

NATIONAL SCIENCE FOUNDATION
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**OFFICE OF
INSPECTOR GENERAL**

Date: January 31, 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 /s/
Assistant Inspector General for Audit

Subject: Audit Report No. OIG 12-1-002
Johns Hopkins University

This memo transmits Mayer Hoffman McCann's audit of NSF Award Number EEC-9731748 awarded to the Johns Hopkins University (JHU). The audit determines the allowability of NSF-funded costs claimed from September 1, 1998 to March 31, 2010, totaling \$32,845,250.

Except for the \$169,532 of questioned NSF funded costs, the auditors determined that the costs claimed by the Johns Hopkins University under award number EEC-9731748 are allowable, allocable and reasonable for the NSF award and appear fairly stated; compliant with laws, regulations and award terms; and properly accounted for and segregated. The questioned costs include \$12,925.34 in improper application of indirect costs and \$138,750 in unsupported payments totaling \$151,675 made to Carnegie Mellon, one of the subgrantees and \$17,857 from two inadequately supported charges made by JHU.

The auditors also determined that JHU's internal controls to monitor its lower risk subrecipients and to adequately support its internal service costs could be strengthened to ensure adequate safeguards for federal funds.

The JHU's response is dated January 13, 2012. JHU did not agree with the findings citing their policies and procedures overall compliance with applicable federal regulations. The Johns Hopkins University's response is described after the findings and recommendations in the audit report and is included in its entirety in Attachment A.

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 Director and Deputy Director, Directorate for Engineering (ENG/EEC). 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 auditor's report on the Johns Hopkins University and the conclusions expressed in the report. We do not express any opinion on the Schedule of Award Costs, internal control, or conclusions on compliance with laws and regulations.

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 Jannifer Jenkins at 703-292-4996.

Attachment

cc: Theresa Maldonado, Division Director, ENG/EEC
Susan Kemnitzer, Deputy Division Director, ENG/EEC

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NATIONAL SCIENCE FOUNDATION
AWARD NUMBER
EEC-9731748

FINANCIAL AUDIT OF FINANCIAL SCHEDULES AND
INDEPENDENT AUDITORS' REPORT
FROM SEPTEMBER 1, 1998 TO March 31, 2010

Mayer Hoffman McCann P.C.
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EXECUTIVE SUMMARY

The National Science Foundation (NSF) Office of Inspector General (OIG), engaged Mayer Hoffman McCann P.C. to perform an audit on \$32,845,250 in costs claimed and \$16,131,626 in cost sharing claimed as reported on the March 31, 2010 Federal Financial Report (FFR) and cost sharing reports submitted to NSF by Johns Hopkins University (“JHU”) in conjunction with NSF award number EEC-9731748. The FFRs included award costs claimed from September 1, 1998 to March 31, 2010.

JHU is a private research university with 319 active NSF awards totaling \$195 million. Award funds received from the National Science Foundation comprise approximately 12% of JHU’s total revenues received from the Federal Government. JHU was selected for audit because NSF award funds have not been audited as part of JHU’s OMB Circular A-133 audit from fiscal year 2002 through 2009 and the OIG wanted to determine the status of prior findings identified in prior NSF reviews.

The purpose of this engagement was to determine whether costs and cost share claimed by JHU and its subgrantees for the NSF award audited appear fairly stated in the Schedule of Award Costs (Schedule A) and to identify weaknesses in JHU’s internal control over financial reporting that could have a direct and material effect on JHU’s ability to properly administer, account for, and monitor its NSF awards. In addition, we were to determine whether JHU adequately monitors its subgrantees and ensure that previously identified audit recommendations have been satisfactorily addressed and implemented.

Except for \$169,532 in questioned NSF-funded costs, we determined that the costs and cost share claimed by JHU and its subgrantees under NSF award number EEC-9731748 appear fairly stated and are allowable, allocable, and reasonable for the NSF award. In addition, the issues/findings identified in NSF’s 2006/2007 review and JHU’s OMB Circular A-133 single audit reports, related to inadequate record retention and retrieval systems; unallowable costs; significant deficiency in internal control over financial reporting; effort reporting that did not conform to OMB requirements; and, instances where JHU charged federal awards for internal service costs in excess of the actual costs of those services, have been resolved. However, we noted compliance and internal control deficiencies in JHU’s financial and award management practice that could impact current and future NSF awards. Specifically:

- JHU did not adequately monitor subgrantee costs, which included ten subgrantees amounting to over \$8.22 million in claimed costs. JHU established written subgrantee monitoring policies and procedures indicate that JHU uses a risk based approach to determine which subgrantees need to be monitored and the level of monitoring to be performed. JHU’s Principal Investigators (PIs) or Co-PI’s review subgrantee invoices for mathematical accuracy and the availability of funding. Contingent upon the specific subgrantee organizational risk classification and the nature of the work proposed, JHU resources are focused on performing on-site monitoring on subgrantees who demonstrate the greatest potential for non-compliance. Therefore, because all ten subgrantees that received funds from JHU under the audited award were considered low risk, no subgrantee on-site monitoring was performed. However, as part of our audit we visited one of the subgrantees (Carnegie Mellon University) and found various issues that could have been avoided if JHU had properly established controls over subgrantee monitoring. The issues found at the subgrantee resulted in questioned costs totaling \$151,675, due to unsupported claims and improper application and recovery of indirect

costs. JHU's policies and procedures should be strengthened to provide greater oversight of low risk subgrantees to ensure that the subgrantee costs claimed are reasonable, allowable, and allocable to its current NSF awards.

- JHU was not able to provide proper support for two of the transactions selected for testing. This resulted in \$17,857 of questioned costs.

While we did not assess the impact of these noncompliance and internal control deficiencies on JHU's other NSF awards, we believe the same deficiencies may exist under those programs and, if not corrected, could impact current and future NSF awards.

To address these compliance and internal control deficiencies, we recommend that the Director of NSF's Division of Institution and Award Support (DIAS) address and resolve the following recommendations made to JHU to: (1) strengthen its subgrantee monitoring policies and procedures to provide greater oversight of low risk subgrantees to ensure that costs charged to NSF awards are reasonable, allowable, and allocable; (2) advise its subgrantees of its Federal requirements, especially concerning record retention and the use of the approved rate in computing indirect costs; and (3) implement controls to ensure that JHU's purchases are properly supported by adequate documentation and that the documentation is properly retained.

