

National Science Foundation • Office of Inspector General 4201 Wilson Boulevard, Suite I-1135, Arlington, Virginia 22230

MEMORANDUM

DATE:

September 21, 2012

TO:

Mary F. Santonastasso, Director

Division of Institution and Award Support

Karen Tiplady, Director

Division of Grants and Agreements

FROM:

Dr. Brett M. Baker

Assistant Inspector General for Audit

SUBJECT:

Audit Report No. OIG-12-1-007

University Corporation for Atmospheric Research

This memo transmits Mayer Hoffman McCann's report for the audit of 121 NSF cooperative agreements awarded to the University Corporation for Atmospheric Research (UCAR), totaling \$949 million, reported on the federal financial report submitted for the period ended September 30, 2011. The audit objectives were to identify costs claimed on the NSF awards that were not allocable, allowable and reasonable, and determine if UCAR had properly accounted for, segregated, and reported the funds for 13 American Reinvestment and Recovery Act (ARRA) NSF awards.

The auditors questioned \$29,384 of claimed costs that were not in accordance with the award terms and conditions. The audit also identified conference-related expenses as high risk for abuse, and found that UCAR improperly and inconsistently reported program income. The audit included a review of 13 ARRA awards; and concluded that there was no concern regarding accounting for, segregating or reporting of ARRA funds. Two other matters regarding management fees and contingency funds came to the auditor's attention during this audit, but will be followed up on separately.

UCAR's response, dated September 10, 2012, agreed to repay over half of the questioned costs and disputed the remaining, and stated that they believed that UCAR is already satisfying the other report recommendation to closely monitor conference related expenditures and properly record and report program income. UCAR's response is described after the findings and recommendations and is included in its entirely in Appendix A of the audit report.

Please coordinate with our office during the six month resolution period, as specified by OMB Circular A-50, to develop a mutually agreeable resolution of the audit findings. Also, 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 are providing copies of this memorandum to the Vice President of Finance and Administration and the Director of Budget and Finance at UCAR. The responsibility for audit resolution rests with the

Division of Institution and Award Support, Cost Analysis and Audit Resolution Branch (CAAR). Accordingly, we ask that no action be taken concerning the report's findings without first consulting CAAR at 703-292-8244.

OIG Oversight of Audit

To fulfill our responsibilities under Government Auditing Standards, the Office of Inspector General:

- Reviewed Mayer Hoffman McCann'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 Mayer Hoffman McCann and NSF officials, as necessary, to discuss audit progress, findings, and recommendations;
- Reviewed the audit report, prepared by Mayer Hoffman McCann to ensure compliance with Government Auditing Standards; and
- Coordinated issuance of the audit report.

Mayer Hoffman McCann is responsible for the attached audit report of UCAR and the conclusions expressed in the report. We do not express any opinion on the audit report or the Schedules of Questioned Costs attached to the report as appendices.

We thank your staff for the assistance that was extended to our auditors during this audit. If you have any questions regarding this report, please contact Louise Nelson at 303-844-4689.

Attachment

cc: Alex Wynnyk, Branch Chief, CAAR



University Corporation for Atmospheric Research

Performance Audit of Incurred Costs For

National Science Foundation Awards For Costs Claimed in the Federal Financial Report For the Period Ended September 30, 2011

MAYER HOFFMAN McCANN P.C.

Certified Public Accountants 3 Bethesda Metro Center, Suite 600 Bethesda, Maryland 20814

Executive Summary

The National Science Foundation (NSF) Office of Inspector General (OIG), engaged Mayer Hoffman McCann P.C. (MHM) to perform a performance audit of \$949,060,632 in costs claimed and reported on the September 30, 2011 Federal Financial Report (FFR) submitted to NSF by the University Corporation for Atmospheric Research (UCAR) for NSF awards. The FFR included costs for 121 awards including 13 American Recovery and Reinvestment Act (ARRA) awards from October 1, 2003, through September 30, 2011. The audit was conducted between February 28th, 2012 and August 21st, 2012.

From the transactions we reviewed, we identified \$29,384 of NSF-funded questioned costs, including in related indirect costs. Additionally, we noted compliance and internal control deficiencies in UCAR's financial and award management practices that could impact current and future NSF awards. Specifically:

- UCAR claimed costs for awards related to eight retirement parties, two anniversary celebrations, flowers for a workshop, bank fees, refreshments, meals, farewell parties, and wine and cheese socials that we considered unallowable, unallocable and/or unreasonable. This resulted in \$29,384 of questioned costs.
- UCAR reported over \$2.7 million in conference-related expenses. We tested a sample of these expenses and in light of the current environment and close scrutiny over conference-related expense spending; we have concerns that these costs are high risk for possible abuse.
- UCAR improperly and inconsistently reported program income on the audited FFR of \$3,345,851 for award no. 404790. We confirmed that this program income was netted against award expenditures and thus the misreported amount is not questioned. However, UCAR should strengthen its internal controls for the reporting of program income to ensure that it is allocated to the correct award or that the amount of program income allocated is correct.

