

**NATIONAL SCIENCE FOUNDATION**  
4201 Wilson Boulevard  
ARLINGTON, VIRGINIA 22230



OFFICE OF  
INSPECTOR GENERAL

**MEMORANDUM**

**DATE:** July 30, 2009

**TO:** Mary F. Santonastasso, Division Director  
Division of Institutional and Award Support (BFA/DIAS)

Karen Tiplady, Division Director  
Division of Grants and Agreement (BFA/DGA)

**FROM:** Michael R. Kuklok   
Senior Audit Manager

**SUBJECT:** Audit of Purdue University Effort Reporting System

Attached is the final report on the audit of the payroll distribution and effort reporting system used by Purdue University (Purdue) to support salary and wages charged to NSF grants. The University's comments to the draft report have been summarized after the recommendations for each audit finding and the auditor's response has been provided to these comments. The full text of the University's comments is included as an Appendix to the audit report.

The audit found that Purdue generally has a well established and sound Federal grants management system with the exception of internal controls over PIs charging proposal writing and graduate students charging teaching activities as direct costs to NSF grants, and lack of periodic independent internal evaluation of the effort reporting system. Without adequate training of individuals certifying their labor efforts, and periodic independent evaluation of the system, Purdue has less assurance that the salaries and wages charged to NSF's sponsored projects are allowable, allocable and reasonable.

We consider Purdue's internal control weaknesses identified in the audit findings to be significant. Accordingly, we request that your office work with the University and the cognizant audit agency, the Department of Health and Human Services (DHHS), to develop a written Corrective Action Plan detailing specific actions taken **and/or** planned to address each audit recommendation. Milestone dates should be provided for corrective actions not yet completed.

To help ensure the recommendations are resolved within six months of issuance of the audit report pursuant to Office of Management and Budget Circular A-50, please coordinate the development of the Corrective Action Plan with our office during the resolution period. Each

audit recommendation should not be closed until NSF, in coordination with DHHS, determines that **Purdue** has adequately addressed the recommendation and proposed corrective actions have been satisfactorily implemented. Please note that we have sent a copy of the audit report under separate cover to Jon D. Crowder of DHHS-OIG.

If you have any questions, please feel **free** to call me at 703-292-4975 or **Kwame** Fosu at 703-292-4328.

Enclosure

cc: Charles Zeigler, Special Assistant, BFA/DIAS  
Thomas Cooley, Director and Chief Financial Officer, BFA/OAD  
Alexander Wynnyk, Branch Chief, BFA/DIAS

# **Audit of Effort Reporting System**

**Purdue University  
West Lafayette, Indiana**

**National Science Foundation  
Office of Inspector General**

**July 30, 2009  
OIG 09-1-013**

This page intentionally left blank.

## **Executive Summary**

This audit report provides the results of our review of the effort reporting system used by Purdue University (Purdue) to support salaries and wages charged to National Science Foundation (NSF) awards. In fiscal year (FY) 2007, Purdue had total Federal research and development grant expenditures of approximately \$199 million, of which \$40 million were funded by NSF. Of this amount, over \$14.8 million were for labor costs directly charged to NSF awards. This audit is one of a series of Office of Inspector General (OIG) reviews of the labor effort distribution systems being conducted at NSF's top-funded universities to assess the adequacy of internal controls to ensure salary and wage costs claimed on NSF grants are properly managed, accounted for, and monitored.

Our review disclosed that Purdue generally had a well established and sound Federal grants management program. Our review of 30 sampled employees, with total FY 2007 NSF salary charges of \$850,711, found that the effort reporting system generally supports salary costs charged to NSF awards.

However, the audit identified instances of mischarges to NSF grants for activities that did not benefit the grants. Specifically, of our 30 sampled employees, 3 Principal Investigators (PIs) charged proposal writing, and 2 graduate students charged teaching activities as direct costs to NSF grants in violation of both Federal and University policy. Consequently, NSF was overcharged \$12,630 for these activities. Although the mischarged amounts for the sample are not material individually (less than 1 percent of the total labor charges in 2007) it constitutes an internal control weakness that could result in more substantive mischarges for the remaining \$14 million in labor charges to NSF awards in 2007, as well as the labor portion of the \$159 million of other Federal awards.

