



National Science Foundation • Office of Inspector General
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MEMORANDUM

Date: September 30, 2015

To: Dale Bell
Director, Division of Institution and Award Support

Jamie French
Acting Director, Division of Grants and Agreements

From: Dr. Brett M. Baker 
Assistant Inspector General for Audit

Subject: Audit Report No. 15-1-020
Stanford University

This memo transmits the WithumSmith+Brown (WSB) report for the audit of costs totaling \$211 million charged by Stanford University (SU) to its sponsored agreements with NSF during the period January 1, 2010 to December 31, 2012. The audit objectives were to: (1) identify and report on instances of unallowable, unallocable, and unreasonable costs; (2) identify and report on instances of noncompliance with regulations, Federal financial assistance requirements, and the provisions of the NSF award agreements related to the transactions selected; and to (3) determine the reasonableness, accuracy and timeliness of the awardee's American Recovery and Reinvestment Act of 2009 (ARRA) quarterly reporting, including reporting the jobs created under ARRA and grant expenditures for the two most recent quarters.

The auditors determined that costs SU charged to its NSF sponsored agreements did not always comply with applicable Federal and NSF award requirements. The auditors questioned \$337,377 of costs claimed on 54 NSF awards. Specifically, the auditors noted \$124,279 in senior personnel charges that exceeded the NSF two-month salary limit; \$44,508 for unreasonable and unallowable travel expenses; \$84,197 in allocation of costs that were not adequately supported or appeared to be based on an arbitrary estimate; \$72,375 for improperly charged or inadequately documented costs; and \$12,018 for a cost transfer related to a potential cost overrun on another NSF award. These questioned costs resulted in five areas identified where SU controls could be improved to ensure compliance with laws and regulations. These conditions increase the risk that NSF funds will not be available to accomplish necessary project objectives.

The auditors also found that SU properly accounted for and segregated NSF ARRA funded awards in its accounting system. Additionally, SU's ARRA reports were reasonable, accurate, and timely. For the quarters ending September 30, 2012 and December 31, 2012, expenditures were verified without exception. However, the auditors found that \$69,192 in unallowable costs

(of the \$337,377 in total questioned costs) were charged to 6 ARRA awards with \$207 in expenditures related to senior personnel that exceeded the two-month NSF salary limit; \$1,838 in unallowable or unreasonable travel costs, \$54,647 in unsupported allocation of costs, and \$12,500 in improperly charged or inadequately documented costs.

The auditors recommended that NSF address the findings by requiring SU to work with NSF in resolving the questioned costs of \$337,377 and strengthen SU's administrative and management controls.

SU, in its response dated September 21, 2015, agreed with some of the findings and questioned costs. However, SU disagreed with the salary overcharges because they believe that NSF policy that limits salary compensation for senior project personnel is specifically related to pre-award budgeting purposes and re-budgeting is allowed during the post-award portion of the award. Furthermore, they believe NSF policies and subsequent guidance from NSF are clear concerning the charging of senior salary. SU acknowledged they will work with NSF during the audit resolution period to determine if they need to modify administrative and management controls. SU's response is described after the findings and recommendations and is included in its entirety in Appendix A.

Appendix C contains a detailed summary of the unallowable items that were questioned. Additional information concerning the questioned items was provided separately by OIG to the Division of Institution and Award Support, Cost Analysis and Audit Resolution Branch. Please coordinate with our office during the six month resolution period, as specified by OMB Circular A-50, to develop a mutually agreeable resolution of the audit findings. Also, the findings should not be closed until NSF determines that all recommendations have been adequately addressed and the proposed corrective actions have been satisfactorily implemented.

OIG Oversight of Audit

To fulfill our responsibilities under generally accepted government auditing standards, the Office of Inspector General:

- Reviewed WSB's approach and planning of the audit;
- Evaluated the qualifications and independence of the auditors;
- Monitored the progress of the audit at key points;
- Coordinated periodic meetings with WSB and NSF officials, as necessary, to discuss audit progress, findings, and recommendations;
- Reviewed the audit report, prepared by WSB to ensure compliance with generally accepted government auditing standards; and
- Coordinated issuance of the audit report.

WSB is responsible for the attached auditor's report on Stanford University and the conclusions expressed in the report. We do not express any opinion on the conclusions presented in WSB's audit report.

We thank your staff for the assistance that was extended to our auditors during this audit. If you have any questions regarding this report, please contact Billy McCain at 703-292-4989.

Attachment

cc: Alex Wynnyk, Branch Chief, CAAR
Rochelle Ray, Team Leader, CAAR
Michael Van Woert, Executive Officer, NSB
Ruth David, Audit & Oversight Committee Chairperson, NSB



Stanford University

**Audit of Incurred Costs for
National Science Foundation Awards
For the Period January 1, 2010 to December 31, 2012**

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ACRONYMS

AAG	Award & Administration Guide
ARRA	American Recovery and Reinvestment Act of 2009
CFR	Code of Federal Regulations
DIAS	Division of Institution and Award Support
FAQ	Frequently Asked Questions
FDP	Federal Demonstration Partnership
FFR	Federal Financial Report
GPG	Grant Proposal Guide
IPA	Intergovernmental Personnel Act
NSF	National Science Foundation
OIG	Office of Inspector General
OMB	Office of Management and Budget
PI	Principal Investigator
SU	Stanford University



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Independent Auditors' Report

The National Science Foundation (NSF) is an independent federal agency created by the National Science Foundation Act of 1950 (P.L. 810-507). Its mission is “to promote the progress of science; to advance the national health, prosperity, and welfare; and to secure the national defense.” The Foundation is committed to ensuring an adequate supply of the nation’s scientists, engineers, and science educators. NSF funds research and education in science and engineering by awarding grants and contracts to educational and research institutions in all parts of the United States. Through grants, cooperative agreements, and contracts, NSF enters into relationships with non-federal organizations to fund research education initiatives and assist in supporting internal program operations. Stanford University (SU) is an NSF grant recipient.

SU, founded in 1891 and located in the heart of Silicon Valley, is one of the world’s leading teaching and research universities. SU states it has been dedicated to finding solutions to big challenges and to preparing students for leadership in a complex world. SU reports a total research budget of \$1.33 billion which encompasses approximately 5,300 externally sponsored projects. Because SU is one of the largest recipients of NSF award dollars, the NSF-Office of Inspector General (OIG) selected SU for audit.

WithumSmith+Brown, under contract with the NSF-OIG, audited the costs claimed by SU to NSF for the period beginning January 1, 2010 and ending December 31, 2012. Our audit objectives were to: (1) identify and report on instances of unallowable, unallocable, and unreasonable costs; (2) identify and report on instances of noncompliance with regulations, federal financial assistance requirements, and the provisions of the NSF award agreements related to the transactions selected; and (3) determine the reasonableness, accuracy and timeliness of the awardee’s American Recovery and Reinvestment Act of 2009 (ARRA) quarterly reporting, including reporting the jobs created under ARRA and grant expenditures for the two most recent quarters.

We conducted this performance audit in accordance with generally accepted government auditing standards which require that we plan and perform the audit to obtain sufficient and 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. Our objectives, scope, methodology, and criteria are more fully detailed in Appendix B.



Results in Brief

To aid in determining reasonableness, allowability, and allocability of costs, we obtained from SU all awards for which costs were reported to NSF during the period of January 1, 2010 and ending December 31, 2012. This provided an audit universe of approximately \$211 million, in more than 389,000 transactions, across 885 individual NSF awards.

Of the \$211 million in the universe, our audit questioned \$337,377 of costs claimed on 54 NSF awards because SU did not comply with federal and NSF award requirements. Specifically, we noted: \$124,279 of senior personnel salary charges that exceeded the NSF two-month salary limit; \$44,508 for unreasonable and unallowable travel expenses; \$84,197 in allocation of costs that were not adequately supported or appeared to be based on an arbitrary estimate; \$72,375 for improperly charged or inadequately documented costs; and \$12,018 for a cost transfer related to a potential cost overrun on another NSF award. The questioned costs resulted in five areas identified where SU controls could be improved to ensure compliance with laws and regulations. These conditions increase the risk that NSF funds will not be used as required to accomplish other necessary project objectives.

The universe of NSF ARRA-funded awards included approximately \$27.3 million of expenditures, in more than 36,500 transactions, across 48 NSF awards. Our review found that SU properly accounted for and segregated NSF ARRA-funded awards in the accounting system. Additionally, the ARRA reports were reasonable, accurate, and timely. For the quarters ending September 30, 2012 and December 31, 2012, expenditures were verified without exception. The allowability of costs reported for these awards were tested in conjunction with the other NSF awards. We did question \$69,192 in six ARRA awards, including: \$207 in one ARRA award with expenditures related to senior personnel that exceeded the two-month NSF salary limit, \$1,838 in two ARRA awards with unallowable or unreasonable travel costs, \$54,647 in two ARRA awards with unsupported allocation of costs, and \$12,500 in one ARRA award for improperly charged or inadequately documented costs.

