SAN JUAN, PUERTO RICO 00931 NATIONAL SCIENCE FOUNDATION AWARD NUMBERS DUE-9753543 EPS-0223152

FINANCIAL AUDIT OF FINANCIAL SCHEDULES AND INDEPENDENT AUDITORS' REPORT FOR THE PERIOD JULY 1, 1998 TO MARCH 31, 2006

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**EXECUTIVE SUMMARY** 

## BACKGROUND

We audited funds awarded by the National Science Foundation (NSF) to the University of Puerto Rico (UPR) under cooperative agreement number DUE-9753543 for the period July 1, 1998 to December 31, 2003, and grant number EPS-0223152 for the period June 1, 2003 to March 31, 2006. UPR, as a federal awardee, is required to follow the cost principles specified in Office of Management and Budget (OMB) Circular A-21, *Cost Principles for Educational Institutions* and the Federal administrative requirements contained in OMB Circular A-110, *Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations*.

UPR is a higher educational institution located in San Juan, Puerto Rico, with eleven campuses throughout the island. The NSF awards audited are administered by the Puerto Rico Resource Center for Science and Engineering. The "Center" was established in 1980 after obtaining an NSF grant. Although physically located at the UPR Rio Piedras Campus, the Center is ascribed to the UPR Central Administration, responding to the Vice President for Research and Technology. The mission of the Center is "To foster and nurture a community of present and future scientists, mathematicians, engineers, technologists, innovators and entrepreneurs to provide Puerto Rico with the human resources infrastructure and research base required for the island's economic development and global competitiveness."

Descriptions of the NSF awards we audited are as follows:

DUE-9753543 – Puerto Rico Collaborative for Excellence in Teacher Preparation. NSF awarded cooperative agreement number DUE-9753543 to UPR for the period July 1, 1998 to December 31, 2003 in the amount of \$5,463,000 for the purpose of UPR assuming responsibility for planning, operating, and managing The Puerto Rico Collaborative for Excellence in Teacher Preparation (PR-CETP). The overall mission of the Project is to promote reform in the teaching and learning of mathematics and the sciences as regards the preparation of science and mathematics educators, K-12. Objectives of the project are: a) to establish an ongoing collaboration among UPR-San Juan and the UPR-Rio Piedras, Mayaguez and Cavev campuses, the Inter-American University System, Ana G. Mendez University College of the East, Pontifical Catholic University of Puerto Rico, the Resource Center for Science and Engineering, the Puerto Rico Department of Education, Arecibo Observatory, and local industry; b) redesign the curriculum, field experiences and selected science, mathematics, and education courses so as to reflect current research on teaching and learning and to encourage cross disciplinary conversation; c) to recruit and retain promising students into the teaching profession, specifically in areas of need like math, chemistry, and physics; and d) establish mechanisms to enable the science, mathematics and engineering faculty and mentor teachers to continually learn about and implement new techniques in pedagogy. Cumulative disbursements for cooperative agreement number DUE-9753543 reported to NSF through December 31, 2003 were \$5,455,004. UPR agreed to provide \$1,750,000 of cost sharing for this award. Cost sharing expenses claimed were \$1,749,588.

**EPS-0223152 - Attaining Research Extensive University Status in Puerto Rico: Building a Competitive Infrastructure.** NSF awarded grant number EPS-0223152 to UPR for the period June 1, 2003 to May 31, 2007 in the amount of \$6,300,000 for the purpose of supporting the Puerto Rico Experimental Program to Stimulate Competitive Research (PR-EPSCoR) effort to build and sustain a nationally competitive science and engineering research and education enterprise. The project proposal presents a plan to develop a multi-disciplinary and multi-institutional research program within the commonwealth that builds on existing strengths within its higher education community and has potential for follow-on economic development and investments from the private sector as well as state and federal sources. The proposed initiative is to demonstrate to Puerto Rico's stakeholders that additional prudent investments can systematically improve the scope of PR-EPSCoR, while at the same time maintaining a focus on the targeted trust areas. Cumulative disbursements for grant number EPS-0223152 reported to NSF through March 31, 2006 (the end of the audit period) were \$3,342,423. UPR agreed to provide \$3,150,000 of cost sharing for this award. Cost sharing expenses claimed through the end of the audit period were \$1,747,889.

# AUDIT OBJECTIVES, SCOPE AND METHODOLOGY

The objectives of our audit were to:

- 1. Determine if UPR's Schedules of Award Costs (Schedules A-1 and A-2) present fairly, in all material respects, the costs claimed on the *Federal Cash Transaction Reports* (FCTR), and the costs claimed, including cost sharing, are in conformity with Federal and NSF award requirements.
- Identify matters concerning instances of noncompliance with laws, regulations, and the provisions of the award agreements pertaining to NSF awards and weaknesses in UPRs internal controls over financial reporting that could have a direct and material effect on the Schedules of Award Costs and UPR's ability to properly administer, account for, and monitor its NSF awards.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America, *Government Auditing Standards* (2003 Revision) issued by the Comptroller General of the United States, and the *National Science Foundation Audit Guide* (September 1996), as applicable. These standards and the NSF Audit Guide require that we plan and perform the audit to obtain reasonable assurance about whether amounts claimed to NSF as presented in the Schedules of Award Costs (Schedules A-1 through A-2) are free of material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the Schedules of Award Costs. An audit also includes assessing the accounting principles used and the significant estimates made by UPR, as well as evaluating the overall financial schedule presentation. We believe that our audit provides a reasonable basis for our opinion.