We did not identify any areas of concern with regard to ARRA funds. We found UCARs accounting system properly accounted for, segregated, and reported the use of ARRA funds.

To address these compliance and internal control deficiencies, we made three recommendations to the Director of NSF's Division of Institution and Award Support (DIAS) to consider and resolve.

We also identified two other matters that came to our attention during the course of this audit, but were unable to address prior to issuance of this report.

UCAR responded to the draft report on September 10, 2012. In its response, UCAR stated that they are disputing \$9,275 of direct costs and applicable indirect costs of \$3,346 as being allowable, allocable and reasonable. UCAR stated that the remaining

questioned costs are being transferred to its General Fund for various reasons. UCAR stated that they will continue to be diligent regarding its management of conference-related expenses. Finally, UCAR stated that its tracking and reporting of program income are sufficiently robust and meet the accountability requirements as defined in OMB Circular A-110.

The auditors considered UCAR's response; however, we determined that the findings and recommendations remain as stated. UCAR's response to the findings identified in our audit is described after the recommendations and included in its entirety in Appendix A of this report. Our comments on UCAR's responses follow each of their responses.

The findings in this report should not be closed until NSF has determined that all the recommendations have been adequately addressed and the proposed corrective action plans have been satisfactorily implemented.

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ACRONYMS

ARRA BU	American Recovery and Reinvestment Act Boston University
CFR	Code of Federal Regulations
FFR	Federal Financial Report
FFRDC	Federal Funded Research Development Center
FIFO	First in First Out
GPM	Grant Policy Manual
NCAR	National Center for Atmospheric Research
NSF	National Science Foundation
MHM	Mayers Hoffman McCann
OIG	Office of Inspector General
OMB	Office of Management and Budget
PI	Principal Investigator
UCAR	University Corporation for Atmospheric Research
UOP/UCP	UCAR Office of Programs / UCAR Community Programs

Introduction

The National Science Foundation (NSF) is an independent federal agency whose mission is "to promote the progress of science; to advance the national health, prosperity, and welfare; and to secure the national defense." To support this mission, NSF funds research and education across all fields of science and engineering, primarily through grants and cooperative agreements to more than 2000 colleges, universities, and other institutions throughout the United States.

NSF makes awards to external entities – primarily universities, consortia of universities or nonprofit organizations – to undertake construction, management and operation of facilities. One such award recipient is the University Corporation for Atmospheric Research (UCAR).

UCAR, located in Boulder, Colorado, is a consortium of 77 university members and 24 undergraduate and masters' degree granting institutions that have official ties through UCAR's Academic Affiliates Program. UCAR receives 90 percent of its funding from NSF and other federal agencies. Its mission is to bring scientists together to research conditions in the Earth's atmosphere and assess how those conditions affect our everyday life. UCAR receives funding from various federal agencies and private organizations. Funding comes in the form of cooperative agreements, grants, contracts, and donations.

The two major research components of UCAR are National Center for Atmospheric Research (NCAR) and the UCAR Office of Programs (UOP) / UCAR Community Programs (UCP). NCAR is a federally funded research and development center sponsored by NSF. NSF and other federal agencies provide funding for NCAR, which has a large scientific staff dedicated to exploring and understanding the atmosphere and its interactions with the sun, the ocean, the biosphere, and human society. In addition to conducting research, NCAR provides members, affiliates, and others with tools such as aircraft and radar to observe the atmosphere and with the technology and assistance to interpret and use these observations, including supercomputer access, computer models, and user support. UOP consists of eight programs which create, conduct, and coordinate projects that strengthen education and research in the atmospheric, oceanic, and earth sciences.

As of January 2012, UCAR employed 1,539 employees: 990 under the NCAR program; 276 under UCP programs; and most of the remaining 273 in corporate and administrative offices. For fiscal year 2010, UCAR expended \$227 million, of which \$179 million was used for NCAR's operation.

