

NATIONAL SCIENCE FOUNDATION
4201 Wilson Boulevard
ARLINGTON, VIRGINIA 22230



**OFFICE OF
INSPECTOR GENERAL**

MEMORANDUM

Date: March 17, 2010

To: Mary F. Santonastasso
Division Director, Division of Institution and Award Support
(BFA/DIAS)

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

From: Michael R. Kuklok /s/
Senior Audit Manager

Subject: NSF OIG Report Number 10-1-008
Audit of Effort Reporting System, University of Delaware

Attached is the final report prepared by WithumSmith+Brown, PC, an independent public accounting firm, on the audit of the payroll distribution and effort reporting system used by the University of Delaware (Delaware) to support salary and wages charged to NSF grants. The University's responses to the draft report have been summarized after the recommendations for each audit finding and our response have been provided to those comments. The full text of the University's responses is included as *Appendix B* to the audit report.

The audit disclosed that Delaware has an established Federal grants management program. However, our review of 30 sampled employees disclosed several internal control weaknesses that Delaware needs to correct to ensure proper implementation and oversight of its effort reporting system. Specifically, seven employees charged \$21,522 in salaries and [REDACTED] in related fringe benefits and overhead costs to NSF with no benefit to the NSF research grants, sampled employees demonstrated a lack of understanding of Delaware's effort certification process including their responsibilities, system weaknesses in the automated effort reporting did not allow for the capture of all necessary effort reporting data, and effort reports were certified after the University's mandated turnaround period of 60 days. These weaknesses occurred because Delaware did not place sufficient emphasis on the labor effort reporting process as part of its Federal grants management program. Had Delaware established an effective oversight program, it is likely that many of the weaknesses and causes would have been identified and mitigated. Specifically, Delaware did not (1) develop adequate effort reporting policies and

procedures, (2) require training for personnel involved in the effort reporting process, (3) fully coordinate system development and reprogramming efforts between system developers and grant management, or (4) establish an independent comprehensive evaluation to periodically review the effort reporting process prior to FY 2008.

We consider Delaware'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 Delaware 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 Mr. Jon D. Crowder of DHHS.

OIG Oversight of Audit

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

- Provided a detailed audit program for the agreed upon procedures review and ensured WithumSmith+Brown's approach and planning for the audit was appropriate;
- Evaluated the qualifications and independence of auditors;
- Monitored progress of the audit at key points by accompanying WithumSmith+Brown's auditors on-site at the grantee;
- Coordinated periodic meetings with WithumSmith+Brown's and OIG management to discuss audit progress, findings, and recommendations;
- Reviewed the audit report, prepared by WithumSmith+Brown's to ensure compliance with *Generally Accepted Government Auditing Standards* and the NSF Audit Program; and
- Coordinated issuance of the audit report.

WithumSmith+Brown, PC is responsible for the attached report on Delaware's payroll distribution and effort reporting system and the conclusions expressed in the audit report. The NSF OIG does not express an opinion on the audit report's conclusions.

We appreciate the cooperation that was extended to us during our review. If you have any questions, please call me at 703-292-4975 or Darrell Drake at 703-459-9175.

Enclosure

cc: Gilbert Tran, Technical Manager, Office of Management and Budget
Martha Rubenstein, Acting Chief Financial Officer and Director, BFA/OAD
Alexander Wynnyk, Branch Chief, BFA/DAIS
Charles Zeigler, Special Assistant, BFA/DIA

Audit of Effort Reporting System

**University of Delaware
Newark, Delaware**

**National Science Foundation
Office of Inspector General**

March 15, 2010

NSF OIG 10-1-008

Audit Performed by:
WithumSmith+Brown
A Professional Corporation
Certified Public Accountants and Consultants

8403 Colesville Road, Suite 340
Silver Spring, Maryland 20910 USA



WithumSmith+Brown
A Professional Corporation
Certified Public Accountants and Consultants

8403 Colesville Road, Suite 340
Silver Spring, Maryland 20910 USA
301.585.7990. fax 301.585.7975
www.withum.com

Additional Offices in New Jersey
New York and Pennsylvania

Mr. Jim Noeth
Acting Associate Inspector General for Audit
Office of Inspector General
National Science Foundation
4201 Wilson Boulevard
Arlington, VA 22230

Dear Mr. Noeth,

WithumSmith+Brown is pleased to submit the performance audit report of the Effort Reporting System at the University of Delaware (Delaware). This audit report is one of a series of Office of Inspector General (OIG) reviews of the labor distribution systems being conducted at the National Science Foundation's (NSF) top funded universities. The audit was performed in accordance with Government Auditing Standards (GAS).

Our audit objectives were to: (a) evaluate whether Delaware's internal control were 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.

We appreciate the opportunity to assist the OIG by providing the audit of Delaware's effort reporting system.

A handwritten signature in blue ink that reads "WithumSmith+Brown, PC". The signature is written in a cursive, flowing style.

March 15, 2010

Executive Summary

This audit report provides the results of our review of the effort reporting system used by the University of Delaware (Delaware) to support salaries and wages charged to the National Science Foundation (NSF) awards. In fiscal year 2008, Delaware's direct Federal grant expenditures totaled \$115 million, of which \$24 million, or 21 percent, were for NSF awards. Of the total NSF expenditures, \$7.3 million was for salaries and wages. 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 Delaware has an established Federal grants management program. However, the audit disclosed several internal control weaknesses that Delaware needs to correct to ensure proper implementation and oversight of its effort reporting system. Our review of 30 sampled employees, with total FY 2008 NSF salary charges of \$696,648, found that the effort reporting system did not ensure salaries and wages charged to NSF awards reasonably reflected actual work performed on the sponsored projects. The audit disclosed weaknesses that lead to deficiencies in our sampled population of employees and associated effort reports and supporting documentation. Furthermore, using prior effort audit reports on the NSF Inspector General website as a guide, Delaware's Internal Audit department performed the first review of the payroll distribution and effort reporting system and issued a report in January 2009 that identified additional and similar weaknesses. These reviews identify a wide range of systemic weaknesses in the effort reporting process and Delaware's grant program.

