

NATIONAL SCIENCE FOUNDATION
4201 Wilson Boulevard
ARLINGTON, VIRGINIA 22230



OFFICE OF
INSPECTOR GENERAL

MEMORANDUM

Date: March 3, 2010

To: Mary F. Santonastasso, Director
Division of Institution and Award Support

Karen Tiplady, Director
Division of Grants and Agreements

Thru: Jannifer Jenkins /s/
Senior Audit Manager

From: Ken Stagner /s/
Audit Manager

Subject: Audit Report No. OIG-10-1-006
University of Missouri – Columbia

Attached is the final audit report, prepared by McBride, Lock & Associates, an independent public accounting firm, on the audit of NSF Award Numbers [REDACTED] [REDACTED] [REDACTED] awarded to the University of Missouri – Columbia (the University). The audit covers the period from January 1, 2004 to December 31, 2008, for NSF direct funded costs aggregating to approximately \$14.9 million and \$1 million in cost sharing reported to NSF. The University was selected for audit because of the high dollar value of NSF awards; the collaborative nature of many of those awards; and the material internal control deficiencies reported in the University's Fiscal Years 2005-2007 Office of Management and Budget Circular A-133 audits and a 2007 NSF desk review.

[REDACTED]

[REDACTED]

Overall the auditors determined that the costs and cost share claimed by the University and its subawardees for the NSF awards audited appear fairly stated and are allowable, allocable and reasonable. In addition, the majority of the recommendations made in prior A-133 Single Audit reports and the NSF desk review had been addressed. However, the auditors identified significant compliance and internal control deficiencies in the University's financial management of its subaward and payroll costs. The University's system for monitoring subawardees is not sufficiently comprehensive and labor cost transfers are not consistently supported by documentation of justification, explanation, independent review or approval nor do such transfers always result in an updated effort certification to validate and reflect payroll adjustments. Specifically:

1. The University did not adequately monitor subaward costs charged to three of the five NSF awards audited, which included 11 subawards amounting to \$9,164,036 or 61% of the total costs charged to NSF. The auditors found that although the University has written subaward monitoring policies and procedures, the University did not always adhere to them. As a result, the University's internal controls over subaward costs do not provide assurance that the expenditures reported and claimed by the subawardees are accurate, valid, and allowable.
2. The University does not have adequate internal controls and safeguards in place to adequately process all labor cost transfers or to ensure that labor effort certifications are properly recertified once payroll adjustments are made as required by its own policies. This occurred because the policies and procedures for labor cost transfers made within 2 accounting periods are not adequate to ensure that all labor cost transfers are adequately documented, justified, approved and properly charged to the NSF awards. Also, the University is not adhering to its policy to recertify changes made on effort reports after subsequent revisions are made. The lack of proper documentation, approval and secondary review of labor cost transfers and proper certification of effort reporting increases the risk that irregularities or embezzlements that affect NSF and federal grant funds could occur and go undetected. In addition, if the University fails to address these issues, similar problems may occur on the University's other existing 278 current active NSF awards and on future NSF awards.

To address these compliance and internal control deficiencies, the auditors recommend that NSF ensures that: (1) the University Controller's Office, as part of the risk assessment process, request and review, for all subawardees, Subrecipient Confirmation Letters, A-133 audit reports and reports of other regulatory agencies, such as federal Offices of Inspector General and internal auditors, and document the rationale for all risk assessment decisions, while ensuring that supervisory personnel perform a thorough review of the risk assessment and require additional monitoring as necessary; (2) the University revise and distribute, through an expanded training program, its policy to require documentation justifying all labor cost transfers, provide for independent review of labor cost transfers exceeding a pre-determined dollar amount; and (3) revise its policies to require recertifications and actively monitor payroll correcting entries for changes occurring after the effort reporting certifications are complete, to ensure that such effort verification reports are re-certified as required by the University.

The University does not concur with the finding that the University did not adequately perform monitoring of its subawardees, and believes that minimal changes in policies or procedures are necessary. The University contends that sending subawardee monitoring letters and risk assessment questionnaires, and reviewing OMB Circular A-133 audit reports is not necessary when alternative information sources are available. It is the University's position that the alternative information sources, although less informative and lacking subawardee representation as to compliance, are sufficient for risk assessment purposes. However, the University agrees that the risk assessment should be reviewed by supervisory personnel. In addition, the University agrees to implement revised policies and procedures with respect to processing labor cost transfers and ensuring that labor effort certifications are properly recertified.

In accordance with OMB Circular A-50, please coordinate with our office during the six-month resolution period 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 a copy of this memorandum to the Acting Division Director in the Division of Education and Human Resources - (EHR/DRL), and the Acting Division Director and Acting Deputy Division Director in the Division of Biological Sciences (BIO/IOS). 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 McBride, Lock & Associates' 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 McBride, Lock & Associates and NSF officials, as necessary, to discuss audit progress, findings, and recommendations;
- Reviewed the audit report, prepared by McBride, Lock & Associates to ensure compliance with Government Auditing Standards; and
- Coordinated issuance of the audit report.

McBride, Lock & Associates is responsible for the attached auditor's report on the University of Missouri and the conclusions expressed in the report. We do not express any opinion on the Schedules 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 me at 303-312-7655.

Attachment

cc: David A. Ucko, Acting Division Director, EHR/DRL
Jane Silverthorne, Acting Division Director, BIO/IOS
William E. Zamer, Acting Deputy Division Director, BIO/IOS

UNIVERSITY OF MISSOURI

c/o The Board of Curators
316 University Hall
Columbia, Missouri 65211

Financial Audit of Financial
Schedules and Independent
Auditors' Reports on
National Science Foundation
Award Numbers



For the Period from January 1, 2004 to December 31, 2008

McBride, Lock & Associates
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Suite 900
Kansas City, MO 64105

EXECUTIVE SUMMARY

BACKGROUND

The National Science Foundation (NSF) Office of Inspector General (OIG), engaged McBride, Lock & Associates to perform an audit on \$14.9 million in costs claimed and \$1 million in cost sharing claimed as reported on the December 31, 2008 Federal Financial Report (FFR) and cost sharing reports submitted to NSF by the University of Missouri, (the University) on NSF award numbers [REDACTED]

The University is a public research university and a federal land-grant institution that has provided teaching, research, and public service to Missouri and the nation since 1839. As of June 2008, the University had 283 active NSF awards totaling more than \$114.8 million. This audit encompassed five of the University's awards with costs claimed totaling \$14.9 million and represented approximately 13% of the University's total NSF funding. The University was selected for audit because of the high dollar value and number of NSF awards, the collaborative nature of many of those awards, and the material internal control deficiencies reported in the University's FYs 2005-2007 Office of Management and Budget (OMB) Circular A-133 audits and a 2007 NSF desk review.

Specifically, the prior A-133 audits identified material non-compliance and internal control weaknesses in areas including cost compliance, cash management, reporting of expenditures, procurement and property systems, sub-recipient monitoring, grant data access, and maintenance of supporting documentation. In addition, the NSF desk review identified a lack of documenting policies and procedures to track budgets/expenditures, document cost transfers and accounting transactions, and perform accounting responsibilities such as preparing bank reconciliations, calculating and processing fixed asset depreciation entries and performing year-end closing activities.

OBJECTIVES

The objectives of this engagement were to determine whether the Schedules of Award Costs of the University (Schedules A -1 through A -5) present fairly, in all material respects, the costs claimed by the University in conformity with the terms and conditions of the NSF award and Federal requirements, to identify weaknesses in the University's internal control over financial reporting that could have a direct and material effect on the University's ability to properly administer, account for, and monitor its NSF awards. In addition, we were to determine whether the University adequately monitors its subawardees and ensure that previously identified audit recommendations have been satisfactorily addressed and implemented.

RESULTS AND RECOMMENDATIONS

We determined that the \$14.9 million in costs and the \$1 million in cost sharing claimed by the University for the NSF awards audited appear fairly stated and are allowable, allocable, and reasonable. Overall, prior audit findings were satisfactorily addressed except in the areas of subaward monitoring and payroll cost transfers.

Our audit identified significant compliance and internal control deficiencies in the University's financial management of its subaward and payroll costs. The University's

system for monitoring subawardees is not sufficiently comprehensive and labor cost transfers are not consistently supported by documentation of justification, explanation, independent review or approval nor do such transfers always result in an updated effort certification to validate and reflect payroll adjustments. Specifically:

1. The University did not adequately monitor subaward costs charged to three of the five NSF awards audited, which included 11 subawards amounting to \$9,164,036 or 61% of the total costs charged to NSF. Although the University established written subaward monitoring policies and procedures, the University did not always adhere to them. In addition, the existing subaward monitoring policies and procedures should be strengthened.

The University did not always adhere to its policy by consistently sending monitoring letters and subawardee risk assessment questionnaires to the subawardees. Furthermore, subawardees' OMB Circular A-133 audit reports were not regularly obtained and reviewed, as required, leading to the potential for inaccurate risk assessment results. These variations from policy were based on staff's opinion that sufficient information for risk assessment and monitoring was obtained without performing the above procedures and reflect a lack of review and oversight by the University. As a result, the University's internal controls over subaward costs do not provide assurance that the expenditures reported and claimed by the subawardee are accurate, valid, and allowable.

2. The University does not have adequate internal controls and safeguards in place to adequately process all labor cost transfers or to ensure that labor effort certifications are properly recertified once payroll adjustments are made as required by its own policies. This occurred because the policies and procedures for labor cost transfers made within 2 accounting periods are not adequate to ensure that all labor cost transfers are adequately documented, justified, approved and properly charged to the NSF awards and because the University is not adhering to its policy to recertify changes made on effort reports after subsequent revisions are made. The lack of proper documentation, approval and secondary review of labor cost transfers and proper certification of effort reporting increases the risk that irregularities or embezzlements that affect NSF and federal grant funds could occur and go undetected. In addition, if the University fails to address these compliance and internal control weaknesses, similar problems may occur on the University's other existing 278 current active NSF awards and on future NSF awards.

To address these issues, we recommended that NSF's Director of the Division of Institution and Award Support ensure that: (1) the University Controller's Office, as part of the risk assessment process, request and review, for all subawardees, Subrecipient Confirmation Letters, A-133 audit reports and reports of other regulatory agencies, such as federal Offices of Inspector General and internal auditors, and document the rationale for all risk assessment decisions, while ensuring that supervisory personnel perform a thorough review of the risk assessment and require additional monitoring as necessary; (2) the University revise and distribute, through an expanded training program, its policy to require documentation justifying all labor cost transfers, provide for independent review of labor cost transfers exceeding a pre-determined dollar amount; and (3) revise

its policies to require recertification and actively monitor payroll correcting entries for changes occurring after the effort reporting certifications are complete, to ensure that such effort verification reports are re-certified as required by the University.