SU reviewed and agreed with the facts for \$51,839 in questioned costs: 1) \$9,742 for unallowable travel costs, 2) \$244 for part of an entry that was not properly allocated; and 3) \$41,853 for improperly charged or inadequately supported costs discovered during the audit. The University did not agree with \$285,538 of questioned costs: 1) \$124,279 of senior personnel costs in excess of NSF limits; 2) \$34,766 for unreasonable and unallowable travel costs; 3) \$83,953 for allocations of costs that were not adequately supported; 4) \$30,522 for costs that were improperly charged or not adequately supported; and 5) the \$12,018 cost transfer relating to a potential cost overrun. The findings are outlined in our report and presented by award in Appendix C. Additional information concerning the questioned items was provided separately by OIG to the Division of Institution and Award Support, Cost Analysis and Audit Resolution Branch.

Findings and Recommendations

Finding 1 – Exceeded NSF Limits on Senior Salary

Our review of the accounting and reporting of NSF senior salary costs revealed that SU does not adequately track/monitor senior personnel costs relative to the NSF two-month salary limit. Our review identified senior personnel whose salary exceeded the NSF two-month salary limit.

Per NSF grant terms and conditions, grantees are fully responsible for the adherence to NSF policies. One such condition relates to senior personnel. Per NSF Award & Administration Guide (AAG), Chapter V,



Allowability of Cost, Section 1, Salaries, Wages, and Fringe Benefits, “NSF normally limits salary compensation for senior project personnel on awards made by the Foundation, to no more than two months of their regular salary in any one year. This limit includes salary received from all NSF funded grants...any *compensation for such personnel in excess of two months must be disclosed in the proposal budget, justified in the budget justification, and must be specifically approved by NSF in the award notice.*”

Using data analytics, we extracted employees appearing to exceed the two-month NSF senior salary limitation. We provided the list of potential salary overcharges to SU for review. SU’s Office of Sponsored Research identified and excluded employees: 1) exempt from the two-month limit because they were Intergovernmental Personnel Act assignments (IPAs) representing employees detailed to the Foundation and remaining on SU’s payroll while assigned to NSF; 2) not senior personnel per the award documentation; 3) Senior personnel with prior approval from NSF to exceed 2 months; and 4) emeritus faculty who were not full-time. SU also reviewed and corrected the salary rates as necessary. After excluding these individuals, we determined that SU exceeded the 2 months limit by [REDACTED] excluding applicable fringe benefits and overhead (see Appendix C for detail by award).

Salary	Fringe Benefit	Overhead	Total Over
[REDACTED]	[REDACTED]	[REDACTED]	\$ 124,279

The following schedule shows the breakout of questioned costs by the number of months in excess of the NSF senior salary policy (see Appendix D for detail by instance).

Unallowable Months	Instances Over	Salary	Fringe Benefit	Overhead	Total Over
0-0.9	11	\$ [REDACTED]	[REDACTED]	[REDACTED]	\$ 60,740
2-2.9	1	[REDACTED]	[REDACTED]	[REDACTED]	63,539
	12	\$ [REDACTED]	[REDACTED]	[REDACTED]	\$ 124,279

These overcharges were due to a lack of effective monitoring caused by an over-reliance on rebudgeting authority. As a result, \$124,279 in salary, fringe benefits and overhead on 23 NSF awards is questioned. Had SU effectively monitored their senior personnel salary costs, these overcharges would not have occurred. Without a process in place to ensure that senior personnel do not exceed the NSF two-month limit, there is the increased risk that funds may not be spent in accordance with NSF requirements. These excess salary costs increase the risk that funds will not be used as required to accomplish other necessary project objectives. SU’s administrative and management controls were not adequately designed to facilitate monitoring of senior personnel salary limits which resulted in unallowable costs.

Recommendation 1:

We recommend that the NSF’s Director of the Division of Institution and Award Support (DIAS) address and resolve the following SU recommendations:

- a. Work with NSF to resolve the \$124,279 of questioned costs; and
- b. Strengthen the administrative and management controls and processes for senior personnel to ensure NSF salary limits are not exceeded.



WithumSmith+Brown Summary of Awardee Response:

In its response to our draft report, Stanford disagreed with our finding and stated that WithumSmith+Brown has misinterpreted NSF's policies. Stanford further stated that NSF has also disagreed with WithumSmith+Brown's interpretation of the senior salary policy in its resolution of recently issued reports for other universities. Additionally, Stanford stated the majority of the awards in question were issued under the Federal Demonstration Partnership (FDP) and the corresponding regulations which state that no other prior approval requirements can be imposed unless a deviation has been approved by the Office of Management and Budget (OMB). Stanford also provided examples of NSF-issued Frequently Asked Questions (FAQ), in addition to written and verbal guidance from the NSF Policy Office, which allows for the rebudgeting post award for more than 2 months of senior salary. Stanford concluded that 100% of its salary charges on NSF awards are appropriate, do not violate the two month senior salary policy, and conform to the NSF Policy Office guidance. Stanford provided excerpts of regulations and policy guidance to support its position. The full text of Stanford's response is included in Appendix A.

Auditor Comments:

Our position regarding this finding remains unchanged. We acknowledge that Stanford has received conflicting guidance regarding this policy from various NSF sources. We also acknowledge that NSF's audit resolution office has taken a different position regarding the senior salary issue. However, we continue to believe that the Award and Administration Guide in effect at the time of the awards is the authoritative guidance on this issue, and therefore we continue to believe these are questioned costs under that guidance.

Finding 2 – Unreasonable and Unallowable Travel Costs

We questioned \$44,508 in unreasonable and unallowable travel expenditures for 24 different transactions, related to 19 NSF awards.

According to 2 Code of Federal Regulation (CFR) 220 (OMB Circular A-21), Section C, to be allowable for a federal grant, a cost must be allocable to the federal award and be necessary and reasonable for the administration and performance of the award. Furthermore, Appendix A, Section C.3, provides that a reasonable cost is one that a "prudent person would have incurred under similar circumstances.

2 CFR 220 (OMB Circular A-21) Section 42(a) states, "...relocation costs incurred incident to recruitment of new employees, are allowable to the extent that such costs are incurred pursuant to a well-managed recruitment program...where...the newly hired employee resigns for reasons within his control within 12 months after hire, the institution will be required to refund or credit such relocation costs to the Federal Government."

During our audit, we questioned \$21,244 in unallowable travel costs:

- \$2,471 for travel reimbursement to a graduate student to attend [REDACTED] training in [REDACTED]. The [REDACTED] training did not appear to be specific to the award or within the scope of the award. Although SU indicated that training [REDACTED] would result in cost savings in the long run, we noted that the grad student was [REDACTED] at a university in [REDACTED] where the training was held.
- \$3,208 for unbudgeted travel costs for a graduate student to attend a conference in [REDACTED]. In its proposal to NSF, SU stated that it would find ways to fund travel and supplies from other sources;

however these costs were charged to NSF anyway. Additionally, the travel appeared to cover the period June 1st to June 19th (based on the airline tickets), but the conference ended June 10th. We were not provided any evidence to support the purpose of the remaining portion of the trip, which would also be an indicator that the trip was not necessary for the award. This was the same traveler identified in the first item of this finding.

- \$815 for travel to [REDACTED] for dissertation research for a graduate student that was not identified in the proposal. The travel occurred over the holidays from December 23rd to January 17th. At the time of our audit, SU was unable to provide support for the research conducted by the traveler. Well after our fieldwork, SU obtained and provided additional support from the traveler. We noted a discrepancy in some of the support provided, specifically that the boarding pass indicated a return date of January 11, 2011, while a shipping label and drugstore receipt appeared to indicate the traveler was still in [REDACTED] on January 17, 2011. The additional support was therefore not convincing and we are questioning these costs.
- \$875 for travel occurring on the last three days of a five-year award for the Principle Investigator (PI) to travel to [REDACTED] for a conference. These costs were originally charged to other funds and later moved to an NSF award after review of expenses showed that unspent funds remained. The award only had domestic travel in the approved NSF budget.
- \$2,826 for the PI to travel to Europe for a conference two months prior to expiration on a three-year award, with no foreign travel approved in the budget. The travel to Europe included a vacation in [REDACTED] (not charged to the award) prior to the conference. Due to [REDACTED] the PI returned home and missed the conference. Therefore, these costs did not benefit the award, and the necessity of the unbudgeted travel is questionable. SU explained that the PI was scheduled to be a speaker for the conference, which would have benefited the award, and that the cost of the airline ticket should be an allowable expense to this award. SU further explained that Federal Travel Regulations allow for emergency travel, and that [REDACTED] qualifies as emergency travel. However, we continue to believe that this travel was not necessary for the award, and had the PI not already used the ticket for vacation purposes, the PI could have canceled the trip and received a credit from the airline due [REDACTED] and the Government would not have been charged.
- \$7,799 of the approximately \$29,000 charged to this award for travel, for a PI to travel to [REDACTED] to be a keynote speaker for a conference which did not appear necessary for this award. This award had its proposed travel budget reduced from \$6,000 to only \$2,200 per NSF's request. SU used its rebudgeting authority to charge additional travel and conference costs totaling approximately \$29,000. While being selected as a keynote speaker was certainly a nice accolade for the PI and SU, that does not make it reasonable or necessary for the award. Additionally, an SU internal audit identified \$2,477 of the \$7,799 related to this trip that should not have been charged to this award and an adjustment was made in March 2015. These charges included business class airfare above the economy airfare rate and charges for certain other stop-over days.
- \$2,514 for attendance at an annual meeting of an international research society. The traveler was a member of a leadership committee for the society, and therefore these costs appear to be allocable to Departmental funds, not the NSF award. We did not find any evidence attendance at this meeting was necessary for the award.
- \$736 for visas for travel to [REDACTED] and [REDACTED] for presentations and meetings with colleagues. There was no international travel budgeted for this award. The PI stated there was extra money left over in student support; therefore the surplus was used for this travel. We did not find evidence that this travel was necessary for the award; therefore, we questioned these visa costs.