Specifically, based on our interviews of the 30 sampled employees and review of related documentation, our audit disclosed:

- Seven employees charged \$21,522 in salaries and ██████████ in the related fringe benefits and overhead costs to NSF with no benefit to the NSF research grants. For example, five employees inappropriately charged administrative time to NSF grants; one employee's excess salary payment could not be supported; and one employee's time charged to a grant was higher than could be supported;
- Six employees demonstrated a lack of understanding of Delaware's effort certification process, including their responsibilities. For example, three employees initially were unable to clearly support the effort charged to NSF and three faculty members did not clearly understand the difference between estimated workload and actual effort;
- System weaknesses in the automated effort reporting systems did not allow for the capture of all necessary effort reporting data. Thus, six effort reports were certified even though they were incorrect, two reported effort in excess of 100 percent and contained negative effort. Further, the system did not accurately allocate six of nine faculties salaries to NSF grants; and,

- Twenty-one of 74 effort reports were certified after the University mandated turnaround period. The late certifications ranged from one day to over 600 days.

Additionally, Delaware's internal review identified the following; (1) certifications not timely, (2) accountability for transaction processing and segregation of duties compromised, (3) no policy defining what constitutes "suitable means of verification", (4) committed labor effort was not consistently input into the system, (5) no guidance on salary precision in Delaware policies for effort reporting, (6) eight instances of PI summer salaries exceeding the NSF two-ninths limit, (7) lack of output reconciliation, and (8) University policies needed to be reviewed and updated, including addition of definitions and example computations that explain key terms of the University's effort certification system and regulatory requirements for effort certification.

These weaknesses occurred because the University did not place sufficient emphasis on the labor effort reporting process as part of its Federal grants management program. Although a number of factors contributed to the exceptions noted in the sample, the most striking was the need for improved programmatic oversight in both daily operations as well as periodic independent reviews of the system. Had Delaware established a more effective oversight program, it is likely that many of the weaknesses and causes identified in this audit and Delaware's first internal review would have been identified and mitigated. Further, the University had not (1) developed adequate effort reporting policies and procedures, (2) required training for personnel involved in the effort reporting process, (3) fully coordinated system development and reprogramming efforts between system developers and grant management, or (4) established an independent comprehensive evaluation to periodically review the effort reporting process.

As a result, NSF has less assurance that Delaware labor effort reports are reliable in reasonably supporting salaries and wages charged to sponsored projects. The significant nature of these control weaknesses raises concerns about the reasonableness and reliability of the remaining \$6.6 million in FY 2008 labor charges to NSF grants and the \$33.3 million salary portion of Delaware's other \$115 million of Federal award expenditures. Further, these weaknesses resulted in Delaware overcharging NSF \$34,299 for labor effort and the associated overhead costs that did not directly benefit NSF grants.

Delaware did take actions to improve the effort reporting process prior to our audit, through its first internal evaluation of the system as well as corrective actions taken in response to the issues brought forth in this audit. While commendable, more work is needed to establish an effective grant management program. Specifically, our recommendations were primarily directed toward enhancing the University's labor effort reporting system by (i) updating and revising policies to fully comply with Federal regulations, (ii) providing employee training to ensure cognizant department and academic staff fully understand their effort reporting responsibilities so that established procedures are accurately and consistently implemented, and (iii) providing adequate oversight of the effort reporting process. Finally, we recommended that Delaware resolve the \$34,299 in questioned costs.

A draft report requesting comments on the audit findings and recommendations was issued to Delaware. The University generally concurred with the recommendations with the exception of findings related to three of the sample items. In addition, Delaware is committed to compliance and looks for ways of improving the systems currently in place to better serve the campus.

Delaware's responses, once fully implemented, should address the audit recommendations. NSF should work with the cognizant audit agency and/or Delaware to ensure the University develops an acceptable corrective action plan to resolve each audit recommendation. We summarized Delaware's responses and provided our comments after each recommendation in the report. The University's complete response to the draft report is included as Appendix B.

University of Delaware

Table of Contents

EXECUTIVE SUMMARY i

INTRODUCTION

Background1

Objectives, Scope, and Methodology2

FINDINGS AND RECOMMENDATIONS

1. Internal Controls Over the Effort Reporting System Needs Improvement.....5

APPENDICES

Appendix A - Schedule of FY2008 Questioned Costs19

Appendix B - Delaware’s Response to Draft Audit Report.....20

ACRONYMS

Delaware	University of Delaware
HR	Human Resources
IBS	Institutional Base Salary
JV	Journal Voucher
LAM	Labor Allocation Module
NSF	National Science Foundation
OIG	Office of Inspector General
OMB	Office of Management and Budget
PI	Principal Investigator
S-Contract	Supplemental Pay Contract
UPL	Upload Transaction

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) has undertaken 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 the University of Delaware, is one of the planned reviews of such labor effort distribution systems.

The University of Delaware (Delaware) "exists to cultivate learning, develop knowledge, and foster the free exchange of ideas. State-assisted yet privately governed, the University has a strong tradition of distinguished scholarship, research, teaching, and service that is grounded in a commitment to increasing and disseminating scientific, humanistic, and social knowledge for the benefit of the larger society. Founded in 1743 and chartered by the state in 1833, the University of Delaware today is a land-grant, sea-grant, space-grant, and urban-grant university."

The University is located in Newark, Delaware and is a federation of colleges, schools, departments and research institutes. In fiscal year 2008, Delaware had approximately 1,100 faculty members, 2,600 executive, administrative and support staff, 16,000 undergraduates, and 3,500 graduate and professional students. Generally, Delaware faculty members are awarded nine-month academic year appointments, and thus dedicate a majority of their effort to federally sponsored research projects in the summer.

In fiscal year 2008, Delaware's direct Federal grant expenditures totaled \$115 million, of which \$24 million was for NSF awards. Of the total NSF expenditures, \$7.3 million, or 31 percent, was for salaries and wages.

The University's Research Office is responsible for the management and oversight of Federal grant programs. Primarily, the Research Office is tasked with both pre-award and post-award grant activities, including ensuring Delaware's compliance with Federal grant regulations and sponsoring agency requirements. As such, the Research Office develops Delaware policies and procedures for Federal grants management and is charged with implementing appropriate training programs and is responsible for financial administration and monitoring of active Federal awards. Additionally, the Research Office is responsible for compiling and disseminating effort reports to all academic departments to provide for the certification of actual work effort devoted to federally-sponsored projects. The Research Office also maintains the official

electronic file of effort reports.

Within each academic department, senior grant and contract administrative officials are tasked with the management and oversight of sponsored projects to ensure compliance with Federal and university policies and procedures. Such officials typically assist and advise faculty members with the management of Federal grants. They are responsible for ensuring that: awards and their budgets are created accurately in the University's financial system; award expenditures are monitored on a monthly basis; charges to Federal awards are appropriate; and responsible individuals confirm the reasonableness of employee labor effort on the effort reports. Principal Investigators (PI) have the primary responsibility for all aspects of the federally-sponsored projects including approval of all charges and for ensuring that the research is conducted in accordance with the award terms and conditions.

