



**NATIONAL SCIENCE FOUNDATION**  
**Division of Institution & Award Support**

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December 13, 2022

Carla Ho'a  
Chief Financial Officer  
Finance and Business Strategy  
University of Colorado Boulder  
90 UCB  
Boulder, CO 80309

Reference: OIG Report No. 20-1-001

Dear Carla Ho-a,

The National Science Foundation (NSF) has completed the review and resolution of the Office of Inspector General (OIG) audit report on costs incurred under NSF awards by the University of Colorado Boulder (CU Boulder) during the period of October 1, 2014, through September 30, 2017.

The audit report identified a total of \$79,831 in questioned costs claimed on NSF awards and recommended that CU Boulder strengthen its administrative and management controls over the areas in which findings and questioned costs were identified. As a result of its resolution efforts, NSF has determined that \$11,528 will be allowed and that \$68,303 will be sustained and disallowed. The table below summarizes the sustained, allowed, and disallowed costs by finding number:

<b>Finding</b>	<b>Description</b>	<b>Questioned</b>	<b>Sustained</b>	<b>Allowed</b>	<b>Disallowed</b>
1	Purchases Near Award Expiration	\$33,523	\$21,995	\$11,528	\$21,995
2	Expenditures After Award Expiration	\$20,653	\$20,653	\$0	\$20,653
3	Unallocable or Unreasonable Travel	\$15,785	\$15,785	\$0	\$15,785
4	Employee Expenditures Charged as Participant Support	\$4,597	\$4,597	\$0	\$4,597
5	Unallowable Transactions	\$2,728	\$2,728	\$0	\$2,728
6	Unsupported Transactions	\$2,545	\$2,545	\$0	\$2,545
	<b>Totals:</b>	<b>\$79,831</b>	<b>\$68,303</b>	<b>\$11,528</b>	<b>\$68,303</b>

To resolve the audit findings and questioned costs, NSF conducted detailed reviews of applicable Federal and NSF requirements, proposal and award information maintained by the Agency, and documentation provided by CU Boulder. The attached Schedule of Allowed and Disallowed Costs and the summary below provides the bases for the management decisions reached by NSF:

- **Finding 1: Purchases Near Award Expiration**

NSF partially sustains the finding. Based on the documentation reviewed, NSF determined that the \$11,528 of the questioned costs were supported as allowable costs. NSF determined that the expenses for the remaining questioned \$21,995 did not benefit the awards during the award periods and/or allocations of the costs were not supported. **NSF's management decision is to sustain and disallow \$21,995 and to allow \$11,528.**

Corrective Action: CU Boulder has provided evidence of \$4,997.50 in repayment. NSF requires that CU Boulder repay the remaining disallowed costs of \$16,997.50.

Compliance and Internal Control Recommendation: CU Boulder has enhanced internal controls over purchases near award expiration including additional monitoring from the Department Research Administration (DRA), PI justifications and sponsor approvals for equipment purchases, determinations by DRA if a no cost extension is needed, and Controller review of equipment purchases posted within 90 days of the award's end date.

**Final action will be complete upon repayment of \$16,997.50.**

- **Finding 2: Expenditures After Award Expiration**

NSF sustains the finding. NSF disagrees that the Uniform Guidance applied to the questioned publication costs. Had the Uniform Guidance applied, NSF's management decision would still be to disallow the questioned costs because the Uniform Guidance allows for publication costs to be charged **during closeout**. 2 CFR § 200.344 defines the closeout period end date as 120 days after the end date of the period of performance. The questioned costs were incurred 298 days to 798 days after the award expiration dates and were outside of the closeout periods. **NSF's management decision is to sustain and disallow \$20,653.**

Corrective Action: CU Boulder has provided evidence of \$4,259 in repayment. NSF requires that CU Boulder repay the remaining disallowed costs of \$16,394.

Compliance and Internal Control Recommendation: CU Boulder must strengthen its internal controls over charging publication costs incurred after the award expiration date. A corrective action plan is due to NSF no later than 90 days from the date of this letter.

**Final action will be complete upon repayment of \$16,394 and a determination by NSF that CU Boulder has strengthened its internal controls over publication costs to ensure that costs are incurred prior to the 120 days closeout period in compliance with the Uniform Guidance as implemented by NSF's PAPPG.**

- **Finding 3: Unallocable or Unreasonable Travel**

NSF sustains the finding. Based on CU Boulder's concurrence, it is NSF's management decision to sustain and disallow the \$15,785 of questioned costs.

Corrective Action: CU Boulder has provided evidence of \$15,785 in repayment.

Compliance and Internal Control Recommendation: CU Boulder recruited a Financial Compliance Manager and made updates to its policies. NSF takes no exception to CU Boulder's current policy, *Charging Travel Expenditures to Sponsored Projects*, effective July 1, 2016.

**NSF considers Finding 3 resolved and closed.**

- **Finding 4: Employee Expenditures Charged as Participant Support**

NSF sustains the finding. Based on CU Boulder's concurrence, it is NSF's management decision is to sustain and disallow the \$4,597 of questioned costs.