These internal control weaknesses occurred, in part, due to a lack of adequate training of individuals certifying their labor efforts, with respect to proposal writing and teaching activities, and the lack of a periodic independent internal evaluation of the effort reporting system. Specifically, training on the effort reporting process, including cost allowability and allocability, was offered to University business office staff who are charged with providing guidance in effort reporting to the PIs. However, there was no mandatory requirement for PIs, who certify the labor efforts, to attend. In addition, management believed the A-133 audit and other reviews by the costing office provided the OMB circular A-21 required independent evaluation of the labor effort system. However, these reviews only addressed limited aspects of the system.

We also identified concerns relating to the new online system developed and implemented by Purdue during 2007. Specifically, while we consider Purdue's effort report certification process one of the better ones audited to date, we noted that Purdue

had not developed written policies and procedures for the new system capability to ensure the continued timeliness of the certification process.

We made recommendations to strengthen the University's internal controls over labor effort reporting to include: 1) improving training for all personnel involved in the effort reporting process, particularly as it relates to proposal writing and teaching; 2) establishing an independent internal evaluation process; and, 3) developing written policies and procedures for new online capabilities over the timely certification of effort reports. Finally, we recommended Purdue resolve any outstanding questioned costs identified in the report.

## Table of Contents

**EXECUTIVE SUMMARY**.....i

### **INTRODUCTION**

Background.....1  
Objectives, Scope, and Methodology.....2

### **FINDING AND RECOMMENDATIONS**

1. Internal Controls over Purdue University’s Labor Effort Charging  
Can be Strengthened.....5  
2. Additional Concerns for the New On-line System.....8

### **APPENDIX**

Appendix A: Purdue Response to Draft Audit Report.....10

### **ACRONYMS**

NSF	National Science Foundation
OIG	Office of Inspector General
OMB	U.S. Office of Management and Budget
PAR	Personnel Activity Report
PI	Principal Investigator
SAP	Systems, Applications and Products
SPS	Sponsored Programs Services

---

## INTRODUCTION

---

### BACKGROUND

Approximately one third of the National Science Foundation (NSF) award funds are provided for salary and wages, amounting to about \$1.3 billion annually at universities. Also, in recent years, there have been several civil settlements involving overcharges of labor costs to Federal grants, amounting to millions of dollars at several major universities, including some funded by NSF. Because of these legal actions and the material amounts of labor costs paid from NSF awards, the Office of Inspector General (OIG) is undertaking a series of reviews of the labor effort distribution systems at NSF's top-funded universities in order to assess the adequacy of internal controls to ensure salary and wage costs claimed on NSF grants are properly managed, accounted for, and monitored. This audit, involving Purdue University, is one of the planned reviews of such labor effort distribution systems.

Purdue University is a coeducational, state-assisted system in Indiana. Founded in 1869, the University is one of the nation's leading research institutions with a reputation for excellent and affordable education. Building upon historical strengths in engineering and agriculture, Purdue University currently offers a large number of courses in more than 400 undergraduate majors and specializations. For the fall 2007, the university had a total enrollment exceeding 70,000 students.

The University is a major research institution and derives the majority of its funding from sponsored research funding, student tuition, and state assistance. For FY 2007, the University received \$301 million in sponsored awards which included approximately \$199 million, or 66 percent, in research and development grants from the Federal government. Approximately \$40 million, or 20 percent, of the Federally-sponsored research and development project awards were provided by NSF.

Sponsored Program Services (SPS) is a partnership which combines staff responsible to the Vice President for Business Services and Assistant Treasurer and also the Vice President for Research. SPS is responsible for the management and financial administration of grants. The Costing Office which reports to the Office of the Comptroller is responsible for compiling, generating, and maintaining effort reports, and charged with implementing appropriate effort reporting training programs.