# SUMMARY OF AUDIT RESULTS

An audit was performed on the costs claimed on the financial reports submitted to NSF by UPR on NSF award numbers DUE-9753543 and EPS-0223152, as well as cost sharing provided. These costs and the costs questioned as a result of our audit are shown in the Schedules of Award Costs (Schedules A-1 through A-2) and are summarized as follows:

NSF Award No.	Funding <u>Source</u>	Award Budget	Claimed <u>Costs</u>	<u>Questioned</u> <u>Costs</u>
DUE - 9753543	NSF-Funded Cost Sharing Total Project	\$ 5,463,000 <u>1,750,000</u> <u>\$ 7,213,000</u>	5,455,004 <u>1,749,588</u> <u>7,204,592</u>	16,030  _ <u></u>
EPS - 0223152	NSF-Funded Cost Sharing Total Project	\$ 6,300,000 <u>3,150,000</u> <u>\$ 9,450,000</u>	3,342,423 <u>1,747,889</u> <u>5,090,312</u>	- 

Except for the \$16,030 in questioned subawardee and indirect costs for Cooperative Agreement No. DUE-9753543 described below, we determined that the costs claimed by UPR appear fairly stated and are allowable, allocable, and reasonable for both NSF awards. Specifically, we questioned \$7,546 of subawardee costs because two subawardees were unable to provide adequate supporting documentation and \$984 because one subawardee duplicated a billing for indirect costs. The remaining \$7,500 of questioned costs resulted from UPR over billing indirect costs for the first two years of the award.

Our audit noted that UPR had two internal control deficiencies that contributed to the questioned subawardee costs and overcharged indirect costs. Additionally, although we did not question any cost sharing, we noted an additional internal control deficiency related to the administration and monitoring of cost sharing claimed by subawardees. Specifically:

- UPR did not adequately monitor subaward costs charged to NSF Award No. DUE-9753543, which included seven subawards amounting to million or million or million of the total costs charged to the NSF award. This occurred because UPR lacks adequate policies and procedures for a risk-based system to monitor and report its subaward costs. Based on the level of risk assessed, UPR should perform periodic monitoring reviews for each subawardee to ensure costs claimed are allowable, allocable, and properly documented. This internal control deficiency was initially reported in UPR's 2003 Fiscal Year A-133 Single Audit Report.
- UPR also did not maintain adequate documentation to support cost sharing expenditures claimed by its subawardees and recipients of start-up funds, or require such documentation from them, for both Award Nos. DUE-9753543 and EPS-0223152. UPR accepted cost sharing from its subawardees for approximately \$1.3 million in expenditures based solely on certifications from the subawardees which provide little to no detail on the nature or type of costs claimed. This occurred because UPR does not have adequate, risk-based monitoring procedures in place to ensure that subawardee cost sharing expenditures are accurate, allocable, allowable, and adequately

documented. Based on the level of risk assessed, these policies and procedures should include a process for reviewing cost sharing expenditures claimed by subawardees to verify they are in accordance with NSF regulations and OMB Circulars. Because UPR did not have adequate monitoring procedures, we performed alternative testing at subawardee sites to affirm that cost sharing claimed was adequate.

• UPR lacked adequate policies and procedures for reviewing indirect costs claimed. As a result, UPR claimed \$7,500 in excess indirect costs for years one and two of Cooperative Agreement No. DUE-9753543.

We recommend that NSF's Directors of DIAS and DGA ensure that UPR (a) develop and implement written policies and procedures to assess and document each subawardee's risk of claiming non-allocable or non-allowable costs and cost sharing expenditures; (b) based on the risks assessed implement adequate periodic monitoring reviews of the subawardees and, (c) include in their policies and procedures a provision for reviewing indirect costs to ensure that they are properly authorized and claimed accurately.

The awarded responded to the draft report on March 19, 2007. In its response, the awardee concurred with the findings and stated that they are implementing policies and procedures that are responsive to the recommendations.

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 satisfactorily implemented. UPR's response has been included in its entirety in the Appendix attached to this report.

For a complete discussion of audit findings, refer to the Independent Auditor's Report on Compliance and Other Matters on Internal Control over Financial Reporting.

# FOLLOW-UP OF PRIOR AUDIT FINDINGS

The UPR 2003 Fiscal Year A-133 Single Audit Report identified a finding for the lack of adequate subcontractor monitoring. Because of this finding and the associated questioned costs, we performed additional testing during our audit for the three subcontractors identified in the finding. We found that overall, UPR still does not have an adequate subcontractor monitoring system. Our testing disclosed missing documentation for two of these subcontractors and a duplicate billing for indirect costs at the third subcontractor.

# EXIT CONFERENCE

We conducted an exit conference on October 20, 2006 at UPR's offices. We discussed preliminary findings and recommendations noted during the audit. Representing UPR was:

Name	Title

Representing Mayer Hoffman McCann P.C. was:

Name	Tit	le	

COMPLIANCE AND INTERNAL CONTROLS

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

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

We audited costs claimed as presented in the Schedules of Award Costs (Schedules A-1 through A-2), which summarize financial reports submitted by the University of Puerto Rico (UPR) to the National Science Foundation (NSF) and claimed cost sharing for the awards and periods listed below and have issued our report thereon dated October 20, 2006:

Award Number	Award Period	Audit Period
DUE – 9753543	07/01/98 – 12/31/03	07/01/98 – 12/31/03
EPS – 0223152	06/01/03 - 05/31/07	06/01/03 - 03/31/06

We conducted our audit of the Schedules of Award Costs as presented in Schedules A-1 through A-2 in accordance with auditing standards generally accepted in the United States of America; *Government Auditing Standards*, issued by the Comptroller General of the United States (2003 revision); and, the *National Science Foundation Audit Guide* (September 1996), as applicable. These standards and the *National Science Foundation Audit Guide* require that we plan and perform the audit to obtain reasonable assurance that the financial schedules are free of material misstatement.