UNIVERSITY OF MISSOURI RESPONSE

The University responded to the draft report on March 2, 2010. In its response, the University does not concur with the finding that the University did not adequately perform monitoring of its subawardees, and believes that minimal changes in policies or procedures are necessary. The University contends that sending subawardee monitoring letters and risk assessment questionnaires, and reviewing OMB Circular A-133 audit reports is not necessary when alternative information sources are available. It is the University's position that the alternative information sources, although less informative and lacking subawardee representation as to compliance, are sufficient for risk assessment purposes. However, the University agrees that the risk assessment should be reviewed by supervisory personnel. In addition, the University has agreed to implement revised policies and procedures with respect to processing labor cost transfers and ensuring that labor effort certifications are properly recertified.

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 actions have been implemented. The University's response will be included in its entirety in Appendix A.

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

**University of Missouri
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Acronyms

APM	Accounting Policy Manual
BPM	Business Policy Manual
EAE	Effort Allocation Estimate
EVR	Effort Verification Report
FFR	Federal Financial Reports
MU	University of Missouri at Columbia
NSF	National Science Foundation
OIG	Office of Inspector General
OMB	Office of Management and Budget
OSPA	Office of Sponsored Programs Administration
PCE	Payroll Correcting Entry
PI	Principal Investigator
SPO	Sponsored Program Officer
UA	University of Arizona
WMU	Western Michigan University

INTRODUCTION

BACKGROUND

We audited funds awarded by NSF to the University of Missouri (the University) under award numbers [REDACTED] for the period January 1, 2004 to December 31, 2008. The University, as a Federal awardee, is required to follow the cost principles specified in 2 CFR Part 220 (OMB Circular A-21), *Cost Principles for Educational Institutions*; Federal administrative requirements contained in 2 CFR Part 215 (OMB Circular A-110), *Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations*; and Federal audit requirements in OMB Circular-A-133, *Audits of States, Local Governments, and Non-Profit Organizations*.

The University is a public research university and land grant institution governed by a Board of Curators, with administrative offices located in Columbia, Missouri and four campuses in Columbia, Kansas City, Rolla and St. Louis. The University has more than 64,000 students on its campuses and serves hundreds of thousands statewide through the University Extension and the University Health System.

The University was selected for audit because of the high dollar value and number of NSF awards, the collaborative nature of many of those awards, and the material internal control deficiencies reported in the University's FY 2005-2007 OMB Circular A-133 audits and a 2007 NSF desk review. As of June 2008, the University had 283 active NSF awards totaling over \$114.8 million. This audit encompassed five of the University's awards, which totaled \$14.9 million and represented approximately 13% of the University's total NSF funding.

A description of the five NSF awards audited follows:

1. Continuing Grant Award [REDACTED]
[REDACTED] The University was awarded approximately \$11 million effective January 1, 2004 through December 31, 2010 to advance the research base and leadership capacity supporting K-12 mathematics curriculum design, analysis, implementation and evaluation. CSMC is a collaborative effort between the University of Missouri at Columbia, the University of Chicago, Michigan State University, Western Michigan University, Horizon Research Inc, and the University of Iowa. The CSMC award includes \$6.6 million in sub-awards, and requires \$674,293 in cost sharing.

We conducted our audit of this award for the period January 1, 2004 to December 31, 2008. Cumulative disbursements for grant number [REDACTED] reported to NSF for the audit period were \$6,443,412.

2. Cooperative Agreement Award [REDACTED]
[REDACTED]. The University was awarded approximately \$6.7 million effective September 1, 2004 through August 31, 2009 to determine the mechanisms that contribute to chromatin-based control of gene expression using maize, a premier model for these studies. The award is a collaborative effort between the University of Missouri at Columbia, the University of Arizona, the University of Georgia Research Foundation Inc, the University of Minnesota-Twin Cities, the University of

Wisconsin-Madison, and Washington University. The award includes \$5.3 million in sub-awards. No cost sharing was required.

We conducted our audit of this award for the period September 1, 2004 to December 31, 2008. Cumulative disbursements for award number DBI-0421619 reported to NSF for the audit period were \$6,397,648.

3. Standard Grant Award [REDACTED] The University was awarded approximately \$ 2.2 million effective September 15, 2005 through August 31, 2009, with a subsequent extension through December 31, 2010, to evaluate high school students' mathematics learning from textbooks. No cost sharing was required.

We conducted our audit of this award for the period September 15, 2005 to December 31, 2008. Cumulative disbursements for award number DRL-0532214 reported to NSF for the audit period were \$899,294.

4. Standard Grant Award [REDACTED] The University was awarded \$643,242, effective August 1, 2006 through July 31, 2010 to learn how and where pollen and the pistil proteins interact to allow the self-incompatibility system in Nicotiana. No cost sharing was required.

We conducted our audit of this award for the period August 1, 2006 to December 31, 2008. Cumulative disbursements for award number [REDACTED] reported to NSF for the audit period were \$388,081.

5. Standard Grant Award [REDACTED] The University was awarded approximately \$1.5 million effective January 1, 2007 through December 31, 2008, with a subsequent extension through December 31, 2010, to study Brassica Oleracea which is emerging as a plant model. The award is a collaborative effort between the University of Missouri at Columbia, the Institute of Genomic Research, and the University of Georgia Research Foundation Inc. The award includes approximately \$1.3 million in subawards. No cost sharing was required.

We conducted our audit of this award for the period January 1, 2007 to December 31, 2008. Cumulative disbursements for award number [REDACTED] reported to NSF for the audit period were \$775,065.

Several non-compliance and internal control weaknesses have been previously identified in the University's financial compliance, reporting, and administration of its federal and NSF awards. Specifically, the University's FYs 2005-2007 OMB Circular A-133 audits identified material non-compliance and internal control weaknesses in areas including cost compliance, cash management, reporting of expenditures, procurement and property systems, sub-recipient monitoring, grant data access and maintenance of supporting documentation. In addition, the NSF desk review identified a lack of documenting policies and procedures to track budgets/expenditures, document cost transfers and accounting transactions, or perform accounting responsibilities such as preparing bank

reconciliations, calculating and processing fixed asset depreciation entries and performing year-end closing activities.

AUDIT OBJECTIVES, SCOPE, AND METHODOLOGY

At the request of the NSF Office of Inspector General, McBride, Lock & Associates conducted an audit of NSF Award Numbers [REDACTED] granted to the University of Missouri.

The objectives of our audit were to:

1. Determine whether the University of Missouri's system of internal control over administering its NSF awards is adequate to account for and ensure compliance with applicable OMB Circulars and NSF award requirements;
2. Identify and report instances of noncompliance with laws, regulations, and the provisions of the award agreements and weaknesses in the University's internal controls over compliance that could have a direct and material effect on the Schedules of Award Costs and the University's ability to properly administer, account for, and manage its NSF awards;
3. Determine whether the University adequately monitors its sub-awards;
4. Determine whether the University's Schedules of Award Costs present fairly, in all material respects, the costs claimed on the Federal Financial Reports (FFR) in conformity with NSF-OIG's *Audit Guide* and the terms and conditions of the NSF awards; and
5. Follow-up on recommendations identified in the University's OMB Circular A-133 reports and NSF's Desk Review to determine if they were satisfactorily addressed and implemented.

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 the *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 2008), as applicable. Those 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 the National Science Foundation as presented in the Schedules of Award Costs (Schedules A-1 to A-5), are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the Schedules of Award Costs (Schedules A-1 to A-5). An audit also includes assessing the accounting principles used and significant estimates made by the University of Missouri, as well as evaluating the overall financial schedule presentation. We believe that our audit provides a reasonable basis for our opinion.

FINDINGS AND RECOMMENDATIONS

McBRIDE, LOCK & ASSOCIATES

INDEPENDENT AUDITORS' REPORT ON FINANCIAL SCHEDULES

National Science Foundation
 Office of Inspector General
 4201 Wilson Boulevard
 Arlington, Virginia 22230

We have audited the costs claimed by the University of Missouri to the National Science Foundation (NSF) on the Federal Financial Reports — Federal Share of Net Disbursements for the NSF awards listed below. In addition, we audited the amount of cost sharing claimed on award [REDACTED]. The Federal Financial Reports, as presented in the Schedules of Award Costs (Schedules A-1 to A-5) are the responsibility of the University of Missouri's management. Our responsibility is to express an opinion on the Schedules of Award Costs (Schedules A-1 to A-5) based on our audit.

<u>Award Number</u>	<u>Award Period</u>	<u>Audit Period</u>
[REDACTED]	Jan. 1, 2004 - Dec. 31, 2010	Jan. 1, 2004 - Dec. 31, 2008
[REDACTED]	Sept. 1, 2004 - Aug. 31, 2009	Sept. 1, 2004 - Dec. 31, 2008
[REDACTED]	Sept. 15, 2005 - Aug. 31, 2010	Sept. 15, 2005 - Dec. 31, 2008
[REDACTED]	Aug. 1, 2006 - July 31, 2010	Aug. 1, 2006 - Dec. 31, 2008
[REDACTED]	Jan. 1, 2007 - Dec. 31, 2008	Jan. 1, 2007 - Dec. 31, 2008

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 2008), as applicable. Those 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 the National Science Foundation as presented in the Schedules of Award Costs (Schedules A-1 to A-5), are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the Schedules of Award Costs (Schedules A-1 to A-5). An audit also includes assessing the accounting principles used and significant estimates made by the University of Missouri's management, as well as evaluating the overall financial schedule presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the Schedules of Award Costs (Schedules A-1 to A-5) referred to above present fairly, in all material respects, the costs claimed on the Federal Financial Reports — Federal Share of Net Disbursements and cost sharing claimed, for the period January 1, 2004 through December 31, 2008, in conformity with the provisions of the *National Science Foundation OIG Audit Guide*, *NSF Grant Policy Manual*, terms and conditions of the NSF awards and on the basis

of accounting described in the Notes to the Financial Schedules, which is a comprehensive basis of accounting other than generally accepted accounting principles. These schedules are not intended to be a complete presentation of financial position in conformity with accounting principles generally accepted in the United States of America.

In accordance with *Government Auditing Standards* and the guidance provided in the *National Science Foundation OIG Audit Guide*, we have also issued a report dated October 16, 2009, on our consideration of the University of Missouri's internal control over financial reporting and our tests of the University'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 read in conjunction with this report in considering the results of our audit.

This report is intended solely for the information and use of the University of Missouri's management, the National Science Foundation, the University of Missouri'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.