OBJECTIVES, SCOPE AND METHODOLOGY

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

Scope and Methodology. The audit focused on Delaware's payroll distribution and effort reporting system and, accordingly, we reviewed internal controls for ensuring that labor costs charged to NSF were (i) actually incurred; (ii) benefited NSF awards; (iii) were accurately and timely recorded; and (iv) were for allowable and allocable-type activities, as required by Federal and NSF grant requirements. In addition, we evaluated whether 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 these control objectives, NSF-OIG engaged a statistician to provide assistance in selecting a statistical sample of employee salary records for testing. The use of statistical tools and methodology is to enable the NSF-OIG to project the audit results to the entire population of universities included in its planned reviews of payroll distribution and effort reporting 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 Delaware population of labor costs charged to NSF grants. Specifically, the FY 2008 salaries and wages costs for the 30 sample employees tested amounted to \$696,648 and were supported by 74 effort reports. The statistical sample was derived from a total population of 596 employees, who charged \$6.9 million of salaries and wages to NSF grants during FY 2008. 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 Delaware’s policies and procedures to Federal and NSF requirements for allocating labor costs to Federal awards and interviewed Delaware personnel to gain an understanding of the controls in place to ensure salaries and wages charged to NSF awards were reasonable and allowable. For the 30 statistically selected employees, we obtained the following documentation to determine whether labor costs Delaware charged NSF awards met the control objectives:

- Effort Reports documenting 100 percent of each employee’s work activities were allocated to sponsored and non-sponsored projects for each reporting period.
- Appointment letters or other documents support the approved annual base salary for employees.
- Human Resource Management System reports detail the actual salaries and wages charged to sponsored projects and other activities for each employee during each reporting period.
- Award documents determine whether the 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. We also interviewed selected administrative grants managers in academic departments to determine the 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 work performance prior to approving and certifying 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 2008 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 Delaware 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 Human Resources System 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 Delaware followed Federal, NSF, and University requirements on charging labor costs to NSF projects.

We determined whether Delaware officials certified effort reports in a timely manner, by comparing the date the effort report was distributed to the academic departments to the date the reports were certified. Timeliness was based on Delaware's internal policy requiring effort reports to be certified within 60 days from the release of views to the Effort Administrators. As required by Delaware's policy, we determined whether the effort reports were properly certified by the employee, the project PI, or a responsible official with "suitable means of verification" that labor effort shown on effort reports was a reasonable representation of the work performed.

Finally, we reviewed prior audit reports on Delaware's Federal grants management program performed by the University's internal auditors and the OMB Circular A-133 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 Delaware's payroll distribution reporting system and/or University management of labor costs charged to Federal projects. We also met with Delaware's independent auditors who performed the OMB Circular A-133 audit¹ to discuss their overall audit scope and procedures used for reviewing salaries and wages charged to Federal awards and their review of the labor effort reporting system. We reviewed the most current A-133 audit working papers available during our site visit to ascertain the actual audit scope and procedures used in order to (i) preclude any duplicative audit work and (ii) determine the specific audit procedures performed on the labor effort reporting system.

Onsite review work at Delaware was performed for 2-week periods during February and May 2009. The remainder of the audit work was completed through phone interviews, emails, and documentation requests through the beginning of September 2009. We were engaged to perform the above audit objectives by the NSF-OIG. 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.

¹ OMB Circular A-133 is entitled *Audits of States, Local Governments, and Non-Profit Organizations*.

FINDINGS AND RECOMMENDATIONS

1. Internal Controls Over the Effort Reporting System Need Improvement

Federal Requirements for Labor Effort Reporting

OMB Circular A-21, *Cost Principles for Educational Institutions*, requires certification of labor effort contributed by employees on Federal awards to reasonably reflect the actual labor effort contributed by the employee to meet the objectives of the award. The effort reporting system must provide for an after-the-fact confirmation of employee activity by the employee conducting the work being reported or by an official that is in a position to know whether the work was performed. Although Federal requirements do not specify when a labor effort report should be completed, university officials should provide the after-the-fact confirmation as close to the end of the reporting period as possible to help ensure its reliability. Delaware required effort reports to be certified and returned within 60 days after the release of views from the Research Office. 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.”²

Consistent with the OMB 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 Organization*, 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.

Delaware’s Effort Reporting System

University Policy No. 6-5, *Effort Certification Reporting*, updated January 2009, specified Delaware’s approach for compliance with OMB Circular A-21 by defining the University’s policies and procedures regarding the planning, monitoring, and certification of the Effort Report by applicable office and academic unit.

Pursuant to the OMB requirements, Delaware implemented an effort report system to document the after-the-fact certification of the reasonableness of employee’s salaries and wages charged directly to sponsored projects and other activities. The Research Office is responsible for electronically distributing the effort reports to each department biannually. The effort administrators within each department review the reports prior to notifying the employees that the effort reports are available through web views for certification. Delaware’s policies and procedures require the effort reports be certified within 60 days from the release of views.

² Paragraphs C.4.d.(1) and A.2.e., respectively, of OMB Circular A-21, *Cost Principles for Educational Institutions*.

However, the audit disclosed that Delaware did not establish adequate internal controls over the effort reporting system. Specifically, we found that (1) salaries and wages charged to the NSF did not always benefit grants (or were correctly charged to NSF grants), (2) employees were not sufficiently educated on the salary distribution and effort reporting processes, (3) system weaknesses were not identified and corrected in a timely manner, and (4) effort reports were not certified within the established turnaround period. The sample was small in proportion to the population (30 of 721 employees) representing only \$696,648 of \$7,327,803 in salaries and wages charged to NSF during FY08; therefore, we are not able to make any projections to the total Delaware population of labor costs charged to NSF grants. The statistical sample of 30 employees' time charged to NSF was supported by 74 effort reports.

Salary Charges Not Directly Benefiting NSF Grants

The audit disclosed that Delaware charged NSF grants for activities that did not directly benefit the projects to which they were applied. Specifically, the following mischarges were identified: (1) five employees inappropriately charged administrative time; (2) one employee's excess salary payment could not be appropriately supported; and (3) one employee's time charged was higher than could be supported by the interview. These seven employees charged \$21,522 in salaries tested and ██████ in the related fringe benefits and overhead (overhead) costs to NSF with no benefit to NSF.