## COMPLIANCE WITH LAWS AND REGULATIONS AND OTHER MATTERS

Compliance with applicable federal laws, regulations, and NSF award terms and conditions is the responsibility of UPR's management. As part of obtaining reasonable assurance about whether UPR's financial schedules are free of material misstatement, we performed tests of UPR's compliance with certain provisions of applicable laws, regulations, and NSF award terms and conditions, noncompliance with which could have a direct and material effect on the determination of financial schedule amounts. However, providing an opinion on compliance with those provisions is not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests of compliance disclosed instances of noncompliance that are required to be reported under *Government Auditing Standards* and the *National Science Foundation Audit Guide* and are described in Finding Nos. 1 through 3, below.

## INTERNAL CONTROL OVER FINANCIAL REPORTING

UPR management is responsible for establishing and maintaining internal control. In fulfilling this responsibility, estimates and judgments made by management are required to assess expected benefits and related costs of internal control policies and procedures. The objectives of internal control are to provide management with reasonable, but not absolute, assurance that assets are safeguarded against loss from unauthorized use or disposition, and that transactions are executed in accordance with management's authorization and recorded properly to permit the preparation of financial schedules in accordance with accounting principles prescribed by NSF. Because of inherent limitations in any internal control, misstatements due to errors or fraud may nevertheless occur and not be detected. Also, projection of any evaluation of internal control to future periods is subject to the risk that procedures may become inadequate because of changes in conditions, or that the effectiveness of the design and operation of policies and procedures may deteriorate.

In planning and performing our audit of the Schedules of Award Costs (Schedules A-1 through A-2) for the period July 1, 1998 to March 31, 2006, we considered UPR's internal control over financial reporting in order to determine our auditing procedures for the purpose of expressing our opinion on the financial schedules and not to provide an opinion on the internal control over financial reporting. Accordingly, we do not express such an opinion.

We noted, however, certain matters described below involving the internal control over financial reporting and its operation that we consider to be reportable conditions under standards established by the American Institute of Certified Public Accountants. Reportable conditions involve matters coming to our attention relating to significant deficiencies in the design or operation of the internal control over financial reporting that, in our judgment, could adversely affect UPR's ability to record, process, summarize, and report financial data consistent with management's assertions in the financial schedules. Reportable conditions we identified are described in Finding Nos. 1 through 3, below.

A material weakness is a reportable condition in which the design or operation of one or more of the internal control elements does not reduce, to a relatively low level, the risk that misstatements caused by error or fraud in amounts that would be material in relation to the financial schedules being audited may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions. Our consideration of internal control over financial reporting would not necessarily disclose all matters related to internal control over financial reporting that might be reportable conditions and, accordingly, would not necessarily disclose all reportable conditions that are also considered to be material weaknesses. We do not consider any of the reportable conditions described below to be material weaknesses.

## FINDINGS AND RECOMMENDATIONS

## Finding 1. Inadequate Subawardee Monitoring

OMB Circular A-110, Subpart C, Section .51 (a), requires recipients to manage and monitor each project, program and subaward. In addition, Subpart C, Section .21 (b)(1) requires accurate, current, and complete disclosure of the financial results of each federally sponsored project or program. Moreover, OMB Circular A-133, Subpart D, Section 400(d.3) requires an awardee to "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."

Contrary to applicable Federal regulations and the NSF award terms and conditions, UPR did not adequately monitor subaward costs charged to the NSF Award No. DUE-9753543. UPR claimed costs from 7 subawards amounting to or percent of the total costs Subawardees submit reimbursement invoices to UPR which are charged to the award. reviewed for budgetary compliance, properly approved, and paid through the regular system for vendor payments. However, there are no policies or internal controls in place to ensure the amounts on the invoices are accurate, allocable, allowable, and properly supported per NSF and OMB grant requirements. The subawardees were not required to submit any supporting documentation with the invoices and UPR did not conduct financial monitoring at the subawardee locations. This occurred because UPR lacks adequate policies and procedures for a risk-based system to monitor and report its subaward costs. This internal control deficiency was initially reported in UPR's 2003 Fiscal Year A-133 Single Audit Report. We have identified guestioned costs of \$984 for an error which resulted from a duplicate billing of indirect costs by one subawardee. We have also identified questioned costs of \$7,546 for transactions for which two subawardees were unable to provide the supporting documentation.

UPR's failure to monitor and review subawardees' costs reduces UPR's ability to efficiently and effectively manage and monitor NSF-funded expenditures and activities by subawardees and may lead to funds being used for purposes other than those intended under the cooperative agreement (misuse) or defrauded.

UPR lacks the necessary policies and procedures to assess and document each subawardee's risk of claiming non-allocable or non-allowable costs. UPR assumed that the invoices from the subawardees were sufficient to support the costs claimed, and that an invoice signed by a responsible fiscal person at the subawardee allowed UPR to accept the claimed costs as valid and allowable.

# Recommendation 1:

We recommend that NSF's Director of the Division of Institution and Award Support (DIAS) instruct UPR to develop and implement written policies and procedures to assess and document each subawardee's risk of claiming non-allocable or non-allowable costs. As part of that assessment, UPR should ensure that subawardees have adequate policies and procedures for overseeing and verifying propriety of subawardee expenditures. UPR should review OMB Circular A-133 and/or financial statements of subawardees to assess risk. Based on the level of risk assessed, UPR should perform periodic reviews of each subawardee's invoices to ensure costs claimed are allowable, allocable, and properly documented in accordance with NSF regulations, OMB Circulars A-110 and A-133, and any other applicable OMB Circulars.

