date, as required by federal<sup>8</sup> and NSF<sup>9</sup> guidance, as described in Table 4. We noted 26 NSF awards for which Pitt applied rates that were in effect when the respective proposals were submitted, rather than the rates in effect when the awards were issued. In each of these cases, the proposal rates were lower than the award date rates; thus, Pitt claimed lower indirect cost amounts to NSF than otherwise were allowable. As such, we are not questioning these costs.

**Table 4. Summary of Awards with Undercharged Indirect Costs**

Award Number	Award Effective Date	Year 1		Year 2		Year 3	
		Approved Rate	Applied Rate	Approved Rate	Applied Rate	Approved Rate	Applied Rate
	9/15/2012	54.0%	51.5%	--	--	--	--
	9/1/2012	54.0%	51.5%	--	--	--	--
	8/15/2012	54.0%	51.5%	--	--	--	--
	9/1/2012	54.0%	51.5%	--	--	--	--
	10/1/2012	54.0%	51.5%	54.0%	51.5%	54.0%	51.5%
	9/15/2012	54.0%	51.5%	--	--	--	--
	9/1/2012	54.0%	51.5%	--	--	--	--
	9/1/2012	54.0%	51.5%	--	--	--	--
	9/1/2012	54.0%	51.5%	--	--	--	--
	9/1/2012	54.0%	51.5%	54.0%	51.5%	--	--
	9/1/2012	54.0%	51.5%	--	--	--	--
			51.5%				
	1/1/2013	54.0%	and 52.5%	--	--	--	--
	9/15/2012	54.0%	51.5%	54.0%	51.5%	54.0%	51.5%
	10/1/2012	42.0%	38.0%	--	--	--	--
	1/1/2013	54.0%	51.5%	54.0%	51.5%	54.0%	51.5%
	1/1/2013	54.0%	52.5%	--	--	--	--
	9/15/2013	54.0%	52.5%	--	--	--	--
	7/1/2016	54.0%	54.0%	55.5%	55.5%	56.5%	55.5%
	8/1/2016	54.0%	54.0%	55.5%	55.5%	56.5%	55.5%

<sup>8</sup> According to 2 CFR 220, Appendix A, Section G.7.a. and 2 CFR 200, Appendix III, Section C.7, federal agencies must use the negotiated rates for F&A costs in effect at the time of the initial award throughout the life of the sponsored agreement.

<sup>9</sup> NSF also requires Institutions of Higher Education to use the negotiated indirect cost rate in effect as of the date of the award throughout the life of the award. See NSF PAPPGs 11-1, 13-1, 14-1, 15-1, 16-1, 17-1, and 18-1, Part I, Chapter II, Section C.2.g.(viii).

Award Number	Award Effective Date	Year 1		Year 2		Year 3	
		Approved Rate	Applied Rate	Approved Rate	Applied Rate	Approved Rate	Applied Rate
	9/1/2016	54.0%	54.0%	55.5%	55.5%	56.5%	55.5%
	9/1/2015	54.0%	54.0%	55.5%	55.5%	56.5%	55.5%
	7/1/2017	--	--	56.5%	54%	56.5%	54.0%
	2/15/2017	54.0%	54.0%	55.5%	55.5%	56.5%	55.5%
	2/1/2017	54.0%	54.0%	55.5%	55.5%	56.5%	55.5%
	4/1/2017	54.0%	54.0%	55.5%	55.5%	56.5%	55.5%
	1/1/2016	--	--	55.5%	55.5%	56.5%	55.5%

Source: Auditor analysis of questioned transactions

We also identified two NSF awards for which Pitt applied rates in effect when the respective proposals were submitted that were higher than the rates in effect when the awards were made. The lack of controls to identify differences between proposal and award date indirect cost rates caused Pitt to over-claim \$869 of indirect costs on two NSF awards, as shown in Table 5.

**Table 5. Summary of Awards with Incorrectly Overcharged Indirect Costs**

Award Number	Award Effective Date	Total Questioned	Year 1		Year 2		Year 3	
			Approved Rate	Applied Rate	Approved Rate	Applied Rate	Approved Rate	Applied Rate
	8/15/2010	\$ 636	51.5%	54.0%	51.5%	54.0%	51.5%	54.0%
	3/1/2015	233	--	--	54.0%	55.5%	54.0%	55.5%
<b>Total</b>		<b>\$ 869</b>						

Source: Auditor analysis of questioned transactions

Per Pitt, when the project is activated in the Research Proposal Accounting system, the responsible Sponsored Projects accountant determines and assigns the applicable rate and method of calculating indirect costs for each project by reading the Notice of Award. The rate assigned in the accounting system will correspond to the approved NICRA in effect at the time of the award. When an award spans more than one fiscal year, and the approved NICRA in effect at the time of award contains predetermined rates for subsequent fiscal years, the accounting system allows the Sponsored Projects accountant to schedule those rates for the entire award period. The rates are not changed once they are entered into the accounting system. Additionally, if the project period of the award includes fiscal years beyond the years with predetermined rates, the provisional rate in the NICRA is fixed for the remaining fiscal years of the award.