JHU responded to the draft report on January 13, 2012. In its response, JHU stated that they believe its current subrecipient monitoring policy adheres to OMB requirements and did its due diligence in ensuring that OMB Circular A-133 requirements were accomplished. JHU agrees that supporting detail could not be located for a piece of equipment purchase. However, JHU disagrees that internal service providers should be required to use a purchase order. JHU stated that they advise its sub-grantees of requirements imposed on by federal laws and regulations by referencing OMB Circular regulations in their sub-awards agreements. Finally, JHU disagrees with the finding related to the wrongful application of the indirect rate by one of its sub-grantees.

The auditors considered JHU's response; however, we determined that the findings and recommendations remain as stated. JHU's response to the findings identified in our audit is described after each finding and included in its entirety in Appendix A of this report. Our comments on JHU's responses follow each of their responses. The various documents that JHU included in its response as references are not part of this report due to their size. They are available upon request from the NSF OIG.

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.

For a complete discussion of the audit findings, refer to the Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on the Audit of Financial Schedules Performed in Accordance with *Government Auditing Standards*.

JOHNS HOPKINS UNIVERSITY

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Acronyms	
CFR	Code of Federal Regulations
NSF	National Science Foundation
OIG	Office of Inspector General
OMB	Office of Management and Budget
JHU	Johns Hopkins University
PI	Principal Investigator

INTRODUCTION

BACKGROUND

We audited funds awarded by the National Science Foundation (NSF) to Johns Hopkins University (“JHU”) under award number EEC-9731748 for the period September 1, 1998 to March 31, 2010. JHU, as a Federal awardee, is required to follow the cost principles specified in 2 CFR 220, *Cost Principles for Educational Institutions* (formerly OMB Circular A-21); the Federal administrative requirements contained in 2 CFR 215 - *Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations* (formerly OMB Circular A-110); and Federal audit requirements in OMB Circular-A-133, *Audits of States, Local Governments, and Non-Profit Organizations*.

JHU, located in Baltimore, Maryland, is a private not-for-profit higher education institution under Section 501(c) (3) of the Internal Revenue Code. JHU's mission is to educate its students and cultivate their capacity for life-long learning, to foster independent and original research, and to bring the benefits of discovery to the world.

JHU was selected for audit because NSF award funds comprise approximately 12% of the University's federal award portfolio, a material portion of the total JHU federal award portfolio. NSF award funds were not considered major programs for testing as part of JHU's OMB Circular A-133 audit from fiscal year 2002 through 2009. In particular, several of the deficiencies cited in JHU's OMB Circular A-133 audits from 2006 to 2009 could also have an impact on NSF funds, i.e., the significant deficiency in internal control over Financial Reporting; effort reporting that did not conform to OMB requirements; and, instances where JHU charged federal awards for internal services in excess of the costs of that service. Additionally, it was noted during NSF's desk review in 2006, that JHU did not have participant support funds segregated into specific accounts.

As of March 2010, JHU had 319 active NSF grants totaling \$195 million. The grant has subgrants with other higher education institutions, where JHU is the principal management entity to ensure that the programmatic objectives are accomplished and the financial award terms and conditions are met.

Description of the NSF award we audited is as follows:

Award EEC-9731748: Engineering Research Center for Computer – Integrated Surgical Systems and Technology. NSF awarded Cooperative Agreement Award No. EEC-9731748 to JHU for the period September 1, 1998 to December 31, 2009 in the amount of \$33,070,116, with a cost share requirement of \$12,522,096. NSF funds were used to initiate the Engineering Research Center for Computer-Integrated Surgical Systems and Technology (CISST). The vision of the Engineering Research Center (ERC) was to advance knowledge and technology needed to develop a new generation of minimally invasive surgery techniques for the 21st century, which will dramatically impact health care in the U.S., reaping substantial economic and social impacts. There were ten subgrantees, Carnegie Mellon University (claimed amount: \$2,842,361), Massachusetts Institute of Technology (claimed amount: \$1,715,359), Brigham & Women's Hospital (claimed amount: \$1,886,391), University of Pennsylvania (claimed amount: \$312,219), Morgan State University (claimed amount: \$751,022), Harvard University (claimed amount: \$318,871), Howard Community College (claimed amount: \$54,021), Intuitive Surgical (claimed amount: \$183,050), Kitware (claimed amount: \$43,000), and Columbia University (claimed amount: \$120,633), under the award.

JHU is responsible for overall management of the project. Cumulative disbursements for award number EEC-9731748 reported to NSF through March 31, 2010 were \$32,845,250. Cost share claimed totaled \$16,131,626.

AUDIT OBJECTIVES, SCOPE AND METHODOLOGY

At the request of the NSF Office of Inspector General, Mayer Hoffman McCann P.C. conducted an audit of NSF Award Number EEC-9731748, which was granted to Johns Hopkins University (JHU).

The objectives of the audit were to:

1. Determine whether JHU has adequate systems of internal controls over administering its NSF award to account for and ensure compliance with applicable OMB Circular and NSF award requirements;
2. Identify and report instances of noncompliance with laws, regulations and the provisions of the award agreement and weaknesses in JHU's internal controls over compliance and financial reporting that could have a direct and material effect on the Schedule of Award Costs (Schedule A) and JHU's ability to properly administer, account for, and manage its NSF award;
3. Determine and report on whether JHU monitors its subgrants in compliance with OMB Circulars and NSF award requirements;
4. Provide status updates on the issues/findings identified in NSF's 2006 Desk Review Report and JHU's 2006 through 2009 OMB Circular A-133 single audits (see results of follow-up in Appendix B); and
5. Determine and report on whether the Schedule of Award Costs (Schedule A) of JHU presents fairly, in all material respects, the costs claimed on the *Federal Financial Report* (FFR), and cost sharing for the period ended March 31, 2010 in conformity with NSF OIG's *Financial Audit Guide*, and Federal and NSF award terms and conditions.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America, the standards applicable to financial audits contained in *Government Auditing Standards* (2007 Revision) issued by the Comptroller General of the United States, and the guidance provided in the *National Science Foundation OIG Audit Guide* (August 2007), as applicable. These standards and the NSF OIG Audit Guide require that we plan and perform the audit to obtain reasonable assurance about whether amounts claimed to NSF as presented in the Schedule of Award Costs (Schedule A) is free of material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the Schedule of Award Costs. An audit also includes assessing the accounting principles used and the significant estimates made by JHU, as well as evaluating the overall financial schedule presentation. We believe that our audit provides a reasonable basis for our opinion.