# Awardee's Comments

The UPR Resource Center for Science and Engineering (RCSE) is developing a Subawardee Financial Monitoring Process that will be ready by September 2007, and will be submitted to the UPR Central Administration for approval and authorization for implementation. This monitoring process includes periodic reviews of subawardees' invoices to ensure costs claimed are allowable, allocable and properly documented in accordance with NSF regulations, OMB Circulars A-110 and A-133, and any other applicable OMB Circulars.

The UPR-RCSE has already implemented internal controls to ensure that the amounts on the invoices are accurate, allocable, allowable and properly supported. Invoices to be submitted by subawardees must now be accompanied by the pertinent supporting documentation and any other evidence that confirms or verifies the expenses claimed in order for the UPR-RCSE to proceed with payment. The UPR-RCSE accounting staff has been instructed by the Finance Director to comply with this ruling (See Appendix of this report for copy of memo dated January 30, 2007).

The UPR-RCSE accounting staff re-claimed the indirect costs double-billed by one of the subawardees. The \$984 in question was returned by the subawardee and we will wait for NSF instructions on how to proceed with these funds.

# Auditor's Response

UPR's comments are responsive to the recommendation and indicate that they are currently in the process of developing the procedures as recommended. In some cases, UPR indicates that the procedures have already been implemented. We encourage UPR to follow through with the approval and authorization process for implementing the procedures. The report finding cannot be closed until NSF determines that proposed corrective actions have been satisfactorily implemented.

# Finding 2. Lack of Controls over Subawardee Cost Sharing Expenditures

NSF Grant General Conditions, Article 22, Section C, requires an awardee to maintain records of all claimed project costs including both cost sharing and NSF direct-funded costs. OMB Circular A-110, Subpart C, Section .23(a), prescribes the criteria and procedures for the allowability of cost sharing expenditures and requires, among other things, that cost sharing meet the same cost principles and documentation requirements as costs directly funded by NSF. In addition, OMB Circular A-110, Subpart C, Section .51(a), requires awardees to manage and monitor subawards. The claimed cost sharing must be allocable to the awards, provided by the subrecipients own funds and not other Federal funds, and be claimed only once.

Similar to the subaward costs charged to NSF, for both Award Nos. DUE-9753543 and EPS-0223152, UPR also did not maintain adequate documentation to support cost sharing expenditures claimed by its subawardees and recipients of start-up funds, or require such documentation from them, contrary to Federal regulations and NSF award terms and conditions. UPR does not have policies and procedures to monitor cost sharing claimed by subawardees. UPR requires its subawardees to submit quarterly performance reports. Under the financial section of such reports, subawardees are required to certify the amounts of cost sharing expenditures claimed under the award. However, these subawardee certifications are the only source documentation maintained by UPR to support the subawardees' amounts claimed as cost sharing. No other detail listing or source documentation is submitted by the subawardees with their certifications to support the cost sharing claimed. In addition, UPR has no process in place to verify the accuracy and validity of the expenses claimed on the subawardee certifications. UPR relies solely on the subawardees' certifications to ensure the cost sharing amounts are accurate and properly documented.

Specifically, UPR accepted cost sharing from its subawardees for approximately \$1.3 million in expenditures based solely on certifications from the subawardees. These certifications provide little to no detail on the nature or type of costs claimed and are the only source documents maintained by UPR to support the amount claimed as cost sharing.

This occurred because UPR does not have adequate, risk-based monitoring procedures in place to ensure that subawardee cost sharing expenditures are accurate, allocable, allowable, and adequately documented. However, we performed alternative testing at subawardee sites to affirm that cost sharing claimed was adequate.

As a result of the lack of controls ensuring the accuracy and validity of cost sharing claimed by its subawardees, UPR in the future may certify to cost sharing expenditures for the NSF award that either may not exist or may not be allowable per federal and NSF regulations. There is no review to determine that the claimed cost sharing is allocable to the awards, provided by the subrecipients own funds and not other Federal funds, and is claimed only once.

# Recommendation 2:

We recommend that NSF's Director of DIAS instruct UPR to develop and implement written policies and procedures to assess and document each subawardee's risk of claiming non-allocable or non-allowable cost sharing expenditures. These policies and procedures should include a process for reviewing cost sharing expenditures claimed by subawardees for allowability and allocability. Expenditures should be reviewed to determine they are allocable to the awards, provided by the subrecipients own funds and not other Federal funds, and are claimed only once. These reviews should be of sufficient scope and quality to allow UPR to provide reasonable assurance that all costs claimed are accurate, allowable, and properly documented per NSF regulations and OMB Circulars.

# Awardee Comments

The Subawardee Monitoring Process being developed by the UPR-Resource Center for Science and Engineering (UPR-RCSE) to ensure that costs claimed by subawardees are allowable, allocable and properly documented, will include monitoring of cost-sharing expenditures by subawardees. The periodic reviews to be conducted by UPR-RCSE staff will include revision of cost sharing expenditures claimed by subawardees for allowability and allocability, and compliance with NSF regulations, OMB Circulars A-110 and A-133, and any other OMB Circulars.

# Auditor's Response

The procedures being developed by UPR are responsive to the recommendation. We emphasize the need to include procedures to determine that cost sharing expenditures are provided by the subrecipients own funds and not other Federal funds, and are claimed as cost sharing only once. The report finding cannot be closed until NSF determines that proposed corrective actions have been satisfactorily implemented.