UCAR was selected for this audit because of concerns raised in previous audits, including a 2011 NSF OIG audit, in which UCAR was a sub-grantee of an NSF award¹; a 2008 NSF OIG audit of UCAR's Purchase Card and Timekeeping systems; and management letter of the 2010 OMB Circular A-133 audit. Some of these reports

¹ NSF OIG Report Number OIG-11-012, Boston University Center for Integrated Space Weather Modeling.

yielded concerns, which indicated that there could be potential weaknesses in UCAR's internal controls over its financial and grant administration of NSF awards. Specifically, the 2011 NSF OIG audit report identified concerns related to UCAR, as a NSF subgrantee, with its financial management practices that led to questioned costs including management fees, depreciation, conference-related expenses, indirect costs charged as direct costs, foreign travel and questionable cost share. The 2008 NSF OIG audit report identified internal control deficiencies in financial and grant administration related to purchase card expenditures and UCAR's timekeeping system, and the 2010 OMB Circular A-133 audit management letter identified a need for improved controls over accountability of property.

UCAR had 121 active NSF awards with \$949 million in total expenditures claimed on its FFR for the period ended September 30, 2011. This includes 13 American Recovery and Reinvestment Act (ARRA) awards totaling \$18 million. As a recipient under the American Recovery and Reinvestment Act of 2009, UCAR has additional requirements to account for, segregate and report its ARRA expenditures and activity.

Audit Results

As a result of the audit, we questioned \$29,384 in unreasonable, unallowable and/or unallocable costs claimed to NSF by UCAR, including in related indirect costs. Questioned costs are (1) costs for which there is documentation that the recorded costs were expended in violation of the laws, regulations or specific award conditions, (2) costs that require additional support by the grantee, or (3) costs that require interpretation of allowability by NSF's Division of Institution and Award Support. The final determination as to whether such costs are allowable will be made by NSF. The ultimate outcome of this determination cannot presently be determined. Accordingly, no adjustment has been made to costs claimed for any potential disallowance by NSF.

Finding 1: Unallowable Costs Charged to NSF Grants

During our audit testing of other direct costs we identified 35 transactions in which unallowable costs were charged to NSF grants. This resulted in total questioned costs of \$29,384, including of other direct costs and of related indirect costs. Below is a description of the questioned transactions:

- a) 7 transactions in the amount of \$9,160 for retirement parties were considered unreasonable and unallowable.
- b) 7 transactions in the amount of \$7,840 for anniversary parties were considered unreasonable and unallowable.
- c) 1 transaction in the amount of \$225 for the purchase of flowers for a workshop was considered unreasonable and unallowable.
- d) 19 transactions in the amount of \$2,086 for the purchase of items such as food and beverages for staff meetings, farewell parties, and wine and cheese socials were considered unallowable.
- e) 1 transaction in the amount of \$1,180 for overcharge bank service fees was considered unallocable.

2 CFR 230, Cost Principles for Non-Profit Organizations (OMB Circular A-122), Section A. Basic Considerations, 3. Reasonable Costs, (a) states, in part: "Whether the cost is of a type generally recognized as ordinary and necessary for the operation of the organization or the performance of the award"

2 CFR 230, Cost Principles for Non-Profit Organizations (OMB Circular A-122), Section A. Basic Considerations, 4. Allocable Costs, (a) states, in part: "A cost is allocable to a particular cost objective, such as a grant, contract, project, service, or other activity, in accordance with the relative benefits received."

2 CFR, Part 215 (OMB Circular A-110) also requires that a federal award recipient's financial management system shall maintain "effective control over and accountability of all funds, property and other assets." NSF's Award and Administration Guide, Chapter 5, Unallowable Costs, reiterates unallowable costs, such as food, pre-award costs, general purpose equipment and other unnecessary and unreasonable costs should not be charged to NSF awards.

UCAR provided an additional explanation and a reconciliation of program income received explaining that the credit card processing fees should have been allocated between two separate workshops (CEDAR and the Space Weather) but erroneously charged the full amount to the CEDAR workshop. As a result, \$1,180 of credit card processing fees was erroneously allocated to the wrong grant. UCAR noted that both grants were NSF grants and are now closed. None of the activities referenced above as questioned were necessary for the performance of the awards being questioned. In addition, the grant budgets did not include the activities questioned above.

Additionally, as part of our audit, we tested \$39,990 of costs claimed for various NSF grants related to snacks, beverages and meals provided for workshops to determine whether they were reasonable and necessary in light of the increased scrutiny related to conference related expenditures in the Federal government as a whole. These costs were determined to be allocable to the NSF grants; however, we could not conclude on the reasonableness and necessity of them to achieve the grants objectives. Therefore, we decided not to question these costs.

The Office of Management and Budget (OMB), in Memorandum M-11-35, *Elimination Excess Conference Spending and Promoting Efficiency in Government*, dated September 11, 2011, directed all Federal agencies and departments to conduct a thorough review of the controls and policies associated with conference-related activities and expenses. This memorandum cites a September 2011 Department of Justice (DOJ) Office of Inspector General (OIG) audit report, which identified insufficient internal controls to limit costs for planning and food and beverages for DOJ conferences.