FINDINGS AND RECOMMENDATIONS



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REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON THE AUDIT OF FINANCIAL SCHEDULES PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

We have audited costs claimed as presented in the Schedule of Award Costs (Schedule A), which summarizes the financial reports submitted by Johns Hopkins University (JHU) to the National Science Foundation (NSF), and claimed cost share as applicable, for the award and period listed below and have issued our report thereon dated January 31, 2012.

Award Number	Award Period	Audit Period
EEC-9731748	09/01/98 – 12/31/09	09/01/98 – 03/31/10

We conducted our audit of the Schedule of Award Costs as presented in Schedule A in accordance with auditing standards generally accepted in the United States of America, the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States (2007 revision), and the guidance provided in the *National Science Foundation Audit Guide* (August 2007), as applicable.

INTERNAL CONTROL OVER FINANCIAL REPORTING

In planning and performing our audit of the Schedule of Award Costs (Schedule A) and the Summary Schedule of Award Costs (Schedule B) for the period September 1, 1998 to March 31, 2010, we considered JHU's internal control over financial reporting as a basis for designing our auditing procedures for the purpose of expressing our opinion on the financial schedule, but not for the purpose of expressing an opinion on the effectiveness of JHU's internal control over financial reporting. Accordingly, we do not express an opinion on the effectiveness of JHU's internal control over financial reporting.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, detect and correct misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable

possibility that a material misstatement of the entity's financial statements will not be prevented, detected and or corrected on a timely basis.

Our consideration of internal control over financial reporting was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over financial reporting that might be deficiencies, significant deficiencies or material weaknesses. We did not identify any deficiencies in internal control over financial reporting that we consider to be material weaknesses, as defined above. However, we identified some deficiencies in internal control over financial reporting, as discussed in Findings Nos. 1 through 4 in the Schedule of Findings and Recommendations below, that we consider to be a significant deficiency in internal control over financial reporting. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

COMPLIANCE AND OTHER MATTERS

As part of obtaining reasonable assurance about whether JHU's financial schedules are free of material misstatement, we performed tests of JHU's compliance with certain provisions of applicable laws, regulations, and NSF award terms and conditions, noncompliance with which could have a direct and material effect on the determination of financial schedule amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests of compliance disclosed certain instances of noncompliance that are required to be reported under *Government Auditing Standards* and the *National Science Foundation OIG Audit Guide* and are described as Finding Nos. 1 through 4 in the Schedule of Findings and Recommendations below.

JHU's response to the findings identified in our audit is described below after each finding and is included in its entirety in Appendix A. We did not audit JHU's response and, accordingly, we express no opinion on it.

SCHEDULE OF FINDINGS AND RECOMMENDATIONS

Finding 1 - Post-Subaward Fiscal Monitoring of Subgrantees Should be Improved.

JHU did not adequately monitor subgrantee costs, which included ten subgrantees amounting to over \$8.22 million in claimed costs. JHU established written subgrantee monitoring policies and procedures indicate that JHU uses a risk based approach to determine which subgrantees to monitor and the level of monitoring to be performed. JHU's Principal Investigators (PIs) or Co-PI's review subgrantee invoices for mathematical accuracy and the availability of funding. Contingent upon the specific subgrantee organization risk classification and the nature of the work proposed, JHU resources are focused on performing on-site monitoring at the subgrantees who demonstrate the greatest potential for non-compliance. All ten subgrantees that received funds from JHU under the audited award were considered low risk; therefore, no on-site subgrantee monitoring was performed during the entire grant period.

However, as part of our audit we visited one subgrantee, Carnegie Mellon University (CMU), and found various issues that could have been avoided had JHU performed additional monitoring procedures. The subgrantee issues found during our audit resulted in questioned costs totaling \$151,675. JHU's policies and procedures should be strengthened to provide greater oversight of low risk subgrantees to ensure that the subgrantee costs claimed are reasonable, allowable, and allocable to its current and future NSF awards. JHU should perform additional routine subgrantee fiscal monitoring procedures in the post-subaward stage to ensure that JHU can more readily prevent or identify unallowable claimed subgrantee costs on its current and future NSF awards.

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, §215.51(a), states: "Recipients are responsible for managing and monitoring each project, program, subaward, function or activity supported by the award. Recipients shall monitor subawards to ensure subrecipients have met the award requirements as delineated in §215.26."

Further, OMB Circular A-133, Audits of States, Local Governments, and Non-Profit Organizations, Subpart D, §400(d.3) – Pass-Through Entity Responsibilities, states: "A pass-through entity shall perform the following for the Federal awards it makes:... (3) Monitor the activities of subrecipients as necessary to ensure that Federal awards are used for authorized purposes in compliance with laws, regulations, and the provisions of contracts or grant agreements and that performance goals are achieved." Although OMB Circular A-133 does not specifically state that an awardee is required to implement a risk-based subaward monitoring process, the OMB Circular A-133 Compliance Supplement, Part 3, Section M, requires the auditor to determine whether or not the awardee evaluated its subaward risk to determine the need for closer monitoring.

The NSF Grant Policy Manual, Section 301, also specifies that grantees are responsible for managing and monitoring subaward performance and exercising prudent management of all expenditures and actions affecting the grant.

According to JHU's policies and procedures, subgrantees fiscal monitoring responsibilities are performed by the Office of Research Administration (ORA), the Principal Investigator (PI) and the Financial Research Compliance (FRC) of the Controller's Office.

Pre-Subaward Stage:

In the pre-award stage, ORA and FRC are responsible for assessing the risk of the subgrantee candidate. Subgrantee classification shall specify the additional monitoring that may be required in the agreement. In order to perform the risk assessment, ORA checks to ensure that the subgrantee candidate is not suspended or barred from Federal contracting. ORA also reviews the subgrantee candidate's OMB Circular A-133 single audit reports, if applicable, to determine if the subgrantee candidate has any internal control deficiencies or non-compliance issues. In addition, ORA considers other factors in the risk assessment, such as the subgrantee candidate's past experience, financial competency, and the dollar amount of the subgrant, amongst other things.

Post-Subaward Stage:

During the post-subgrant stage, the PI and FRC are responsible for the fiscal monitoring of the subgrantees. Based on our interviews with the PI, fiscal monitoring activities are generally limited to on-going communication with the subgrantees and review of subgrantee invoices for mathematical accuracy and budgetary compliance. Subgrantees under the audited NSF award submitted their invoices without any supporting documentation.