McBride, Lock & Associates

McBride, Lock & Associates
October 16, 2009

McBRIDE, LOCK & ASSOCIATES

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

National Science Foundation
Office of Inspector General
4201 Wilson Boulevard
Arlington, Virginia 22230

We have audited the costs claimed as presented in the Schedules of Award Costs (Schedules A-1 to A-5), which summarize the financial reports submitted by the University of Missouri to the National Science Foundation (NSF), and claimed cost sharing, as applicable, for the awards listed below and have issued our report thereon dated October 16, 2009.

<u>Award Number</u>	<u>Award Period</u>	<u>Audit Period</u>
	Jan. 1, 2004 - Dec. 31, 2010	Jan. 1, 2004 - Dec. 31, 2008
	Sept. 1, 2004 - Aug. 31, 2009	Sept. 1, 2004 - Dec. 31, 2008
	Sept. 15, 2005 - Aug. 31, 2010	Sept. 15, 2005 - Dec. 31, 2008
	Aug. 1, 2006 - July 31, 2010	Aug. 1, 2006 - Dec. 31, 2008
	Jan. 1, 2007 - Dec. 31, 2010	Jan. 1, 2007 - Dec. 31, 2008

We conducted our audit of the Schedules of Award Costs as presented in Schedules A-1 to A-5 in accordance with auditing standards generally accepted in the United States of America, standards applicable to financial audits contained in *Government Auditing Standards* (2007 Revision), issued by the Comptroller General of the United States; and guidance provided in the *National Science Foundation OIG Audit Guide* (August 2008), as applicable.

INTERNAL CONTROLS OVER FINANCIAL REPORTING

In planning and performing our audit of the Schedules of Award Costs (Schedules A-1 to A-5) for the period January 1, 2004 to December 31, 2008, we considered the University of Missouri's internal control over financial reporting as a basis for designing our auditing procedures for the purpose of expressing our opinion on the financial schedules, but not for the purpose of expressing an opinion on the effectiveness of the University of Missouri's internal control over financial reporting. Accordingly, we do not express an opinion on the effectiveness of the University of Missouri's internal control over financial reporting.

Our consideration of internal control over financial reporting was for the limited purpose described in the preceding paragraph and would not necessarily identify all deficiencies in internal control over financial reporting that might be significant deficiencies or material weaknesses. However, as discussed below, we identified certain deficiencies in internal control over financial reporting that we consider to be significant deficiencies.

A control deficiency 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 or detect misstatements on a timely basis. A significant deficiency is a control deficiency, or combination of control deficiencies, that adversely affects the entity's ability to initiate, authorize, record, process, or report financial data reliably in accordance with generally accepted accounting principles such that there is more than a remote likelihood that a misstatement of the University of Missouri's financial schedules that is more than inconsequential will not be prevented or detected by the University's internal controls. We consider the deficiencies described in the accompanying schedule of findings and responses, below as Finding Nos. 1 and 2 to be significant deficiencies in internal control over financial reporting.

A material weakness is a significant deficiency, or combination of significant deficiencies, that results in more than a remote likelihood that a material misstatement of the financial schedules will not be prevented or detected by the University's internal control.

Our consideration of internal control over financial reporting was for the limited purpose described in the first paragraph of this section and would not necessarily identify all deficiencies in the internal control that might be significant deficiencies and, accordingly, would not necessarily disclose all significant deficiencies that are also considered to be material weaknesses. However, we believe that none of the significant deficiencies described below are material weaknesses.

COMPLIANCE AND OTHER MATTERS

As part of obtaining reasonable assurance about whether the University of Missouri's financial schedules are free of material misstatement, we performed tests of the University's compliance with certain provisions of 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 two instances of noncompliance that are required to be reported under *Government Auditing Standards* and the *National Science Foundation OIG Audit Guide* and which are described in the accompanying schedule of findings and responses as Finding Nos. 1 and 2.

The University of Missouri's responses to the findings identified in our audit are described in the schedule of findings and responses presented below and are included in their entirety in Appendix A. We did not audit the University of Missouri's response, and accordingly, we express no opinion on it.

This report is intended solely for the information and use of the University of Missouri's management, NSF, the University'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.

McBride, Lock & Associates

McBride, Lock & Associates
October 16, 2009

SCHEDULE OF FINDINGS AND RESPONSES

Finding No. 1: Subawardee Monitoring is Inadequate and Needs to be Strengthened

The University did not adequately monitor subaward costs charged to three of the five NSF awards audited, which included 11 subawards amounting to \$9,164,036 or 61% of the total costs charged to NSF. Although the University established written subaward monitoring policies and procedures, the University did not always adhere to them. In addition, the existing subaward monitoring policies and procedures should be strengthened.

Specifically, the University did not always adhere to its policy by consistently sending monitoring letters and subawardee risk assessment questionnaires to the subawardees. Furthermore, subawardee's OMB Circular A-133 audit reports were not regularly obtained and reviewed, as required, leading to the potential for inaccurate risk assessment results. These variations from policy were based on staff's opinion that sufficient information for risk assessment and monitoring was obtained without performing the above procedures and reflect a lack of review and oversight by the University.

Beyond adhering to existing University policy, subawardee monitoring policies and procedures should be strengthened by mandating that subawardees disclose the existence of relevant audits performed by other regulatory Federal audit agencies, such as federal offices of inspector general, and internal auditors with respect to sponsored awards. Copies of such audit reports should be examined by the University in order to ensure that subawardee's internal controls were adequate to record and report accurate cost information to the University. The University also should request details of corrective action taken with respect to findings that may impact the subaward.

The deficiencies noted in the risk assessment, monitoring, request for and review of other audit reports reduce the effectiveness of the University's internal controls over its subaward costs to identify significant internal control weaknesses or instances of noncompliance at subawardee institutions. As a result, the University's internal controls over subaward costs do not provide assurance that the expenditures reported and claimed by the subawardee are accurate, valid, and allowable.

OMB Circular A-133, Subpart D, Section 400 (d.3), states that 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." To ensure compliance with this section of OMB Circular A-133, the University's policies and procedures should be strengthened and enforced with a goal of more thoroughly evaluating and monitoring subawardees.

OMB Circular A-21, *Cost Principles for Educational Institutions*, paragraph J10 (b)(1)(a) states "The distribution of salaries and wages, whether treated as direct or F&A costs, will be based on payrolls documented in accordance with the generally accepted practices of colleges and universities"; paragraph J10 (b)(2)(a) states "The payroll distribution system will be incorporated into the official records of the institution, reasonably reflect the activity for which the employee is compensated by the institution,..."; and paragraph J10 (b) (2) (b) states "The method must recognize the principle of after-the-fact confirmation or determination so that costs distributed represent actual costs....";

Subaward monitoring is a responsibility shared by the Office of Sponsored Programs Administration (OSPA) – Subaward negotiator, the Principal Investigator (PI), the OSPA's Post-Award Division and the Controller's Office. The subaward negotiator in the OSPA Pre-Award Division is responsible for ensuring that a subaward is allowed by the terms of the award; that the subawardee is aware of required compliance considerations; and that appropriate terms are included in the subaward agreement. The PI is responsible for monitoring the performance of and approving payments to the subawardee. The OSPA's post-award division is responsible for reviewing payments made to the subawardee and evaluating them in relation to the award proposal and subawardee agreement. The University Controller's Office supports and supplements these efforts by performing a risk assessment of the subawardee and developing monitoring procedures pursuant to the extent of risk identified.

The University's policies and procedures, as set forth in Accounting Policy Manual (APM) 60.85, require that the University Controller's Office perform a risk assessment of subawardees at least annually and prior to the initial award. The policy provides for the following actions identified as items 1 through 4 below. The extent to which we noted adherence to policy is also described.

1. Requirement - A Subrecipient Confirmation Letter and a Subrecipient Questionnaire are to be sent to each subawardee, and the responses are to be evaluated by the University Controller's Office to help in assessing the risk of the subawardee improperly administering the award or reporting inaccurate cost data to the University.

Status – We were informed that Subrecipient Confirmation Letters and Subrecipient Questionnaires are not sent if information is available elsewhere, such as through the on-line Federal Audit Clearinghouse service. We explain below how the University's use of this service is not adequate to assess the risks of the subawardees.

2. Requirement - The Confirmation Letter is to be reviewed when returned to the Controller's Office. The Confirmation Letter provides the status of the entity's A-133 audit as incomplete, completed or not required. For those potential or existing subawardees who disclose in the Subrecipient Confirmation Letter that they have or will be receiving an A-133 audit, the letter requests that the entity provide a written certification that "no material instance of non-compliance, material weaknesses, and/or reportable conditions were found relating to federal awards provided by the University", or that findings were identified during the audit. In the event that findings *relating to federal awards provided by the University* were identified, the entity is asked to provide the audit report. In the event the A-133 audit is not required, the Confirmation Letter directs the entity to complete and return a Subrecipient Questionnaire.

Status – Confirmation Letters are generally not requested. Accordingly, there is no representation from the subawardee that could validate the on-line Federal Audit Clearinghouse data form. Further, without the audit report, the nature of any findings, such as inadequate payroll, procurement or cash controls, or inaccurate financial reporting, cannot be determined. These findings, while not necessarily specific to a University award, nonetheless affect the risk of proper award management.

3. Requirement - The Subrecipient Questionnaire is to be reviewed when returned to the Controller's Office. The Subrecipient Questionnaire provides a general description of the subrecipient's accounting policies and financial management system.

Status – Because the Subrecipient Questionnaire only applies to entities receiving less than \$500,000 in federal funds and not subject to OMB Circular A-133 audit requirements, it is rarely used by Missouri subawardees.

4. Requirement - After receipt of the above information a risk assessment is to be performed. This risk assessment is intended to evaluate the suitability of the subawardee before a pass-through award is made, and, through ongoing monitoring efforts, to review the continued status of the subawardee as having internal controls in place as appropriate for the accounting and administration of federal award funds. The risk assessment is documented on a Risk Assessment Worksheet which includes a series of questions pertaining to the subawardee including:
- amount of this subaward,
 - amount of other awards,
 - single or multi-year subaward,
 - new or in business for a long period of time,
 - adequacy of experience administering federal awards,
 - prior monitoring and audit results,
 - existence of adequate written policies and procedures,
 - management systems that meet standards mandated in OMB circulars,
 - evidence that the subawardee is implementing audit resolution, corrective action plans, and acting on disallowed costs,
 - fiscal health, and
 - prior experience with the subawardee.

Status - The Risk Assessment Worksheet is completed in the Controller's Office and is not subject to review. It is also noteworthy that many of the questions asked on the Risk Assessment Worksheet could not be answered from the information obtained in the Subrecipient Confirmation Letter or the Subrecipient Questionnaire. Further, the questions are structured in a manner that avoids the need for specific information or explanations. For example, "in business for a long period of time", "adequate experience", "adequate written policies and procedures" are not areas that can be obtained or assessed from the information provided on the documents requested. Nonetheless, all of the 11 Risk Assessment Worksheets were reviewed contained only favorable responses with respect to the above questions.