Although these documents pertain to limitations established for Federal agencies, since UCAR is approximately 90 percent funded by various Federal agencies, the same limitations should be established. We believe that UCAR should encourage its staff to become aware of the requirements to Cut Waste being promoted by the OMB and apply it to the extent possible. During our audit period, a total of \$2,794,157 in conference related expenditures were charged to the NSF grants. Consequently, these should be considered high risk expenditures that without close scrutiny could result in future questioned costs for UCAR.

Finding 2: Improper Reporting of Program Income

During the testing of program income we noted that not all program income recorded in the general ledger was reported in the FFR for the period ended September 30, 2011. UCAR recorded \$4,431,819 of program income in its general ledger and reported \$1,085,968 in its FFR. Program income in the amount of \$3,345,851 for award no. 404790 was not reported in the FFR. We confirmed that this program income was netted against award expenditures on the FFR and thus the misreported amount is not questioned. However, UCAR did not properly or consistently represent its program income in its reporting to NSF on award 404790.

2 CFR Part 215 (OMB Circular A-110), Subpart C, §21(b)(1), (b)(2), and (b)(3) requires that a federal award recipients' financial management system shall provide: (1) accurate, current and complete disclosure of the financial results of each federally-sponsored project or program; (2) records that identify adequately the source and application of

funds for federally-sponsored activities; and, (3) effective control over accountability of all funds, assuring that all funds are used solely for authorized purposes. Likewise, NSF's Grant Policy Manual (GPM), Section 301 indicates that UCAR is responsible for prudent management of all expenditures and actions affecting its NSF grants; GPM Section 410 also reiterates the requirements of 2 CFR Part 215 cited herein.

2 CFR 215, Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations (OMB Circular A-110), Subpart C, 24. Program Income (b), states, in part: "program income earned during the project period shall be retained by the recipient and, in accordance with Federal awarding agency regulations or the terms and conditions of the award, shall be used in one or more of the ways listed in the following.

- (1) Added to funds committed to the project by the Federal awarding agency and recipient and used to further eligible project or program objectives.
 - (2) Used to finance the non-Federal share of the project or program.
- (3) Deducted from the total project or program allowable cost in determining the net allowable costs on which the Federal share of costs is based."

UCAR staff explained that due to the First-In-First-Out (FIFO) method of accounting on this award and prior awards for NSF base funding to NCAR, it was not possible to determine the cumulative amount of program income received. Therefore, UCAR did not report program income for this award in the FFR. Although UCAR staff were able to identify where the program income was credited back to NSF award, thus the correct amount of income and expenditures were ultimately charged to the award, the appropriate amounts were not accurately reported on the FFR.

Additionally, UCAR should strengthen its procedures to verify that program income is allocated to the correct award or that the amount of program income allocated is correct by having additional interactions between the program administrators and the finance office staff. The Principal Investigator (PI) and the department administrator for the grant have the sole responsibility for determining to which award and the amount of program income to be reported. An employee from the Finance area, with little knowledge of the award, is responsible for entering the information into UCAR's accounting system based on the information provided by the department staff. There is currently no second review or reconciliation by a finance staff to determine if the allocations are correct.

Recommendations

We recommend that NSF's Director of the Division of Institution and Award Support (DIAS) address and resolve the following recommendations that UCAR:

- 1a. Ensure that UCAR repays the \$29,384 of questioned costs to NSF. In addition, ensure that UCAR implement controls so that only costs benefiting the awards and included in its budget are charged to federal awards.
- 1b. Ensure that UCAR closely scrutinizes and monitors their conference-related expenditures to ensure that costs charged are clearly allowable and reasonable.
- Strengthens its internal controls to ensure that program income for all awards is properly and consistently treated, including some checks and balances to ensure that program income is recorded into the appropriate grant, and reported in its FFR.

Awardee's Comments

Regarding recommendation 1a, UCAR stated that they are disputing \$9,275 of direct costs and applicable indirect costs of as being allowable, allocable and reasonable. UCAR stated that the remaining questioned costs are being transferred to its General Fund for various reasons.

Regarding recommendation 1b, UCAR stated that they will continue to be diligent regarding its management of conference-related expenses.

Regarding recommendation 2, UCAR stated that its tracking and reporting of program income are sufficiently robust and meet the accountability requirements as defined in OMB Circular A-110.

Auditor's Response

MHM sustains its position that the questioned costs were not allowable, allocable or reasonable. Our recommendation related to program income is intended to strengthen the existing policies and procedures.