# Finding 3. Lack of Policies and Procedures to Ensure Indirect Costs are Properly Claimed

NSF Grant Policy Manual, Section 633.1(b)(4) – Indirect Costs Basic Policy– provides that one method of indirect cost rates used on NSF awards is a "Fixed Dollar Amount: A fixed dollar amount limits grantees to the "amount" of indirect costs specified in the approved budget. A fixed indirect dollar amount is not subject to adjustment."

For the first two years of award No. DUE-9753543, UPR claimed per year for indirect costs. However, the Cooperative Agreement states that "In lieu of an indirect cost allowance at a predetermined fixed rate, this agreement includes a fixed dollar amount from NSF for indirect costs of per year for years one and two as specified in the approved June 27, 1998 budgets." This resulted in an over billing for indirect costs of \$7,500 for the first two years of the award.

As a result of the lack of controls to adequately review the indirect costs claimed, UPR claimed excess indirect costs in the total amount of \$7,500.

Per the Finance Office, Assistant Director, the accountant in charge of managing this grant used the wrong budget document when she was setting up the spending limits in their system. Because there were not adequate policies and procedures for reviewing the amount of indirect costs claimed this error went undetected.

# Recommendation 3:

We recommend that NSF's Director of DIAS instruct UPR to include in their policies and procedures a provision for reviewing to ensure indirect costs authorized and claimed are accurate. When UPR is given an award, and is ready to set it up in their system, the accountant in charge of the specific grant is given an approval document authorizing them to setup the accounts needed in the system. We recommend that UPR include the approved budget document as part of that package to ensure that the accountants are using the correct budgeted amounts during this process.

# Awardee's Comments

To ensure that indirect costs authorized and claimed are accurate, the UPR-RCSE has implemented the following internal control: From now on the Cooperative Agreement with the budget approved by the Federal Agency will be the official document on file to be used by the UPR-RCSE accounting staff to create the project's accounts and budgets. This ruling was made effective on January 30, 2007 (See Appendix of this report for copy of memo from the Finance Director of the UPR-RCSE to the accounting staff).

# Auditor's Response

The Awardee's Comments are responsive to the finding and recommendation. The new ruling requiring the cooperative agreement with the approved budget, in connection with adequate review, should eliminate the situation that resulted in this finding. The report finding cannot be closed until NSF determines that proposed corrective actions have been satisfactorily implemented.

We considered these internal control deficiencies in forming our opinion of whether Schedules A-1 through A-2 were presented fairly in all material respects, in conformity with National Science Foundation policies and procedures, and determined that this report does not affect our report dated October 20, 2006 on the financial schedules.

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

Mayer Hoffman McCann P.C. Conrad Government Services Division

Irvine, California October 20, 2006 National Science Foundation Office of Inspector General 4201 Wilson Boulevard Arlington, Virginia 22230

# INDEPENDENT AUDITORS' REPORT ON FINANCIAL SCHEDULES

We have audited the costs claimed by the University of Puerto Rico (UPR) to the National Science Foundation (NSF) on the Federal Cash Transactions Reports (FCTR) for the NSF awards listed below. In addition, we also audited the amount of cost sharing claimed on the awards. The FCTRs, as presented in the Schedules of Award Costs (Schedules A-1 through A-2), are the responsibility of UPR's management. Our responsibility is to express an opinion on the Schedules of Award Costs (Schedules A-1 through A-2) based on our audit.

Award Number	Award Period	Audit Period
DUE – 9753543	07/01/98 – 12/31/03	07/01/98 – 12/31/03
EPS – 0223152	06/01/03 - 05/31/07	06/01/03 - 03/31/06

Except as discussed in the following paragraph, we conducted our audit in accordance with auditing standards generally accepted in the United States of America; *Government Auditing Standards* (2003 revision), issued by the Comptroller General of the United States; and, the *National Science Foundation Audit Guide* (September 1996), as applicable. These standards and the *National Science Foundation Audit Guide*, require that we plan and perform the audit to obtain reasonable assurance that the amounts claimed to NSF as presented in the Schedules of Award Costs (Schedules A-1 through A-2) 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 through A-2). An audit also includes assessing the accounting principles used and the significant estimates made by UPR, as well as evaluating the overall financial schedule presentation. We believe that our audit provides a reasonable basis for our opinion.

The Schedule of Questioned Costs (Schedule B) explains the \$16,030 (.18%) of total claimed NSF funds that we have questioned for allowability. These costs include unallowable subawardee costs and incorrectly claimed indirect costs.

Questioned costs are (1) costs for which documentation exists to show that recorded costs were expended in violation of laws, regulations, or specific award conditions, (2) costs that require additional support by awardee, or (3) costs that require interpretation of allowability by NSF's Division of Institution and Award Support (DIAS). NSF will make the final determination of cost allowability. The ultimate outcome of this determination cannot presently be determined. Accordingly, no adjustment has been made to costs claimed for any potential disallowance by NSF.

In our opinion, except for the \$16,030 of questioned NSF-funded costs, the Schedules of Award Costs (Schedules A-1 through A-2) referred to above present fairly, in all material respects, costs claimed on FCTRs for the period July 1, 1998 to March 31, 2006 in conformity with the *National Science Foundation 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. 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 provisions of the *National Science Foundation Audit* Guide, we have also issued a report dated October 20, 2006, on our tests of UPR's compliance with certain provisions of laws, regulations, and NSF award terms and conditions and our consideration of UPR's internal control over financial reporting. The purpose of that report is to describe the scope of our 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 UPR's management, NSF, UPR's federal cognizant agency, the Office of Management and Budget, and the Congress of the United States of America and is not intended to be, and should not be used by anyone other than these specified parties.