5. Requirement - While not addressed in the APM 60.85, the Controller's Office has established a procedure regarding the review of A-133 audit reports. These reviews are to be documented on a Single Audit Report Review Checklist, which, with respect to A-133 audits, has 4 components, as follow:
- Was an A-133 audit required (at least \$500,000 in federal awards were expended,
 - Do A-133 audit findings apply to a grant administered by the University,
 - Are there unresolved prior audit findings, and
 - List the specific findings related to the federal program and/or award.

For proposed or existing subawardees for which no findings are identified as applying to a University award, no review of the Single Audit Report Review Checklist is required. In the event that such a finding was identified, the Assistant Controller for Post Award Grants Administration would determine what actions were appropriate.

Status - None of the subawards tested during this audit were considered to have findings applying to University awards. All were assessed as low risk. However, our testwork identified findings in the areas of inadequate controls over payroll, procurement, bank reconciliations, inadequate segregation of duties, and inability to prepare financial statements. While these findings do not specifically identify the University's NSF subaward, their nature is such that they increase the risk of inadequate administration or reporting of all sponsored awards.

The risk assessment process is critical to subaward monitoring, because the adequacy and accuracy of the risk assessment, including all of the above-described steps, dictates the amount and level of subaward monitoring performed and the effectiveness of the monitoring plan assigned to the subaward. Entities assessed as low risk receive no further monitoring by the Controller's Office. While none of the entities we tested were assessed as high risk, we were informed that a high risk assessment could result in further desk reviews by the Controller's Office, site visits to the subawardee, or a requirement for submission of additional documentation.

In order to validate the subaward charges to the awards being audited, we performed additional audit tests at the University and two major subawardees. We selected the files of 11 subawardees for review and found that only two subawardees had returned the completed Subrecipient Confirmation Letter. None had returned the Risk Assessment Questionnaire for Subawardees because they met the requirement for an A-133 audit.

We noted above that all 11 subawardees were assessed as low risk, although one of the subawardees' A-133 audit reported an unreconciled bank balance requiring a \$3.6 million adjustment, another subawardee's A-133 audit reported inadequate segregation of duties within the accounting function, the inability of the accountant to prepare the financial statements, and the absence of a written procurement policy, and a third subawardee's A-133 audit report disclosed a theft from an NSF award in the amount of \$11,766 due to improper use of a procurement card. Although these findings impact the risk of inadequate federal award administration, none were mentioned on the Risk Assessment Worksheet and, as discussed above, all subawardees were assessed as low risk.

Specifically, we noted the following weaknesses in the prescribed procedures during our audit:

1. Of the 11 subawardees tested, only 2 had returned the Subrecipient Confirmation Letter and 6 had provided their A-133 audit report. We were informed that these documents were not always requested because the assigned staff chose to instead utilize information from the subawardee's OMB Circular A-133 Data Collection Form, which is a summary of A-133 audit results available on-line through Harvester Census. The remaining 5 subawardees were reviewed by the University through the Harvester system. However, information set forth on the Data Collection Form does not provide detail as to the specific nature of the finding. As a result of using only summary information from the Data Collection Form, one subawardee, Michigan State University, was inaccurately assessed as low risk. Only through review of the A-133 report would the University have known that a theft involving NSF funds, as described above, had been reported.

Failure to obtain the Subrecipient Confirmation Letter leaves the University without written representation by the subawardee as to the status of A-133 compliance and the subawardee's assessment as to the existence of findings that may impact the NSF subaward. This written certification should be obtained for all subawardees and should serve as the starting point for the

University's own efforts to secure the A-133 audit report and evaluate the findings and opinions set forth herein. In any case, we believe the A-133 audit reports should be obtained and reviewed to affirm the information obtained on the Subrecipient Confirmation Letter.

In addition, the file of one of the subawardees (University of Minnesota) did not contain a Confirmation Letter or a Questionnaire, nor was a Harvester search performed. However, an A-133 audit report was in the University's file and it identified significant control deficiencies, including failure to reconcile its bank account, and these facts were not noted or taken into consideration on the University's Risk Assessment Worksheet.

For another subawardee (Horizon Research, Inc.) a Confirmation Letter, an A-133 audit report, and a Data Collection Form were on file. Both the A-133 audit report and the Data Collection Form identified material control deficiencies, significant control weaknesses and findings of noncompliance. The Data Collection Form specifically identified the findings as affecting the NSF award [REDACTED]. The actual findings involved inadequate segregation of duties within the accounting area, inability of the accounting staff to prepare financial statements, and the lack of a written procurement policy. The Confirmation Letter revealed that a sentence had been manually crossed out which read "Material instances of non compliance, material weaknesses and/or reportable conditions were found relating to federal awards provided by the University." Notwithstanding the above facts, the entity was assessed as Low Risk on the Single Audit Report Review Checklist and the Risk Assessment Worksheet merely noted that, although prior findings were repeated, "they were not related to funding provided by MU." We were informed that this conclusion was the result of a conversation between the Controller's Office and the subawardee. However, considering the pervasive nature of the A-133 audit findings, impacting segregation of duties over accounting, financial reporting and procurement, the conclusion that the findings are "not related" to the NSF award providing funding to this subawardee is not supported by the evidence in the subawardee file. If additional information is obtained that supports a low risk assessment, it should be documented on the Risk Assessment Worksheet.

2. The University's practice includes completion of a Single Audit Report Review Checklist. University procedures do not include inquiring as to the existence of audits by other regulatory agencies, such as federal Offices of Inspector General or internal auditors or obtaining those reports, if they exist. We visited and conducted audit procedures at two subawardees, Western Michigan University and the University of Arizona, and determined that audit reports by regulatory agencies and/or internal auditors, had been issued and the reports identified internal control weaknesses that could affect the subawardee's ability to report accurate cost information to the University. Had the University process included requesting relevant reports from other federal and internal auditors, the internal control weaknesses at these two subawardees, both of which received substantial amounts of federal award funds from the University, would have been identified. Further, the risk assessment for these two universities would likely have been revised from the low risk category or originally assigned to a higher risk category requiring further investigation and monitoring efforts.

As further evidence of the need for a higher risk assessment categorization, we noted the following deficiencies at subawardees, some of which were reported by other auditors during the term of the subaward:

Western Michigan University (WMU)

WMU is one of five subawardees for the NSF Award No. [REDACTED] receiving \$1,382,362 from the University. WMU does not maintain documentation of labor hours worked or absences from work by graduate student employees. Neither timesheets nor exception reporting is employed to support graduate student payroll charges to sponsored awards, and thus does not provide documentation of payroll charges as required by OMB Circular A-21, J10 (b)(1)(a) and J10 (b)(2)(a).

Western Michigan University does not require documentation as to the purpose of federal award charges recorded by cost transfers if such transfers are made within 90 days of the charge date, in violation of OMB Circular A-21, J10 (b) (2) (b).

University of Arizona (UA):

The UA is one of six subawardees for the NSF Award No. [REDACTED] receiving \$1,917,178 from the University. Certified effort reports were not signed by someone with knowledge of the work performed or suitable means of verification and thus are not reliable, during most of NSF award period (remedied in January 2008). The auditors performed alternative procedures to affirm the allowability of these costs.

The University of Arizona does not have a system of controls in place that require a Principal Investigator to accurately charge time spent on an award as either charged to the award or charged as committed cost share with the organized research base adjusted accordingly. Presently, the University's chart of accounts does not accommodate charges to an award that represent contributed effort.

Although there was no cost share committed for the award passed through by MU to the University of Arizona, it has been noted that UA's current management systems do not have the capabilities to record, track and report cost sharing data including labor cost sharing commitments and expenditures to specific sponsored projects as required by OMB Circular A-21, J.10.(b)(1)(a). If cost share had been present, it would not have appeared on effort reports, therefore making them inaccurate. We do not know if the University has any other subawards with UA supported by NSF or other federal award funds that require cost share.

As illustrated above, the absence of adequate risk assessments subject to supervisory review results in the omission of information regarding subawardee internal controls and compliance that could result in inaccurate risk assessments and increase the risk that unallowable costs could be charged to the University and claimed to NSF. The University was not aware of the inadequate subawardee internal controls and noncompliance identified and reported by other federal regulatory auditors, internal auditors and A-133 auditors. Therefore, the University could not take appropriate precautionary measures to ensure that charges to MU subawards are not adversely impacted.

The University did not have adequate subawardee monitoring due to a lack of comprehensive review and oversight practices. These monitoring deficiencies could allow improper or unauthorized charges to be incurred and allocated to the University's NSF awards.

The University's policies and procedures should be revised, implemented and monitored to provide more effective subaward monitoring and greater assurance that allowable subaward costs are charged to the NSF awards.

Recommendation No. 1

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

1. Send out the Subrecipient Confirmation Letter and Subrecipient Questionnaire, if applicable, to all subawardees as part of the risk assessment and ongoing monitoring process at least annually and prior to the initial award as the University requires;
2. Request and thoroughly review A-133 audit reports (in addition to or in lieu of Harvester reports) and reports from other regulatory agencies and internal auditors for all subawardees as part of the risk assessment review;
3. Document the rationale or justification on the Risk Assessment Worksheet used by the evaluator to arrive at the assigned risk assessment level;
4. Designate supervisory personnel to perform a review of risk assessments; and
5. Follow-up to determine if weaknesses discussed in this report that were identified in the University's subaward's audit reports have been adequately resolved and, if not, determine whether greater subaward monitoring is needed.

Awardee's Comments

The University of Missouri does not concur with the finding that the University did not adequately perform monitoring of its subrecipients. The University implemented adequate policies and procedures for subrecipient monitoring effective July 1, 2007 that are in compliance with OMB Circular A-133. The University's external auditors have stated that the University's subrecipient monitoring procedures are adequate and in compliance with OMB Circular A-133.

1. The University sends the Subrecipient Confirmation Letter and Subrecipient Questionnaire to only those subawardees where it is unable to obtain sufficient documentation to complete the risk assessment. The University determines from review of the Harvester Report or the subrecipients' A-133 report if the subrecipient had any findings, questioned costs, significant control deficiencies, or material control weaknesses. If there are no audit findings, the date and results of the review are documented and the risk assessment is completed. If findings, questioned costs, significant or material control weaknesses are noted in the Harvester Report and the University has not yet obtained the A-133 report, the University sends a Subrecipient Confirmation Letter to the subrecipient to obtain the A-133 Report and confirmation that is not related to our finding. If audit findings are related to University subawards, the University will make a decision regarding the appropriate steps to take, including any follow up action by the University and the subrecipient. Follow up by the University on corrective action may include site visits, desk reviews or review of subsequent audit reports.