No on-site fiscal monitoring visits at the subgrantees were conducted for the NSF award we audited. In addition, the policies and procedures do not include a formal monitoring process for subgrantees considered to be low risk. The FRC is responsible for annually reviewing the A-133 single audit certifications submitted to JHU by the subgrantees during the post-subaward stage for any findings and questioned costs.

According to JHU's officials the University primarily relies on the subgrantees' own internal control system and OMB Circular A-133 single audits to ensure that the subgrantees are in compliance with the terms and conditions of the agreements and that subgrantee costs claimed are reasonable, allowable, and allocable in accordance with applicable Federal and NSF provisions.

Fiscal monitoring of subgrantees considered low risk at JHU is inadequate because the monitoring process completely relies on the subgrantee external auditors and assumes that the costs claimed under the subgrants are allocable, allowable and reasonable when no subgrantee external auditor findings are reported, even though there is a chance that the certain subgrant costs were not selected for audit. This could lead to NSF funds being used for purposes other than those intended under the NSF awards. Thus, lack of adequate post-subaward subgrantee fiscal monitoring increases the risk that some of the subgrantee costs claimed by JHU may be unallowable, unreasonable, or unallocable under the NSF awards. In addition, since the cost share reported by JHU to NSF includes the cost share reported by the subgrantees on their invoices, lack of adequate subgrantee fiscal monitoring increases the risk that JHU does not meet its cost share obligation to the NSF awards. Furthermore, without sufficient information from the subgrantees, the PI and the FRC may not be able to identify any potential problems and questioned costs. Findings three and four identify the issues noted during our subgrantee site visit.

Recommendation 1:

We recommend that NSF's Director of the Division of Institution and Award Support address and resolve the following recommendation that JHU:

- a) Strengthen its subgrantee fiscal monitoring policy and procedures by developing and implementing a formal monitoring process for low risk subgrantees. This process would determine the need for performing steps beyond a review of the OMB Circular A-133 single audit report results, such as performing desk reviews, site visits, and/or sampling and verification of proper supporting documentation.

Awardee's Comments

JHU feels it conforms to Sub recipient monitoring as described in the OMB circular A-133. A risk base approach doesn't eliminate the core elements of JHU subrecipient monitoring, but is used to identify higher risk subs that may need more than the standard monitoring that is performed on all of JHU's subgrantees. JHU feels it's current subrecipient monitoring policy adheres to OMB requirements and did it's due diligence in ensuring that OMB circular's A-133 requirements were accomplished.

Auditor's Response

Our recommendation is intended to strengthen the monitoring performed at low risk subgrantees to include the testing of some random transactions. We believe that this approach could help JHU avoid issues as the ones found at CMU.

Finding 2 - Inadequate Supporting Documentation for Costs Charged to the Grant.

During testing of supplies and materials we noted one instance where at JHU there was inadequate supporting documentation for internal service costs charged to the grant being audited. Below is a description of the questioned transaction:

- a) 1 out of 62 samples in the amount of \$11,262 for internal service providers did not have purchase orders and prior approval supporting documentation. Additionally, we were not able to determine the reasonableness of the rates charged.

During testing of "other costs" at JHU we noted an instance where there was no supporting documentation.

- b) 1 out of 113 samples in the amount of \$6,595 did not have a supporting invoice.

According to *Purchasing and Purchase Order Approval Policies and Procedures*, JHU requires that; (a) Purchase order approval for transactions less than \$5,000 be completed in divisions and centers in accordance with SAP purchase order approval workflow, (b) Purchase transactions with an aggregate value of \$5,000 or more be routed to the Supply Chain Service Center for final approval, (c) All purchase orders, related contracts and agreements must be sent to the Supply Chain Service Center for review and approval, and (d) All non eMarketplace shopping carts with a total aggregate cost of \$5,000 or more are to be forwarded to the Supply Chain Service Center for review and final approval.

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, §215.53(b), states, in part: “Financial records, supporting documents, statistical records, and all other records pertinent to an award shall be retained for a period of three years from the date of submission of the final expenditure report...”

Supporting documentation in the form of invoices and / or purchase orders were not provided for the supplies and materials and other cost samples being questioned. We were told that the internal services purchased were approved verbally only and that there was no other supporting documentation available. Therefore, supporting documentation to show departmental approval before the purchases were made was not provided. In addition, internal services provided did not have adequate supporting documentation and only had a description of the service provided.

In this case JHU personnel did not follow JHU’s policies and procedures regarding the procurement process for the acquisition of supplies and materials and other costs. Fraudulent or erroneous purchases could be charged to the grant as individuals are able to purchase goods without prior approval.

Recommendation 2:

We recommend that NSF’s Director of the Division of Institution and Award Support address and resolve the following recommendation that JHU:

- a) Implement controls to ensure that every purchase made is supported by an invoice, purchase order or an internal document requesting services.
- b) Enhances its procurement policies and procedures to increase transparency for internal services provided.
- c) Ensures that all supporting documentation is retained for three years after the submission of the final financial report.

Awardee’s Comments

Johns Hopkins University agrees with the 1 out of 113 samples that supporting detail could not be located for a piece of equipment. JHU disagrees that internal service providers should require a purchase order (PO). JHU does not have a university policy requiring a PO to be created for internal services because it is not considered an external purchase.

Auditor’s Response

MHM was able to obtain some kind of evidence of prior approval for all other samples tested. We sustain our position that prior approval should be obtained for all external and internal purchases.

Finding 3 - Unsupported Subgrantee Costs.

During testing of subgrantee costs at Carnegie Mellon University (CMU) we were not provided with supporting documentation for the following items:

- a) Seven salary & benefits samples with a total aggregate cost of \$114,472 did not have any supporting documentation.
- b) The following non-salary samples did not have any supporting documentation.
 - Three capital expenditure with a total aggregate cost of \$3,774
 - Twelve other operating expenses with a total aggregate cost of \$14,670
 - Four travel expenses with a total aggregate cost of \$5,834

CMU was selected among 10 subgrantees. We selected 52 salary & benefit samples and 50 non-salary samples for testing during our subgrantee site visit. Supporting documentation in the form of a payroll record/register, invoices and/or purchase orders, and travel request forms were not provided for seven salary & benefits and 19 non-salary samples. The total cost for the aforementioned transactions is \$138,750.