The under-recoveries primarily occurred on older awards. At that time, some award administrators used the rates submitted in the proposal rather than the rates in effect at the time of the award. The over-recoveries were caused by the addition of new subaccounts to the master project by the accounting department that incorrectly used the rate in effect at the time of the addition. Reconciliations were performed by the same individual responsible for administering the award, which resulted in unallowable indirect costs recoveries on two NSF awards. Pitt has now revised the process to include a supervisory review of award activations to detect errors in rate application, but this does not address the over-recoveries.

The accounting department should adopt enhanced oversight procedures to review and approve the rates assigned by the Sponsored Projects accountant and new subaccounts. Having improved oversight processes ensures 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. Pitt concurred with the full \$869 of questioned costs.

### ***Recommendation***

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

1. Direct Pitt to provide documentation supporting that it has repaid or otherwise credited the \$869 of questioned overcharged indirect costs for which it has agreed to reimburse NSF.
2. Direct Pitt to develop and implement controls to identify situations when indirect cost rates change between proposal submission and award date and to take appropriate steps to avoid claiming unallowable indirect costs on NSF awards.

### ***Summary of Awardee Response***

Pitt agreed with this finding. See Appendix A for the complete Pitt response.

### ***Auditor's Additional Comments***

Pitt's comments are responsive to this finding. Once NSF determines that the recommendations have been adequately addressed and the \$869 in questioned costs have been resolved, this finding should be closed.

## Finding 5: Employee Expenditures Charged as Participant Support

We identified two transactions, charged on Award No. [REDACTED] totaling \$392, where Pitt charged employee expenses to participant support, as described in Table 6.

**Table 6. Summary of Employee Expenses Charged to Participant Support**

Description	Total Questioned	Pitt Agreed to Reimburse
Mileage to Attend a Workshop	\$ 269	\$ 269
Meals, Parking, Mileage and Tolls during a Workshop	123	123
<b>Total</b>	<b>\$ 392</b>	<b>\$ 392</b>

*Source:* Auditor analysis of questioned transactions

Per NSF regulations, costs for employees are not to be paid out of participant support funds.<sup>10</sup>

Pitt personnel did not adequately review the expenditures charged to participant support, which resulted in unallowable costs charged to the award. Enhanced oversight procedures and controls should be adopted to review expenditures charged to participant support. Having improved oversight processes ensures 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 PAPPG requirements. Pitt concurred with the full \$392 in questioned costs, as illustrated in Table 6.

### *Recommendations*

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

1. Direct Pitt to provide documentation supporting that it has repaid or otherwise credited the \$392 of questioned participant support costs for which it has agreed to reimburse NSF.
2. Direct Pitt to strengthen the administrative and management procedures over allocating participant support costs to sponsored projects. Processes could include performing monthly detailed reviews of transactions posted to awards to ensure that expenditures are appropriately classified and recorded.

### *Summary of Awardee Response*

Pitt agreed with this finding. See Appendix A for the complete Pitt response.

<sup>10</sup> According to NSF PAPPG 16-1, Chapter II, C.2.g.v, the participant support budget category includes 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 NSF-sponsored conferences or training projects. Additionally, per Chapter V, A.3.b, "Written prior approval from the cognizant NSF Program Officer is required for reallocation of funds provided for participant support costs."

*Auditor's Additional Comments*

Pitt's comments are responsive to this finding. Once NSF determines that the recommendations have been adequately addressed and the \$392 in questioned costs have been resolved, this finding should be closed.

*Withum Smith + Brown, PC*

August 27, 2021

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## Appendix A: Awardee Response

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August 11, 2021

Eric M. Strauss, CPA, CGFM, Partner  
Withum Smith+Brown, PC.  
1835 Market Street  
Suite 1710  
Philadelphia, PA 19103-2945

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Dear Mr. Strauss:

The University of Pittsburgh (University) appreciates the opportunity to work with the National Science Foundation (NSF) Office of Inspector General and Withum Smith+Brown, PC. to examine its internal controls and sponsored programs accounting practices.