The draft audit report incorrectly indicated that a confirmation letter was not obtained from the University of Minnesota. A certification letter was provided by the University of Minnesota prior to the completion of the A-133 audit review and risk assessment.

2. The University reviews A-133 Audit Reports; however, review of reports from other regulatory agencies and internal auditors for all subawardees is not required by OMB Circular A-133.
3. The rationale or justification for the risk assessment level is adequately documented on the Risk Assessment Worksheet.
4. The University agrees with the recommendation that the risk assessment should be reviewed by supervisory personnel and will revise its policies and procedures accordingly.
5. The University will follow up to determine if the weaknesses identified in the draft audit report have been adequately resolved and, if not, determine if additional monitoring is needed.

Auditors' Response

We are not in agreement with the University of Missouri's response which states that it has implemented adequate policies and procedures for subrecipient monitoring. While we agree that the University's policy pertaining to distribution of Subrecipient Confirmation letters and Subrecipient Questionnaires is acceptable, it is not followed. To the extent that the policy omits the requirement to consider audit reports of other regulatory agencies and internal auditors, it is not sufficiently comprehensive. Also, the Controller's Office provided documents requested by the auditors on March 11, 2009 but a Subrecipient Confirmation Letter for the University of Minnesota was not provided. Our comments on the University's detailed responses follow:

1. The policy, as set forth in APM-60.85, provides that a monthly monitoring report will be run to determine whether subaward monitoring information is incomplete. The policy then states specifically the following:

“If the subaward monitoring information is incomplete the Controller's Office will follow up with the subrecipient. For those entities with active subawards that have not been reviewed within the past 12 months, the Controller's Office will note in the financial system that the subrecipient does not have a current risk assessment and either *send the Subrecipient Monitoring Letter and Subrecipient Monitoring Questionnaire* [emphasis added] or for those with incomplete information take the follow-up action identified in the report.”

The University's response confirms that its practice, which is to send Subrecipient Confirmation Letters and Subrecipient Questionnaires only if a Harvester Report is unavailable, is inconsistent with University policy. This practice relies on the accuracy of the Harvester Report and the limited information it provides. This deviation from approved policy also precludes the University from obtaining a written representation from the subawardee that could validate the on-line Federal Audit Clearinghouse data form.

Further, while the University's response states that, if findings are noted, an A-133 report is obtained, this statement is contradictory to our finding that one subawardee had findings reported by Harvester but no A-133 audit report in its file. This particular subawardee's audit report disclosed a finding that \$11,766 was fraudulently charged to the NSF.

2. With respect to an OMB Circular A-133 requirement to review reports from other regulatory agencies and internal auditors, both Circular A-133 and A-110 address subrecipient monitoring. The University's own policy reiterates the provisions of OMB Circular A-110 by stating:

“OMB Circular A-110 requires the University to establish a system of internal controls to ensure that subrecipients use federal funds in accordance with laws, regulations and contract/grant agreements.”

OMB Circular A-133, Subpart D, Section 400 (d.3), states that a pass-through entity shall:

“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.”

The identification by the auditors of audit reports from other regulatory agencies and internal auditors disclosing significant internal control weaknesses at two subawardees, weaknesses that could affect the subawardee's ability to report accurate cost information to the University, provides evidence that if the University adopted these report reviews greater internal control over subawardee monitoring would result.

3. With respect to documentation of risk assessment level, we noted that all documentation was substantially the same, with all risk assessments being low. Even the subrecipient whose A-133 audit report disclosed 3 significant internal control deficiencies including 1 material weakness in internal controls, all of which were applicable to its NSF award, was rated a low, with the following rationale:

“Even though this is a multi-year, large-sized award and a material percentage of the total federal expenditure for the subrecipient for FY 08, there appears to be adequate controls in place to mitigate any potential risk. Therefore, risk has been assessed at low.”

This level of documentation is not sufficient to provide for an informed review of the risk assessment and its conclusion.

4. The University's comments are responsive to the finding and recommendation.
5. The University's comments are responsive to the finding and recommendation.

This finding should not be closed until NSF determines that the recommendation has been adequately addressed and the proposed corrective actions have been satisfactorily implemented.

Finding No. 2: All Labor Cost Transfers Should be Adequately Justified, Approved and Documented and All Effort Verification Reports Should be Recertified When Related Payroll Charges are Subsequently Adjusted

The University does not have adequate internal controls and safeguards in place to adequately process all labor cost transfers or to ensure that labor effort certifications are properly recertified once payroll adjustments are made, as required by its own policies. Labor cost transfers may be needed to correct an error, transfer charges from a pre-award account to a newly-funded award, or transfer charges based on recognition of changes in an employee's assignments.

The University has adequate policies and procedures for processing payroll corrections made more than 2 accounting periods after the accounting period in which the original entry was made, however, internal controls to ensure adherence to these policies and procedures are inadequate. Further, the policies and procedures for labor cost transfers made to or between sponsored awards within 2 accounting periods of their effective date are inadequate. They can be initiated and processed electronically solely by fiscal officers in operating departments without adequately documented explanations and justifications or documented approval or secondary review. Therefore, the policies and procedures for labor cost transfers made within 2 accounting periods should be revised to ensure that all labor cost transfers are adequately documented, justified, approved and properly charged to the NSF awards.

In addition, certifications that payroll charges have been correctly allocated to federal awards are not always revised to reflect subsequent changes by a payroll adjusting entry, as required, when a change to payroll allocations was made subsequent to the original certification. Recertifications are required when a payroll change had an impact of greater than five percent of the original labor cost charged. Therefore, labor cost transfers and payroll adjusting entries were processed without adequate controls such as proper approvals, proper explanations, or, in some cases, adequate documentation to support the adjustment such as recertified effort reports.

The lack of proper documentation, approval and secondary review of labor cost transfers and proper certification of effort reporting increases the risk that irregularities or embezzlements that affect NSF and federal grant funds could occur and go undetected. In addition, if the University fails to address these compliance and internal control weaknesses, similar problems may occur on the other existing 278 current active NSF awards and on future NSF awards.

OMB Circulars and University of Missouri's Policies Applicable to Payroll Cost Transfers and Certification of Labor Effort Reports

Applicable federal regulations require that an acceptable system for the administration of federal awards includes source documentation to support recorded transactions, documented approvals for changes to recorded transactions, and appropriate segregation of duties, so that no one person has complete control over a financial transaction.

OMB Circular A -110, *Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations*, requires entities receiving Federal awards to establish and maintain internal controls that are designed to reasonably ensure compliance with Federal laws, regulations, and program compliance. Section C.21.b.(7) of Circular A -110 states that "Recipients' financial management systems shall provide for the

following...accounting records including cost accounting records that are supported by source documentation.” Documentation provides an audit trail and the means to support the propriety of transactions, and therefore, is crucial to effective oversight and monitoring of award charges by an independent party.

OMB Circular A-21, *Cost Principles for Educational Institutions*, J.10.(c).(1)(d) states that “Whenever it is apparent that a significant change in work activity which is directly or indirectly charged to sponsored agreements will occur or has occurred, the change will be documented over the signature of a responsible official and entered into the system.”

Consistent with the Circular A-21 requirement for “sound business management practices,” Sec. C.4.(d)(2) requires adequate policies to ensure proper segregation of duties over key processes. It specifically states that, “The institution’s financial management system shall ensure that no one person has complete control over all aspects of a financial transaction.” Best business practices also recommend segregation of duties and authorization controls for the disbursement process. Segregation of duties, whereby no single individual has complete control over a financial transaction, is essential to effective internal control. By assigning separate individuals to authorize transactions, process transactions, monitor those activities, maintain related accounting records, and handle the related assets, the risk of error or opportunity to misuse or misappropriate assets is reduced.

OMB Circular A-21, paragraph J.10 (b)(2)(a) states that “The payroll distribution system will be incorporated into the official records of the institution, reasonably reflect the activity for which the employee is compensated by the institution,...”; and paragraph J.10 (b)(2)(b) states “The method must recognize the principle of after-the-fact confirmation or determination so that costs distributed represent actual costs.

The University’s own policies also acknowledge these principles. The University’s BPM 213 states that “Because of federal regulations, appropriate justification must be documented for all correction entries made.” The BPM 213 further states that “Entries for payroll/benefits expense must be made using the UM Web Applications Payroll Correcting Entry (PCE). The University’s effort reporting system required by federal regulation (OMB Circular A-21) is produced from the financial system. When the University’s effort reports have been certified and subsequently a PCE is required that conflicts with the effort report, additional activities and documentation may be required. Discrepancies between the certified effort report and the financial records could lead to a audit disallowances, significant fines and financial sanctions.”

Details Concerning Undocumented and Unapproved Labor Cost Transfers

Undocumented and unapproved labor cost transfers occurred because the University’s policies place sole authority with the operating department for identifying, initiating, recording and approving payroll cost transfers that are made within 2 accounting periods (i.e. timely) of their effective date. Business Policy Manual (BPM) Section 213 states “Any correction of income or expense items between ChartFields should be made within two accounting periods (two months) after the end of the accounting period in which the original transaction posted, i.e., if a transaction posts with a February 2 date, any corrections must be made by the end of the accounting period for April.” The University’s accounting system provides access and assigns responsibility to departmental fiscal officers to initiate these “timely” payroll correcting entries. As set forth in the University’s training

materials¹, the operating department fiscal officer's responsibilities in this area include "prepare timely cost transfers" and "ensure documentation exists for all charges".

Explanation of Procedures Used to Process Labor Cost Transfers

The University's prescribed procedures for payroll corrections after 2 accounting periods (i.e. late transfers) are thorough and, as outlined in the BPM, require the department to:

1. Document that the expense proposed by PCE is allowable on the project.
2. Document that the expense proposed by the PCE directly benefits the project and represents a more accurate allocation of expense to the project than the existing expense allocation.
3. Recertify the Effort Verification Report (EVR) if the request for a late PCE is approved.
4. Approve and document approval of the PCE form by:
 - a. The individual whose payroll is changing;
 - b. Principal Investigator or approved signer for the funding source(s);
 - c. Department chair or equivalent for a) and b); and
 - d. Dean or equivalent for a) and b).
5. Forward the documentation to Sponsored Programs Office (SPO) and notify their SPO accountant who will assess the impact of the PCE on the project (e.g., refunds to sponsor, resubmitting final financial reports on closed projects, etc.).
6. Forward all the documentation in one package to SPO for review of the PCE(s), if the proposed payroll adjustment covers multiple pay periods within a single EVR.