2 CFR Part 215, Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations (OMB Circular A-110), Subpart C, §215.53(b), states, in part: "Financial records, supporting documents, statistical records, and all other records pertinent to an award shall be retained for a period of three years from the date of submission of the final expenditure report *Johns Hopkins University, Financial Policy and Procedures Manual, Sponsored Projects Policies & Procedures – Subrecipient Monitoring*, I. General Section, states in part: "JHU remains ultimately responsible and accountable to the prime sponsor for funds management and compliance by subrecipients."

CMU officials stated that they were not aware of the record retention policy for NSF grants. CMU follows the university's general retention policy which is 7 years; therefore, supporting documents dated prior to 2004 were not being retained by CMU. The total grant amount claimed by CMU prior to 2004, inclusive of the questioned costs, was \$299,228.

JHU did not have proper controls in place to monitor sub-grantee compliance with record retention policies, as such, subgrantees may not be in compliance with grant policies. As a result we have questioned \$138,750 due to the lack of supporting documentation.

Recommendation 3:

We recommend that NSF's Director of the Division of Institution and Award Support address and resolve the following recommendation that JHU:

- a) Advise its sub-grantees of requirements imposed on them by Federal laws, regulations, and the provisions of the prime contracts or grant agreements as well as supplemental requirements imposed, especially over record retention.

Awardee’s Comments

JHU does inform it’s subrecipients of award requirements. The Office of Research Administration (ORA) makes sure that it passes down all terms and conditions from the prime to the subrecipient as can be seen in the original sub-award agreement. JHU does adhere to what is being referenced in recommendation 3: JHU advises their sub-grantees of requirements imposed on by federal laws and regulations by referencing OMB circular regulations in their sub-awards to sub-grantees.

Auditor’s Response

JHU is responsible for ensuring that its subgrantees adequately comply with the terms and conditions of their subawards. CMU’s document retention policy is not in accordance with Federal requirements which leads us to recommend that JHU should ensure that at a minimum, its subgrantees comply with their subaward requirements.

Finding 4 - Improper Application and Recovery of Indirect Costs by the Subgrantee.

During our subgrantee audit, we noted that CMU applied the incorrect indirect rate to certain costs incurred during the audit period. CMU applied the valid rate at the beginning of the award period but did not make any adjustments as the rate changed throughout the life of the award. For example, CMU applied an indirect cost rate of [REDACTED] to the costs claimed under CMU’s subaward number 1003482. This award extended from September 8, 1998 through August 31, 2007. The table below shows the approved Negotiated Indirect Cost Rate Agreement (NICRA) rates during the award period.

NICRA RATES

FROM	TO	APPROVED RATE
7/1/1998	6/30/1999	[REDACTED]
7/1/1999	6/30/2000	[REDACTED]
7/1/2000	6/30/2001	[REDACTED]
7/1/2001	6/30/2002	[REDACTED]
7/1/2002	6/30/2003	[REDACTED]
7/1/2003	6/30/2004	[REDACTED]
7/1/2004	6/30/2005	[REDACTED]
7/1/2005	6/30/2006	[REDACTED]
7/1/2006	6/30/2007	[REDACTED]
7/1/2007	6/30/2008	[REDACTED]

MHM utilized the period dates within the applicable NICRA’s awarded to CMU to determine the appropriate rates that should have been applied during the life of the award.

CAS Part 9905.506, Costs Accounting Standards for Educational Institutions, Cost accounting period – Educational institutions, states, in part: “The same costs accounting period shall be used for accumulating costs in an indirect cost pool as for establishing its allocation base...”

Per CMU's Cost Analysis and Audit Manager, CMU used the indirect cost rate approved for the year in which the award started to calculate indirect costs for the life of the award.

The use of the incorrect NICRA rates caused CMU to over claim the indirect costs allowed by [REDACTED]. The table below shows the over-claimed effect of the incorrect application of indirect cost rate to the grant.

Award Number	Award Full Name	Award Start Date	Award End Date	Allowable Indirect Cost-Recalculated	Indirect Costs Claimed During Grant Period	Over Claimed Amount
1003482	ENGINEERING RESEARCH CENTER FOR COMPUTER-INTEGRATED SYSTEMS AND TECHNOLOGY	01-Sep-98	31-Aug-07	[REDACTED]	[REDACTED]	\$ 6,644.43
1040237	ENGINEERING RESEARCH CENTER FOR COMPUTER-INTEGRATED SURGICAL SYSTEMS AND TECHNOLOGY	01-Sep-02	30-Jun-08	[REDACTED]	[REDACTED]	\$ 6,280.91
Total						\$12,925.34

Recommendation 4:

We recommend that NSF's Director of the Division of Institution and Award Support address and resolve the following recommendation that JHU:

- a) Determines that CMU and JHU's other subgrantees establish proper controls to ensure that the appropriate NICRA rate to calculate its indirect cost expenses charged to grants is the correct rate.

Awardee's Comments

JHU disagrees with the finding. Carnegie Mellon University (CMU) has rates negotiated as fixed with carry forward at one year increments, as opposed to, JHU with predetermined rates over multiple years in one Negotiated Indirect Cost Rate Agreement (NICRA). JHU has a process in place at the pre-award stage by the Office of Research Administration that reviews

sub-grantee's NICRAs and confirms that they are being properly applied. CMU used the correct methodology in applying their F&A rates to invoices billed to JHU.

Auditor's Response

MHM disagrees with JHU's analysis of CMU's indirect costs charged to the award. Based on OMB Circular A-21, grantees shall use the negotiated rate in effect at the time of the initial award throughout the life of the sponsored agreement. However, the term life is defined as each competitive segment of a project. A competitive segment is defined as the period of years approved by the Federal funding agency at the time of the initial award. This grant had multiple award dates as funding was added to the project throughout the grant period. Technically the life of the award was renewed with each new modification as the award dates continued to change. In our opinion, using the same rate for the entire award will defeat the purpose of having updates rates every year.

This report is intended solely for the information and use of JHU's management, the National Science Foundation, JHU's cognizant federal audit agency, the Office of Management and Budget, and the Congress of the United States and is not intended to be, and should not be used by anyone other than these specified parties.

A handwritten signature in blue ink that reads "Mayer Hoffman McCann, P.C." The signature is written in a cursive, flowing style.