Mayer Hoffman McCann P.C. Conrad Government Services Division

Irvine, California October 20, 2006 FINANCIAL SCHEDULES AND SUPPLEMENTAL INFORMATION

**SCHEDULE A-1** 

# UNIVERSITY OF PUERTO RICO

# National Science Foundation Award Number DUE-9753543 Schedule of Award Costs July 1, 1998 - December 31, 2003 Final

Cost Category	Approved <u>Budget</u>	Claimed <u>Costs (A)</u>	Reclassification of Costs	Audited <u>Totals</u>	Questioned <u>Costs</u>	Schedule <u>Reference</u>
Direct costs:	<u>, , , , , , , , , , , , , , , , , ,</u>					
Salaries and wages			-		-	
Fringe benefits			-		-	
Equipment			-		-	
Travel			-		-	
Participant support			-		-	
Other direct costs:						
Material and supplie			-		-	
Publications			-		-	
Consulting			-		-	
Subcontractor			-		8,530	B, Note B-1
Other direct costs			-		-	
Total direct costs	-	-	-	-	8,530	
Indirect costs			· _ ·		7,500	B, Note B-2
Total					16,030	
Cost sharing	<u>\$ 1,750,000</u>	1,749,588		1,749,588		

(A) - The total claimed costs agrees with the total expenditures reported by the University of Puerto Rico on the Federal Cash Transaction Report - Federal Share of Net Disbursements as of the quarter ended December 31, 2003. Claimed costs reported above are taken from the awardee's books of accounts.

The Accompanying Notes to Financial Schedules are an Integral Part of this Schedule

# National Science Foundation Award Number EPS-0223152 Schedule of Award Costs June 1, 2003 - March 31, 2006 Interim

Cost Category	Approved <u>Budget</u>	Claimed <u>Costs <b>(A)</b></u>	Reclassification of Costs	Audited <u>Totals</u>	Questioned <u>Costs</u>	Schedule <u>Reference</u>
Direct costs:	Dudgor	<u></u>	01 00010	<u>-rotaio</u>	00010	11010101100
Salaries and wages			K -		( -	
Fringe benefits			< -		< -	
Equipment			< -		< -	
Travel			< -		< -	
Participant support			ζ -		-	
Other direct costs:			(		< colored and set of the set of t	
Material and supplie			< -		-	
Publication			< -		-	
Consulting			< -		-	
Subcontractor			< -		-	
Other direct costs			-			
Total direct costs						
Indirect costs			K		< <u> </u>	
Total			K		< <u> </u>	
Cost sharing	<u>\$ 3,150,000</u>	1,747,889		1,747,889		

(A) - The total claimed costs agrees with the total expenditures reported by the University of Puerto Rico on the Federal Cash Transaction Report - Federal Share of Net Disbursements as of the quarter ended March 31, 2006. Claimed costs reported above are taken from the awardee's books of accounts.

# SCHEDULE B

\$7,546

# UNIVERSITY OF PUERTO RICO National Science Foundation Award Numbers: DUE–9753543, EPS-0223152 Schedule of Questioned Costs From July 1, 1998 to March 31, 2006

#### Note B-1 Subawardee Costs

UPR lacked adequate procedures to monitor subawardees to ensure that costs were accurate, allocable, allowable, and properly supported per NSF and OMB grant requirements. As a result, UPR overcharged \$8,530 in subawardee costs to NSF Cooperative Agreement No. DUE-9753543 because two subawardees were unable to provide adequate supporting documentation and another subawardee duplicated a billing for indirect costs. (See Finding and Recommendation No. 1 in the *Report on Compliance and Other Matters on Internal Control Over Financial Reporting*.)

#### Cooperative Agreement DUE-9753543 (CETP)

#### Lack of Supporting Documentation:

Account No.	Description	<u>Amount</u>
Subawardee:		
Interamerican University: 6504 7604	Consultants Office Supplies	\$1,397 <u>300</u>
Subtotal Indirect cost at		1,697
Subtotal Interamerican Univer	rsity	
<u>Rio Piedras Campus:</u> 39383 39383 39392 39413	Payroll Travel Materials & Supplies Payroll	1,385 688 711 <u>2,929</u>
Subtotal Indirect costs at		5,713 (A)
Subtotal Rio Piedras Campus	i	<u>5,713</u>
Total Questioned Costs for Lac	k of Supporting Document	tation

(A) No indirect costs questioned on the questioned direct costs because Rio Piedras Campus underbilled indirect costs to the award.

# UNIVERSITY OF PUERTO RICO National Science Foundation Award Numbers: DUE–9753543, EPS-0223152 Schedule of Questioned Costs From July 1, 1998 to March 31, 2006

(Continued)

# **Duplication in Billing of Indirect Costs**

Colegio University

Due to an error that occurred between the second and third invoice that Colegio University sent to UPR, the amount calculated for indirect costs was billed twice. The following year Collegio University implemented the BANNER system which helps to eliminate these types of errors. The overbilling is calculated as follows:

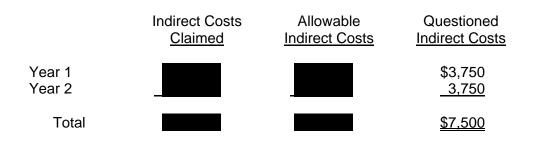
Costs billed for the period July 1, 2002 through June 30, 2003 Costs as correctly calculated per detail transaction report	
Excess due to duplication in billing of indirect costs	984
Total Questioned Subawardee Costs	<u>\$8,530</u>

# UNIVERSITY OF PUERTO RICO National Science Foundation Award Numbers: DUE–9753543, EPS-0223152 Schedule of Questioned Costs From July 1, 1998 to March 31, 2006

(Continued)

# Note B-2 Indirect Costs

For the first two years of award No. DUE-9753543, UPR claimed \$25,926 per year for indirect costs. However, the Cooperative Agreement only allowed fixed indirect costs of per year for years one and two. This resulted in an over billing for indirect costs of for the first two years of the CETP award as follows:



(See Finding and Recommendation No. 3 in the Report on Compliance and Other Matters on Internal Control Over Financial Reporting.)