Corrective Action: CU Boulder has provided evidence of \$4,597 in repayment.

Compliance and Internal Control Recommendation: NSF does not take exception to CU Boulder's updated *Participant Support Costs - Policies and Procedures*, effective February 1, 2021, and the related FAQs.

**NSF considers Finding 4 resolved and closed.**

- **Finding 5: Unallowable Transactions**

NSF sustains the finding. Based on CU Boulder's concurrence, it is NSF's management decision is to sustain and disallow the \$2,728 of questioned costs.

Corrective Action: CU Boulder has provided evidence of \$2,728 in repayment.

Compliance and Internal Control Recommendation: CU Boulder implemented a *Procedural Statement, PI Departure From CU Boulder*, dated August 2019 and a Resignation Checklist.

**NSF considers Finding 5 resolved and closed.**

- **Finding 6: Unsupported Transactions**

NSF sustains the finding. Based on CU Boulder's concurrence, it is NSF's management decision is to sustain and disallow the \$2,545 of questioned costs.

Corrective Action: CU Boulder has provided evidence of \$2,545 in repayment.

Compliance and Internal Control Recommendation: CU Boulder updated its *Retention of University Records Policy*, effective January 2019.

**NSF considers Finding 6 resolved and closed.**

Based on the above, the total disallowed amount is \$68,303. CU Boulder has provided NSF evidence of \$34,911 in repayments. **Repayment of the remaining \$33,392 must be made via [www.pay.gov](http://www.pay.gov).** Please reference OIG Audit Report No. 20-1-001. Any necessary adjustments to ACM\$ as a result of the repayment will be made by the NSF Division of Financial Management (DFM). **Repayment of disallowed costs must be received no later than 90 days from the date of this letter. Failure to provide timely repayment may result in DFM initiating formal collection through the Department of Treasury, Debt Management Services.**

Please be aware that CU Boulder's right to appeal cost disallowances by NSF is outlined in Chapter XII.B of the NSF Proposal and Award Policies and Procedures Guide (PAPPG), which may be found online at: [https://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=pappg](https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg). **An appeal must be filed within 30 days from the date of this letter, or January 12, 2023.**

NSF considers all audit report findings and questioned costs resolved. Upon verification that repayment of all disallowed costs has been completed and that internal controls over publication costs has been strengthened, the audit report will be fully closed out by NSF.

CU Boulder's timely responses and full cooperation with the NSF audit resolution process have been greatly appreciated. Should you have any questions regarding this letter or the NSF audit resolution process, please contact me at 703-292-4579.

Sincerely,

***Carrie Davison***

Carrie Davison, Senior Cost Analyst  
Resolution and Advanced Monitoring Branch  
Division of Institution and Award Support

Attachment: Schedule of Allowed and Disallowed Costs

cc: Vicki Nichol, Controller, CU Boulder

**ATTACHMENT 1: Summary Schedule of Allowed and Disallowed Costs**  
**University of Colorado Boulder (CU Boulder)**  
**OIG 20-1-001**

