

**NATIONAL SCIENCE FOUNDATION**  
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**OFFICE OF  
INSPECTOR GENERAL**

**MEMORANDUM**

Date: March 22, 2010

To: Mary Santonastasso, Director, Division of Institution and Award Support (BFA/DIAS)  
  
Karen Tiplady, Director, Division of Grants and Agreements (BFA/DGA)

From: Michael Kuklok /s/  
Senior Audit Manager

Subject: Follow-up Audit of Caltech Implementation of Payroll Distribution System Report Recommendations, OIG 10-1-009

This letter report provides the result of our audit of corrective actions taken by the California Institute of Technology (Caltech) to implement recommendations from the March 2007 OIG NSF audit report of the Payroll Distribution System (OIG 07-01-013).<sup>1</sup> The review disclosed that Caltech has fully implemented all seven audit report recommendations. Specifically, the University has revised and/or issued new policies and procedures to ensure that salary charges to federally sponsored projects are fully compliant with OMB and NSF requirements. Appropriate training has been provided to grants management personnel to ensure a full understanding of the new processes to ensure University compliance.

As a result of the prior OIG audit report, Caltech has established a new robust system for reporting and tracking faculty effort commitments on federally sponsored projects. The new Policy Regarding Faculty Effort in Federally Sponsored Awards was issued by the Provost to all Caltech faculty members and required the implementation of the new process for all grant proposals starting on April 1, 2008. The new Faculty Effort Policy provides comprehensive guidance for appropriately identifying both direct and cost-shared Principal Investigator (PI) effort commitments pledged on federal grant proposals. Most importantly, a new PI Effort Commitment Module has been established in Caltech's grants cost accounting system to track and report PI effort commitments once the federal award is received. The new Module also requires companion cost-sharing accounts be established for tracking any mandatory or voluntary cost-shared PI effort commitments by each federal grant. Such formal companion

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<sup>1</sup> The follow-up audit was performed pursuant to a Caltech invitation.

accounts will result in improved Caltech controls compared to its prior manual subsidiary system for tracking cost sharing requirements under federal awards.

Our follow-up sample of NSF grants disclosed that Caltech's new Faculty Effort Commitment System was essentially operating in compliance with its newly established policies and procedures. The Faculty Commitment Balance Report provides key data that allows for post-award monitoring to ensure that PIs fulfill both their direct and cost-shared commitments on federally sponsored projects. Since the new Faculty Effort Policy was only effective for proposals processed after April 1, 2008, Caltech has only recently started to use the system for post-award monitoring of PI committed effort. Caltech officials stated that desk procedures will be developed to document the process for entering the required PI information into the Effort Commitment Module, running exception reports to ensure all data was properly entered, and performing quarterly post-award monitoring activities.

Further, the follow-up disclosed that Caltech has revised its policies and procedures to improve (i) the timeliness of payroll distribution confirmations (PDC) and (ii) controls over labor cost transfers. Increased management emphasis on the importance of timely payroll distribution certifications has significantly reduced the delinquency rate from 25 percent during our prior audit to an average of five percent during the past two years. Additionally, Caltech has revised its cost transfer policies to require increased levels of review and approval for cost transfers from overspent federal awards to other federal grants. A new system has also been established to track all cost transfers requiring such additional approval and a key grants accounting official has been tasked with the responsibility for ensuring that justifications are reasonable and proper Academic Division Chair approval has been obtained. A review of a sample of labor cost transfers to NSF awards from other overspent federal grants disclosed compliance with Caltech's revised procedures.

Caltech also modified its PDC policy to assign responsibility to its Internal Audit office for the required OMB Circular-21 independent evaluation of the effort reporting system. Internal Audit Staff stated that payroll distribution and effort reporting will always be considered a high risk area when developing its annual audit plan. Further, officials stated that each year, the office typically performs an audit of grants management in one of the Academic Divisions. The audit process includes a review of the PDC reports and interviews with employees to validate the reasonableness of the reported labor distribution on federal grants.

Lastly, Caltech stated that it has provided training to all campus grants management personnel on the proper completion of the Current and Pending Support information for NSF and all other federal agencies. However, our review of NSF grants disclosed that one of four sampled PIs did not accurately report the person-months devoted to all projects/activities as required by NSF requirements. The PI inappropriately reported no devoted effort for several NSF and other federal awards. Nevertheless, this was an improvement from our prior audit results where we found that none of the five sampled PIs had complied with the NSF procedures.

In conclusion, we believe that Caltech has taken appropriate corrective action to fully implement all audit recommendations to improve its payroll distribution system. To provide continued momentum for improvements it has made to date, we suggest that the University

continue with its planned initiatives to develop written desk procedures for its new PI Effort Commitment System. Also, Caltech should continue to provide frequent employee training to ensure the knowledge and skills required to promote campus compliance with established federal, NSF, and University grant management policies and procedures. Consideration should be given to providing refresher training on the proper completion of the Current and Pending Support information included in federal grant proposals.

cc:

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Debi Rafi, Director, Indirect Cost Branch, Office of Naval Research

## **Appendix: Background, Scope, and Methodology**

### Background

The California Institute of Technology (Caltech) is a small independent, privately funded university devoted to research and teaching in science and engineering disciplines. The University is located in Pasadena, California and has approximately 350 professorial and research faculty members, 550 post-doctoral researchers, 1200 graduate students, and 950 undergraduate students. Although small in size, it is ranked in the top 10 universities worldwide and has had 31 Nobel laureates.

Federal grant and contract funding constitutes a major source of Caltech's annual revenues. For fiscal year 2009, the University received approximately \$325 million in federal research funds and an additional \$33 million from the American Recovery and Reinvestment Act. Of this amount, NSF provided funding about \$145 million and \$18 million, respectively.

### Scope and Methodology

To accomplish our audit objective of evaluating the adequacy of Caltech corrective actions taken to implement recommendations from the March 2007 NSF OIG audit report of its Payroll Distribution System (OIG 07-01-013), we reviewed all changes in University policies and procedures and other actions implemented to address the audit recommendations. Interviews were conducted with Grants Management staff and a walk-through of the new PI Effort Commitment System was performed to gain an understanding of the new tracking and reporting system. We selected a judgmental sample of four PIs and reviewed applicable NSF grants to assess campus compliance with the new process for tracking and reporting PI effort commitments. A draft of the audit report was provided to Caltech informally for its review and comment prior to development of the final report.

We conducted the onsite work for this performance audit from February 22 to 25, 2010, 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 conclusions based on our audit objective.