# Summary Schedules of Awards Audited and Audit Results From July 1, 1998 to March 31, 2006

# Summary of Awards Audited

Award Number	Award Period	Audit Period
DUE – 9753543	07/01/98 – 12/31/03	07/01/98 – 12/31/03
EPS – 0223152	06/01/03 - 05/31/07	06/01/03 - 03/31/06

Award Number	Type of Award	Award Description
DUE – 9753543	Cooperative Agreement	To assume responsibility for planning, operating, and managing The Puerto Rico Collaborative for Excellence in Teacher Preparation, whose mission is to promote reform in the teaching and learning of mathematics and the sciences as regards the preparation of science and mathematics educators, K-12.
EPS – 0223152	Grant	Support the Puerto Rico Experimental Program to Stimulate Competitive Research (PR-EPSCoR) effort to build and sustain a nationally competitive science and engineering research and education enterprise.

# Summary of Questioned and Unsupported Costs by Award

Award Number	Award Budget	Claimed <u>Costs</u>	Questioned <u>Costs</u>	Unsupported <u>Costs</u>
DUE – 9753543	\$ 5,463,000	\$ 5,455,004	\$ 16,030	\$7,546
EPS – 0223152	6,300,000	3,342,423	-	-

# Summary of Questioned Cost by Explanation

Category	<b>Questioned Costs</b>	Internal Controls	Non-Compliance
Salaries and Wages	\$ -	N/A	N/A
Fringe Benefits	-	N/A	N/A
Equipment	-	N/A	N/A
Travel	-	N/A	N/A
Participant Support	-	N/A	N/A
Material & Supplies	-	N/A	N/A
Publication	-	N/A	N/A
Consulting	-	N/A	N/A
Subcontractors	8,530	Yes	Yes
Other Direct Costs	-	N/A	N/A
Indirect Costs	7,500	Yes	Yes
Cost Sharing	-	N/A	N/A

Summary Schedules of Awards Audited and Audit Results From July1, 1998 to March 31, 2006

(Continued)

# Summary of Non-Compliance and Internal Control Findings

Findings	Non-Compliance or Internal <u>Control</u>	Material or Reportable
Subawardees	Compliance & Internal Control	Reportable
Indirect Costs	Compliance & Internal Control	Reportable

Notes to Financial Schedules From July 1, 1998 to March 31, 2006

## Note 1: Summary of Significant Accounting Policies

## Accounting Basis

The accompanying financial schedules have been prepared in conformity with National Science Foundation (NSF) instructions. Schedules A-1 and A-2 have been prepared from the reports submitted to NSF. 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 awards, 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 Statement of Award Costs include the cost of equipment purchased during the period rather than a provision for depreciation.

The equipment acquired is owned by UPR while used in the program for which it was purchased or in other future authorized programs. However, NSF has the reversionary interest in the equipment. Its disposition, as well as the ownership of any proceeds there from, is subject to Federal regulations.

## 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

UPR is a higher educational institution organized under the laws of the Commonwealth of Puerto Rico and is exempt from 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.

Notes to Financial Schedules From July 1, 1998 to March 31, 2006

(Continued)

## Note 2: NSF Cost Sharing and Matching

The following represents the cost share requirements and actual cost share as of March 31, 2006:

Award Number	Cost Share <u>Required</u>	Actual Cost Share Provided	Over/(Under)
DUE – 9753543	\$ 1,750,000	\$ 1,749,588	\$ (412)*
EPS - 0223152	3,150,000	1,747,889	(1,402,111)**

- \* Because UPR did not spend the entire NSF budget, the cost share provided was within the budgeted percentage of the total project costs.
- \*\* UPR has until May 31, 2007 to provide the total cost share budget and is currently on track to do so. In addition, UPR's cost sharing certified to NSF to date does not include approximately \$1.3 million in cost sharing provided by subcontractors.

## Note 3: Indirect Cost Rates

Award Number	Indirect Cost Rate	Base
DUE – 9753543	Fixed	A fixed amount of \$108,010 was approved in the
		original budget and subsequent amendments.
EPS – 0223152		Modified Direct Costs (Total direct salaries, fringe
		benefits, materials, supplies, services, travel, and
		sub awards (up to the first

APPENDIX - AUDITEE'S COMMENTS TO REPORT

# HOW TO CONTACT THE OFFICE OF INSPECTOR GENERAL

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Email Hotline oig@nsf.gov

Telephone 703-292-7100

Toll-free 1-800-428-2189

## <u>Fax</u>

703-292-9158

# Mail

Office of Inspector General National Science Foundation 4201 Wilson Blvd., Suite 1135 Arlington, VA 22230 PUERTO RICO RESOURCE CENTER FOR SCIENCE AND ENGINEERING



CENTRAL ADMINISTRATION UNIVERSITY OF PUERTO RICO

in consortium with the Ana G. Méndez University System, the Pontifical Catholic University of Puerto Rico, the Inter American University of Puerto Rico, and the Caribbean Central University

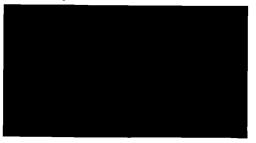
March 15, 2007 Sharohelder Mayer Hoffman McCann P.C. 2301 Dupont Drive, Suite 200 Irvine, CA 92612

Dear Enclosed please find our written comments to the draft audit report

covering National Science Foundation (NSF) award Nos. DUE-9753543 and EPS-0223152 awarded to the University of Puerto Rico during the period July 1, 1998 through March 31, 2006.