Finding	Audit Report Description	Questioned	Allowed	Disallowed	REPAYMENTS		Notes
					Repaid	To Repay via Pay.gov	
<b>1</b>	<b>Purchases Near Award Expiration</b>						
	Award No. 1150834	\$ 6,280.73	\$ 6,280.73	\$ -	\$ -	\$ -	1
	Award No. 1200830	\$ 19,621.19	\$ 2,623.69	\$ 16,997.50	\$ -	\$ 16,997.50	2
	Award No. 1230933	\$ 7,621.19	\$ 2,623.69	\$ 4,997.50	\$ 4,997.50	\$ -	3
	<b>Subtotal Finding 1</b>	<b>\$ 33,523.11</b>	<b>\$ 11,528.11</b>	<b>\$ 21,995.00</b>	<b>\$ 4,997.50</b>	<b>\$ 16,997.50</b>	
<b>2</b>	<b>Expenditures After Award Expiration</b>						
	Award No. 0964238	\$ 9,615.01	\$ -	\$ 9,615.01	\$ 1,033.09	\$ 8,581.92	4
	Award No. 1024701	\$ 7,472.33	\$ -	\$ 7,472.33	\$ 1,817.35	\$ 5,654.98	4
	Award No. 1023366	\$ 3,487.65	\$ -	\$ 3,487.65	\$ 1,329.83	\$ 2,157.82	4
	Award No. 1028714	\$ 78.45	\$ -	\$ 78.45	\$ 78.45	\$ -	5
	<b>Subtotal Finding 2</b>	<b>\$ 20,653.44</b>	<b>\$ -</b>	<b>\$ 20,653.44</b>	<b>\$ 4,258.72</b>	<b>\$ 16,394.72</b>	
<b>3</b>	<b>Unallocable or Unreasonable Travel</b>						
	Award No. 1660574	\$ 2,065.17	\$ -	\$ 2,065.17	\$ 2,065.17	\$ -	5
	Award No. 1226297	\$ 7,335.65	\$ -	\$ 7,335.65	\$ 7,335.65	\$ -	5
	Award No. 1657743	\$ 3,716.53	\$ -	\$ 3,716.53	\$ 3,716.53	\$ -	5
	Award No. 1313188	\$ 905.85	\$ -	\$ 905.85	\$ 905.85	\$ -	5
	Award No. 1531996	\$ 749.21	\$ -	\$ 749.21	\$ 749.21	\$ -	5
	Award No. 1343811	\$ 452.59	\$ -	\$ 452.59	\$ 452.59	\$ -	5
	Award No. 0847722	\$ 290.43	\$ -	\$ 290.43	\$ 290.43	\$ -	5
	Award No. 1423989	\$ 269.64	\$ -	\$ 269.64	\$ 269.64	\$ -	5
	<b>Subtotal Finding 3</b>	<b>\$ 15,785.07</b>	<b>\$ -</b>	<b>\$ 15,785.07</b>	<b>\$ 15,785.07</b>	<b>\$ -</b>	
<b>4</b>	<b>Employee Expenditures Charged as Participant Support</b>						
	Award No. 1460906	\$ 1,882.50	\$ -	\$ 1,882.50	\$ 1,882.50	\$ -	5
	Award No. 1439389	\$ 1,326.06	\$ -	\$ 1,326.06	\$ 1,326.06	\$ -	5
	Award No. 1038305	\$ 647.06	\$ -	\$ 647.06	\$ 647.06	\$ -	5
	Award No. 1439389	\$ 533.00	\$ -	\$ 533.00	\$ 533.00	\$ -	5
	Award No. 1421233	\$ 208.00	\$ -	\$ 208.00	\$ 208.00	\$ -	5
	<b>Subtotal Finding 4</b>	<b>\$ 4,596.62</b>	<b>\$ -</b>	<b>\$ 4,596.62</b>	<b>\$ 4,596.62</b>	<b>\$ -</b>	
<b>5</b>	<b>Unallocable Transactions</b>						
	Award No. 1161029	\$ 2,727.54	\$ -	\$ 2,727.54	\$ 2,727.54	\$ -	5
	<b>Subtotal Finding 5</b>	<b>\$ 2,727.54</b>	<b>\$ -</b>	<b>\$ 2,727.54</b>	<b>\$ 2,727.54</b>	<b>\$ -</b>	
<b>6</b>	<b>Unsupported Transactions</b>						
	Award No. 1660574	\$ 2,072.40	\$ -	\$ 2,072.40	\$ 2,072.40	\$ -	5
	Award No. 1134561	\$ 473.30	\$ -	\$ 473.30	\$ 473.30	\$ -	5
	<b>Subtotal Finding 6</b>	<b>\$ 2,545.70</b>	<b>\$ -</b>	<b>\$ 2,545.70</b>	<b>\$ 2,545.70</b>	<b>\$ -</b>	5
<b>TOTALS</b>		<b>\$ 79,831.48</b>	<b>\$ 11,528.11</b>	<b>\$ 68,303.37</b>	<b>\$ 34,911.15</b>	<b>\$ 33,392.22</b>	

- NSF has determined that the questioned supplies were critical to the completion of the project objectives, were incurred specifically for the benefit of the NSF award, and are 100% allocable to the NSF award in accordance with 2 CFR 220, App. A, C.4, Allocable Costs. It is NSF's determination to allow the questioned costs of \$6,281.
- CU Boulder's 8/17/2022 response does not change NSF's determination: While testing may have begun using the equipment prior to November 30, 2016, these tests were not integral for the completion of the award as evidenced by the final project report. Rather it appears that the equipment supports early testing for continuing research as evidenced by CU Boulder's analysis. The questioned equipment constitutes infrastructure; however, only BrainBLOX, the custom VR environment built under the award, is mentioned in the Final Project Report. And finally, there is no documentation that supports the reasonableness of the allocations of "time needed to use the equipment." Based on the foregoing, it is NSF determination to disallow the costs related to the questioned equipment. It is noted that \$2,623 indirect costs was questioned by the auditors; however, CU Boulder does not allocate indirect costs to equipment. It is NSF's management decision to allow \$2,623 and to disallow \$16,998.
- NSF has determined to disallow \$4,998 direct costs based upon CU Boulder's concurrence and to allow the \$2,623 indirect costs that were never incurred.
- NSF has determined that The Uniform Guidance did not apply to the three questioned awards. Nothing in OMB policies nor in NSF's PAPPGs prior to the Uniform Guidance provides for the allowability for any costs incurred (or valid commitments) after the award expiration date. Furthermore, even had the awards been issued under the Uniform Guidance, the questioned costs would still be unallowable because the publication costs were not incurred during the 120 day closeout periods of the awards. Therefore, NSF's management decision is to disallow the questioned costs of \$20,575.
- NSF has determined to disallow the questioned costs based upon CU Boulder's concurrence.