Other Matters

Management Fees

UCAR charges a negotiated management fee to NSF under its Cooperative Agreement with NSF to administer NCAR, a Federally Funded Research and Development Center (FFRDC). For the period of October 2003, through September 2011 UCAR charged \$4,901,877 in management fees related to the awards reported in the FFR submitted to NSF for the period ended September 30, 2011. Of that total, \$2,321,024 pertained to direct NSF awards and \$2,580,853 to awards made by other federal agencies that were assigned to NSF to administer.

The UCAR management fee is not directly tied to a specific reimbursable cost, but instead is a predetermined set fee that is reimbursed to cover costs that are not reimbursable through federal grants and organizational risk. UCAR has stated that funds obtained through the management fee are necessary to maintain the health and stability of the organization. However, UCAR incorporates the applicable cost principles into its award agreements, therefore awardees are required to ensure that all costs reimbursed by the federal government are adequately documented, reasonable and allowable.

UCAR is already reimbursed for its indirect costs that are used to cover the administrative and related costs that benefit the award but are not directly identifiable to a particular award. The management fee is paid in addition to the indirect costs already reimbursed, and UCAR is not required to provide any supporting documentation to substantiate costs that would relate to this fee being charged.

A 2011 NSF OIG audit report found that UCAR charged a management fee for a subaward agreement related to an NSF grant awarded to the Boston University (BU). UCAR does not consider its NSF sub-awards to be NSF awards. Rather, these awards are considered awards from the paying entity. UCAR considers its NSF sub-award from BU to be a BU award, not an NSF award, and therefore UCAR is allowed to charge a percentage-based management fee. We did not review the management fees charged by UCAR as a subgrantee as these fees are not included in UCAR's FFRs, thus they were not part of this audit's scope. Presently, this issue is going through NSF's audit resolution process.

Although this audit did not include a detailed review of indirect costs or the management fee structure used by UCAR; it is noted because it was identified during the course of this audit.

Contingency Expenditures

UCAR's proposal under award no. 1034857 (Wyoming Supercomputing Center Construction Funds) included a contingency fee of 7.5% or \$4,374,092 of the UCAR NSF award total \$48,075,144 and an overall project cost total of \$62,695,317. There was no explanation in the proposal budget narrative as to what risk or what the specific use was associated with this contingency amount. OMB Circular A-122, Attachment B, Section 8, Contingency Provisions, states that "Contributions to a contingency reserve or any similar provision made for events the occurrence of which cannot be foretold with certainty as to time, intensity, or with an assurance of their happening, are unallowable."

As of its September 30, 2011 FFR, UCAR reported \$70,227 of contingent expenditures for this award. These expenditures were for construction payments and applicable indirect costs associated with those payments. A complete review of the budget proposal and resulting award expenditures related to whether these payments met the OMB definition of contingency was not made during this audit.

Appendix A: UCAR Response



University Corporation for Atmospheric Research

NATIONAL CENTER FOR ATMOSPHERIC RESEARCH | UCAR OFFICE OF PROGRAMS

September 10, 2012

Mayer Hoffman McCann P.C. Certified Public Accountants 3 Bethesda Metro Center, Suite 600 Bethesda, Maryland 20814

Dear

This audit included all awards for which costs were reported to NSF on the September 30, 2011 Federal Financial Report (FFR). The audit universe included 121 individual NSF awards, approximately \$949M of expenses and over 843,000 transactions. The audit firm of Mayer Hoffman McCann P.C. in conjunction with auditors from the NSF Office of Inspector General's Denver Office reviewed 352 transactions with a value of \$46,912,708 representing 5% of the costs reported on the September 30, 2011 FFR.

Of this large audit universe, the audit report is questioning \$20,491.72 (35 transactions) of direct costs and applicable indirect costs totaling for a total of UCAR is disputing \$9,275.24 direct costs with an additional of applicable indirect costs of these questioned costs as being allowable, allocable and reasonable. The costs categorized as retirement/reductions in staff (\$9,270.00 direct costs and indirect costs) were incurred between August 2004 and October 2007. As of May 2010, per NSF direction, UCAR's procedure was revised and these costs cannot be charged to a direct or indirect funded program and prior to this time these costs were deemed allowable by NSF. The remaining costs are being transferred to UCAR's General Fund for various reasons. UCAR feels that the undisputed questioned costs totaling \$16,746.05 (included direct and applicable indirect costs) is a true testament to strong internal controls and its commitment to excellence in leadership and management including administration.