NSF's Grant Proposal Guide (GPG) Section III, Part D Revisions to Proposal Made During Review Process states, "The NSF Program Officer may suggest reducing or elimination costs for specific budget items that are clearly unnecessary or unreasonable for the activities to be undertaken"

During our audit, we also questioned \$13,522 related to seven transactions on seven different awards where travel was specifically removed from the NSF budget by SU in order to obtain budget approval from NSF, then charged to the NSF award anyway using SU's rebudgeting authority. Because these costs were specifically removed from the budget, we questioned whether they were reasonable and necessary. In one case, the revised budget justification states "travel has been eliminated". In another case, SU indicated that attendance at the meeting was required due to Department policy; therefore we concluded it should have been charged to Departmental funds instead of the NSF award. In other instances, it is not clear the travel was 100 percent allocable to the NSF award it was charged to, as the trip appeared to benefit other purposes as well, such as discussion of future unfunded work. In another instance, it appears the PI did not submit reimbursement for travel until almost six months after the travel date, after finding out there were still funds left in the award.

As for the issue of removing travel from the budget, one PI indicated "removing travel was the simplest solution to reach the desired total reduction" and that "travel was determined to be crucial to the project" and that they "voluntarily budgeted the award to comply with limited funding". Therefore, it appears that SU is submitting budgets it knows are not accurate in order to come to a total amount that NSF agrees to fund.

Additionally, we questioned \$9,742 of travel costs which SU agreed were erroneously charged or otherwise not supported, and, SU stated they made corrections for, including:

- \$1,129 for travel costs for a student who SU indicated worked on several NSF awards with a similar scope, but did not work on the NSF award these travel costs were charged to. Therefore, SU agreed to remove the costs from this NSF award.
- \$2,081 for travel costs for a student who SU indicated worked on several NSF awards with a similar scope, but did not work on the NSF award these travel costs were charged to. Therefore, SU agreed to remove the costs from this NSF award.
- \$2,497 for travel costs that SU agreed were double charged to an NSF award. SU stated they have taken corrective action to remove the charges.
- \$281 for travel costs related to the family members of speakers, SU agreed the costs should be removed from the NSF award and stated they have taken corrective action.
- \$878 in unallowable recruitment/relocation travel expenses charged to one NSF award. This employee split time between this NSF award and another NSF award, and the costs should have been split between the two awards. SU agreed that these costs should be removed from the award, and stated they have taken corrective action to transfer 50 percent (\$878) of these costs to an unrestricted account, since the second award had since been closed.
- \$1,916 of foreign travel costs related to one award for a PI's expense reimbursement. The travel reimbursement incorrectly calculated the allowable meals and incidentals per diem rate. These improper calculations occurred on three separate per diem line items on the same travel reimbursement for multiple dates and locations, and occurred despite the travel reimbursement being approved by three separate individuals at SU. SU agreed that these were miscalculated in error and stated they have taken corrective action to credit the NSF award for the overcharge.
- \$960 for a workshop registration and course fee for a graduate student incurred in February 2011. In August 2012, the PI initiated a journal entry to transfer the travel costs associated with this workshop to an unrestricted account, but we were not able to determine if this registration fee was

also transferred. SU subsequently agreed the costs should be removed from the award and indicated they have taken corrective action.

SU personnel did not adequately review the propriety of these expenditures charged to NSF awards which resulted in unallowable costs. Without a process in place to ensure the proper monitoring of travel expenses, especially close to award expiration, and where there were little or no travel funds budgeted, there is the increased risk that funds may not be spent in accordance with federal and NSF requirements. For all of the \$9,742 in questioned costs that SU agreed with, NSF, during audit resolution, should ensure that the awards are credited as appropriate.

Recommendation 2:

We recommend that the NSF's Director of the DIAS address and resolve the following SU recommendations:

- a. Work with NSF to resolve the \$44,508 of questioned costs;
- b. Strengthen the administrative and management controls and processes for reviewing and approving travel expense reimbursements that include per diem claims;
- c. Strengthen the administrative and management controls and processes for reviewing expenses for travel to determine reasonableness and necessity for the award, especially where travel has been specifically removed or reduced from the budget; and
- d. Strengthen the administrative and management controls and processes for reviewing relocation/recruitment costs charged to NSF awards.

WithumSmith+Brown Summary of Awardee Response:

In response to our draft report, Stanford disagreed with our findings and recommendations and maintained that the questioned costs benefitted the awards charged and were reasonable and necessary for the awards, except for the \$9,742 which Stanford agreed with. For each of the costs we questioned where Stanford disagreed, Stanford provided a detailed response as to why the institution believes the costs were necessary and reasonable and how they benefitted the awards. Stanford's response is included in its entirety at Appendix A.

Auditor Comments:

For the remaining costs that Stanford disagreed with, our conclusions remain unchanged. The additional information provided by Stanford did not change our view that these costs should be questioned. Therefore, our recommendation remains as stated.

Finding 3 – Unsupported Allocation of Costs

We questioned \$84,197 for equipment, travel, instrument usage, and lab supplies, representing costs that were allocated to NSF awards using unsupported allocation methodologies. In many instances, the allocation percentage was only the PI's estimate of expected future use, which appeared to be arbitrary and based on convenience.

Section C.4 of 2 CFR 220 (OMB Circular A-21) states "...cost is allocable to a sponsored agreement if it is incurred solely to advance the work under the sponsored agreement; it benefits both the sponsored agreement and other work of the institution, in proportions that can be approximated through use of reasonable methods...The recipient institution is responsible for ensuring that costs charged to a

sponsored agreement are allowable, allocable, and reasonable under these cost principles.” Section A states that “the accounting practices of individual colleges and universities must support the accumulation of costs as required by the principles, and must provide for adequate documentation to support costs charged to sponsored agreements.”

- \$29,969 of costs relating to an equipment purchase were charged to an NSF award with no equipment budgeted. The requisition and purchase order for the equipment identified this award as the funding source for approximately 55 percent of the total estimated equipment cost. In response to our audit inquiry, SU informed us in writing that the equipment cost was split between two awards based on the PI’s expected usage of the equipment. SU further explained the NSF award was expected to benefit from the data to a greater extent than the non-sponsored research, so the PI decided a 55 percent to 45 percent split would be the most appropriate allocation. However, this allocation appears to be arbitrary and based on convenience, and we have no way to determine the reasonableness of this methodology.
- \$24,678 of costs relating to an equipment purchase was charged to an NSF award with no equipment budgeted. The total equipment costs were split almost evenly across four projects (split in half between two labs and then in half among two awards in each lab). SU indicated the split was based on the projected usage by the PI, and that the PI had [REDACTED] on the NSF project. The PI further explained that the usage of the [REDACTED] on the NSF project and non-NSF project was approximately equal at the time and as projected, so dividing the cost equally was a reasonable approach. However, there was no support provided for how the usage was determined, therefore the reasonableness and accuracy of the methodology could not be determined.
- \$9,312 for reimbursement of a portion of costs associated with a summer [REDACTED] course in [REDACTED]. The course occurred during the last three months of this seven year NSF award. The costs were originally charged to a non-NSF award, and then transferred to the NSF award both before and after the expiration of the award. According to a written response provided by SU to our audit inquiry, the PI had agreed to use funds available from the NSF grant to cover some of the participant costs for the course, specifically relating to the speakers attending the mini symposia on the weekends of the last 3 weeks of the first year of the school. However, there was no documentation provided to support the justification or the proportion of costs transferred to the NSF award or that it was in support of the award. SU stated the majority of the costs for this course were charged to the non-NSF award, but that the PI agreed the NSF award would pay for some of the symposium speakers’ costs.
- \$2,704 related to internal service charges for use of an instrument in April 2010. A total of 170 hours were logged on the equipment by [REDACTED]. Approximately half of this time was charged to the [REDACTED] and approximately half charged to an NSF award. Other than the PI statement “it was a series of experiments that equally benefited the awards based on the results they produced”, there was no documentation provided to support the allocation of these costs to the NSF award.
- \$1,290 representing 50 percent of a purchase of lab supplies, which was originally charged 100 percent to an NIH award. According to SU, upon notification of receipt of the NSF award, the PI determined that this purchase (purchased within the 90-day period of allowable pre-award costs) benefitted multiple projects, which require “roughly the same amount” of supplies. No further documentation was provided; therefore the reasonableness and accuracy of the allocation could not be determined.
- \$244 for the purchase of lab supplies that were originally charged to an NIH award and then later a portion of the costs was transferred to an NSF award. SU was unable to provide documentation to support the transfer or the allocation. Stanford agreed and removed these costs from the award.