Administrative Time Charged Directly to Sponsored Projects. OMB Circular A-21 and university policy clearly established that only employee activities directly benefiting federally-sponsored projects are allowed to be charged to such sponsored projects. However, five employees charged \$8,067 of the salaries tested and \$4,570 in the related fringe benefits and overhead (overhead) costs to NSF, even though there was no direct benefit to the NSF grants. For example, two graduate students and two professionals stated that they spent approximately ten percent of their time assisting in preparing grant proposals. Proposal preparation costs generally cannot be charged directly to a grant. Another professional charged approximately five percent of her time serving on a university hiring committee that did not directly benefit the grant charged. Costs for administrative activities should have been included as part of the indirect cost rate. See Appendix A for further details on questioned costs.

Excess Salary Payment Improperly Allocated to a Sponsored Project. OMB Circular A-21 mandates that universities "must provide for adequate documentation to support costs charged to sponsored agreements."³ However, Delaware did not adequately document why the excess salary was paid to a full-time researcher. The payment documentation simply stated that the full-time researcher performed additional research, but Delaware was unable to provide an explanation as to the number of hours or how the excess salary amount for the research was determined. As a result, Delaware mischarged NSF \$3,520 in salary and ██████ for the associated fringe benefits and overhead for the excess salary payment. See Appendix A for further details on questioned costs.

³ Paragraph A.2.e of OMB Circular A-21, *Cost Principles for Educational Institutions*.

NSF Charged For Work Not Performed on Grant. An interview of one professional did not support the allocation of salary charged to an NSF grant. The employee stated more time was spent on educational duties and less on research than was reflected on the effort reports. The employee did not understand how items were classified on the Delaware effort report and, in fact, could not describe the effort report. In addition, Delaware was unable to provide additional documentation to support these charges to NSF. This resulted in an overcharge to NSF of \$9,935 in salary and ██████ in related fringe benefits and overhead. See Appendix A for further details on questioned costs.

Lack of Understanding of the Effort Certification Process

Our interviews clearly noted a lack of understanding by employees of Delaware's effort certification process, including their responsibilities. Specifically, the interviews of three employees initially were unable to clearly support the effort charged to NSF, and three faculty members did not clearly understand the difference between workload and effort. Salary charges for these six employees represented \$67,713 of the total salary tested.

Certification Without Understanding. In addition to the interview that identified a misallocation of effort resulting in questioned costs above, interviews of three additional employees disclosed they could not clearly validate the reasonableness of the salaries charged to the NSF grants. In one instance, an employee stated he worked for a major research center as a system administrator and did not realize that he actually was working on a NSF grant. In another instance, an employee stated that he was familiar with the NSF grant, but believed that he did not work on the NSF grant during FY 2008. Finally, one employee stated in the interview that half of the time charged to NSF was for work on research for another Federal agency. While subsequent documentation provided by Delaware supported work performed by these employees on NSF grants, these employees certified effort without a complete understanding of the NSF projects assigned to them or their roles and responsibilities for the projects from which their salaries were paid.

Matching Workload and Effort. Three of the nine faculty members interviewed mistakenly believed that it was always correct for the effort report to match workload estimates. Workload is the original labor estimate proposed in the grant proposal submitted to NSF for approval, whereas the labor effort report is supposed to approximate actual labor effort expended on the grant. For example, one faculty member was not even aware of the effort report, but rather that workload was discussed annually with the department chair. Another faculty member reviewed assigned workload for reporting prior to certifying effort. Further, one faculty member paid particular attention to workload numbers believing they would be reported to the department chair at the end of the year and could negatively impact his merit pay.

System Weaknesses Not Detected

In March 2005 Delaware developed and implemented an online web-based application for employees to certify effort. The application provides two different views. The narrative view for the employees rolls up by project and purpose and includes long title descriptions of the rolled up items. The administrative view rolls up by project, purpose and class and includes the salary information. The system has been updated multiple times since implementation with the most recent update completed July 30, 2009.

The audit identified several system weaknesses that resulted in a number of reporting errors on certified effort reports. Specifically, the system did not capture non-sponsored journal voucher entries allowing effort reports to be certified even though labor effort either exceeded 100 percent or resulted in negative effort being reported. In addition, the system did not capture transactions that impacted labor effort reporting and were processed by Delaware's General Accounting Office or supplemental summer payments. The audit disclosed that 6 of the 74 certified effort reports sampled (eight percent) contained errors resulting from these system weaknesses. Finally, the system was not programmed to adjust for 9-month salary levels being paid over 12-months. The audit identified another six effort reports containing adjustment errors. These six effort reports with errors represented \$14,435 of total salaries tested. See below for additional detail.

Effort Reports were Certified Containing Errors. The web-based effort system did not capture a journal voucher (JV) transaction on a non-sponsored account. Thus, a \$5,000 credit to one project code was not captured although the debit to another project code was. This error caused the effort for the period to total 119 percent. Additionally, a processed JV mistakenly credited the wrong project. This error caused a negative value to be reflected on the effort report. Delaware corrected these mistakes upon notification and revised effort reports were subsequently provided for audit. However, the overall weakness will continue unless checks in the system are designed to ensure effort does not total greater than 100 percent or include negative percentages.

In addition, the system was not programmed to include upload transactions (UPL) that impact labor effort reporting. UPL transactions are journal entries processed by General Accounting. The audit identified a \$1,217 transaction that was not processed to an effort report. Delaware recently discovered that the effort reporting system should have (but had not) been programmed to include UPL transactions. The deployment of the revised programming has not been completed to date; however once completed, the affected effort report will be reprocessed and certified.

Further, some S-contracts for summer research pay were not captured in the effort reporting process. For example a \$13,218 summer payment process via an S-contract was not processed and included as part of the PI's overall labor effort. S-contracts were the only mechanism to process faculty summer research payments. According to Delaware officials, when payments are made outside of the effort period in which they

were earned, the corresponding effort report must be recreated to capture the new data. Delaware responded in the fall of 2008 by having Human Resources run monthly reports to discover summer research pay which was processed outside of the summer months. These reports are forwarded to the effort administrators as a reminder of which people may require updated effort reports. However, this is a labor intensive process that has not been formalized through policy and procedure. As noted, this process is subject to a greater risk of error than if Delaware could correct the system programming to include this type of transaction to update the effort reports.