Transaction Description	Count	Direct Cost	Indirect Cost	UCAR Response
Retirement/Reductions in Staff Events	8	\$9,270.00	Cost	These transactions occurred prior to May 2010 and, as of this date, per NSF direction, all future retirements/reductions in staff are charged to UCAR's General Fund and not direct or indirect funded programs.
Transactions to be transferred to UCAR's General Fund			20 4	
a Transaction Age	3	\$46.00		Due to the age of the transactions, UCAR is unable to locate additional documentation to support these transactions.
b Merchant Processing Fee	1	\$1,180.48		The merchant fees associated with accepting credit card registration fees were incorrectly allocated.
c Other Charges	4	\$720.00		For administrative efficiency reasons, UCAR is not disputing these questioned costs
Allowable transactions for meetings and conferences	19	\$9,275.24	· ************************************	See explanation below in Note 1.
Grand Totals	35	\$20,491.72		

Note 1:

UCAR takes exception to Finding 1, specifically that questioned costs in the amount of \$9,275.24 including of indirect costs were unallowable, unallocable, and/or unreasonable. All of the questioned costs are allowable, allocable, and reasonable per 2 CFR 230 (OMB Circular A-122), Attachment B and consistent with meetings and conference activities described in UCAR's proposals to NSF for the Management of the National Center for Atmospheric Research. The costs are also allowable under NSF's proposal guidance Grant

Proposal Guide, NSF02-2, effective January 1, 2002 and NSF's Award Administration Guide, NSF-09-1 dated January 2008 which were in effect at the time the proposals funded under the referenced awards were submitted to NSF.

Pre Award

NSF Proposal Guidance:

This audit report's reference to NSF's Award and Administration Guide (page 1 of Introduction) does not reference the guides' effective date or recognize that the guidance is applicable to proposals issued by a proposer on or after a specific date in time. The proposal guidance that was in effect and under which UCAR's proposals were submitted to NSF were:

Grant Proposal Guide, NSF02-2, effective January 1, 2002; and

NSF's Award Administration Guide, NSF-09-1 dated January 2008.

The specific language from the guidance that pertains to meetings and conferences reads:

"Meals and Coffee Breaks – (b) No NSF funds may be spent on meals or coffee breaks for intramural meetings or an organization or any of its components, including but not limited to laboratories, departments and centers."

Based upon NSF proposal guidance, the questioned costs were not unallowable. None of the questioned costs were expended for "intramural meetings"; they were incurred for purposes consistent with UCAR's proposals and the management of a national center, consistent with the guidance in effect at the time the proposals were submitted, and allowable per the Federal cost principles incorporated into the stated awards (see below).

Post Award

Financial and Administrative Terms and Conditions:

The questioned meeting, workshop, and conference costs were all held in support of on-going activities supported by NSF. Consistent with the terms of the awards, all of the activities were attended by UCAR and non-UCAR collaborators, university representatives, early career scientists, and other non-UCAR employees. The purposes of the meetings varied and included activities such as: 1) a grant-writing workshop for early career scientists; 2) Unidata's 25th Anniversary event which was a business meeting to discuss progress, Unidata's impact on the community, and discussions about ways to move the program forward and included representative from NSF, the broader scientific community, and UCAR; and, 3) a workshop

entitled "Workshop Program Addressing Unconscious Gender Bias" which was funded by NSF and included NOAA and the University of Colorado personnel.

All of the meetings, conferences and workshops costs are allowable and reasonable per Award ATM-0301213 and AGS-0753581, Financial and Administrative Terms and Conditions, OMB Circular A-122 [2 CFR 230], Attachment B, Paragraph 29 and Attachment A, Paragraph A.3.

OMB Circular A-122, Attachment B, Paragraph 29. Meeting and Conferences states:

"Costs of meetings and conferences, the primary purpose of which is the dissemination of technical information, are allowable. This includes costs of meals, transportation, rental of facilities, speakers' fees, and other items incidental to such meetings or conferences."

OMB Circular A-122, Attachment A, A. Basic Considerations Paragraph 3. defines 'reasonableness' as follows:

"A cost is reasonable if, in its nature or amount, it does not exceed that which would be incurred by a prudent person under the circumstances prevailing at the time the decision was made to incur the costs. The question of the reasonableness of specific costs must be scrutinized with particular care in connection with organizations or separate divisions thereof which receive the preponderance of their support from awards made by Federal agencies. In determining the reasonableness of a given cost, consideration shall be given to:

- a. Whether the cost is of a type generally recognized as ordinary and necessary for the operation of the organization or the performance of the award.
- b. The restraints or requirements imposed by such factors as generally accepted sound business practices, arms length bargaining, Federal and State laws and regulations, and terms and conditions of the award.
- c. Whether the individuals concerned acted with prudence in the circumstances, considering their responsibilities to the organization, its members, employees, and clients, the public at large, and the Federal Government.
- d. Significant deviations from the established practices of the organization which may unjustifiably increase the award costs."