- \$16,000 for a portion of lab supplies originally charged in total [REDACTED] to a Departmental account and then later allocated and transferred to NIH and NSF awards. The PI further estimated that the total cost of the use of [REDACTED] in an experiment was [REDACTED]. The PI estimated that the NSF experiment would use [REDACTED] and the NIH grant [REDACTED] was allocated to the NSF award as direct costs (with [REDACTED] added as indirect costs). There was no documentation provided to support either the [REDACTED] total cost or the methodology used to allocate the amount to the two federal awards. The reasonableness and accuracy of the \$16,000 charged to NSF could not be determined.

Recommendation 3:

We recommend that the NSF's Director of the DIAS address and resolve the following SU recommendations:

- a. Work with NSF to resolve the \$84,197 of questioned costs; and
- b. Strengthen the administrative and management controls and processes for documenting the allocation of costs across multiple projects or awards. Allocations that cannot be supported and documented using reasonable methods and in reasonable time periods should be charged to a non-sponsored activity or indirect cost, as appropriate.

WithumSmith+Brown Summary of Awardee Response:

In response to our draft report, Stanford disagreed with our findings and recommendations and maintained that the questioned costs benefitted the awards charged and were reasonable and necessary for the awards and appropriately allocated, except for the \$244 which Stanford agreed with. For each of the costs we questioned where Stanford disagreed, Stanford provided a detailed response as to why the institution believes the costs were necessary and reasonable and how they benefitted the awards and why they were appropriately allocated. Stanford's response is included in its entirety at Appendix A.

Auditor Comments:

For the remaining costs that Stanford disagreed with, our conclusions remain unchanged. The additional information provided by Stanford did not change our view that these costs should be questioned. Therefore, our recommendation remains as stated.

Finding 4 – Improperly Charged or Inadequately Documented Costs

We found inadequately supported or erroneous charges to nine NSF awards totaling \$72,375. Stanford agreed that \$41,853 of the \$72,375 are questioned costs and indicated it has taken corrective actions to remove these charges.

Section C.4 of 2 CFR 220 (OMB Circular A-21) states "...cost is allocable to a sponsored agreement if it is incurred solely to advance the work under the sponsored agreement; it benefits both the sponsored agreement and other work of the institution, in proportions that can be approximated through use of reasonable methods...The recipient institution is responsible for ensuring that costs charged to a sponsored agreement are allowable, allocable, and reasonable under these cost principles." Section A states that "the accounting practices of individual colleges and universities must support the accumulation

of costs as required by the principles, and must provide for adequate documentation to support costs charged to sponsored agreements.”

We questioned \$7,138 for purchases of equipment that did not appear to benefit the award or did not appear necessary for the administration of the award. In some cases, the purchase appears to be general purpose computers not primarily or exclusively used in the actual conduct of the proposed research.

- \$3,067 for the purchase of [REDACTED] desktop computer. This purchase was charged entirely to one NSF award of which the professor was Co-PI. There was no evidence provided that this computer was used primarily or exclusively for the research related to this award. A significant portion of the professor’s time was charged to a non-NSF project during the period after this purchase. In response to the draft report, Stanford agreed with these questioned costs and stated they have been removed from the award.
- \$4,071 for [REDACTED] laptop computer charged entirely to one NSF award. There was no evidence provided that this computer was used primarily or exclusively for the research related to this award. This purchase was made six months prior to the award expiration date. Although SU stated this computer was used exclusively on this award by a particular researcher, we question whether a laptop, which has a useful life of longer than 6 months, could have been used exclusively on this award. We also believe this purchase is not of a type that is typically charged as a direct cost on a sponsored award.

Furthermore, we found \$12,500 of consulting costs charged to one NSF award that were not adequately documented; therefore the reasonableness of these costs could not be determined and we questioned these costs.

OMB Circular A-21, Appendix A, Item 37 states “(8) Adequacy of the contractual agreement for the service (e.g. description of the service, estimate of time required, rate of compensation, and termination provisions)” is one of the relevant factors in determining the allowability of consulting costs.

SU provided a consulting agreement for [REDACTED] consulting services for [REDACTED] data. The agreement included a specified rate per hour for a maximum of \$25,000 for services satisfactorily performed. The agreement did not specify any specific deliverables or work product to be produced for either the NSF project or the NIH project. The agreement also stated the sources of funding include both NIH and NSF.

The consultant’s invoices did not provide adequate support describing what was being billed. The invoices were for a fixed dollar amount for a given time period (e.g. one month). There was no indication of how many hours were worked or what services were performed during the billing period. Additionally, each invoice was charged 50 percent to the NIH award and 50 percent to the NSF award, with no support for how this allocation was determined or a description of the methodology. There was no description or support of any work product produced or any specific deliverable.

We also found \$11,400 of charges for contributions to a specialized equipment usage fund on one NSF award that was not in accordance with the specialized service fee requirements of OMB Circular A-21.

According to 2 CFR 220 (OMB Circular A-21), Appendix A, Item J.47 the costs of such services must be charged to the awards based on “actual usage of the services on the basis of a schedule of rates or established methodology that . . . is designed to recover only the aggregate costs of the services. . . Rates shall be adjusted at least biennially, and take into consideration over/under applied costs of previous period(s)”. During our audit we noted that SU charged \$ [REDACTED] to one

particular award, which was an internal service fee for [REDACTED] usage for the [REDACTED]. The fund is used for [REDACTED] and labor maintenance costs each year. The lab was charged for [REDACTED] core-days at [REDACTED] per core day (as the founders share) for a total of \$ [REDACTED] plus indirect costs. However, there was no evidence that this rate schedule was designed in accordance with the requirements of OMB Circular A-21 (for example, to ensure recovery of only the aggregate costs of services); therefore, the reasonableness of these charges cannot be determined. Additionally, the [REDACTED] days of usage was not the actual usage, but an allocation of available usage to the project. No records were provided supporting the actual usage for this award. In response to the draft report, Stanford disagreed that the charges were set up as a service center, but agreed that the department did not retain adequate records supporting the allocations and stated these charges have been removed.

Additionally, we found \$13,951 of computer equipment charged to an award that did not have equipment (or materials and supplies) approved in the budget. The purchase was for a computer server, without which, the PI stated the results for the project would have been impossible. This seems to contradict the award proposal, which states that the Stanford [REDACTED] has “dozens of workstations equipped with [REDACTED] and . . . computation resources provided by [REDACTED].” The PI stated that after starting the research project, he realized the equipment in the lab was outdated, and that “more powerful computing resources were available outside the [lab], but they were heavily booked by many research groups and we could not get enough time on those [REDACTED].” Therefore, we are questioning the reasonableness and necessity of these costs given the resources that SU stated in the award proposal they already had.

Finally, SU agreed that they could not support the following charges totaling \$27,386 and agreed that they were questioned costs.

- \$3,403 for sales tax and related indirect costs on an equipment purchase that was erroneously charged to an NSF award. The equipment costs were removed from the award soon after the error was discovered in 2011, but the sales tax and related indirect costs were inadvertently not removed. SU has taken corrective action to remove the charges.
- \$1,963 for a non-faculty bonus payment, a portion of which was improperly charged to an NSF award. SU has taken corrective action to remove the charges.
- \$2,900 for undergraduate student salary erroneously charged to an NSF award. SU has taken corrective action to remove the charges.
- \$12,462 for fellows service expenses, which were allocated to an NSF award based on the proportionate share of fellows supported by NSF grants. During our audit, SU reviewed the total fellowship costs to be allocated, which resulted in an overcharge to this NSF award. SU voluntarily removed several items and agreed to reimburse these costs.
- \$6,658 for meeting room services that SU agreed was an incorrect charge. SU has already taken corrective action to remove the charges and sent a refund check to the US Treasury.

These mischarges were caused by inadvertent administrative oversights in the review process at the Department levels where these charges were initiated. As a result, there is the increased risk that funds may not be spent in accordance with federal and NSF requirements or that NSF awards may be inaccurately charged. NSF, during audit resolution, should ensure that the total \$27,386 in question costs that SU agreed to are properly credited to the appropriate awards.



Recommendation 4:

We recommend that the NSF's Director of the DIAS address and resolve the following SU recommendations:

- a. Work with NSF to resolve the \$72,375 of questioned costs;
- b. Strengthen the administrative and management controls and processes for maintaining adequate supporting documentation for transactions;
- c. Strengthen the administrative and management controls and processes for documenting and reviewing consulting agreements and invoices;
- d. Strengthen the administrative and management controls and processes for internal service charges and ensure that charges for specialized services are in compliance with the requirements of OMB Circular A-21; and
- e. Strengthen the administrative and management controls and processes for reviewing and approving equipment costs charged to NSF, especially general purpose computer equipment.