Finally, the payroll distribution system was not programmed to make the appropriate adjustments for 9-month salaries paid over 12-months. The audit identified six employee's effort reports containing incorrect percentages of effort. The percentages of certified effort were understated by 3 percent to 11 percent. At Delaware, the reporting and confirmation of time spent conducting any university activity is expressed as a percentage of the total salary paid during that timeframe. That salary is paid out evenly over 12 months based on the percentages recorded in the Labor Allocation Module (LAM). Because the faculty member's annual salary, as it relates to the institutional based salary (IBS), is paid over the entire year, and compensation for summer research is not part of the annual salary, the percentages reported on the March – August effort reports are improperly skewed when the faculty member performs research during the summer. Further complicating the issue, Delaware established 2 six-month effort reporting periods (September–February and March–August) that do not coincide with the academic semesters⁴. The percentage certified could be confusing to a faculty member. Unless the faculty member understands the process for calculating the effort when they work during the summer semester, they would not realize that the percentage recorded does not represent the actual *percentage* of effort. These six employees represent \$92,651 of the total salary tested.

Effort Reports Did Not Meet the University's 60-Day Turnaround Period

Finally, effort reports were not certified within Delaware's established policy. Our audit disclosed that 21 of 74 effort reports, representing \$192,795 (28 percent) of the total NSF labor charges reviewed, were certified after the University's mandated 60-day turnaround period. The number of days late ranged from 1 to 611 days beyond the University's 60-day turnaround period. The following table summarizes the number of days beyond the Delaware certification period that employees took to review and approve their effort reports.

⁴ Fall semester is September thru December, Spring semester is February thru May and Summer semester is June thru August

NUMBER OF DAYS LATE BEYOND CERTIFICATION PERIOD				
Days Late	# of Late Effort Reports	% of Late Effort Reports	Total Salaries	% of Late Salaries
1 to 50	15	20 %	\$ 157,079	23 %
51 to 100	1	1 %	10,000	1 %
101 to 611	5	7 %	25,716	4 %
Not Certified Timely	21	28 %	192,795	28 %
Effort Reports Certified On-Time	53	72 %	503,853	72 %
Total	74	100%	\$ 696,648	100%

Typically, employees do not establish and keep records of their labor effort on grants and other activities and Federal cost principles do not require this record keeping. Under the current Delaware reporting system, employees may have to remember up to 8 months⁵ of activity to confirm effort reports. Therefore, the longer it takes to certify effort reports, the less reliable effort reports may become because employees generally rely on their memory when approving effort for themselves and the individuals that work for them. Thus, providing an after-the-fact confirmation as close to the end of the effort reporting period as possible helps to ensure the reliability of the effort reporting system.

Factors Contributing to Effort Reporting Weaknesses

These weaknesses occurred because the University did not place sufficient emphasis on the labor effort reporting process as part of its Federal grants management program. Although a number of factors contributed to the exceptions noted in the sample, the most striking was the need for improved programmatic oversight in both daily operations as well as periodic independent reviews of the system. Had Delaware established a more effective oversight program, it is likely that many of the weaknesses and causes identified in this audit and Delaware's first internal review would have been identified and mitigated. Further, the University had not (1) developed adequate effort reporting policies and procedures, (2) required training for personnel involved in the effort reporting process, (3) fully coordinated system development and reprogramming efforts between system developers and grant management, or (4) established an independent comprehensive evaluation to periodically review the effort reporting process (Prior to FY08).

Lack of Monitoring and Oversight. The Research Office did not provide sufficient programmatic oversight needed to ensure the effort reporting process conformed to Federal requirements or whether established controls were consistently complied with. At the onset of the audit, Delaware added a full-time staff member devoted to effort reporting to include the management of timeliness and accuracy. Although this will help improve oversight, improvement of the areas below and continued emphasis on this process will be needed for the effort reports to be reliable.

⁵ The amount of time employees have to recall work activity can be 8 months or more since the effort reporting period covers six months, distribution of the effort has not been defined and the certification turnaround period is 60 days from the release of views.

Lack of Adequate Effort Reporting Policies. Delaware's effort reporting policies and procedures were inadequate in the following areas: (1) identifying employee's work activities that may be charged directly to federally-sponsored projects from those work activities that should not be charged directly to sponsored projects, (2) defining an effort report release period, and (3) identifying senior management officials that would be held accountable for the timely certifications of effort reports.

- ***Identifying Work Activities.*** Delaware policies did not define the specific work activities by employee type that are included in the annual base salaries and whether those activities could be charged directly to federally sponsored projects. This likely contributed to the incorrect charging of administrative time, preparing grant proposals and working on committees directly to NSF sponsored projects. Delaware stated that it is their understanding that one of NSF's goals in funding graduate students on research is to provide them an educational experience and grant writing is part of that experience. However, directly charging time spent on proposal writing is only allowable when explicitly stated in the grant.
- ***Defining Report Release Period.*** Although the University had a policy requiring academic departments to certify and return effort reports within 60 days of the release of views, they did not specify the number of days from the end of the effort reporting period that effort reports should be released to the academic departments. Of the effort reports included in our sample, 93 percent were released within 17 days from the end of the effort period, but the amount of time from the end of the effort reporting period to certify effort reports may vary significantly between reporting periods because the University had not established an effort report release period. For example, one of the effort reports in our sample was not released until July of 2009 even though the report was for the reporting period ending August 31, 2007. However, under the policy in effect during FY08, that report would not be considered late even though it was certified 670 days after the end of the reporting period. As stated earlier, the longer it takes to certify effort reports the less reliable they may be because employees typically certify effort reports based on their memory. Therefore, to ensure effort reports are certified as close to the end of the reporting period as possible, it is critical to define a distribution period when effort reports should be released to the academic departments. The University has subsequently updated the policy (as of 7/09).
- ***Identifying Senior Officials Accountable.*** Delaware's policy did not designate senior management officials, such as department chairs, to be held accountable for the timely completion of effort reports. Such senior officials (i.e. department chairs), who have the responsibility for securing and retaining staff and faculty members and recommending tenure and promotions, would have more leverage than department grant

administrative staff or Research Office personnel in ensuring employees review and certify effort reports within the University's certification period.