SPOs responsibilities for these PCE transactions include:

1. The SPO accountant handling the project will review the documentation and provide a recommendation to SPO management. SPO management will review the documentation and recommendation, and make a preliminary decision of whether the proposed PCE is appropriate.
2. If the proposed PCE changes funding on the current certified EVR so that any funding line changes by more than 5%, SPO will reprint the original EVR for recertification by the individual.
3. Upon return of the recertified EVR, the SPO will complete a final review. If approved, the SPO will make a late PCE and notify the department of the Journal ID. If not approved, the SPO will notify the department of the reason(s).

Unlike the extensive review and documentation procedures described above, the same changes, if initiated by a fiscal officer in an operating department within the 2 accounting period timeframe, are not subject to controls that ensure appropriate documentation, written justification or approval.

¹ Training presentation entitled Cost Transfers and Payroll Correcting Entries, delivered March 11, 2009.

While documentation is theoretically required of all payroll correcting entries, labor cost transfers made to or between sponsored awards within 2 accounting periods of their effective date can, in practice, be initiated and processed electronically without documented approvals or secondary review by the department. The labor cost transfers can be made without the use of a PCE form and without involvement or documented approval by the PI, Department Chair, Dean or OSPA. Often a cost transfer is initiated by the fiscal officer at the direction of a PI. However, without the PI's documented justification, review and approval one cannot tell if the entry was made as intended. Also, the process which notifies the SPO of the need to generate a revised EVR is not in place for "timely" labor cost transfers, and thus there is no control which ensures the SPO fulfills his responsibility.

We noted that, for the awards audited, from inception of award through December 31, 2008, there were 117 payroll correcting entries with a net dollar impact of increased salary costs charged to the sampled NSF awards by 2 percent, or \$34,057. This net increase was comprised of cost transfers increasing NSF-funded salary costs by \$ 67,725, offset by transfers reducing salary costs in the amount of \$33,668.

We performed additional audit tests including reviewing the payroll registers for all personnel charged to the NSF awards under audit, identifying payroll correcting entries, and testing higher dollar payroll correcting entries in order to understand the nature of the corrections. For 1 of the 5 payroll cost transfers tested (a late transfer), despite the stringent internal controls over cost transfers made after two accounting periods, no documentation was available to support the transaction totaling a net \$ 19,635. Only after a series of inquiries of accounting department administrative personnel and operating department fiscal officers were reasonable explanations obtained. These explanations were based on recollections rather than documentation. For another 1 of the 5 payroll cost transfers (a "timely" cost transfer) for \$2,083, audit inquiries to determine the justification for transfer revealed that no documentation of justification for the transfer could be located. Accordingly, 2 of the 5 payroll cost transfers tested were not documented in compliance with University policy. In each case the auditor performed alternative tests to verify the reasonableness of the transaction.

The relatively small net amount of payroll adjustments does not negate the potential exposure to improper payroll charges due to these internal control weaknesses. Over 117 labor cost transfer transactions, or 2 percent of all payroll entries applied to the audited awards, were processed by a system that does not ensure adequate documentation, documented approval, or secondary review. Failure to address these compliance and internal control weaknesses could allow similar problems to occur on the other existing 278 current active NSF awards and on future NSF awards.

The University's practice of not documenting cost transfer justifications is not compliant with OMB Circular A-110 or the University's own business manual which recognizes that, "Because of federal regulations, a appropriate justification must be documented for all correction entries made." In addition, because a single individual, the department fiscal officer, has complete control over a financial transaction, and because of inadequate authorization oversight and internal controls over processing payroll transactions, the University's disbursement process is inadequate. When one individual has access to all aspects of a transaction, it increases the risks of irregularities and fraud and does not ensure compliance with OMB Circular A-21's requirement that all payroll adjustments "be documented over the signature of a responsible official and entered into the system". Further, because adjustments are, by their nature, outside of the normal processing cycles, documentation of

the cause, rationale and proper approval is important to provide an audit trail and proper support and secondary review for the transaction.

During 2009 M U officials attempted to strengthen internal controls over cost transfers through education of PIs and financial officers at the departments, and a series of written communications and training classes designed to encourage timely processing of cost transfers and the use of appropriate documentation. However, during the period of the NSF awards subject to audit, such controls were not in place. Further, even in 2009, controls to ensure that “timely” cost transfers are documented and authorized are insufficient.

The University has recognized the concern and sensitivity of Federal awarding agencies to improper cost transfers. The University is also aware that other universities have been cited for disallowances and have widely communicated this information to University of Missouri officials and Principal Investigators in order to increase the perceived importance of effective, thorough and timely monitoring of award charges. However, verbally clarifying the importance of appropriate justifications and sufficient documentation is not effective if the procedures are not in place to provide for adequate approvals and documentation and those procedures are not adequately monitored to ensure that they are being implemented effectively. All transactions, including labor costs, should have adequate supporting documentation, explanation of purpose, and evidence of supervisory review and approval.

Details Concerning the Lack of Recertified Effort Verification Reports.

Payroll correcting entries may result in new or revised charges to federally-sponsored awards. Labor charges to federally-sponsored awards are to be supported by certified labor effort reports. These reports are generated as part of the University’s after-the-fact confirmation process which documents the accuracy of labor charged by including a certification from a person with first-hand knowledge of the effort expended. Audit tests performed during this audit with respect to the effort reporting process revealed that the after-the-fact confirmation process does not always occur as needed to validate *adjusted* payroll charges. Specifically, in connection with our tests of payroll correcting entries and effort reports, we determined that effort reports are not always re-certified to validate the adjusted payroll charges as required by the University’s Business Policy Manual.

The absence of re-certified effort reports was caused because the Office of Sponsored Program Administration (OSPA) procedures do not ensure adherence to University policy as they do not consistently identify Payroll Correcting Entries which occur after EVR certification of the related payroll charges. The University’s policy as set forth in BPM 213 states that “When the University’s effort reports have been certified and subsequently a PCE is required that conflicts with the effort report, additional activities and documentation may be required.” BPM 213.4 states that “The proposed PCE must be compared to the existing certified Effort Verification Report (EVR). If more than a 5% difference in any funding line will result, a recertification of the EVR will be required if the request for a late PCE is approved.” BPM 213.8 further provides that “If the proposed PCE changes funding on the current certified EVR so that any funding line changes by more than 5%, SPO will reprint the original EVR for recertification by the individual.”

However, the EVR guidance in the Accounting Policy and Procedures Manual is contradictory to the above-cited Section 213 of the BPM in that it states that a revised EVR will not be reprinted even if the effort allocation estimate (EAE) differs by more than 5%. APM-60.32 states that “If significant (>5%) differences exist between EAE and payroll distribution percentages for any funding line, the

necessary PCE(s) must be made.....A revised EVR will not be produced.”

In order to test whether appropriate documentation, written justification and approval was obtained even in the absence of controls to ensure adherence to these internal control concepts we performed audit tests over four effort reports selected from four awards covering the period from July 1, 2006 through December 31, 2008. One of the four EVRs tested did not agree to the related payroll records by a material amount, i.e., payroll charges to NSF as certified on the EVR were overstated by 51 percent, or \$12,495. The discrepancy occurred because the EVR, which reported 100% of the subject’s labor as relating to an NSF award, had been certified as correct prior to the initiation of a payroll correcting entry (PCE) which revised the allocation of labor costs, reducing charges to the NSF award by \$12,495. To determine whether this exception was an unusual isolated instance, we inspected two additional EVRs for which PCEs were posted after EVR certification. One differed by an immaterial amount of less than five percent, and one differed by a material variance of 12 percent, or a \$4,465 reduction in charges to the NSF award. Accordingly, two (2) of six (6) EVRs tested were inaccurate by material amounts due to late posting of PCEs without a corresponding re-certification of the EVR. These test results reveal that the after-the-fact confirmation process does not always occur as needed to validate *adjusted* payroll charges.

Summary

In summary, there is no requirement for independent review or approval of payroll correcting entries initiated within two accounting periods of the effective date nor are there controls to ensure that written justification and explanations are obtained and retained for late or timely payroll cost transfers. Further, controls are inadequate to ensure that effort reports are re-certified to provide support for adjusted payroll charges to federal awards.

These limitations on cost transfer documentation and recertification of effort reports result in insufficient support for transactions that, by their very nature, involve revisions to a previously approved cost accounting transaction. The adjustment of payroll charges to another account after the charges have been certified as correctly allocated reduces the credibility of the effort certification process and also results in payroll charges to sponsored awards that are contradicted by the certified effort reports and thus are unsupported.

The lack of proper documentation, approval and secondary review of labor cost transfers and effort reporting also increases the risk that irregularities or embezzlements that affect NSF and federal grant funds could occur and go undetected. In addition, if the University fails to address these compliance and internal control weaknesses, similar problems may occur on the University’s other existing 278 current active NSF awards and on future NSF awards.

Recommendation No. 2

We recommend that NSF’s Director of the Division of Grants and Agreements ensure that the University:

1. Revises its policies and procedures to require that labor cost transfers within 2 accounting periods of their effective date have adequate explanations and documentation provided to justify the need for the payroll adjustments and require a secondary independent review and approval of the transaction. The procedure should include the identification and review by

the SPO of timely payroll cost transfers exceeding a pre-set amount or affecting a previously-certified effort reporting period. The procedures should also require an authorized individual different than the person who initiated the labor cost transfer entry to sign-off as approving the entry. Further, internal controls should be developed and implemented to ensure adherence to approved labor cost transfer policies.

2. Revises its policies to require recertifications and actively monitor payroll correcting entries (PCEs) for changes occurring after the effort reporting certifications are complete, to ensure that such effort verification reports (EVRs) are re-certified as required by the University.
3. Provides training to all staff involved in processing labor cost transfers and effort certifications and monitors to ensure that the revised policies and procedures are implemented effectively.

Awardee's Comments

1. The University agrees with this recommendation to revise policies and procedures to ensure adequate explanations and documentation exists to support payroll adjustments within 2 accounting periods from the month in which they were originally posted. The University will evaluate the feasibility of secondary independent reviews and approvals of the transactions and enhance internal controls to detect non-compliance with cost transfer policies. The two payroll cost transfers identified in the report occurred in 2006 and 2007, prior to the implementation of the new Labor Cost Transfer/Effort Verification Reporting review process established in September, 2008.
2. Although the University implemented a procedure in September 2008, to monitor PCEs made within two months from the original transaction and subsequent to certification of the EVR, the University agrees with the recommendation to strengthen the policy to require a monitoring procedure to ensure EVRs are recertified if necessary and will modify its policy.
3. PCE and EVR training has been ongoing at the University, with an intense focus on these two subject areas. Internet training has been developed, faculty have participated in live training, and the SPO office has worked with departmental fiscal staff and principal investigators to inform them of the PCE and EVR processes. This training is ongoing, expected to continue, and will be modified to include the recommendations agreed to above.

Auditors' Response

Each of the University's comments are responsive to the finding and recommendation.