WithumSmith+Brown Summary of Awardee Response:

In response to our draft report, Stanford disagreed with our findings and recommendations and maintained that the questioned costs benefitted the awards charged and were reasonable and necessary for the awards and appropriately allocated, except for the \$41,853 which Stanford agreed with. For each of the costs we questioned where Stanford disagreed, Stanford provided a detailed response as to why the institution believes the costs were necessary and reasonable and how they benefitted the awards and why they were appropriately allocated. Stanford's response is included in its entirety at Appendix A.

Auditor Comments:

For the remaining costs that Stanford disagreed with, our conclusions remain unchanged. The additional information provided by Stanford did not change our view that these costs should be questioned. Therefore, our recommendation remains as stated.

Finding 5 – Cost Transfer Due to Overrun

We questioned \$12,018 of costs transferred from one NSF award to another NSF award which appeared to be due to a potential cost overrun. The two NSF awards were both under the same PI and the award periods overlapped.

Section C.4b. of 2 CFR 220 Cost Principles for Educational Institutions (formerly OMB Circular A-21) states that "...Any costs allocable to a particular sponsored agreement under the standards provided in this Appendix may not be shifted to other sponsored agreements in order to meet deficiencies caused by overruns or other fund considerations, to avoid restrictions imposed by law or by terms of the sponsored agreement, or for other reasons of convenience."

In October 2012, SU recorded transfers of \$12,018 in [REDACTED] costs from one NSF award to another NSF award, relating to the July, August, and September of 2012 pay periods. In response to our inquiries, SU stated that [REDACTED] was initially working on the first NSF award then began working on the other NSF award. However, we noted that according to the cost report filed with NSF for the quarter ended June 30, 2012, there was only a \$10,030 balance remaining on the first award. When the \$12,018 of costs were incrementally charged to the first award in July, August, and September 2012, the award would have been in an overrun. Although Stanford has detailed procedures for the



review and recording of cost transfers, the justification provided for this transfer indicated that it was made to correct an error and SU did not catch the underlying cost overrun. This resulted in a violation of federal and NSF requirements relating to cost overruns. Therefore, these costs are being questioned as they appear to have been transferred as a result of the overrun on the first NSF award.

Recommendation 5:

We recommend that the NSF's Director of the DIAS address and resolve the following SU recommendations:

- a. Work with NSF to resolve the \$12,018 of questioned costs; and
- b. Strengthen the administrative and management controls and processes for reviewing and approving cost transfers that appear to be due to cost overruns.

WithumSmith+Brown Summary of Awardee Response:

In response to the draft report, Stanford disagreed with the finding and maintained that the expenses charged to the award are allowable and reasonable. SU explained that the transfer of costs was initiated after the PI reviewed the quarterly financial statements and noticed that the graduate student was erroneously still being charged to a different project. Stanford maintains that the graduate student did work on the NSF award during the time period in question. Stanford provided a detailed response to support its position, which is included in its entirety at Appendix A.

Auditor Comments:

Our finding remains unchanged. We do not believe that the additional information provided by Stanford was adequate to refute that this transfer related to a cost overrun. Therefore, our recommendation remains as stated.

WithumSmith+Brown, PC

September 29, 2015

APPENDICES

STANFORD
UNIVERSITY

Research Financial Compliance and Services



September 21, 2015

WithumSmith+Brown
Two Logan Square
Eighteenth & Arch Streets, Suite 2001
Philadelphia, Pennsylvania 19103-2726

Re: Audit of Incurred Costs for National Science Foundation Awards
For the Period January 1, 2010 to December 31, 2012

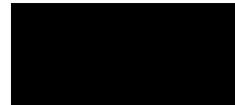
Dear Sir or Madam:

The following is Stanford University's response to the National Science Foundation Office of the Inspector General (NSF-OIG) draft Audit of Incurred Costs for National Science Foundation Awards for the period January 1, 2010 to December 31, 2012 prepared by the accounting firm of WithumSmith+Brown. Of approximately \$211 million in NSF award expenditures reviewed, the auditors have questioned \$354,877 of costs, or less than 0.2% of the costs incurred. Stanford University, as described below and supported by prior submissions to your firm, believes all but \$51,839 of the questioned costs are reasonable and allowable under NSF policies and the terms and conditions of the grants issued. To facilitate your review we have provided a response to each finding.

Please contact me if you have further questions.

Sincerely, 


128 Encina Commons
Stanford, CA 94305-6025



AWARDEE RESPONSE

Findings and Recommendations*Finding 1 – Exceeded NSF Limits on Senior Salary*

See finding details in WithumSmith+Brown audit report.

WithumSmith+Brown Recommendation 1:

We recommend that the NSF's Director of the Division of Institution and Award Support (DIAS) address and resolve the following SU recommendations:

- a. Work with NSF to resolve the \$124,279 of questioned costs; and*
- b. Strengthen the administrative and management controls and processes for senior personnel to ensure NSF salary limits are not exceeded.*

Stanford Response:

Stanford disagrees with WithumSmith+Brown's questioned senior salaries of \$124,279. The NSF disagrees with WithumSmith+Brown's interpretation of senior salaries in its resolution reports for the University of Florida, Michigan State University, and Virginia Polytechnic Institute and State University stating: "...NSF has determined that the basis for the audit finding misinterprets the NSF faculty salary and compensation policy, and as a result, does not sustain the finding...".

WithumSmith+Brown has misinterpreted NSF Award & Administration Guide (AAG), Chapter V, Allowability of Cost, Section 1, Salaries, Wages, and Fringe Benefits and is not auditing to the terms and conditions of the awards. The majority of the awards with findings on the senior salary 2 month limit incorporate the following award language in the NSF notice of award:

This grant is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTC, dated July 2008) and the NSF RTC Agency-Specific Requirements (dated January 2009) are available at <http://www.nsf.gov/awards/managing/rtc.jsp>. This Institution is a signatory to the Federal Demonstration Partnership (FDP) Phase V Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

The internet citation above refers to the NSF site where both 2 CFR 215.25 and the NSF Award Terms and Conditions Implementing Part 215 are presented. 2 CFR 215.25(d) makes it clear that "No other prior approval requirements for specific items may be imposed unless a deviation has been approved by the OMB". The Research Terms and Conditions Prior Approval and Other Requirements Matrix displayed in Appendix A of this response makes re-budgeting clear under the Cost-related Requirements section that re-budgeting is allowed for senior personnel.

Some earlier awards reference the following: This grant is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to NSF Grant General Conditions (GC-1), dated

AWARDEE RESPONSE

3/15/06 available at

http://WWW.nsf.gov/awards/managing/general_conditions.jsp and later awards: NSF RTC Agency-Specific Requirements (dated January 2010) are available at <http://www.nsf.gov/awards/managing/rtc.jsp>. However, the terms and conditions as they relate to salaries is the same, re-budgeting is allowed.

In addition, WithumSmith+Brown chooses to disregard the NSF November 2010 FAQ on Proposal Preparation and Award Administration as well as further follow on guidance and correspondence from the NSF Policy Office.

The NSF November 2010 FAQ states that normal re-budgeting authority during the post-award phase of the grant exists:

Must awardees request prior NSF approval if making a change post-award to the amount originally budgeted for senior personnel salary?

NSF has not changed the terms and conditions or any of our post-award prior approval requirements. Therefore, under the normal rebudgeting authority, an awardee can internally approve an increase of salary after an award is made. No prior approval from NSF is necessary. The caveat is if the change would cause the objective or scope of the project to change, then the awardee would have to submit an approval request via FastLane. Since salary can amount to a large part of the budget, there may very well be a scope change with addition of salary, especially if, for example, the PI decided not to hire a grad student in order to have enough money to cover the salary increase.

http://www.nsf.gov/pubs/policydocs/pappguide/faqs11_1.pdf

The NSF continued this guidance in their January 2013 FAQ update:

Must awardees request prior NSF approval if making a change post-award to the amount originally budgeted for senior personnel salary?

NSF has not changed the terms and conditions or any of our post-award prior approval requirements. See AAG Exhibit II-1. Therefore, under the normal rebudgeting authority, an awardee can internally approve an increase in person months devoted to the project after an award is made, even if doing so results in salary support for senior personnel exceeding the 2 month salary rule. No prior approval from NSF is necessary. The caveat is if the change would cause the objective or scope of the project to change, then the awardee would have to submit an approval request via FastLane. Since salary can amount to a large part of the budget, there may very well be a scope change with addition of salary, especially if, for example, the PI decided not to hire a grad student in order to have enough money to cover the salary increase.

http://www.nsf.gov/bfa/dias/policy/papp/papp13_1/faqs13_1.pdf

Stanford has received guidance from the NSF Policy Office both in writing and verbally that the “two month senior salary rule” is for pre-award budgeting purposes and re-budgeting is allowed during the post-award portion of the award. Beth Strausser, senior policy specialist stated in the

AWARDEE RESPONSE

following email:

From: Strausser, Beth A. [<mailto:bstrauss@nsf.gov>]
Sent: Wednesday, December 18, 2013 2:55 PM
To: [REDACTED]
Cc: Feldman, Jean I.; Strausser, Beth A.
Subject: RE: NSF 2/9ths Limitation

Hello [REDACTED]

I'd be happy to provide some clarification. There is a difference here between what should be done pre-award versus post-award. If more than 2 months of support per year is needed pre-award, it should be included in the budget and very well justified in the budget justification. If the Program Officer determines it to be warranted and something they can support, then the budget attached to the award notice will reflect the approved amount. This constitutes NSF approval from a pre-award perspective.