To address a weakness identified by Delaware's internal auditors⁶, in January of 2009, Delaware implemented a new procedure to distribute escalating dunning letters every twenty days. Currently, reminders are sent to effort administrators twenty days prior to the sixty day completion deadline. When reports are one to twenty days late, the dunning letters are sent to the effort administrators, and their department chairs and assistant deans are copied on the notices. When reports are eighty-one or more days late, the dunning letters are sent to the effort administrators, and their department chairs, assistant deans and the deans are copied on the notices. Delaware stated the timeliness of completion has improved greatly since this implementation. Within 15 days after the first dunning letters were distributed, they had a 33 percent reduction of overdue reports. We agree that the new system should help shorten the certification process and should provide both department personnel and University staff with the capability to monitor effort reports for timely completion; however, it is essential that Delaware officials establish formal procedures to institutionalize the process.

Training. Delaware did not ensure its training program was effective and simply relied on employees to avail themselves of the training available. Delaware stated training was available on the Research Office website, and live training is presented periodically. Department effort administrators were expected to make themselves aware of the requirements and process and were also responsible for providing training and assistance to their employees. However, the interviews performed for this audit made it clear that most employees (twenty-eight of the thirty employees) had not received adequate training on effort reporting. Two employees did receive training, a grant administrator and a PI. The grant administrator stated informal training on the effort report system was received prior to the interview and a more formal training was provided subsequently. The PI stated that years ago he received informal training from one of the department's business people. As noted earlier in the report, we identified a number of weaknesses such as inappropriate administrative charges, improper charges applied to projects, and lack of understanding of workload and effort that can also be attributed to a lack of a focused training program.

In response, Delaware implemented a change to the automatic email notifications generated by the effort system. When employees receive email notice that there is an effort report requiring their attention, the email now contains a thorough explanation and instructions for the reporting requirements, as well as a link to the University's policy on effort reporting. Additionally, to improve training for effort administrators, the recently appointed effort manager now contacts newly appointed effort administrators to provide

⁶ See the information below addressing the independent evaluation of the effort report system conducted by the University of Delaware Internal Audit department.

them guidance in finding the training sources available on the web, and assesses their level of need for additional personal guidance and training based on how familiar they are with managing sponsored projects. Furthermore, the automatically generated email notifications which they receive every time a report comes into their possession also contains the same level of information and instruction which is sent to the employees, as well as a link to the on-line training geared towards effort administrators.

While we agree that these steps will help address the issue, we would add that it is essential that mandatory *periodic* training for all personnel involved in effort reporting be established. Periodic training would not only stress its commitment by University management of the importance of its effort reporting process, but serve to ensure that new staff is trained as well as keeping all staff involved with effort reporting apprised of any changes to the process.

System Development and Programming. The system errors occurred because the developers did not fully coordinate programming changes with grant management officials. Thus they were not aware of how potential transactions might affect account balances and the impacts of both the initial system development and subsequent reprogramming attempts. Furthermore, programming changes were not properly tested prior to implementation. A full understanding of the impact of system changes and testing may have identified and corrected system weaknesses years ago.

In addition, Delaware did not fully consider the repercussions of defining reporting periods that split the academic semesters. Delaware agrees the periods are an issue and stated they are investigating and taking into consideration alternate methods of dividing their effort periods. Delaware expects to implement changes once a suitable solution is formulated.

Independent Comprehensive Evaluations. Finally, OMB Circular A-21, *Cost Principles for Educational Institutions*, requires universities to conduct a periodic independent internal evaluation of its payroll distribution and effort reporting system to ensure the system meets Federal requirements and is effective. However, Delaware had not performed a comprehensive evaluation, or had a policy in place to do so, because they believed its annual A-133 audit met the OMB Circular A-21 requirement for an independent evaluation of its payroll distribution system. Although these audits cover some aspects of effort reporting, they were not designed to be comprehensive evaluations of the payroll distribution and effort reporting system. A review of the most current A-133 audit and the work performed on the effort reporting system confirmed this statement.

In 2008, Delaware's internal auditors developed an audit approach to complete an independent internal review of their payroll distribution and effort reporting system. The approach was developed by reviewing previous NSF Office of Inspector General labor effort reports posted on the internet. In January 2009 they completed the independent internal review of their payroll distribution and effort reporting system. The audit

identified a total of eight audit findings; (1) certifications not timely, (2) accountability for transaction processing and segregation of duties compromised, (3) no policy defining what constitutes “suitable means of verification”, (4) committed percentages not consistently input into the system, (5) no guidance on salary precision in Delaware policies for effort reporting, (6) eight instances of PI summer salaries exceeding the NSF two-ninths limit, (7) lack of output reconciliation, and (8) University policies needed to be reviewed and updated, including addition of definitions and example computations that explain key terms of the University’s effort certification system and regulatory requirements for effort certification.

The audit was very well thought out for their first comprehensive evaluation and when combined with our review shows the weaknesses Delaware must address. However, the internal auditors did not interview employees to corroborate the information on the effort reports. If the internal auditors had conducted interviews they likely would have identified employees incorrectly charging their administrative time spent on preparing grant proposals directly to sponsored projects and the lack of training. Furthermore, the internal auditors did not review grant documentation nor did they ensure that at least some faculty effort (paid or unpaid by the Federal Government) was committed to a sponsored project or that an estimated amount of faculty effort was computed by the University and included in the organized research base. Delaware intends to include the audit of their payroll distribution and effort reporting system in their three-year audit plan; however, until the issues noted elsewhere in this report have been resolved, Delaware may want to audit the system more frequently.

As a result of the issues noted above, Delaware can only provide limited assurance over the accuracy of effort reports tested. More significantly, those control weaknesses could affect the remaining \$6.6 million of FY 2008 labor charges to NSF grants, as well as the \$33.3 million salary portion of Delaware’s other \$115 million of FY 2008 Federal expenditures and any potential future funding. Further, these weaknesses resulted in \$34,299 of overcharges to NSF for salaries and the associated overhead costs based on our limited sample. Therefore, it is likely additional overcharges exist and will continue without changes to the internal control structure.

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:

- 1.1 Work with the Delaware officials to establish an internal control structure that utilizes the capabilities of its new automated effort reporting system to ensure a payroll distribution and effort reporting system that reasonably reflects the actual effort employees devote on sponsored projects. At a minimum, Delaware should take the following corrective actions:
 - a. Establish or revise University effort reporting policies and procedures to:

- i. Define the typical instructional, research and administrative work responsibilities included in the annual base salary for various types of Delaware employees and distinguish which of those activities that can be charged directly to Federal awards and cannot be charged directly to Federal awards.

Delaware's Response

Delaware revised its Policy 6-5, "Effort Certification Reporting," to further define the Institutional Base Salary in July 2009 prior to completion of this audit. In addition, Delaware will further revise Policy 6-5 to distinguish activities that cannot be charged directly to Federal awards.