This finding should not be closed until NSF determines that the recommendation has been adequately addressed and the proposed corrective actions have been satisfactorily implemented.

**FINANCIAL SCHEDULES AND
SUPPLEMENTAL INFORMATION**

University of Missouri
National Science Foundation Award No. [REDACTED]
Schedule of Award Costs
Award Period: January 1, 2004 – December 31, 2010
Audit Period: January 1, 2004 – December 31, 2008
Interim

Cost Category	Approved Budget	Claimed Costs (A)	Reclassification (B)	Claimed Costs After Reclassification
Direct Costs:				
Salaries and wages	\$ 1,102,044	\$ 1,011,203	\$ (4,608)	\$ 1,006,595
Fringe benefits	263,800	216,947	-	216,947
Equipment	-	6,342	(1,244)	5,098
Travel	289,501	660,433	(457,455)	202,978
Participant support	1,561,315	-	761,217	761,217
Other direct costs:				
Materials and supplies	57,500	82,986	(30,965)	52,021
Publication costs	27,500	12,145	(805)	11,340
Consultant services	150,999	90,828	(23,938)	66,890
Student Aid	-	233,030	(223,737)	9,293
Subcontracts	6,624,392	3,429,239	-	3,429,239
Other	-	23,730	(18,465)	5,265
Total Direct Costs	10,077,051	5,766,883	-	5,766,883
Indirect Costs	901,243	676,529	-	676,529
Total Cost Claimed to NSF	\$ 10,978,294	\$ 6,443,412	\$ -	\$ 6,443,412
Cost sharing	\$ 674,293	\$ 1,028,256	\$ -	\$ 1,028,256

- (A) *The total claimed costs agree with the total expenditures reported by the University of Missouri on the Federal Financial Reports – Federal Share of Net Disbursements as of the quarter ended December 31, 2008. Claimed costs reported above are taken directly from the University's books of accounts.*
- (B) *Participant support costs are reported by object of expenditure in the Claimed Costs column. These costs have been reclassified to the Participant support account to facilitate comparison to the approved budget.*

University of Missouri
National Science Foundation Award No. [REDACTED]
Schedule of Award Costs
Award Period: September 1, 2004 – August 31, 2009
Audit Period: September 1, 2004 – December 31, 2008
Interim

Cost Category	Approved Budget	Claimed Costs (A)	Reclassification (B)	Claimed Costs After Reclassification
Direct Costs:				
Salaries and wages	\$ 397,888	\$ 356,473	\$ -	\$ 356,473
Fringe benefits	94,932	89,682	-	89,682
Equipment	-	21,797	-	21,797
Travel	75,592	93,044	(19,100)	73,944
Participant support	176,102	-	99,313	99,313
Other direct costs:				
Materials and supplies	139,999	148,634	(472)	148,162
Publication costs	4,000	802	(381)	421
Student Aid	-	76,006	(76,006)	-
Subcontracts	5,275,025	5,178,599	-	5,178,599
Other	112,400	32,567	(3,354)	29,213
Total Direct Costs	6,275,938	5,997,604	-	5,997,604
Indirect Costs	464,811	400,044	-	400,044
Total Cost Claimed to NSF	\$ 6,740,749	\$ 6,397,648	\$ -	\$ 6,397,648
Cost sharing	\$ -	\$ -	\$ -	\$ -

(A) The total claimed costs agree with the total expenditures reported by the University of Missouri on the Federal Financial Reports – Federal Share of Net Disbursements as of the quarter ended December 31, 2008. Claimed costs reported above are taken directly from the University's books of accounts.

(B) Participant support costs are reported by object of expenditure in the Claimed Costs column. These costs have been reclassified to the Participant support account to facilitate comparison to the approved budget.

University of Missouri
National Science Foundation Award No. [REDACTED]
Schedule of Award Costs
Award Period: September 15, 2005 – August 31, 2010
Audit Period: September 15, 2005 – December 31, 2008
Interim

Cost Category	Approved Budget	Claimed Costs (A)	Reclassification (B)	Claimed Costs After Reclassification
Direct Costs:				
Salaries and wages	\$ 740,627	\$ 364,651	\$ -	\$ 364,651
Fringe benefits	318,573	83,739	-	83,739
Equipment	-	2,048	-	2,048
Travel	277,800	94,262	(257)	94,005
Participant support	63,500	-	53,935	53,935
Other direct costs:				
Materials and supplies	77,459	10,442	(53)	10,389
Publication costs	-	3,747	-	3,747
Consultant services	85,000	55,360	(45,340)	10,020
Computer services	-	547	-	547
Student Aid	-	13,703	(5,220)	8,483
Subcontracts	-	-	-	-
Other	5,382	3,222	(3,065)	157
Total Direct Costs	1,568,341	631,721	-	631,721
Indirect Costs	670,779	267,573	-	267,573
Total Cost Claimed to NSF	\$ 2,239,120	\$ 899,294	\$ -	\$ 899,294
Cost sharing	\$ -	\$ -	\$ -	\$ -

(A) *The total claimed costs agree with the total expenditures reported by the University of Missouri on the Federal Financial Reports – Federal Share of Net Disbursements as of the quarter ended December 31, 2008. Claimed costs reported above are taken directly from the University's books of accounts.*

(B) *Participant support costs are reported by object of expenditure in the Claimed Costs column. These costs have been reclassified to the Participant support account to facilitate comparison to the approved budget.*

University of Missouri
National Science Foundation Award No. [REDACTED]
Schedule of Award Costs
Award Period: August 1, 2006 – July 31, 2010
Audit Period: August 1, 2006 – December 31, 2008
Interim

Cost Category	Approved Budget	Claimed Costs (A)	Reclassification	Claimed Costs After Reclassification
Direct Costs:				
Salaries and wages	\$ 218,017	\$ 144,936	\$ -	\$ 144,936
Fringe benefits	52,462	27,996	-	27,996
Equipment	8,297	8,663	-	8,663
Travel	3,750	1,457	-	1,457
Other direct costs:				
Materials and supplies	120,177	68,017	-	68,017
Publication costs	-	835	-	835
Consultant services	-	3,885	-	3,885
Computer services	1,206	690	-	690
Student Aid	-	4,297	-	4,297
Other	32,993	2,870	-	2,870
Total Direct Costs	436,902	263,646	-	263,646
Indirect Costs	206,340	124,435	-	124,435
Total Cost Claimed to NSF	\$ 643,242	\$ 388,081	\$ -	\$ 388,081
Cost sharing	\$ -	\$ -	\$ -	\$ -

(A) The total claimed costs agree with the total expenditures reported by the University of Missouri on the Federal Financial Reports – Federal Share of Net Disbursements as of the quarter ended December 31, 2008. Claimed costs reported above are taken directly from the University's books of accounts.

University of Missouri
National Science Foundation Award No. [REDACTED]
Schedule of Award Costs
Award Period: January 1, 2007 – December 31, 2008
Audit Period: January 1, 2007 – December 31, 2010
Interim

Cost Category	Approved Budget	Claimed Costs (A)	Reclassification	Claimed Costs After Reclassification
Direct Costs:				
Salaries and wages	\$ 93,073	\$ 68,399	\$ -	\$ 68,399
Fringe benefits	25,350	16,029	-	16,029
Travel	4,800	2,072	-	2,072
Participant support	13,860	-	-	-
Other direct costs:				
Materials and supplies	28,000	42,878	-	42,878
Publication costs	3,000	144	-	144
Subcontracts	1,272,616	556,198	-	556,198
Other	-	322	-	322
Total Direct Costs	1,440,699	686,042	-	686,042
Indirect Costs	103,778	89,023	-	89,023
Total Cost Claimed to NSF	\$ 1,544,477	\$ 775,065	\$ -	\$ 775,065
Cost sharing	\$ -	\$ -	\$ -	\$ -

(A) The total claimed costs agree with the total expenditures reported by the University of Missouri on the Federal Financial Reports – Federal Share of Net Disbursements as of the quarter ended December 31, 2008. Claimed costs reported above are taken directly from the University's books of accounts.

University of Missouri
National Science Foundation Award Number [REDACTED]
Schedule of Cost Sharing
For the period from award inception (January 1, 2004) to December 31, 2008

Cost Sharing Item Description	Cost Sharing Required	Cost Sharing Claimed	Reclassification	Cost Claimed After Reclassification	Unacceptable Costs
Award # [REDACTED]	\$ 674,293	\$ 1,028,256	\$ -	\$ 1,028,256	\$ -

University of Missouri
National Science Foundation Award Number

Summary Schedules of Awards Audited and Audit Results
Period from January 1, 2004 through December 31, 2008

Summary of Awards Audited

Award Number	Award Period	Audit Period
[REDACTED]	1/01/2004 – 12/31/2010	1/01/2004 – 12/31/2008
[REDACTED]	9/01/2004 – 8/31/2009	9/01/2004 – 12/31/2008
[REDACTED]	9/15/2005 – 8/31/2010	9/15/2005 – 12/31/2008
[REDACTED]	8/01/2006 – 7/31/2010	8/01/2006 – 12/31/2008
[REDACTED]	1/01/2007 – 12/31/2010	1/01/2007 – 12/31/2008

Type of Award	Award Description
[REDACTED]	To advance the research base and leadership capacity supporting K-12 mathematics curriculum design, analysis, implementation and evaluation.
[REDACTED]	To determine the mechanisms that contribute to chromatin-based control of gene expression using maize, a premier model for these studies.
[REDACTED]	To evaluate high school students' mathematics learning from textbooks .
[REDACTED]	To learn how and where pollen and the pistil proteins interact to allow the self-incompatibility system in Nicotiana.
[REDACTED]	To study Brassica Oleracea which is emerging as a plant model.

Summary of Questioned, Unresolved, and Unsupported Costs by Award

NSF Award Number	Award Budget	Claimed Costs	Questioned Costs	Unresolved Costs	Unsupported Costs
[REDACTED]	\$ 10,978,294	\$ 6,443,412	\$ -	\$ -	\$ -
[REDACTED]	6,740,749	6,397,648	-	-	-
[REDACTED]	2,239,120	899,294	-	-	-
[REDACTED]	643,242	388,081	-	-	-
[REDACTED]	1,544,477	775,065	-	-	-
Totals	\$ 22,145,882	\$ 14,903,500	\$ -	\$ -	\$ -

Summary of Questioned Costs and Cost Share by Explanation

	Questioned Cost Amount	Internal Control Finding	Noncompliance Finding
Total Questioned Cost	-	N/A	N/A
Total Questioned Cost Share	-	N/A	N/A

Summary of Noncompliance and Internal Control Findings

Finding	Alternative Procedures Performed by Auditors	Noncompliance or Internal Control?	Material, Significant, or Other?	Amount of Questioned Cost Affected	Amount of Claimed Cost Affected
Subawardee Monitoring is Inadequate and Needs to be Strengthened	Yes	Yes - Both	Significant	-	\$9,164,036
All Labor Cost Transfers Should be Adequately Justified, Approved and Documented and All Effort Verification Reports Should be Recertified When Related Payroll Charges are Subsequently Adjusted	Yes	Yes - Both	Significant	-	2,375,447

University of Missouri
Notes to the Financial Schedules
From January 1, 2004 to December 31, 2008

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. Schedules A -1 to A -5 have been prepared by the University of Missouri from the Federal Financial Reports submitted to NSF and the University'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 awardee does not maintain any equity in the award and any excess cash received from NSF over final expenditures is due back to NSF.