Business managers within academic departments assist SPS with the management and oversight of sponsored projects to ensure compliance with Federal and University policies and procedures. They typically assist and advise faculty members on Federal grants management and are responsible for ensuring that award accounts and budgets are created accurately in the University's financial system, award expenditures are monitored on a monthly basis, and charges to Federal awards are appropriate. Principal Investigators (PIs) have primary responsibility for all aspects of Federal grants including approval of all charges and ensuring that research is conducted in accordance with award terms and conditions.

## **Objectives, Scope, and Methodology**

**Audit Objectives.** Our audit objectives were to: (a) evaluate whether Purdue internal controls are adequate to properly manage, account for, monitor, and report salary and wage costs on NSF grants in accordance with the U.S. Office of Management and Budget (OMB) and NSF grant requirements and (b) determine if salaries and wages charged to NSF awards are allowable, allocable, and reasonable in accordance with Federal cost principles and NSF award terms and conditions.

**Scope and Methodology.** The audit focused on Purdue's effort reporting system and accordingly reviewed internal controls for ensuring that labor costs charged to NSF (i) were actually incurred, (ii) benefited NSF awards, (iii) were accurately and timely recorded and charged to NSF, and (iv) were for allowable and allocable-type activities as required by Federal and NSF requirements. In addition, we evaluated if the level of PI effort pledged in grant proposal and award documents was actually contributed by the faculty member to accomplish award objectives.

To address each of the control objectives, the NSF OIG engaged a statistician to provide expert advice in selecting a statistical sample of employee salary records for testing. The use of statistical tools and methodology will enable projecting our audit results to the entire population of universities to be included in the planned reviews of payroll distribution systems nationwide. However, due to the small statistical sample size of 30 employees tested, we are not able to make any projections to the total Purdue population of labor costs charged to NSF grants. Specifically, the FY 2007 salary and wage costs for the 30 sample employees tested amounted to \$850,711 and were supported by 103 effort reports. Our statistical sample was derived from a total population of 1,165 Purdue employees, who charged \$13.5 million of salaries to NSF grants during FY 2007. This population excluded (a) any employee with total salary costs of \$100 or less and (b) all salary charges for undergraduate students. These amounts were excluded because of their small dollar value and the difficulty in locating undergraduate students for personal interviews.

We interviewed key University officials and reviewed the organization structure and written policies and procedures to assess the "attitude" or "tone at the top" toward grants management and compliance in general as it affects effort reporting.

We compared Purdue's policies and procedures to Federal and NSF requirements for allocating labor costs to Federal awards and interviewed Purdue personnel to gain an understanding of the controls in place to ensure salary and wages charged to NSF awards were reasonable and allowable. For each statistically selected salary record, we obtained the following documentation to determine whether labor costs Purdue charged NSF awards met the control objectives:

- Effort reports documenting 100 percent of each employee's compensation allocated to sponsored and non-sponsored projects for each reporting period.
- Appointment letters or other documents supporting the approved annual salary for employees.
- Payroll Charge File System reports detailing the actual salary and wages charged to sponsored projects and other activities for each employee during each reporting period.
- Award documents to determine whether a grant had any terms and conditions that would affect allowable labor charges to the award.

To ensure that salary and wage costs charged to NSF awards were incurred and benefited NSF awards, we corroborated the information on the effort reports by interviewing the 30 sampled employees. We inquired whether (a) the labor charges documented were actually incurred on projects and activities, (b) the approximate percentage of effort actually worked on each sponsored project and/or activity was reasonably consistent with NSF labor charges, and (c) the type of work performed on NSF projects was generally consistent with the scope of the awards. In addition, we interviewed administrative officials in academic departments of the sampled employees to determine how they met the Federal and University certification requirement on verifying effort reports to ensure the work was actually performed as shown on the reports. We also discussed with department administrative officials their procedures for processing and monitoring employee salary charges to Federal grants. Additionally, we interviewed selected PIs to determine the number of projects and personnel they were responsible for and their processes for verifying effort reports.