In conclusion, UCAR's detailed explanation of the circumstances surrounding each questioned cost as provided during the transaction testing phase of the audit, clearly demonstrates that the costs incurred were allowable, allocable and reasonable in support of activities/meetings associated with the applicable award's purpose.

UCAR is diligent in its management of conference-related expenses and takes its responsibility as a steward of public funds very seriously. Upon learning of the General Services

Administration Management Deficiency Report dated April 2, 2012 regarding the 2010 GSA Western Regions Conference in Las Vegas, Nevada, I shared the report with UCAR's event planners and attended several meetings where the issues were discussed at length. In this report, there is no direct evidence of abuse; UCAR will continue to be diligent regarding its management of conference-related expenses.

The majority of UCAR's program income related to direct-funded awards is from conference registration fees collected from attendees. As part of the planning for a conference where registration fees are being collected, the UCAR Budget and Finance Office is contacted by the program sponsoring the conference requesting an 'eCommerce' website (or space on an existing website) thereby enabling attendees to register and pay conference registration fees via credit card. This process is the separation of duties between the program and the UCAR Budget and Finance Office staff. As registration fees are collected, the UCAR Budget and Finance Office staff process cash receipts through UCAR's financial accounting system to record program income in the respective NSF (or other sponsor) direct award. When the NSF Federal Financial Report (FFR) is prepared by the UCAR Budget and Finance Office project accountant, the amounts to be recorded as program income in the FFR are extracted from UCAR's financial account system (system of record). In summary, UCAR's internal controls for the tracking and reporting of program income are sufficiently robust and meet the accountability requirements as defined in OMB Circular A-110 Appendix A – Contract Provisions and Subpart C Post-Award Requirements – Financial and Program Management Subpart -.24.

There are several references to the 2011 NSF OIG audit in which UCAR was a sub-grantee of an NSF award, NSF OIG Report No. OIG-11-012, Boston University Center for Integrated Space Weather Modeling. This audit has not been closed, at least to UCAR's knowledge as of this date, and therefore the questioned costs remain unresolved.

Regards,

Appendix B: Objectives, Scope, and Methodology

At the request of the NSF Office of Inspector General, Mayer Hoffman McCann P.C. conducted a performance audit of the costs claimed by UCAR on the Federal Financial Report (FFR) for the period ended September 30, 2011.

The objectives of the audit were to:

- Identify all costs claimed on the NSF awards by UCAR that were not allocable, allowable, reasonable, and in conformity with NSF award terms and conditions and applicable Federal grant requirements for the period of expenses (October 1, 2003-September 30, 2011) that were recorded by UCAR on its general ledger and claimed in its September 30, 2011 FFR submitted to NSF; and to
- 2. Assess the adequacy of UCAR's accounting system to properly account for, segregate and report the use of ARRA funds.

To accomplish the objective of determining allocability, allowability and reasonableness of costs, we examined all awards for which costs were reported to NSF on the September 30, 2011 FFR. This provided an audit universe of approximately \$949 million, and approximately 843,188 transactions, across 121 individual NSF awards. To select transactions for further review, we designed and performed automated tests of UCAR data to identify areas of risk and conducted detailed reviews of transactions in those areas. Our sample was comprised of 311 transactions with a value of \$46,803,896, representing almost five percent of the costs reported on the September 30, 2011 FFR.

Our work required reliance on computer-processed data obtained from UCAR and NSF. At our request, UCAR provided detailed transactional data for all costs charged to NSF awards included on the September 30, 2011 FFR. We assessed the reliability of the data provided by UCAR by comparing costs charged to NSF awards within UCAR's accounting system to reported net expenditures on the FFR. We also observed the parameters UCAR used to extract transactional data from its accounting system and reviewed UCAR's accounting system documentation. Based on our review and observations, we found UCAR's computer-processed data sufficiently reliable for the purposes of this audit.

To accomplish the second objective of assessing the adequacy of UCAR's accounting system to properly account for, segregate, and report the use of ARRA funds, we examined all awards funded with ARRA funds that were reported to NSF as part of the FFR for the period ended September 30, 2011. We confirmed that each one of the 13 grants funded by ARRA were segregated by having its own set of account keys. These account keys provide a unique code by cost category, by grant, that allows UCAR staff to track these costs separately. The allowability of the costs reported for these awards were sampled and tested in conjunction with the other NSF awards. In addition, we reviewed the quarterly reports for 3 of the awards to verify completeness and timeliness, with no exceptions noted.

We did not review or test whether the data contained in, or controls over, NSF's databases was accurate or reliable; however the independent auditor's report on NSF's financial statements for fiscal years 2010 and 2011 found no reportable instances in which NSF's financial management systems did not substantially comply with applicable requirements.² As this office monitored the work of the auditor, we believe a reasonable basis exists for relying on the accuracy and completeness of NSF's data.