If it is determined after an award is made that more time is needed for the project, the rationale can be documented internally by the awardee and you can use your rebudgeting authority to do so. The reason for this is that NSF has not changed our post-award prior approval requirements. As explained in the FAQ, if the rebudgeting rises to the level of a scope change, that would require NSF prior approval. I hope this helps to clarify the policy; please let me know if I can be of any further assistance.

Beth Strausser
Senior Policy Specialist
NSF Policy Office

In addition, Jean I. Feldman, Head of Policy Office, Division of Institution and Award Support, within the Foundation's Office of Budget, Finance, and Award Management has repeatedly stated to members of the Federal Demonstration Project and attendees of the Council on Government Relations that re-budgeting authority beyond the two months of senior salary exists in the post-award phase of NSF grants in accordance with terms and conditions of the award.

Stanford had several conference calls with WithumSmith+Brown and members of the NSF Office of the Inspector General (OIG) on whether Stanford could/should rely on NSF FAQs and guidance from the NSF Policy Office concerning "two month senior salaries" policy. WithumSmith +Brown and the NSF OIG claim that the NSF Policy Office FAQs, written and verbal guidance provided by the NSF Policy Office is informal and non-authoritative concerning NSF Policy. Stanford disagrees with this position and requested that WithumSmith+Brown work with the NSF Policy Office before issuing a finding to understand the intent of the two month senior salary policy and application within the terms and conditions of the awards. As stated earlier, the Cost Analysis & Audit Resolution Branch within the Division of Institution and Award Support of the NSF has not sustained the WithumSmith+Brown interpretation of the two month senior salary policy.

Stanford believes that 100% of its salary charges on NSF awards are appropriate, do not

AWARDEE RESPONSE

violate the two month senior salary policy, and conform to the NSF Policy Office guidance. Stanford agrees with WithumSmith+Brown's calculation that [REDACTED] of direct salary costs did not comply with WithumSmith+Brown's interpretation of the two month senior salary policy but not their conclusion that the costs are an unallowable expense. Stanford does not agree with WithumSmith+Brown's calculation and conclusion that [REDACTED] of direct senior salary costs are unallowable. Stanford believes the \$124,279 of direct senior salary costs, and associated fringe benefit, and overhead are allowable and necessary.

Stanford will work with the Cost Analysis & Audit Resolution Branch within the Division of Institution and Award Support of the NSF to determine if any inappropriate costs have been claimed and whether Stanford needs to modify administrative and management controls.

Finding 2 – Unreasonable and Unallowable Travel Costs

See finding details in WithumSmith+Brown audit report.

WithumSmith+Brown Recommendation 2:

We recommend that the NSF's Director of the DIAS address and resolve the following SU recommendations:

- a. Work with NSF to resolve the \$44,508 of questioned costs; and*
- b. Strengthen the administrative and management controls and processes for reviewing and approving travel expense reimbursements that include per diem claims.*
- c. Strengthen the administrative and management controls and processes for reviewing expenses for travel to determine reasonableness and necessity for the award, especially where travel has been specifically removed or reduced from the budget.*
- d. Strengthen the administrative and management controls and processes for reviewing relocation/recruitment costs charged to NSF awards.*

Stanford Response to Recommendation 2:

Stanford agrees with \$9,742 of the \$44,508 of questioned costs and has removed the costs from the awards.

Stanford will work with the Cost Analysis & Audit Resolution Branch within the Division of Institution and Award Support of the NSF to determine if any further adjustments need to be made and whether Stanford needs to modify administrative and management controls. Responses to each finding are below.

WithumSmith+Brown questioned \$2,471 for travel reimbursement in bullet one:

"\$2,471 for travel reimbursement to a graduate student to attend [REDACTED] training in [REDACTED]. The [REDACTED] training did not appear to be specific to the award or within the scope of the award. Although SU indicated that training on this [REDACTED] would result in cost savings in the long run, we noted that the grad student [REDACTED] at a university

AWARDEE RESPONSE

in [REDACTED] where the training was held.”

Stanford

Response:

Stanford disagrees with WithumSmith+Brown's questioned travel charges of \$2,471 for [REDACTED] a graduate student, charged to the [REDACTED] of [REDACTED] NSF award to attend the [REDACTED] training in [REDACTED].

According to [REDACTED] “The training of [REDACTED] enabled us to collect and analyze [REDACTED]. We further learned how to conduct multivariate analysis of [REDACTED] associated with [REDACTED]. Without the training, we would not have been able to design the [REDACTED] scheme to support [REDACTED] tests. Moreover, without the multivariate techniques, we would not have been able to find a [REDACTED] or that the [REDACTED] behavioral performance. This work was completely consistent with the original proposal, but much better because of the training. The results have led to multiple published papers.”

The analysis of [REDACTED] data was clearly within the goals of the research per the proposal excerpt shown below:

Plan of Research

Stanford maintains the training benefited the award and is an allowable charge.

WithumSmith+Brown questioned \$3,208 for travel reimbursement in bullet two:

\$3,208 for unbudgeted travel costs for a graduate student to attend a conference in [REDACTED]. In its proposal to NSF, SU stated that it would find ways to fund travel and supplies from other sources; however these costs were charged to NSF anyway. Additionally, the travel appeared to cover the period June 1st to June 19th (based on the airline tickets), but the conference ended June 10th. We were not provided any evidence to support the purpose of the remaining portion of the trip, which would also be an indicator that the trip was not necessary for the award. This was the same traveler identified in the first item of this finding.

AWARDEE RESPONSE

Stanford Response:

Stanford disagrees with WithumSmith+Brown's travel charges of \$3,208 for [REDACTED] graduate student, charged to the [REDACTED] NSF award to attend the [REDACTED] Conference in [REDACTED]

In [REDACTED] determination the advancement of the scientific work depended on gaining more in-house expertise in state of the art methods. Prior to the [REDACTED] conference [REDACTED] participated at the [REDACTED] [REDACTED] from June 3rd to June 5th concerning [REDACTED]. Next [REDACTED] attended the [REDACTED] from June 6th to June 10th to present and participate in workshops on new data acquisition and analysis methodologies for [REDACTED] which [REDACTED] brought back to the lab.

The [REDACTED] Meeting of the [REDACTED] ended on June 10th and [REDACTED] checked out of the hotel on June 11th. [REDACTED] then took several days of personal time which the NSF award was not charged for and returned on June 19th. [REDACTED] costs charged to the [REDACTED] project are allowable, reasonable and allocable.

Additionally, [REDACTED] presented posters (see below) at each meeting – The [REDACTED]

Presentations and Posters at each conference:

[REDACTED]

WithumSmith+Brown questioned \$815 for travel reimbursement in bullet three:

\$815 for travel to [REDACTED] for dissertation research for a graduate student that was not identified in the proposal. The travel occurred over the holidays from December 23rd to January 17th. At

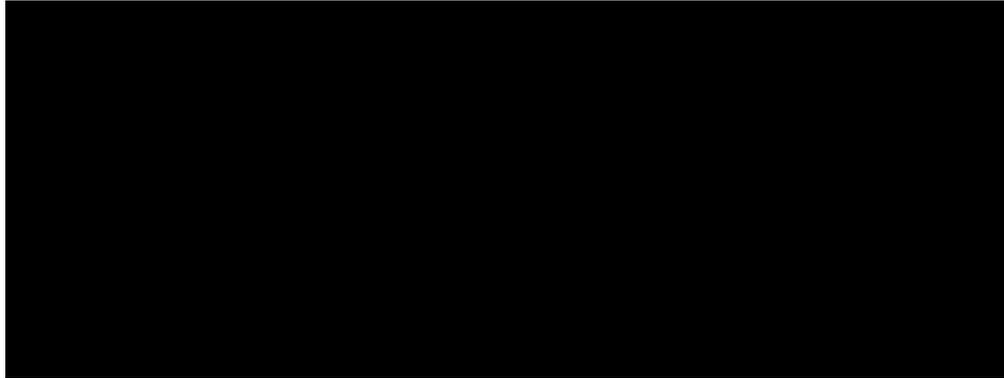
AWARDEE RESPONSE

the time of our audit, SU was unable to provide support for the research conducted by the traveler. Well after our fieldwork, SU obtained and provided additional support from the traveler. We noted a discrepancy in some of the support provided, specifically that the boarding pass indicated a return date of January 11, 2011, while a shipping label and drugstore receipt appeared to indicate the traveler was still [REDACTED] on January 17, 2011. The additional support was therefore not convincing and we are questioning these costs.