Auditors' Comments

Delaware addressed our recommendation by further defining the Institutional Base Salary and should address fully our recommendation after revising Policy 6-5 to distinguish activities that cannot be charged directly to Federal awards.

- ii. Define a maximum number of days from the end of the effort reporting period to release effort reports to the academic departments.

Delaware's Response

Delaware updated its Policy 6-5 that currently requires the Research Office to produce and release effort reports within ten days after conclusion of the reporting period.

Auditors' Comments

Delaware's revision to Policy 6-5 fully addressed our recommendation, which should improve its timely completion of effort report certification.

- iii. Require the effort administrators to monitor effort reports to ensure they are completed within the University's established certification period.

Delaware's Response

Delaware revised its Policy 6-5 to better define and communicate the role of the effort administrator to facilitate the timely and accurate completion of department's effort reports. In addition, Delaware

implemented an automated dunning procedure for incomplete effort certifications at 20 days intervals, including dunning letters to the dean when the overdue effort certification reaches 80 days.

Auditors' Comments

Delaware's revision to Policy 6-5 clarified the role and responsibilities of an effort administrator. In addition, Delaware established an automated system of distributing dunning letters at 20 day intervals and inclusion of senior University officials for overdue effort certifications. These two actions addressed our audit recommendation and should improve the timely effort certifications.

- iv. Require periodic independent evaluations of the payroll distribution and effort reporting system to ensure the system is in compliance with Federal, NSF, and University standards and is working effectively. The policy should identify the specific office responsible for performing the evaluation and how often such an evaluation should be conducted and timely resolution of findings and recommendations.

Delaware's Response

Delaware's Internal Audit Department will confirm the implementation of the audit recommendations in FY 2011 and conduct the required independent evaluations of the Effort Reporting System once every three years thereafter, which will be formalized in the Research Office Policy.

Auditors' Comments

Once implemented, Delaware's actions should address our audit recommendation.

- b. Require periodic training for all employees involved in the effort reporting process. Such training should include a thorough discussion of effort report certification responsibilities, monitoring effort and administration, and requirements and the various types of employee work activities that can be charged directly to Federal awards from those work activities that should not be charged directly to Federal awards.

Delaware's Response

New position of Training Coordinator was established and filled by Delaware. In addition, University plans to expand its capacity for training including implementation of training approach for effort certification required for all employees certifying or viewing reports beginning with the March 2010

release of effort certifications. Future plans include mandatory training for all principal investigators and effort administrators to address their responsibilities, monitoring, administrations, and guidance on allowable and unallowable charges to Federal awards.

Auditors' Comments

Delaware's action of establishing and filling a new Trainer Coordinator position partly addressed our audit recommendation. Once plans for expansion in training are fully implemented, Delaware's actions should fully address our audit recommendation.

- c. Monitor the new procedures that assign Delaware senior management officials responsibility for identification and correction of errors in the web-based system in a timely manner, to ensure effective implementation.

Delaware's Response

The creation of the Effort System Manager position in February 2009 has expanded the oversight and ability to respond in a timely manner. Additionally, implementation of the dunning procedure described above significantly improved the timeliness of effort certification.

Auditors' Comments

Delaware addressed our audit recommendation by establishing the Effort System Manager and implementing the dunning procedure that includes senior University officials addressed.

- d. Require coordination between system development and grant management personnel for ongoing weaknesses as well as any future development.

Delaware's Response

Development of a system-wide team of functional and technical staff is underway with responsibilities including oversight of system to ensure relevant data in the system comply with applicable regulations and policies. This team should be in place by the end of fiscal year 2010.

Auditors' Comments

Once implemented, Delaware's actions should address our audit recommendation.

- e. Require *sufficient* system testing of the web-based development or reprogramming efforts prior to implementation.

Delaware's Response

Delaware believes the testing of this complex system had been extensive. The new Effort System Manager improved its response time in identifying and correcting system errors. Delaware expects that development of the system-wide team will conduct more comprehensive testing efforts and reduce data errors.

Auditors' Comments

Delaware's actions should address our audit recommendation.

- f. Revise the University effort reporting periods and/or help certifiers better understand the percentages being certified to ensure more accurate reporting.

Delaware's Response

Delaware prepared a plan to propose effort period changes to its cognizant agency (ONR) including creation of a separate reporting period for summer research activities.

Auditors' Comments

Once accepted by its cognizant agency and implemented, Delaware's actions should address our audit recommendation and reduce confusion over certifying effort for summer research activities.

- g. Resolve the \$34,299 in total questioned salary costs and the associated overhead costs (see Appendix A) resulting from improper charges for employee activity not directly benefiting NSF grants.

Delaware's Response

Delaware disagrees with the findings related to \$12,068 of the questioned salaries and the associated overhead costs for sample numbers 8, 16, and 24 and will work with the appropriate authorities to resolve the questioned costs.

Auditors' Comments

While Delaware's plan to work with the appropriate authorities to resolve the questioned costs should address our audit recommendation, Delaware still needs to provide explanation for their disagreement over questioned salaries and the associated overhead costs for sample numbers 8, 16, and 24.

Appendix A

Schedule of FY 2008 Questioned Costs

Sample Number	Award Number	Salary Costs	Fringe Benefits	Indirect Costs	Total
Administrative Time:					
8	██████	\$ 994	\$ █████	\$ █████	\$ █████
22	██████	1,124	█████	█████	█████
22	██████	637	█████	█████	█████
23	██████	531	█████	█████	█████
24	██████	3,803	█████	█████	█████
30	██████	978	█████	█████	█████
		8,067	█████	█████	█████
Improper Charges:					
16	██████	3,520	█████	█████	█████
24	██████	9,935	█████	█████	█████
		13,455	█████	█████	█████
Total Questioned Costs		\$ 21,522	\$ █████	\$ █████	\$ █████

Appendix B



RESEARCH OFFICE

210 Hullihen Hall
University of Delaware
Newark, Delaware 19716-1551
Ph: 302/831-2136
Fax: 302/831-2828

[REDACTED]
Withum Smith+Brown, PC
8403 Colesville Road, Suite #340
Silver Spring, MD 20910

March 10, 2010

Subject: Response to Draft Report on Audit of Effort Reporting System

[REDACTED]:

The University of Delaware (Delaware) welcomes the opportunity to respond to your letter dated February 23, 2010 transmitting the draft Report on the Audit of Delaware's Effort Reporting System. The University stands committed to compliance and looks for ways of improving the systems currently in place to serve the campus. We generally agree with the findings discussed in the draft Report. As we will elaborate below, we do not agree with the findings in three of the sample items. Below you will find detailed responses to each of the recommendations. We truly appreciate the positive feedback and professional nature with which this audit was conducted.