B. 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 in 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.

C. 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.

D. Income Taxes

The University of Missouri is a component unit of the State of Missouri and is exempt from income taxes under Section 115 of the Internal Revenue Code. It is also exempt from State of Missouri income taxes.

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

University of Missouri
Notes to the Financial Schedules
From January 1, 2004 to December 31, 2008

Note 2: NSF Cost Sharing and Matching

Below are the cost share requirements and actual cost share as of December 31, 2008:

Award Number	Cost Share Required	Cost Share Claimed	Unsupported Cost Share	Net Cost Share	Over/(Under)
Year 1	\$ -	\$ 294,494	\$ -	\$ -	\$ -
Year 2	-	315,772	-	-	-
Year 3	-	47,767	-	-	-
Year 4	-	370,223	-	-	-
Year 5	-	-	-	-	-
Total	<u>\$ 674,293</u>	<u>\$ 1,028,256</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

Cost share detail by year not available.

Note 3: Indirect Cost Rates

The University's indirect cost rate is negotiated with the Department of Health and Human Services. The rate is a final rate which is applied to modified total direct costs. The approved indirect cost rate for fiscal years 2004 through 2006 was [REDACTED], increasing to [REDACTED] for fiscal years 2007 through 2009.

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



MISSOURI

March 2, 2010

[REDACTED]
McBride, Lock & Associates
1111 Main Street
Suite 900
Kansas city MO 64105

Dear [REDACTED],

Attached is a revised response from the University of Missouri that addresses your questions sent to Susan Cessac and clarifies our response sent March 1, 2010. The attached document is in response to your audit findings for National Science Foundation awards [REDACTED]

Please contact me at (573) 882-2411 if you have any questions.

Sincerely,

[REDACTED]

University of Missouri System

University of Missouri System COLUMBIA | KANSAS CITY | ROLLA | ST. LOUIS
Office of the Controller . 118 University Hall . Columbia, MO 65211 . 573-882-2411 www.umsystem.edu

University of Missouri
Responses to Audit Findings and Recommendations
NSF Award Nos.



Finding No. 1: Subawardee Monitoring is Inadequate and Needs to be Strengthened

Recommendation No.1

We recommend that NSF's Director of the Division of Institution and Award Support (DIAS) ensure that the University:

- 1) Send out the Subrecipient Confirmation Letter and Subrecipient Questionnaire, if applicable, to all subawards as part of the risk assessment and ongoing monitoring process at least annually and prior to the initial award as the University requires;
- 2) Request and thoroughly review A-133 audit reports (in addition to or in lieu of Harvester reports) and reports from other regulatory agencies and internal auditors for all subawardees as part of the risk assessment review;
- 3) Document the rationale or justification on the Risk Assessment Worksheet used by the evaluator to arrive at the assigned risk assessment level;
- 4) Designate supervisory personnel to perform a review of risk assessments; and
- 5) Follow up to determine if weaknesses discussed in this report that were identified in the University's subaward's audit reports have been adequately resolved and, if not, determine if greater subaward monitoring is needed.

Auditee's Response

The University of Missouri does not concur with the finding that the University did not adequately perform monitoring of its subrecipients. The University implemented adequate policies and procedures for subrecipient monitoring effective July 1, 2007 that are in compliance with OMB Circular A-133. The University's external auditors have stated the University's subrecipient monitoring procedures are adequate and in compliance with OMB Circular A-133.

- 1) The University sends the Subrecipient Confirmation Letter and Subrecipient Questionnaire to only those subawardees where it is unable to obtain sufficient documentation to complete the risk assessment. The University determines from review of the Harvester Report or the subrecipients' A-133 report if the subrecipient had any findings, questioned costs, significant control deficiencies, or material control weaknesses. If there are no audit findings, the date and results of the review are documented and the risk assessment is completed. If findings, questioned costs, significant or material control weaknesses are noted in the Harvester Report and the University has not yet obtained the A-133 report, the University sends a Subrecipient Confirmation Letter to the subrecipient to obtain the A-133 Report and confirmation that it is not related to our funding. If audit findings are related to University subawards, the University will make a decision regarding the appropriate steps to take, including any follow up action by the University and the subrecipient. Follow up by the University on corrective action may include site visits, desk reviews or review of subsequent audit reports.

University of Missouri
Responses to Audit Findings and Recommendations
NSF Award Nos.



The draft audit report incorrectly indicated that a confirmation letter was not obtained from the University of Minnesota. A certification letter was provided by the University of Minnesota prior to the completion of the A-133 audit review and risk assessment.

- 2) The University reviews A-133 Audit Reports; however, review of reports from other regulatory agencies and internal auditors for all subawardees is not required by OMB Circular A-133.
- 3) The rationale or justification for the risk assessment level is adequately documented on the Risk Assessment Worksheet.
- 4) The University agrees with the recommendation that the risk assessment should be reviewed by supervisory personnel and will revise its policies and procedures accordingly.
- 5) The University will follow up to determine if the weaknesses identified in the draft audit report have been adequately resolved and, if not, determine if additional monitoring is needed.

Finding No. 2: All Labor Cost Transfers should be adequately Justified, Approved and documented and All Effort Verification Reports should be Recertified When Related Payroll Charges are subsequently Adjusted

Recommendation No. 2

We recommend that NSF's Director of the Division of Grants and Agreements ensure that the University:

- 1) Revises its policies and procedures to require that labor cost transfers within 2 accounting periods of their effective date have adequate explanations and documentation provided to justify the need for the payroll adjustments and require a secondary independent review and approval of the transaction. The procedure should include the identification and review by the SPO of timely payroll cost transfers exceeding a pre-set amount or affecting a previously-certified effort reporting period. The procedures should also require an authorized individual different than the person who initiated the labor cost transfer entry to sign-off as approving the entry. Further, internal controls should be developed and implemented to ensure adherence to approved labor cost transfer policies.
- 2) Revises its policies to require recertifications and actively monitor payroll correcting entries (PCEs) for changes occurring after the effort reporting certifications are complete, to ensure that such effort verification reports (EVRs) are re-certified as required by the University.

University of Missouri
Responses to Audit Findings and Recommendations
NSF Award Nos.



- 3) Provides training to all staff involved in processing labor cost transfers and effort certifications and monitors to ensure that the revised policies and procedures are implemented effectively.

Awardee's Response

- 1) The University agrees with this recommendation to revise policies and procedures to ensure adequate explanations and documentation exists to support payroll adjustments within 2 accounting periods from the month in which they were originally posted. The University will evaluate the feasibility of secondary independent reviews and approvals of the transactions and enhance internal controls to detect non-compliance with cost transfer policies. The two payroll cost transfers identified in the report occurred in 2006 and 2007, prior to the implementation of the new Labor Cost Transfer/Effort Verification Reporting review process established in September, 2008.
- 2) Although the University implemented a procedure in September 2008, to monitor PCEs made within two months from the original transaction and subsequent to certification of the EVR, the University agrees with the recommendation to strengthen the policy to require a monitoring procedure to ensure EVRs are recertified if necessary and will modify its policy.
- 3) PCE and EVR training has been ongoing at the University, with an intense focus on these two subject areas. Internet training has been developed, faculty have participated in live training, and the SPO office has worked with departmental fiscal staff and principal investigators to inform them of the PCE and EVR processes. This training is ongoing, expected to continue, and will be modified to include the recommendations agreed to above.

APPENDIX B – STATUS OF PRIOR AUDIT FINDINGS

Status of Prior Audit Findings

In accordance with Government Auditing Standards, this section reports the status of applicable findings reported in the prior A-133 Single Audit report issued for the year ended June 30, 2008 and the desk review of the University which was conducted in 2007 by Booz Allen Hamilton on behalf of NSF. The status of those findings, which relate to matters beyond the scope of this audit, is not presented.

<u>A-133 Audit Findings</u>	<u>Status</u>
FINANCIAL REPORTING:	
09-1. Presentation of cash equivalents - beyond the scope of this audit.	NA
STUDENT FINANCIAL AID:	
09-2. Late Pell Grant disbursements - beyond the scope of this audit.	NA
09-3. Disbursements of Student Financial Assistance - beyond the scope of this audit.	NA
09-4. Return of student loan and grant funds - beyond the scope of this audit.	NA
09-5. Reporting student status changes - beyond the scope of this audit.	NA
RESEARCH & DEVELOPMENT:	
09-6. Implement review procedures to identify reporting errors.	Implemented
GAINING EARLY AWARENESS AND READINESS FOR GRADUATE PROGRAMS	
09-7. Strengthen processes and controls to ensure that identified unallowable expenditures to subrecipients are reimbursed to the U. S. Department of Education in a timely manner.	Partially Implemented (see finding 1)
09-8. Strengthen processes and controls to ensure compliance with the cash management compliance requirement.	Implemented
09-10. Strengthen processes and controls surrounding the matching process to ensure compliance with OMB Circular A-110 and 34 CFR Part 694.7.	Implemented
<u>Booz, Allen, Hamilton Desk Review Findings:</u>	
1. <i>General Management Structure:</i> policies and procedures related to budget/expenditure tracking are not adequately documented, and the University of MO has not adequately documented policies and procedures related to cost transfers.	Partially Implemented (see finding 2.)
2. <i>Accounting and Financial Systems:</i> accounting policies and procedures lack detail and do not appear to provide employees with adequate guidance on how to perform accounting responsibilities such as preparing bank reconciliations, calculating and processing fixed asset and depreciation entries, and performing year end closing activities. In addition, the University has not documented policies, procedures, or other guidance to assist employees responsible for administering NSF funded awards in accounting for unallowable direct costs. Also, the University has not adequately documented standards for filing and maintenance of supporting documentation for accounting transactions.	Implemented

APPENDIX C – EXIT CONFERENCE

Exit Conference

An exit conference was held on August 13, 2009, at the University in Columbia, Missouri. Findings and recommendations as well as other observations contained in this report were discussed with those attending. Representing the University of Missouri were:

Name

[Redacted]

[Redacted]

[Redacted]

[Redacted]

Representing McBride, Lock & Associates were:

Name

[Redacted]

Title

[Redacted]

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