The University takes very seriously its obligation to administer NSF awards in compliance with all applicable laws, regulations, policies, and requirements. As such, the University welcomes the recommendations and opportunities to improve its sponsored programs practices and is committed to continuing to enhance policies and procedures to strengthen internal control functions. **To that end, the University is assessing each recommendation from the report and, with input from the NSF during the resolution process, will seek to implement those that will enhance its current control environment.** The University looks forward to discussing these costs and providing any requested additional supporting information to NSF as part of the resolution process.

Please find herein our management response to the questioned costs identified in the discussion draft report. If you have any questions, please do not hesitate to contact us.

### **Finding 1: Inadequate Documentation**

The University concurs with the finding and recommendation. The University understands the importance of maintaining adequate records and is committed to ensuring documentation is readily accessible in accordance with all applicable laws, regulations, policies, and requirements. The University is currently working to enhance its financial reporting environment through the implementation of a Sponsored Programs Dashboard designed to provide greater transparency of data in a more consistent and timely fashion to post-award administrators. This solution is being further reviewed to explore the potential for archival of source document images, such as vendor invoices. The University will also be reviewing and updating its Record Retention Policy during Fiscal Year 2022 to ensure documents are available on-demand for inspection. Lastly, the University is currently engaged in reviewing options to transform the pre- and post-award administration activities across campus targeting the optimization and standardization of operating procedures with the realignment of tasks under subject matter experts to improve capacity and service. The University agrees to refund the total of \$42,449 in questioned costs.

### **Finding 2: Purchases Near Award Expiration**

The University concurs in part with the finding and recommendation. The University understands the importance of accurate and timely expense allocations to awards and options available to the University if work will extend beyond the end-date. As noted above in Finding 1, the University is currently implementing a Sponsored Programs Dashboard solution designed to improve post-award administration in the performing department. Other pre-existing Central Finance tools have been enhanced over the last three years to identify end-of-term expenditures and provide 90-day expiration alerts to aid in a proactive review process with account administrators. Complementing these changes are staffing and organizational changes in the post-award administration offices in the Dietrich School of Arts & Sciences and the School of Engineering which represent the highest concentration of NSF funding at the University. These changes have strengthened the system of controls in those areas and are expected to be further enhanced by the initiative noted in Finding 1 aimed at a campus-wide pre- and post-award administration redesign. The University agrees to refund \$26,357 of the \$34,973 in questioned costs.

- The University does not agree with the questioned cost of \$7,543 on NSF Award No. [REDACTED] for the acquisition of Mass Flow Controllers 10 days prior to the end of the award. On November 17, 2016 the University placed an order for Mass Flow Controllers totaling \$4,979 on NSF Award No. [REDACTED] ending December 31, 2016. The University concurs that the items were purchased near the expiration of the award however, the University asserts that the purchase was critical to the completion of the project and the items ordered at the time were due to a malfunction of existing equipment due to a power outage. The malfunctioning equipment had been acquired years earlier with funding provided by the U.S. Department of Energy, thus the award did receive the relative benefit of the equipment despite having incurred the replacement cost near expiration. This unplanned event did not provide the lead time necessary to request a No-Cost Extension and the purchase was necessary to complete the goals of the project.
- The University does not agree with the questioned cost of \$1,073 on NSF Award No. [REDACTED] for the Cathode Replacement 1 day prior to the end of the award. In addition to the above purchase of Mass Flow Controllers, on December 30, 2016 Pitt was invoiced for a replacement part of a Mass Spectrometer for \$708. As noted above, this expenditure was also for the emergency replacement component of the Mass Spectrometer which malfunctioned due to a power outage. The Mass Spectrometer is critical to the Principal Investigator's research however, the University was unable to support the receipt of the item purchased occurring prior to the expiration of the award on December 31, 2016 and thus confirm the benefit to the overall project plan. This unplanned event did not provide the lead time necessary to request a No-Cost Extension and the purchase was necessary to complete the goals of the project.

### **Finding 3: Unallocable and Unreasonable Costs**

The University concurs in part with the finding and recommendation. The University understands the importance of reviewing expenditures to ensure costs are reasonable, allowable, and allocable. Staffing and organizational changes in the post-award

administration offices in the Dietrich School of Arts & Sciences and School of Engineering, which represent the highest concentration of NSF funding at Pitt, have strengthened the system of controls in those areas and are expected to be further enhanced by the initiative noted in Finding 1 aimed at a campus-wide pre- and post-award administration redesign. The University agrees to refund \$23,391 of the \$27,975 in questioned costs.