In assessing the allowability of costs reported to NSF by UCAR, we also gained an understanding of the internal controls structure applicable to the scope of this audit through interviews with UCAR staff, review of policies and procedures, conducting walkthroughs as applicable and reviews of general ledger transactions and accounting system and database documentation. We determined UCAR's compliance with its policies and procedures, as well as the following:

- Office of Management and Budget Circular A-122, Cost Principles for Non-Profit Organizations (2 C.F.R., Part 230)
- Office of Management and Budget Circular A-110, Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-profit Organizations (2 C.F.R., Part 215)
- National Science Foundation Proposal and Award Policies and Procedures Guide, Part II: Award & Administration Guide
- National Science Foundation Federal Demonstration Partnership General Terms and Conditions
- NSF Agency-Specific Requirements
- Award-specific terms and conditions
- Generally-accepted Accounting Standards

We did not identify any instances of fraud or illegal acts. We identified instances of noncompliance resulting in questioned costs that are discussed in the relevant sections of this report. In addition, we identified two areas for follow up, management fees and contingency expenditures, as identified in the "other matters" section of this report.

UCAR was selected for this audit because of concerns raised in previous audits, including a 2011 NSF OIG audit as a sub-grantee of Boston University; a 2008 NSF OIG audit of UCAR's purchase card and timekeeping system; and management letter from 2010 OMB Circular A-133 audit. Some of those reports yielded concerns, which indicated that there could be potential weaknesses in UCAR's internal controls over its financial and grant administration of NSF awards. Specifically, the 2010 NSF OIG audit report identified UCAR as a NSF sub-grantee with its financial management practices that led to questioned costs including management fees, depreciation, conference-related expenses, indirect costs charged as direct costs, foreign travel and questionable cost share. The 2008 NSF OIG audit report identified internal control deficiencies in financial and grant administration related to purchase card expenditures and UCAR's timekeeping system, and the 2010 OMB Circular A-133 audit management letter identified a need for improved controls over accountability of property. From the

² The financial statements were audited by an independent public accounting firm operating under a contract monitored by NSF's Office of Inspector General.

transactions we tested during this review, we did not identify any issues related to the audit findings identified previously.

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 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 UCAR officials on August 21, 2012.

Appendix C: Schedule of Questioned Costs

University Corporation for Atmospheric Research Schedule of Questioned Costs Summary No. of **Expense Category** Grant Amount Transaction **Transactions** Description No. Retirement Party, Employee Other Direct Costs - Cafeteria 404790 19 \$ 10,393.00 Food & Materials Farewell Party, Flowers, and Food & Beverages for Staff Meetings Food & Beverages for Staff Other Direct Costs - Cafeteria 618847 2 \$ 6.00 Food & Materials Meetings 713980 Food & Beverage for Staff Other Direct Costs - Cafeteria 20.00 1 Food & Materials Meetings Other Direct Costs - Credit Card 824701 1 1,180.48 Credit Card Processing Fee Processing Fee Other Direct Costs - Cafeteria 833450 7,660.00 Anniversary Party 6 Food & Materials Other Direct Costs - Cafeteria 856145 \$ 1,232.24 Retirement Party, Anniversary 6 Food & Materials Party, Wine & Cheese Socials, Food & Beverage for Staff Meetings

Total Other Direct Costs Questioned \$ 20,491.72

Related Indirect Costs Questioned (Appendix D) \$ 8,892.11

Total Questioned Costs \$ 29,383.83

Appendix C: Schedule of Questioned Costs	



Notes:

- A) 2 CFR, Part 230, Cost Principles for Non-Profit Organizations (OMB Circular A-122), Section A. Basic Considerations, 3. Reasonable Costs, (a) states, in part: "Whether the cost is of a type generally recognized as ordinary and necessary for the operation of the organization or the performance of the award."
- B) 2 CFR, Part 230, Cost Principles for Non-Profit Organizations (OMB Circular A-122), Section A. Basic Considerations, 4. Allocable Costs, (a) states, in part: "A cost is allocable to a particular cost objective, such as a grant, contract, project, service, or other activity, in accordance with the relative benefits received."
- C) 2 CFR, Part 215 (OMB Circular A-110) also requires that a federal award recipient's financial management system shall maintain "effective control over and accountability of all funds, property and other assets." NSF's Award and Administration Guide, Chapter 5, Unallowable Costs, reiterates unallowable costs, such as food, pre-award costs, general purpose equipment and other unnecessary and unreasonable costs should not be charged to NSF awards.