Mayer Hoffman McCann P.C.
Bethesda, Maryland
January 31, 2012

**FINANCIAL SCHEDULES AND
SUPPLEMENTAL INFORMATION**



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INDEPENDENT AUDITORS' REPORT ON FINANCIAL SCHEDULES

We have audited the costs claimed by Johns Hopkins University (JHU) to the National Science Foundation (NSF) on the Federal Financial Reports (FFRs) for the NSF awards listed below. In addition, we have audited the amount of cost share claimed on the NSF award, as applicable. The FFR, as presented in the Schedule of Award Costs (Schedule A), is the responsibility of JHU's management. Our responsibility is to express an opinion on this Schedule of Award Costs based on our audit.

Award Number	Award Period	Audit Period
EEC-9731748	09/01/98 – 12/31/09	09/01/98 – 03/31/10

We conducted our audit in accordance with auditing standards generally accepted in the United States of America, the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States (2007 revision), and the guidance provided in the *National Science Foundation OIG Audit Guide* (August 2007), as applicable. These standards and the *National Science Foundation OIG Audit Guide*, require that we plan and perform the audit to obtain reasonable assurance about whether the amounts claimed to NSF as presented in the Schedule of Award Costs (Schedule A) is free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the Schedule of Award Costs. An audit also includes assessing the accounting principles used and the significant estimates made by JHU's management, as well as evaluating the overall financial schedule presentation. We believe our audit provides a reasonable basis for our opinion.

As a result of the audit, we questioned \$169,532 of NSF-funded costs. These costs include \$12,925.34 in improper application of indirect costs and \$138,750 in unsupported payments totaling \$151,675 made to Carnegie Mellon, one of the subgrantees, and \$17,857 from two inadequately supported charges made by JHU. 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 awardee, 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.

In our opinion, except for the \$169,532 of questioned NSF-funded costs, the Schedule of Award Costs (Schedule A) referred to above presents fairly, in all material respects, the costs claimed on the FFRs and cost share claimed for the period September 1, 1998 to March 31, 2010 in conformity with the provisions of the *National Science Foundation OIG Audit Guide*, terms and conditions of the NSF awards and on the basis of accounting described in the Notes to the Financial Schedule, which is a comprehensive basis of accounting other than generally accepted accounting principles. This schedule is not intended to be a complete presentation of financial position of JHU in conformity with accounting principles generally accepted in the United States of America.

In accordance with *Government Auditing Standards*, and guidance provided in the *National Science Foundation OIG Audit Guide*, we have also issued our report dated January 31, 2012, on our consideration of JHU's internal control over financial reporting and our tests of JHU's compliance with certain provisions of laws, regulations, and NSF award terms and conditions and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* and should be considered in assessing the results of our audit.

Our audit was conducted for the purpose of forming an opinion on the Schedule of Award Costs (Schedule A). The accompanying Schedule B is presented for purposes of additional analysis as required by the *National Science Foundation OIG Audit Guide*. Such information has been subjected to the auditing procedures applied in the audit of the Schedule of Award Costs and, in our opinion, is fairly stated, in all material respects, in relation to the Schedule of Award Costs.

This report is intended solely for the information and use of JHU's management, the National Science Foundation, JHU's cognizant federal audit agency, the Office of Management and Budget, and the Congress of the United States and is not intended to be, and should not be used by anyone other than these specified parties.

A handwritten signature in blue ink that reads "Mayer Hoffman McCann, P.C." The signature is written in a cursive, flowing style.

Mayer Hoffman McCann P.C.
Bethesda, Maryland
January 31, 2012

SCHEDULE A

JOHNS HOPKINS UNIVERSITY
National Science Foundation Award Number EEC-9731748
Schedule of Award Costs
September 1, 1998 to March 31, 2010

<u>Cost Category</u>	<u>Approved</u> <u>Budget</u>	<u>Claimed</u> <u>Costs (A)</u>	<u>Reclassification</u> <u>of Costs</u>	<u>Claimed</u> <u>Costs After</u> <u>Reclassification</u>	<u>Questioned</u> <u>Costs</u>
Direct costs:					
Salaries and wages	\$ 7,970,068	\$8,659,727	-	\$8,659,727	-
Fringe benefits	1,691,469	1,815,506	-	1,815,506	-
Equipment	649,454	565,233	-	565,233	-
Travel	519,014	631,817	-	631,817	-
Other direct costs:					
Material and supplies	1,318,461	1,174,025	-	1,174,025	\$11,262
Publication costs	1,137,371	1,727,241	-	1,727,241	-
Consultant services	305,934	265,766	-	265,766	-
Subawards	8,101,608	8,226,927	-	8,226,927	151,675
Other direct costs	<u>3,783,000</u>	<u>1,229,498</u>	<u>-</u>	<u>1,229,498</u>	<u>6,595</u>
Total direct costs	<u>\$25,476,379</u>	<u>\$24,295,740</u>	<u>-</u>	<u>\$24,295,740</u>	<u>\$169,532</u>
Indirect costs					-
Costs incurred in excess of claimed costs	-	(4,151)	-	(4,151)	-
Total					<u>\$169,532</u>
Cost Sharing to March 31, 2010	<u>\$12,522,096</u>	<u>\$16,131,626</u>	<u>-</u>	<u>\$16,131,626</u>	<u>-</u>

(A) The total claimed costs agree with the total expenditures reported by JHU on the Federal Financial Report (FFR) as of the quarter ended March 31, 2010. JHU claimed \$32,845,250 through this FFR. However, according to JHU's accounting records, JHU actual incurred costs were \$32,849,401, which is \$4,151 less than the claimed amount.

See accompanying notes to the financial schedules

SCHEDULE B

JOHNS HOPKINS UNIVERSITY
 Summary Schedules of Award Audited and Audit Results
 From September 1, 1998 to March 31, 2010

Summary of Awards Audited

<u>Award Number</u>	<u>Award Period</u>	<u>Audit Period</u>
EEC-9731748	09/01/98 – 12/31/09	09/01/98 – 03/31/10

<u>Award Number</u>	<u>Type of Award</u>	<u>Award Description</u>
EEC-9731748	Continuing Cooperative Agreement	NSF funds were used to initiate the Engineering Research Center for Computer-Integrated Surgical Systems and Technology (CISST).

Summary of Questioned and Unsupported Costs

<u>Award Number</u>	<u>Award Budget</u>	<u>Claimed Costs</u>	<u>Questioned Costs</u>	<u>Unsupported Costs</u>
EEC-9731748	\$ 33,070,116	\$ 32,845,250	\$169,532	\$156,607

See accompanying notes to the financial schedules.