- The University does not agree with the total questioned cost of \$3,553 on NSF Award No. [REDACTED] for travel to [REDACTED]. This expenditure was for a 21-day trip spanning June 15, 2016 to July 6, 2016 covering attendance at two conferences, one of which took place after the end-date of the award. The University was able to isolate those costs related to the portion of the trip occurring after the end-date of the award and asserts that the costs incurred for the [REDACTED] Meeting in [REDACTED], [REDACTED] were reasonable, allowable, and allocable to the award. The University agrees to refund \$1,863 of the total questioned costs.
- The University does not agree with the questioned cost of \$2,894 on NSF Award No. [REDACTED] for the purchase of an Apple Computer. In April 2018 the University purchased an Apple IMAC Desktop Computer on NSF Award No. [REDACTED] for \$1,879. The award expired on July 31, 2018. The computer was purchased as the minimum necessary to replace an earlier model to conduct numerical simulations as proposed. The University asserts that neither the NSF PAPPG nor the Uniform Guidance require computers be used exclusively on a federal award. According to NSF PAPPG section II.C.2.g.vi.a and 2 CFR 200.453(c) both state: "In the specific case of computing devices, charging as direct costs is allowable for devices that are essential and allocable, but not solely dedicated, to the performance of a Federal award." Pitt further asserts the purchase was prudent in that the minimum necessary was purchased to meet the objectives of the award.

#### **Finding 4: Incorrect Application of Indirect Cost Rates**

The University concurs with the finding and recommendation. The University understands the importance of ensuring that Indirect Cost rates are assessed on awards based on the approved rate in effect at the time of the award to minimize the risk of over recovery and to maximize direct funding available to the investigator for scientific purposes. Central Finance data analytical tools have been enhanced over the last three years to provide improved exception reporting including an indirect rate reasonableness report. Both of these errors were related to supplements with an applied rate based on the date of the supplement rather than the original award date. The University will pursue development of additional reporting to detect differences in rates applied between the original award and any supplements. The University agrees to refund the total of \$869 in questioned costs.

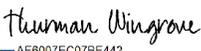
#### **Finding 5: Employee Expenditures Charged as Participant Support**

The University concurs with the finding and recommendation. The University understands the importance of reviewing expenditures to ensure costs are reasonable, allowable, and allocable as distributed. Employee-related costs were inappropriately charged to the participant support component of the award. The University will take the opportunity to re-

educate post-award Administrators in appropriate classification of participant support costs and the prior approval requirement when seeking to divert participant support funds to other expense categories. The University agrees to refund the total of \$392 in questioned costs.

The University agrees to reimburse the NSF \$93,459 of the questioned costs identified in the report. We do not agree with \$13,200 of questioned costs as outlined above.

We appreciate this opportunity to respond to the NSF and the consideration offered the University throughout the audit process. We take our role as financial stewards along with this process and the resultant recommendations seriously. The University has a longstanding commitment to integrity, and we believe the results of this audit will assist in strengthening its sponsored program administrative policies and procedures.

Sincerely,  
DocuSigned by:  
  
AE8007EC07BE442...  
Thurman Wingrove  
Controller

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## Appendix B: Objective, Scope, Methodology, and Criteria

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### *Objective*

To determine if costs claimed by Pitt on NSF awards were allowable, allocable, reasonable, and in compliance with NSF award terms and conditions and federal financial assistance requirements.

### *Scope*

Our audit included assessing the allowability, allocability, and reasonableness of costs claimed by Pitt through the Award Cash Management Service for the 3-year period beginning March 1, 2016, and ending February 28, 2019.

The audit was conducted in two phases: an Audit Survey Phase and an Incurred Cost Audit Phase. The audit work was conducted at the auditor's offices and onsite at Pitt in Pittsburgh, PA. Onsite Audit Survey fieldwork was conducted in November 2019. Offsite Incurred Cost fieldwork continued in May 2020.

Pitt 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, we considered Pitt's internal control solely to understand the policies and procedures relevant to the financial reporting and administration of NSF awards. We also evaluated Pitt'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 Pitt's internal control over award financial reporting and administration. Accordingly, we do not express an opinion on the effectiveness of Pitt's internal control over its award financial reporting and administration.

We conducted this performance audit 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. We believe that the evidence obtained provides a reasonable basis for our conclusions based on the audit objective.