To confirm that faculty effort pledged in grant proposals was actually contributed to accomplish grant objectives, we reviewed processes for reporting and tracking PI effort and whether the associated salary costs were properly included in the organized research base for computation of the University's indirect cost rate. We reviewed award documents for all Federal grants that a faculty member worked on during FY 2007 to determine the effort pledged on each project and compared this proposed effort to the approximate percentage of actual effort worked on the project. In addition, we determined whether and how Purdue tracked and documented PI effort on sponsored projects when no faculty salary support was requested or reimbursed by the Federal Government.

To determine whether labor costs were accurately recorded and charged to NSF, we compared the amounts in appointment letters or other documentation supporting salaries and wages paid to the amounts recorded in the Payroll Charge File for each individual in our selected sample. We recalculated salary and wage costs charged to NSF projects by using the salary shown on supporting documentation and apportioning it by the period of time and percent of effort represented on the effort reports. We also reviewed labor

transactions to determine whether Purdue followed Federal, NSF, and University requirements on charging labor costs to NSF projects.

We determined whether Purdue officials certified effort reports in a timely manner by comparing the date the effort reporting period ended to the date the reports were certified. Timeliness was based on Purdue's established internal policy requiring that effort reports must be returned to the Costing Office within 30 days of the completion of the report period.

Finally, we reviewed prior audit reports on Purdue's Federal grants management program performed by OMB Circular A-133 auditors and the University's internal auditors to determine whether there were any audit findings and recommendations on labor effort reporting. Specifically, we interviewed cognizant Internal Audit staff and reviewed the working papers, as needed, to gain an understanding of the scope and procedures used in any audits of Purdue's payroll distribution reporting system and/or University management of labor costs charged to Federal projects. We met with Purdue's A-133 auditors to discuss their overall audit scope and procedures used for reviewing salaries and wages charged to Federal awards and their review of the overall labor effort reporting system. Accordingly, we reviewed the most current A-133 audit working papers available during our site visit to ascertain the actual audit scope and procedures used by the auditors in order to (i) preclude any duplicative audit work and (ii) to determine the specific work performed on the labor effort reporting system.

Our onsite audit work at the Purdue campus was performed during two 2-week periods in April-May 2008 and in October 2008. The remainder of the audit work was completed through phone interviews, emails, and documentation requests through April 2009. We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

---

## FINDINGS AND RECOMMENDATIONS

---

### **1. Internal Controls over Purdue University’s Labor Effort Charging Can be Strengthened**

#### Federal and University Requirements for Labor Effort Reporting

OMB Circular A-21, *Cost Principles for Educational Institutions*, section J.38, states that proposal preparation effort should be treated as F&A (indirect) costs if that is the established practice of the institution. In addition, sections C.2, C.4 and D.2 of Appendix A of the Circular require that for a cost, such as teaching, to be an allowable direct cost to a sponsored agreement, it must benefit the sponsored agreement and be specifically identifiable to the sponsored work. Purdue’s policies follow the Circular and similarly state that these costs should not be charged as direct costs to federally sponsored projects (grants).

The Circular also requires universities to provide for independent internal evaluations to ensure the effort reporting system’s effectiveness and compliance with Federal standards. As such, “the recipient institution is responsible for ensuring that costs charged to a sponsored agreement are allowable, allocable, and reasonable under these cost principles” and “must provide for adequate documentation to support costs charged to sponsored agreements.”

Consistent with the Circular A-21 requirement for sound business management practices, 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 assure compliance with Federal laws, regulations, and program compliance.

However, the audit disclosed that incorrect charges were made to NSF grants for proposal writing and graduate teaching time and effort. The sample of 30 employees disclosed 5 instances of mischarges that resulted in \$12,630 of questioned costs for salaries and overhead costs charged to NSF grants. The risk of these control weaknesses extending to the remaining \$15 million in labor charges to NSF awards, as well as the labor portion of the other \$159 million of Federal awards is likely.