Recommendations:

- 1.1 Work with the Delaware officials to establish an internal control structure that utilizes the capabilities of its new automated effort reporting system to ensure a payroll distribution and effort reporting system that reasonably reflects the actual effort employees devote on sponsored projects. At a minimum, Delaware should take the following corrective actions:

Auditors Comments

- a. Establish or revise University effort reporting policies and procedures to:
 - i. Define the typical instructional, research and administrative work responsibilities included in the annual base salary for various types of Delaware employees and distinguish which of those activities that can be charged directly to Federal awards and cannot be charged directly to Federal awards.

Delaware's Response

Delaware has revised policy 6-5 "Effort Certification Reporting" to further define the Institutional Base Salary. This iteration of the policy was updated in July 2009 prior to the completion of this audit. In addition, Delaware will further revise policy 6-5 to distinguish activities that cannot be charged directly to Federal awards.

Auditors Comments

- ii. Define a maximum number of days from the end of the effort reporting period to release effort reports to the academic departments.

Delaware's Response

Policy 6-5 now defines the maximum number of days the Research Office has to produce the effort reports. The policy defines this as follows:

“The Research Office will have ten days following the posting of a reporting period’s ending salary transactions to produce and release the reports to the Effort Administrators.”

Auditors Comments

- iii. Require the effort administrators to monitor effort reports to ensure they are completed within the University’s established certification period.

Delaware's Response

Policy 6-5 has been revised to better define and communicate the role of the effort administrator as follows:

“The Effort Administrator’s role is to facilitate the timely and accurate completion of their department’s effort reports. They are responsible for reviewing reports for errors in funding amounts and sources, distributing the reports to each individual for certification, making any necessary adjustments to salary allocations, and completing the reporting process prior to the deadline which is 60 days following the end of the reporting period. They are also responsible for requesting omitted reports when needed so that required reporting is accomplished for all employees.”

Additionally, the dunning procedure is now automated and allows for a tiered approach to ensure compliance. The dunning letters for incomplete effort certifications are sent every 20 days and escalate as follows:

- 1) At 40 days from end of the effort period an email is sent to the employee and the effort administrator reminding them they have 20 days remaining to complete the certifications.
- 2) At 60 days from end of the effort period an email is sent to the employee and their effort administrator, the department chair or director and assistant dean alerting them that the certification is overdue.
- 3) At 80 days from end of the effort period an email is sent to the employee, effort administrator, department chair or director, assistant dean, and the dean alerting them that the certification is still overdue.

Auditors Comments

- iv. Require periodic independent evaluations of the payroll distribution and effort reporting system to ensure the system is in compliance with Federal, NSF, and University standards and is working effectively. The policy should identify the specific office responsible for performing the evaluation and how often such an evaluation should be conducted and timely resolution of findings and recommendations.

Delaware's Response

Delaware’s Internal Audit Department will confirm the implementation of the audit recommendations in FY2011 and conduct the required independent evaluations of the Effort Reporting System once every three years thereafter. These requirements will be formalized in Research Office policy.

Auditors Comments

- b. Require periodic training for all employees involved in the effort reporting

process. Such training should include a thorough discussion of effort report certification responsibilities, monitoring effort and administration, and requirements and the various types of employee work activities that can be charged directly to Federal awards from those work activities that should not be charged directly to Federal awards.

Delaware's Response

Delaware's new position of Training Coordinator was filled on January 1, 2010 and will greatly expand our capacity for training. Delaware has begun the implementation of a multitiered training approach for effort certification. The first of these tiers is being required of all employees certifying or viewing reports, beginning with the March 2010 release of effort certifications (period ending February 28). This 11 minute on-line tutorial will be required annually for all who are entering the certification system. Further plans include mandatory on-line and in-person training for two other audiences: all principal investigators and all effort administrators. These multiple audiences have different needs and therefore Delaware intends to train them separately. The training will include responsibilities, monitoring, administration and guidance on allowable and unallowable charges to Federal awards.

Auditors Comments

c. Monitor the new procedures that assign Delaware senior management officials responsibility for identification and correction of errors in the web-based system in a timely manner, to ensure effective implementation.

Delaware's Response

The creation of the Effort System Manager position in February 2009 has expanded the oversight and ability to respond in a timely manner. Additionally, with the implementation of the dunning procedure described above, Delaware has experienced a significant improvement in the timeliness of effort certification. Early review means early identification of issues therefore allowing the University to respond in a timely manner.

Auditors Comments

d. Require coordination between system development and grant management personnel for ongoing weaknesses as well as any future development.

Delaware's Response

Development of a system-wide team of functional and technical staff is underway. This team will have among its responsibilities the oversight of system impact points to ensure the systems which capture the relevant data comply with applicable regulations and policies. This team should be in place by the end of fiscal year 2010.

Auditors Comments

e. Require sufficient system testing of the web-based development or reprogramming efforts prior to implementation.

Delaware's Response

Delaware believes the testing of this complex system has been extensive. The new Effort System Manager position has already improved our response time in identifying and correcting system errors. It is expected that through the development of the system-wide team, the testing efforts will be even more comprehensive and reduce data errors.

Auditors Comments

f. Revise the University effort reporting periods and/or help certifiers better understand the percentages being certified to ensure more accurate reporting.

Delaware's Response

Delaware has prepared a plan to propose effort period changes to its cognizant agency (ONR). The planned changes include creating a separate reporting period for summer research activities.

Auditors Comments

g. Resolve the \$34,299 in total questioned salary costs and the associated overhead costs (see Appendix A) resulting from improper charges for employee activity not directly benefiting NSF grants.

Delaware's Response

Delaware disagrees with the findings related to \$12,068 of the questioned salary costs and the associated overhead costs for sample numbers 8, 16 and 24 and will work with the appropriate authorities to resolve the questioned costs.

Thank you for the opportunity to respond to the draft Report. Please contact Christine Cook (302-831-2136) if you have any questions related to our response.

Sincerely,

[Redacted signature block]

[Redacted signature block]

Cc: Michael Kuklok, National Science Foundation
Darrell Drake, National Science Foundation

[Redacted contact information]