### *Methodology*

We conducted the audit in two phases: an Audit Survey Phase and an Incurred Cost Audit Phase. The Audit Survey Phase was conducted as follows:

- Pitt provided detailed transaction data for all costs charged to NSF awards for the period March 1, 2016, through February 28, 2019. This provided an audit universe of \$73,909,736 with more than 87,000 transactions, across 434 individual NSF awards.
- We assessed the reliability of the data provided by Pitt by 1) comparing costs charged to NSF award accounts within Pitt's accounting records to reported net expenditures, as

reflected in Pitt's financial reports submitted to NSF for the corresponding periods; 2) performing general ledger to sub-ledger reconciliations of accounting data; and 3) reviewing and testing the parameters Pitt used to extract transaction data from its accounting records and systems. Based on our testing, we found Pitt's computer-processed data sufficiently reliable for the purposes of this audit.

- We conducted onsite walk-throughs and interviews to gain a detailed understanding of Pitt's systems, processes, policies, and procedures.
- We obtained and 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 Pitt. We verified these documents against supporting accounting records. To ensure that the internal controls were properly designed to detect, deter, and prevent fraud, errors, and irregularities, we judgmentally selected a sample of 35 transactions designed to test various internal controls. We tested these transactions to assess internal controls, applicable policies and procedures, and compliance with federal regulations, NSF PAPPG's and the award terms.
- At the conclusion of our fieldwork, we provided a summary of our results and recommendations to NSF OIG personnel for review and approval.

Based on the issues identified during the Survey Phase, we determined that an additional Incurred Cost Audit phase was warranted. The Incurred Cost Phase was conducted as follows:

- We judgmentally selected 228 transactions, totaling more than \$1.05 million based on issues identified in the Survey Phase.
- Selected transactions were provided to Pitt with a request for supporting documentation for each transaction.
- We conducted the following additional audit work: 1) pursued general ledger ACM\$ reconciliation issues; 2) ensured participant support costs were fully expended, and if not, that Pitt received prior approval as necessary; 3) obtained additional information on cost share; and 4) reviewed the indirect costs rates applied.
- We reviewed the supporting documentation provided by Pitt 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.

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

Our work required us to rely on the computer-processed data obtained from Pitt and NSF OIG. We assessed NSF's computer-processed data and found it to be sufficiently reliable for the

purposes of this audit. 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, 2018 and 2019 found no reportable instances in which NSF's financial management systems did not substantially comply with applicable requirements.

### *Criteria*

We assessed Pitt'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

## Appendix C: Questioned Costs Summary by Award

Award Number	Direct Costs Questioned	Fringe Benefits Questioned	Indirect Costs Questioned	Total Questioned	Total Unsupported
<b>Finding 1: Unsupported Costs</b>					
	\$ 22,979	\$ --	\$ 4,579	\$ 27,558	\$ 27,558
	3,416	--	1,845	5,261	5,261
	2,151	652	1,472	4,275	4,275
	1,283	--	693	1,976	1,976
	1,152	--	622	1,774	1,774
	884	--	--	884	884
	650	--	72	722	722
<b>Finding 1 Total</b>	<b>32,515</b>	<b>652</b>	<b>9,283</b>	<b>42,450</b>	<b>42,450</b>
<b>Finding 2: Purchases Near or After Award Expiration</b>					
	5,687	--	2,929	8,616	--
	5,039	--	2,595	7,634	--
	4,534	--	2,448	6,982	--
	2,797	--	1,440	4,237	--
	1,576	--	812	2,388	--
	1,544	--	834	2,378	--
	1,149	--	592	1,741	--
	658	--	339	997	--
<b>Finding 2 Total</b>	<b>22,984</b>	<b>--</b>	<b>11,989</b>	<b>34,973</b>	<b>--</b>
<b>Finding 3: Unallocable and Unreasonable Costs</b>					
	9,717	--	928	10,645	--
	8,424	--	--	8,424	--
	2,330	--	1,223	3,553	--
	1,879	--	1,015	2,894	--
	691	--	356	1,047	--
	814	--	--	814	--
	388	--	210	598	--
<b>Finding 3 Total</b>	<b>24,243</b>	<b>--</b>	<b>3,732</b>	<b>27,975</b>	<b>--</b>
<b>Finding 4: Incorrect Application of Indirect Cost Rates</b>					
	--	--	636	636	--
	--	--	233	233	--
<b>Finding 4 Total</b>	<b>--</b>	<b>--</b>	<b>869</b>	<b>869</b>	<b>--</b>
<b>Finding 5: Employee Expenditures Charged as Participant Support</b>					
	392	--	--	392	--
<b>Finding 5 Total</b>	<b>392</b>	<b>--</b>	<b>--</b>	<b>392</b>	<b>--</b>



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