#### Salary Charges to NSF for Proposal Writing and Teaching Activities

Our audit disclosed instances of PIs charging proposal writing and graduate students charging teaching activities as direct costs to NSF grants contrary to OMB Circular A-21 and Purdue’s own policies. Specifically,

- Three of nine PIs in our sample incorrectly charged their proposal writing activities as direct costs to NSF grants. As noted, proposal preparation is generally considered an indirect cost activity and not allowed to be charged

directly to NSF under both OMB and Purdue policies. As a result, NSF was incorrectly charged \$5,279 in salary costs and \$2,672 in related overhead costs. When we brought these charges to Purdue's attention, they reversed \$4,058 in salary costs and \$2,061 in related overhead. The remainder of the questioned costs (\$1,221 in salary and \$611 in overhead charges) could not be reversed because the award was closed.

- In addition, we found that teaching activities performed by two of the 12 graduate students in our sample were improperly included as a direct cost to NSF grants. These incorrect charges amounted to about 20 percent of the graduate students' effort during a four-month period. Teaching activities do not directly benefit the NSF and accordingly should be charged to non-sponsored university activities. As a result, NSF was overcharged \$3,073 in salaries and \$1,606 in related overhead costs. Purdue reversed the teaching charges from NSF's grants during the audit.

One reason for the mischarges appears to be inadequate training of PIs in regards to proposal writing and teaching activities. In fact, during the audit, we learned that PIs were not required to periodically attend effort reporting training, even though Purdue regularly conducted training on its effort reporting policies and procedures. One PI, with questioned charges, told us he had not attended effort reporting training. Thus, the individuals with first hand knowledge of the labor effort expended on the grants likely have not received the training necessary to assure a reliable effort reports. Purdue stated that business office staff received training and they were expected to provide this training in one-on-one sessions with PIs and other individuals involved in effort reporting. However, they agreed there was no documentation to support whether all applicable personnel received this training.

In addition, mischarges may have gone undetected because Purdue did not have policies and procedures in place to provide oversight through a periodic independent internal evaluation of the effort reporting system. Purdue stated it had not conducted a comprehensive evaluation because University officials believed they met the A-21 requirement on the basis of a combination of their annual OMB Circular A-133 audit<sup>1</sup> and their Costing Office's role in monitoring the effort reporting certification process. However, we discussed the A-133 audit with the auditors and reviewed their working papers and found that the audit was not, nor was it intended to be, a comprehensive review of the effort reporting system. While the A-133 audit procedures covered some aspects of effort reporting, such as test for timeliness of effort reports and review of salaries and wages for reasonableness, the audit was not designed to detect proposal writing, teaching, or other unallowable activity that may have been charged as direct costs to Federal awards. Further, the Costing Office did not conduct comprehensive

---

<sup>1</sup> Under the Single Audit Act of 1984 (Public Law 98-502) as amended in 1996 (Public Law 104-156), non-Federal entities that expend \$500,000 or more a year in Federal awards are required to have an organization-wide audit that includes the non-Federal entity's financial statements and compliance with Federal award requirements. The OMB Circular A-133 established uniform requirements among Federal agencies for audits of States, Local Governments, and Non-Profit Organizations.

evaluations of effort reports. Moreover, because the Costing Office reports to the University Comptroller, we do not consider its role to be independent of the effort reporting management chain.

## **Recommendations**

We recommend that the NSF Director of the Division of Grants and Agreements and the Director of the Division of Institution and Award Support, coordinate with the cognizant audit agency, as needed, to implement the following recommendations:

1. Work with Purdue officials to ensure its existing labor effort training program addresses Federal and Purdue requirements, is kept up to date, and is taken by all officials involved in the effort reporting process on a periodic basis. Such training should include a thorough discussion of effort reporting certification responsibilities and requirements.