If you should have any questions regarding our comments, please call me at (787) 765-6696.

Sincerely,



Enclosure

## FINDINGS AND RECOMMENDATIONS

## Finding 1. Inadequate Subawardee Monitoring

## Awardee's Comments:

The UPR Resource Center for Science and Engineering (RSCE) is developing a Subawardee Financial Monitoring Process that will be ready by September 2007, and will be submitted to the UPR Central Administration for approval and authorization for implementation. This monitoring process includes periodic reviews of subawardees' invoices to ensure costs claimed are allowable, allocable and properly documented in accordance with NSF regulations, OMB Circulars A-110 and A-133, and any other applicable OMB Circulars.

The UPR-RSCE has already implemented internal controls to ensure that the amounts on the invoices are accurate, allocable, allowable and properly supported. Invoices to be submitted by subawardees must now be accompanied by the pertinent supporting documentation and any other evidence that confirms or verifies the expenses claimed in order for the UPR-RCSE to proceed with payment. The UPR-RCSE accounting staff has been instructed by the Finance Director to comply with this ruling (See copy of letter dated January 30, 2007).

The UPR-RSCE accounting staff re-claimed the indirect costs double-billed by one of the subawardees. The \$984 in question was returned by the subawardee and we will wait for NSF instructions on how to proceed with these funds.

#### Finding 2. Lack of Controls over Subawardee Cost Sharing Expenditures

#### Awardee's Comments:

The Subawardee Monitoring Process being developed by the UPR-Resource Center for Science and Engineering (UPR-RSCE) to ensure that costs claimed by subawardees are allowable, allocable and properly documented, will include monitoring of cost-sharing expenditures by subawardees. The periodic reviews to be conducted by UPR-RCSE staff will include revision of cost sharing expenditures claimed by subawardees for allowability and allocability, and compliance with NSF regulations, OMB Circulars A-110 and A-133, and any other OMB Circulars.

# Finding 3. Lack of Policies and Procedures to Ensure Indirect Costs are Properly Claimed

#### Awardee's Comments:

To ensure that indirect costs authorized and claimed are accurate, the UPR-RSCE has implemented the following internal control: From now on the Cooperative Agreement with the budget approved by the Federal agency will be the official document on file to be used by the UPR-RCSE accounting staff to create the project's accounts and budgets. This ruling was made effective on January 30, 2007 (See letter of the Finance Director of the UPR-RSCE to the accounting staff).

#### **Note B-1 Subawardee Costs**

#### Awardee's Response

We concur with the finding that two subawardees do not have on file the appropriate supporting documentation for costs claimed in the amount of \$7,546. The Subawardee Financial Monitoring Process that we are developing and expect to implement as soon as we are authorized by the UPR Central Administration, will ensure that situations like this one do not occur in the future. We have already implemented internal controls to ensure that the amounts on the invoices are accurate, allocable, allowable and properly supported. Invoices to be submitted by subawardees must now be accompanied by the pertinent supporting documentation and any other evidence that confirms or verifies the expenses claimed in order for the UPR-RCSE to proceed with payment. The UPR-RCSE accounting staff has been instructed by the Finance Director to comply with this ruling (See copy of letter dated January 30, 2007).

Regarding the \$984 in indirect costs that was double-billed by one subawardee, the UPR-RCSE re-claimed this amount from the subawardee, and it was paid by the subawardee. We wait for NSF instructions on how to proceed with these funds.

#### **Note B-2 Indirect Costs**

#### Awardee's Response

We concur with the finding that the UPR-RCSE over-billed \$7,500 in indirect costs for the first two years of the award. To ensure that this situation does not repeat itself, and that indirect costs claimed are accurate, the UPR-RSCE has implemented the following internal control: From now on the Cooperative Agreement with the budget approved by the Federal agency will be the official document on file to be used by the UPR-RCSE accounting staff to create the project's accounts and budgets. This ruling was made effective on January 30, 2007 (See letter of the Finance Director of the UPR-RSCE to the accounting staff). We wait for NSF instructions on how to proceed with these funds. PUERTO RICO RESOURCE CENTER FOR SCIENCE AND ENGINEERING



#### CENTRAL ADMINISTRATION UNIVERSITY OF PUERTO RICO

in consortium with the Ana G. Méndez University System, the Pontifical Catholic University of Puerto Rico, the Inter American University of Puerto Rico, and the Caribbean Central University

January 30, 2007

Accounting Staff RCSE



# DOCUMENTATION REQUIRED TO PROCESS INVOICES

It is mandatory that all invoices submitted by subawardees for payment include the supporting documentation to evidence expenses claimed. Every accountant needs to make sure that all invoices are accompanied by the pertinent supporting documentation and any other evidence that confirms or verifies the expenses claimed, before processing them. Documentation should include, among others copy of purchase orders, contracts, invoices, and cancelled checks. This is applicable to all invoices received for payment.

This internal control is effective immediately. Please contact me if you have any questions.



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January 30, 2007

## Accounting Staff RCSE



# DOCUMENTATION REQUIRED TO SET UP AN ACCOUNT IN THE FINANCIAL SYSTEM

As part of the documentation needed to open an account and create the corresponding budget for all grants and contracts, it is required that you make sure that you have on file the approved Cooperative Agreement, the final budget as approved by the federal agency, and the budget justification. No account should be open without these documents.

This internal control is effective immediately. Please contact me if you have any questions.



## HOW TO CONTACT THE OFFICE OF INSPECTOR GENERAL

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