Stanford Response:

Stanford disagrees with WithumSmith+Brown's questioned costs of \$815 for travel to [REDACTED] for the NSF Dissertation Research: [REDACTED]

([REDACTED]



[REDACTED] ship [REDACTED] the box of samples after [REDACTED] had returned back to Stanford for processing the [REDACTED] samples. That is why the FedEx date and the date of the receipt for the ice in the shipping box were six days after [REDACTED] returned to Stanford. The box was too cumbersome to carry through the airports with [REDACTED] other luggage and equipment. This is evidenced by the Sender's Name: [REDACTED] and the Recipient's Name: [REDACTED] [REDACTED] on the FedEx Airbill.

The \$815 expense for [REDACTED] trip to collect samples to complete [REDACTED] NSF Dissertation Research: [REDACTED] project is reasonable and necessary.

WithumSmith+Brown questioned \$875 for travel reimbursement in bullet four:

\$875 for travel occurring on the last three days of a five-year award for the Principle Investigator (PI) to travel to [REDACTED] for a conference. These costs were originally charged to other funds and later moved to an NSF award after review of expenses showed that unspent funds remained. The award only had domestic travel in the approved NSF budget.

Stanford Response:

AWARDEE RESPONSE

Stanford disagrees with WithumSmith+Brown's questioned travel costs of \$875 to present research accomplished on the NSF [REDACTED] project at the combined [REDACTED] held in [REDACTED]

[REDACTED] traveled to [REDACTED] to present his NSF funded research at: the Annual [REDACTED] Aug 28-31; as the keynote speaker at [REDACTED] Sep 1 - Sep 4; and in a seminar presentation at [REDACTED] Sep 4 - Sep 6.

Presenting NSF funded research is a goal of the foundation. Traveling to present research at the end of the award when the research is complete is reasonable. In addition, as shown by the matrix in Appendix A re-budgeting between budget categories and foreign travel is allowed. The \$875 of costs charged to the NSF award are allowable and reasonable.

WithumSmith+Brown questioned \$2,826 for travel reimbursement in bullet five:

\$2,826 for the PI to travel to Europe for a conference two months prior to expiration on a three-year award, with no foreign travel approved in the budget. The travel to Europe included a vacation in [REDACTED] (not charged to the award) prior to the conference. Due to [REDACTED] the PI returned home and missed the conference. Therefore, these costs did not benefit the award, and the necessity of the unbudgeted travel is questionable. SU explained that the PI was scheduled to be a speaker for the conference, which would have benefited the award, and that the cost of the airline ticket should be an allowable expense to this award. SU further explained that Federal Travel Regulations allow for emergency travel, and that the [REDACTED] qualifies as emergency travel. However, we continue to believe that this travel was not necessary for the award, and had the PI not already used the ticket for vacation purposes, the PI could have canceled the trip and received a credit from the airline due [REDACTED] and the Government would not have been charged.

Stanford Response:

Stanford disagrees with WithumSmith+Brown's questioned travel costs of \$2,826 caused by the cancellation of plans due [REDACTED] [REDACTED] planned to share his research results from his NSF Collaborative Research: [REDACTED] project at the [REDACTED] conference held from 06/30/2010 to 07/03/2010.

[REDACTED] was one of the scheduled presenters at the conference. One of the goals of NSF awards is to disseminate the research finding to the scientific community. NSF AAG (VI)(D)(b) states in part, "...b. Investigators are expected to share with other researchers, at no more than incremental cost and within a reasonable time, the primary data, samples, physical collections and other supporting materials created or gathered in the course of work under NSF grants.

AWARDEE RESPONSE

Grantees are expected to encourage and facilitate such sharing.” [REDACTED]’s presentation would have benefited the award and supported NSF goals of dissemination of research.

The cost of the airline ticket is an allowable expense to this award. Having personal travel scheduled at the beginning of the business trip should not make the cost unallowable. PI’s purchase tickets in advance to reduce the cost. This is the risk the agencies and universities accept to efficiently save funds. Denying this cost is unreasonable and not in keeping with the partnership between researchers and agencies. It would not be an efficient use of agency funds to have researchers on NSF funds purchase tickets only a day or two before the travel to eliminate this issue or pay the extra amount to purchase refundable tickets. No other charges for this trip were charged to this NSF award.

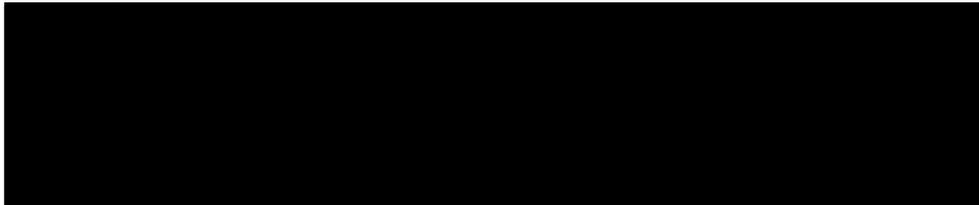
WithumSmith+Brown questioned \$7,799 for travel reimbursement in bullet six:

\$7,799 of the approximately \$29,000 charged to this award for travel, for a PI to travel to [REDACTED] to be a keynote speaker for a conference which did not appear necessary for this award. This award had its proposed travel budget reduced from \$6,000 to only \$2,200 per NSF’s request. SU used its rebudgeting authority to charge additional travel and conference costs totaling approximately \$29,000. While being selected as a keynote speaker was certainly a nice accolade for the PI and SU, that does not make it reasonable or necessary for the award. Additionally, an SU internal audit identified \$2,477 of the \$7,799 related to this trip that should not have been charged to this award and an adjustment was made in March 2015. These charges included business class airfare above the economy airfare rate and charges for certain other stop-over days.

Stanford Response:

Stanford partially disagrees with WithumSmith+Brown’s questioned travel charges of \$7,799 for [REDACTED] NSF [REDACTED] project. Stanford agrees with the charges identified as unallowable as charges to a federal award by Stanford Internal Audit and removed them from the award. Those charges totaled \$3,963 for business class airfare above the economy airfare rate which is an allowable charge to a University non-sponsored account when the travel time exceeds 8 hours and charges for certain other stop-over days. Stanford believes the balance of the charges, \$3,836 are appropriate and benefited the award.

One of the goals of NSF awards is to disseminate research findings to the scientific community.



AWARDEE RESPONSE

Stanford believes that \$3,836 of travel cost incurred to disseminate the research findings are appropriate.

WithumSmith+Brown questioned \$2,514 for travel reimbursement in bullet seven:

\$2,514 for attendance at an annual meeting of an international research society. The traveler was a member of a leadership committee for the society, and therefore these costs appear to be allocable to Departmental funds, not the NSF award. We did not find any evidence attendance at this meeting was necessary for the award.

Stanford Response:

Stanford disagrees with WithumSmith+Brown's questioned travel charges of \$2,514 for the attendance of [REDACTED]

[REDACTED] annual meeting in [REDACTED]

The presentation and the meetings allowed the PI to work with other scientists to create a series of courses and protocols, create strategies in concept mapping, hierarchies, and other items necessary to achieve the goals of the NSF award. This project goal is to develop new education content focusing on [REDACTED] and research for use in community colleges and four-year schools as stated on page 37 of the proposal. The meeting the PI attended was the [REDACTED] [REDACTED] which directly relates to the project scope.

As noted by the PI, the materials and deliverables of [REDACTED] [REDACTED] award reflect the most recent scientific advances in [REDACTED] and [REDACTED]. The clearly stated aim of the grant was to develop new educational content that would reflect the rapidly changing pace of science and of laboratory techniques, and to incorporate this into the design matrix. The best place for the content development team to weigh and consider which topics and breakthroughs should be included in our curriculum design was this meeting, which is the biggest [REDACTED] conference in the world. For example, at this meeting, we learned that [REDACTED]

Attending the conference and working with fellow scientists is beneficial to the award and a reasonable cost.

AWARDEE RESPONSE

WithumSmith+Brown questioned \$736 for travel reimbursement in bullet eight:

\$736 for visas for travel to [REDACTED] and [REDACTED] for presentations and meetings with colleagues. There was no international travel budgeted for this award. The PI stated there was extra money left over in student support; therefore the surplus was used for this travel. We did not find evidence that this travel was necessary for the award; therefore, we questioned these visa costs.

Stanford Response:

Stanford disagrees with WithumSmith+Brown's questioned costs of \$736 for visas for [REDACTED] travel to [REDACTED] (above) and [REDACTED] for presentations and meetings with colleagues on the NSF [REDACTED] project.

Dissemination of the research from the [REDACTED] project and industrial collaborations are goals of the project and NSF. [REDACTED] needed short term visas to enter [REDACTED] and [REDACTED]. Per the NSF: Short-term, travel visa costs (as opposed to longer-term, immigration visas) are generally allowable expenses that may be proposed as a direct cost on an NSF proposal. Since short-term visas are issued for a specific period and purpose, they can be clearly identified as directly connected to work performed on an NSF-related project. For these costs to be directly charged to an NSF project, they must be:

- critical and necessary for the conduct of the project;
- allowable under the applicable cost principles;
- consistent with the organization's cost accounting practices and organizational policy; and
- meet the definition of "direct cost" as described in the applicable cost principles.

http://www.nsf.gov/pubs/policydocs/pappguide/nsf14001/aag_5.jsp

Stanford believes that the VISA costs incurred for travel to disseminate the research finding are allowable and reasonable.