### Purdue Response to 1.

Purdue provides effort reporting training to its business office staff at the end of each reporting period with the expectation that the staff members provide guidance and assistance to PIs on their effort reporting requirements and responsibilities. The university finds this practice to be most effective training tool. Accordingly, the University will continue with the established practice, but will include additional steps for the business office staff to emphasize issues related to proposal writing and graduate student teaching efforts during their one-on-one sessions with PIs.

### Auditor's Comments

Purdue's proposed actions met the intent of the recommendation. However, we emphasize that any training should include a direct communication to PIs that proposal writing and graduate students teaching activities must not be charged as direct costs to NSF awards. Also, NSF should verify that the University has implemented the proposed changes before resolving the recommendation.

2. Establish a periodic independent evaluation of the effort reporting system to provide additional oversight over sponsored project charging practices. Such a requirement should identify the specific organization responsible for performing the evaluation and how often such an evaluation should be conducted.

### Purdue Response to 2.

The University's Internal Audit Department conducts regular reviews of the organization's policies and business practices to assure compliance with regulatory requirements. The annual work plan of the Internal Audit Department is prepared based on risk analysis. During the preparation of the annual work plans, the labor effort reporting system will be included in the risk analysis. In

addition, SPS has created a new staff position with duties which include monitoring of the effort reporting system for compliance.

Auditor's Comments to 2.

Purdue's proposed action met the intent of the recommendation. However, NSF should verify that the university has implemented the proposed changes before resolving the recommendation.

3. Resolve the \$1,831 balance of total questioned costs for overcharges resulting from three PIs writing proposals and charging this effort as a direct cost to NSF awards (\$1,221 in salary costs and \$611 in overhead costs).

Purdue Response

Purdue concurs with the questioned costs and is willing to refund the amount upon instructions from NSF.

Auditor's Comments

Purdue's action is fully responsive to the audit recommendation. During the audit resolution process, NSF should provide guidance on disposition of the matter to Purdue.

## **2. Additional Concerns for the New On-line System**

Purdue implemented Systems, Applications, and Products (SAP), a new online software system for financial and human resources purposes effective in February 2007 and July 2007 respectively. We reviewed SAP to ensure the certification processes established by the University in the old Legacy system would carry through to the new system. During this review we noted an area of concern that Purdue should be aware of and take actions to correct.

Written Policies for New Effort Reporting System

Even though we identified some timeliness issues, we consider Purdue's certification process to be one of the better we have audited to date. Although our audit disclosed that 10 of 103 Personnel Activity Reports (PARs) tested were not certified within the University's established timeframes, the majority of the late certifications occurred during the summer of 2006, and since that time Purdue improved. In fact, there was only one late PAR in the Summer 2007, and that was only one day late. The new SAP's capability enables Purdue to track which PARs have been returned and which ones are outstanding. In combination with the existing controls, this new capability should further strengthen Purdue's effort certification process. However, we noted during our fieldwork

visit that Purdue had not yet developed written policies and procedures to ensure that its new capability would be effectively used to improve timeliness of effort reports.

Without written policies and procedures there is increased risk of employees' incorrectly reporting their labor effort and effort reports may be less reliable in supporting salary charges to NSF awards.

## **Recommendation**

We recommend that the NSF Director of the Division of Grants and Agreements and the Director of the Division of Institution and Award Support coordinate with the cognizant audit agency, as needed, to implement the following recommendation:

1. Work with Purdue officials to develop written policies and procedures for the continued timely completion of PARs and changes resulting for its new reporting process.

### Purdue Response

An effort reporting policies and related procedures have been prepared and is pending approval by Purdue management.

### Auditor's Comments

Purdue's action is responsive to the audit recommendation. During the audit resolution process, the University should provide a copy of the new policy to NSF.