SCHEDULE B

JOHNS HOPKINS UNIVERSITY
 Summary Schedules of Award Audited and Audit Results
 From September 1, 1998 to March 31, 2010

(Continued)

Summary of Non-Compliance and Internal Control Findings

<u>Findings</u>	<u>Non-Compliance and/or Internal Control</u>	<u>Significant Deficiency</u>	<u>Material Weakness</u>	<u>Amount of Questioned Costs</u>	<u>Amount of Claimed/ Incurred Costs Affected</u>
Fiscal Monitoring of Subgrantees Should be Enhanced	Non-Compliance and Internal Control	Yes	No	\$ -	\$ 8,226,927
Inadequate Supporting Documentation Provided for Costs Charged to the Grant	Non-Compliance and Internal Control	Yes	No	\$ 17,857	\$ 24,295,740
Unsupported Subgrantee Costs	Non-Compliance and Internal Control	Yes	No	\$ 138,750	\$ 2,842,361
Improper Application and Recovery of Indirect Costs by the Subgrantee	Non-Compliance and Internal Control	Yes	No	\$ 12,925	\$ 534,071

See accompanying notes to the financial schedules.

JOHNS HOPKINS UNIVERSITY
Notes to Financial Schedules
From September 1, 1998 to March 31, 2010

Note 1: Summary of Significant Accounting Policies

Accounting Basis

The accompanying financial schedules have been prepared in conformity with National Science Foundation (NSF) instructions, which are based on a comprehensive basis of accounting other than generally accepted accounting principles. Schedule A has been prepared by Johns Hopkins University (JHU) from the Federal Financial Reports (FFRs) submitted to NSF and JHU's accounting records. The basis of accounting utilized in preparation of these reports differs from generally accepted accounting principles. The following information summarizes these differences:

A. Equity

Under the terms of the award, all funds not expended according to the award agreement and budget at the end of the award period are to be returned to NSF. Therefore, the grantee does not maintain any equity in the award and any excess cash received from NSF over final expenditures is due back to NSF.

B. Inventory

Minor materials and supplies are charged to expense during the period of purchase. As a result, no inventory is recognized for these items in the financial schedules.

C. Equipment

Equipment is charged to expense in the period during which it is purchased instead of being recognized as an asset and depreciated over its useful life. As a result, the expenses reflected in the Schedule of Award Costs include the cost of equipment purchased during the period rather than a provision for depreciation.

Except for awards with nonstandard terms and conditions, title to equipment under NSF awards vests with the recipient for use in the project or program for which it was acquired, as long as it is needed. The recipient may not encumber the property without approval of the federal awarding agency, but may use the equipment for its other federally sponsored activities, when it is no longer needed for the original project.

JOHNS HOPKINS UNIVERSITY
Notes to Financial Schedules
From September 1, 1998 to March 31, 2010

(Continued)

Note 1: Summary of Significant Accounting Policies (Continued)

Income Taxes

The Johns Hopkins University is a private not-for-profit corporation under Section 501(c)(3) of the U.S. Internal Revenue Code and has received rulings from the Internal Revenue Service and the Maryland State Government granting it exemption from income taxes.

The departure from generally accepted accounting principles allows NSF to properly monitor and track actual expenditures incurred by JHU. The departure does not constitute a material weakness in internal controls.

Note 2: Indirect Cost Rates

<u>Award Number</u>	<u>Indirect Cost Rate For 9/01/98 – 3/31/10</u>	<u>Base</u>
EEC-9731748	[REDACTED]	[REDACTED]

**APPENDIX A – AWARDEE’S COMMENTS TO
REPORT**

From: [REDACTED]
Sent: Friday, January 13, 2012 4:16 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: JHU Draft Report for Comments
[REDACTED]

Please see JHU's response to the findings.
Please contact me with any questions.

Thanks,

[REDACTED]

Finding 1: Subrecipient Monitoring

Awardees' Comments

Johns Hopkins University (JHU) feels it conforms to Sub recipient monitoring as described in the OMB circular A-133. A risk base approach doesn't eliminate the core elements of JHU subrecipient monitoring, but is used to identify higher risk subs that may need more than the standard monitoring that is performed on all of JHU's subgrantees.

JHU standard monitoring is done at many levels throughout the university. The Office of Research Administration (ORA), at the time of processing sub awards, makes sure that JHU passes down all term and conditions from the prime to the subrecipient (please see attached CMU subagreement). The ORA also has the responsibility of confirming indirect cost rates through the subawardee's negotiated indirect cost rate agreement (NICRA). At a central level, Financial Research Compliance (FRC), reviews sub awardees annual A-133 reports and follow-ups with any institution that had findings directly impacting JHU pass through funding. The A-133, audit, test internal controls and systems to make sure they confirm with federal regulations and guidelines, a good indicator of an institutions ability to be compliant. In the School of Engineering, before payment is made on a subrecipient invoice ORA reviews the invoice to determine if costs are within the approved budget, reasonable for the time period being billed and other technical aspects of the invoice. The invoice is then reviewed by the department for budgetary reasons and to ensure that the work was completed at a satisfactory level in consultation with the PI or the person with firsthand knowledge of the programmatic progress of the project.

The ERC research was a collaborative effort with ongoing interaction between JHU, NSF and all subrecipients. This was accomplished through weekly leadership meetings, telephone conversations and emails. Personnel from many subrecipient sites were involved in any one project. All subrecipients had an interactive relationship and an understanding of the progress of the programmatic initiatives. There were joint publications, annual conferences, papers, presentations and research meetings that included the subrecipients and NSF. Actual on site monitoring is not a requirement of A-133 but one of many methods an entity can choose to monitor their subs both programmatically and fiscally.

In summary, JHU feels it's current subrecipient monitoring policy adheres to OMB requirements and did it's due diligence in ensuring that OMB circular's A-133 requirements were accomplished that "Pass-Through Entity Responsibilities, states: A pass-through entity shall perform the following for the Federal awards it makes..... (3) Monitor the activities of subrecipient as necessary to ensure that Federal awards are used for authorized purposes in compliance with laws, regulations, and provisions of contracts or grant agreements and that performance goals are achieved."

Finding 2: Inadequate Supporting Documentation for Costs Charged to the Grant

Awardees' Comments

Johns Hopkins University agrees with the 1 out of 113 sample that supporting detail could not be located for a piece of equipment purchase from ATI Industry in the amount of \$6,595 on February 10, are not supported by invoices or a purchase orders. JHU does have procedures and policies in place to ensure supporting documentation is 1999. This is not due to the fact that JHU does not have a record retention policy or that the purchases maintained through a documented record retention policy and an equipment inventory system. In this one incident the archiving document number was incomplete and the correct support could not be retrieved.

Johns Hopkins University disagrees with the finding of the 1 out of 62 samples for internal service providers require a PO. JHU does not have a university policy requiring a PO to be created for internal services because it is not considered an external purchase. The university does require a formal request be made by an authorized departmental personnel to the center providing the service, but does not require a hard copy of the prior approval by the department before making the formal request to the Minimally Invasive Surgical Training Center (MISTIC). It is only after the service has been provided is the charge applied.

The MISTIC provided the training facilities and pigs specimens for the course " Surgery for Engineers", which, is an NSF know activity and is documented in the attached document "2004 annual report volume 1" An invoice/ transfer was provided at the time of the audit and is attached here for your reference. Subsequently the MISTIC was able to provide more detail to the invoice that hopefully resolves the reasonable issue.

Facility Fee - Lect.rm x 2 hrs, lab x 8 half-days \$6,000.00

Animal Fee - 11 pigs@\$400, pig's feet \$4,500.00

Sawbones \$762.00

Technical Support Fee N/C

Misc. Supplies - robot fee N/C

Catering N/A

Finding 3: Unsupported Subgrantee Costs.

Awardees' Comments

Johns Hopkins University does inform it's subrecipients of award requirements. The Office of Research Administration (ORA) makes sure that it passes down all terms and conditions from the prime to the

subrecipient as can be seen in the original sub-award agreement (please see attached CMU subagreement). "All terms and conditions of this Agreement are subject to applicable federal law and regulations, the terms and conditions of the prime agency, and to OMB Circulars A-21, A-87, A-102, A-122 and A-110 as appropriate, and subrecipient acknowledges it is aware of and agrees to comply with the requirements of OMB Circular A-133 and A-128 as appropriate....."

The question cost identified of, \$138,750.82, were cost incurred in the very first year and ½ of the award. At that time the invoices were reviewed the costs were considered reasonable, allowable, and allocable and within the approved budget for worked completed at satisfactorily level. The work completed is documented in the year one progress report and subsequent years (please see attached ERC annual report 1999). Currently Carnegie Mellon has their official university ledger documenting the expense that coincides for what was invoiced and reimbursed for by JHU. But unfortunately 11 years later the individual supporting detail could not be located easily due to a system change to Oracle and documentation being housed offsite. It was implied that CMU didn't have to expend a lot of effort to locate the documents due to the age of the transactions. This was not due to the fact that JHU neglected to notify the subgrantee of their responsibility as it pertains to the requirements identified in OMB Circular A-110, 2CFR part 215.

In summary, JHU does adhere to what is being referenced in recommendation 3: JHU advises their subgrantees of requirements imposed on by federal laws and regulations by referencing OMB circular regulations in their sub-awards to sub-grantees.

Finding 4: Improper Application and Recovery of Indirect cost by the Sub grantee

Awardees' Comments

Johns Hopkins University disagrees with the finding. Carnegie Mellon University (CMU) has rates negotiated as fixed with carry forward at one year increments, as opposed to, JHU with predetermined rates over multiple years in one Negotiated Indirect Cost Rate Agreement (NICRA). OMB Circular A-21, section (G7) states that entities are to use the current year's NICRA through the competitive segment. A modification to an existing award is not considered to be a new competitive segment; hence, the same rate should be used:

" Federal agencies shall use the negotiated rates for F&A costs in effect at the time of the initial award throughout the life of the sponsored agreement. "Life" for the purpose of this subsection means each competitive segment of a project. A competitive segment is a period of years approved by the Federal funding agency at the time of the award. If negotiated rate agreements do not extend through the life of the sponsored agreement at the time of the initial award, then the negotiated rate for the last year of the sponsored agreement shall be extended through the end of the life of the sponsored agreement. Award levels for sponsored agreements may not be adjusted in future years as a result of changes in negotiated rates."

When an educational institution does not have a negotiated rate with the Federal Government at the time of the award (because the educational institution is a new grantee or the parties cannot reach agreement on a rate), the provisional rate used at the time of the award shall be adjusted once a rate is negotiated and approved by the cognizant agency."

In summary, JHU has a process in place at the pre-award stage by the Office of Research Administration that reviews sub grantee's NICRAs and confirms that they are being properly applied. CMU used the correct methodology in applying their F&A rates to invoices billed to JHU.

**APPENDIX B – STATUS OF PRIOR REVIEW
AND AUDIT FINDINGS**

STATUS OF PRIOR REVIEW AND AUDIT FINDINGS

NSF Desk Review 2006 and OMB Circular A-133 Single Audits for FYEs 06/30/06 and 06/30/07

NSF's Desk Review Report stated that "JHU did not have participant support funds segregated into specific accounts".

JHU's OMB Circular A-133 single audit reports, related to inadequate record retention and retrieval systems; unallowable costs; significant deficiency in internal control over financial reporting; effort reporting that did not conform to OMB requirements; and, instances where JHU charged federal awards for internal service costs in excess of the actual costs of those services.

Status: Resolved. Based on our audit, we noted that JHU has established specific accounts to segregate participant costs in its general ledger. We noted numerous reversing entries utilized by JHU to allocate the participant support costs to the new account created. All OMB Circular A-133 findings were resolved.

OMB Circular A-133 Single Audits for FYEs 06/30/08 and 06/30/09

JHU's OMB Circular A-133 single audit report for FYE 06/30/06, 06/30/07, 06/30/08 and 06/30/09 did not include any issues with a direct effect in the NSF award under audit.

APPENDIX C – EXIT CONFERENCE

EXIT CONFERENCE

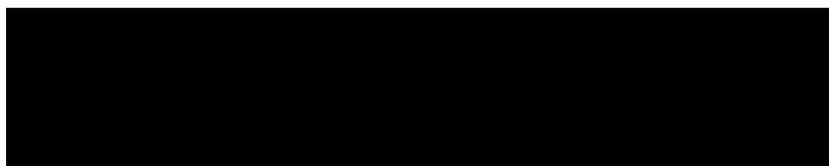
We conducted an exit conference on September 28, 2011 at JHU in Baltimore, Maryland. We discussed preliminary findings and recommendations noted during the audit. Representing JHU were:

Name	Title
-------------	--------------



Representing Mayer Hoffman McCann P.C. were:

Name	Title
-------------	--------------



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