## Sponsored Program Services

July 22, 2009

**BY FACSIMILE TRANSMISSION**

Mr. Michael R. Kuklok  
Senior Audit Manager  
National Science Foundation  
4201 Wilson Boulevard  
Arlington, Virginia 22230

Dear Mr. Kuklok,

The draft audit report reflects a labor effort system at Purdue University that is working well. Our new effort reporting system was reviewed and reported to include enhancements which improved the timeliness of effort certifications. Our faculty demonstrated during the interviews that they were knowledgeable of their responsibilities in certifying effort, evidenced by an error rate of less than ½ of 1% of the effort reports audited (5 of 103 effort reports contained errors). This further reflects that our methods of informing them of their responsibilities in effort reporting are effective. Additional evidence that the system is working well was the minimal amount of salary disallowances discovered during the audit. Those disallowances represented less than 1% of the sample reviewed and were determined to not be material for the sample.

We wish to thank the NSF Office of Inspector General for the manner in which this audit was conducted. David, Kwame and everyone we interacted with were very professional in their conduct and style in dealing with audit matters. We recognize that there is always room for improvement and appreciate the recommendations to enhance our effort reporting system. Following are responses to each of those recommendations.

**1. Internal Controls over Purdue University's Labor Effort Charging Can be Strengthened:**

**We recommend that the NSF Director of the Division of Grants and Agreements and the Director of the Division of Institutional and Award Support, coordinate with the cognizant audit agency, as needed, to implement the following recommendations:**

***Recommendation 1.***

*Work with Purdue officials to ensure its existing labor effort training program addresses Federal and Purdue requirements, is kept up to date, and is taken by all officials involved in the effort reporting process on a periodic basis. Such training should include a thorough discussion of effort reporting certifications responsibilities and requirements.*

### **Purdue Response**

The University has utilized the business offices to review with faculty their effort reporting responsibilities. Business office staff attend training at the end of each semester in order to obtain their department's effort reports. Included in that training is the expectation a business office staff member discuss with each PI the effort reporting process and requirements. We have found this approach of timely training most effective for the faculty. These discussions occur both in person and through various communications media and offer a dialogue regarding effort reporting requirements rather than a formal training experience. The University will take additional steps with principal investigators to address particular points of emphasis regarding proposal writing and teaching effort of graduate students to further enhance the current educational processes.

### ***Recommendation 2.***

*Establish a periodic independent evaluation of the effort reporting system to provide additional oversight over sponsored project charging practices. Such a requirement should identify the specific organization responsible for performing the evaluation and how often the evaluation should be conducted.*

### **Purdue Response**

OMB Circular A-21 states that "The system will provide for independent internal evaluations to ensure the system's effectiveness and compliance with the above standards". The annual testing completed as part of the A-133 audit includes a review of the effort reporting system. The A-133 audit does provide external auditors the opportunity to independently review our effort reporting policies and procedures if they so choose. Purdue University's Department of Internal Audit provides regular reviews of the organizations policies and business procedures to assure compliance with federal, state, and institutional requirements. An annual work plan is prepared based on a risk analysis. A review of the labor effort system will be considered in that risk analysis in the future. In addition, Sponsored Program Services has created a new position to monitor certain compliance requirements. Regular spot checks of the effort reporting system is included in the responsibilities for that position.

### ***Recommendation 3.***

*Resolve the \$1,831 balance of total question costs for overcharges resulting from three PIS writing proposals and charging this effort as a direct cost to NSF awards (\$1,221 in salary costs and \$611 in overhead costs).*

### **Purdue Response**

The University is prepared to refund these questioned costs, but will wait for instructions from the Division of Grants and Agreements since the project involved is financially closed in the NSF system.

**2. Additional Concerns for the New On-Line System**

**We recommend that the NSF Director of the Division of Grants and Agreements and the Director of the Division of Institutional and Award Support, coordinate with the cognizant audit agency, as needed, to implement the following recommendation:**

***Recommendation 1.***

*Work with Purdue officials to develop written policies and procedures for the continued timely completion of PARs and changes resulting for its new reporting process.*

**Purdue Response**

An effort reporting policy and related procedures have been written and are being reviewed by Purdue management for final feedback and approval.

Sincerely,

  
Comptroller