WithumSmith+Brown questioned \$13,522 for 7 travel reimbursements:

NSF's Grant Policy Guide (GPG) Section NSF 11-1, Part D Revisions to Proposal Made During Review Process states, "NSF Program Office may suggest reducing or elimination costs for specific budget items that are clearly unnecessary or unreasonable for the activities to be undertaken".

During our audit, we also questioned \$13,522 related to seven transactions on seven different awards where travel was specifically removed from the NSF budget by SU in order to obtain budget approval from NSF, then charged to the NSF award anyway using SU's re-budgeting authority. Because these costs were specifically removed from the budget, we questioned whether they were reasonable and necessary. In one case, the revised budget justification states "travel has been eliminated". In another case, SU indicated that attendance at the meeting was required due to Department policy, therefore we concluded it should have been charged to Departmental funds instead of the NSF award. In other instances, it is not clear the travel was 100 percent allocable to the NSF award it was charged to, as the trip appeared to benefit other purposes as well, such as discussion of future unfunded work. In another

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instance, it appears the PI did not submit reimbursement for travel until almost six months after the travel date, after finding out there were still funds left in the award.

As for the issue of removing travel from the budget, one PI indicated "removing travel was the simplest solution to reach the desired total reduction" and that "travel was determined to be crucial to the project" and that they "voluntarily budgeted the award to comply with limited funding". Therefore, it appears that SU is submitting budgets it knows are not accurate in order to come to a total amount that NSF agrees to fund.

Stanford Response:

Stanford disagrees with WithumSmith+Brown's questioned costs of \$13,522 of reasonable, allowable and necessary costs charged to awards where budgets have been reduced during the pre-award process. On some awards Stanford is asked to reduce the budget by a certain amount. Stanford personnel make budget reductions which make the most sense at that time to meet the scientific scope of the award. Due to the dynamic nature of research NSF allows re-budgeting of grant funds by the institution which does not change the scope of the project and achieves the goals of the grant. Stanford used its re-budgeting authority as allowed by the terms and conditions of the awards appropriately to achieve the goals of the awards. The following is Stanford's response concerning the seven awards referenced by WithumSmith+Brown.

Stanford disagrees with WithumSmith+Brown's questioned travel charges of \$3,417 to the NSF [REDACTED] award to attend the [REDACTED] conference at the [REDACTED]. The PI voluntarily re-budgeted the award in order to comply with the NSF limited funding for FY 2012. Removing travel was not a required condition by NSF. The PI removed the travel expenses but realized that organizing and attending the [REDACTED] conference would benefit the research as it relates to the proposal. In fact, the organization of the conference helped the PI disseminate the results of the research and increase collaboration with his colleagues. The additional collaboration provided by their expertise helped him further contribute to the research, [REDACTED]. The expense is both reasonable and allowable under NSF policy.

Stanford disagrees with WithumSmith+Brown's questioned travel charges of \$2,992 to the NSF [REDACTED] award to attend the [REDACTED] Annual Meeting in [REDACTED] of the Department of [REDACTED]. [REDACTED] presented his research in three sessions: [REDACTED]. Re-budgeting some of the funds on this award to share his research with the scientific community is an allowable and reasonable expense to charge to the award.

Stanford disagrees with WithumSmith+Brown's questioned travel charges of \$2,143 to the NSF award [REDACTED].

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attending and presenting at the annual meeting of the [REDACTED] in [REDACTED]. The PI used re-budgeting authority to send a staff member to attend the meeting and present research from the award: [REDACTED]. Re-budgeting some of the funds on this award to share his research with the scientific community is an allowable and reasonable expense to charge to the award.

Stanford disagrees with WithumSmith+Brown's questioned travel charges of \$1,787 for [REDACTED] travel to [REDACTED] to present results of the [REDACTED] research funded by NSF. The [REDACTED] was organized as a scholarly conference for a group of [REDACTED] leaders who, at the time, comprised the members of the group about whom the PI had done the research. This presentation was an opportunity to evaluate the presentation of the qualitative and quantitative findings before publication. Many [REDACTED] share pre-publication findings with [REDACTED] as one means of evaluating them. This conference offered a particularly useful way to do so because many of them were gathered in one place and the PI was offered the opportunity to present the results to them. Re-budgeting some of the funds on this award to share [REDACTED] research is an allowable and reasonable expense to charge to the award.

Stanford disagrees with WithumSmith+Brown's questioned travel charges of \$958 to bring

[REDACTED] to collaborate on [REDACTED]

[REDACTED]. Re-budgeting some of the funds on this award to fund this highly successful collaboration is an allowable and reasonable expense to charge to the award.

Stanford disagrees with WithumSmith+Brown's questioned travel charges of \$1,536 to the

[REDACTED] NSF award for [REDACTED] scientific staff to attend the 2012 [REDACTED]

Participation (presenting the research from [REDACTED] NSF award and attending other presentations) in this conference which includes approximately 150 faculty, research staff and students fulfills the following NSF goal: "One of the principal strategies in support of NSF's goals is to foster integration of research and education

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through the programs, projects and activities it supports at academic and research institutions. These institutions provide abundant opportunities where individuals may concurrently assume responsibilities as researchers, educators, and students, and where all can engage in joint efforts that infuse education with the excitement of discovery and enrich research through the diversity of learning perspectives.” http://www.nsf.gov/pubs/policydocs/pappguide/nsf11001/gpg_3.jsp Re-budgeting some of the funds on this award to attend the conference and share the research from the award with the scientific participants is an allowable and reasonable expense which supports one of the principal NSF goals for dissemination of research.

Stanford disagrees with WithumSmith+Brown's questioned travel charges of \$688 for [REDACTED] of the [REDACTED] NSF award. [REDACTED] prepared samples of [REDACTED] at [REDACTED] and brought them here to run [REDACTED] studies to meet the goals of the award. Per the proposal: Among the goals of the proposed research are: [REDACTED]

[REDACTED] Re-budgeting funds on this award to enable proper creation and testing of the samples is reasonable and necessary.

WithumSmith+Brown questioned \$8,782 for 6 specified travel reimbursement which Stanford agreed to. See details in WithumSmith+Brown audit report.

Stanford Response:

Stanford agrees with WithumSmith+Brown's questioned costs of \$8,782 and removed the costs from the awards.

WithumSmith+Brown questioned \$960 for a workshop registration. See details in WithumSmith+Brown audit report.

Stanford Response:

Stanford agrees with WithumSmith+Brown's questioned costs of \$960 and removed the costs from the awards.

Finding 3 – Unsupported Allocation of Costs

See finding details in WithumSmith+Brown audit report.

WithumSmith+Brown Recommendation 3:

AWARDEE RESPONSE

We recommend that the NSF's Director of the DIAS address and resolve the following SU recommendations:

- a. Work with NSF to resolve the \$84,197 of questioned costs; and
- b. Strengthen the administrative and management controls and processes for documenting the allocation of costs across multiple projects or awards. Where costs cannot be allocated across projects using reasonable methods that can be supported and documented, SU should treat these as indirect costs.

Stanford Response to Recommendation 3:

Stanford agrees with WithumSmith+Brown's questioned costs of \$244 of the \$84,197 and removed the costs from the award.

Stanford will work with the Cost Analysis & Audit Resolution Branch within the Division of Institution and Award Support of the NSF to determine if any further adjustments need to be made and whether Stanford needs to modify administrative and management controls. Responses to each finding are below.

WithumSmith+Brown questioned \$29,969 for equipment expenditures in bullet one:

\$29,969 of costs relating to an equipment purchase were charged to an NSF award with no equipment budgeted. The requisition and purchase order for the equipment identified this award as the funding source for approximately 55 percent of the total estimated equipment cost. In response to our audit inquiry, SU informed us in writing that the equipment cost was split between two awards based on the PI's expected usage of the equipment. SU further explained the NSF award was expected to benefit from the data to a greater extent than the non-sponsored research, so the PI decided a 55 percent to 45 percent split would be the most appropriate allocation. However, this allocation appears to be arbitrary and based on convenience, and we have no way to determine the reasonableness of this methodology.

Stanford Response:

Stanford disagrees with WithumSmith+Brown's questioned costs of \$29,969 for the purchase of the [REDACTED] to support the research of the [REDACTED] NSF award.

Three [REDACTED] were purchased. Data from all three devices was used to support two sponsored projects, one of which was funded by the NSF. The NSF [REDACTED] project studied [REDACTED] which these instruments were primarily designed to measure. The other non-federal sponsored project studied [REDACTED] and only indirectly benefitted from the measurements of the instruments. Since the NSF award was expected to benefit from the data to a greater extent [REDACTED] decided a 55% to 45% split would be the most appropriate allocation of cost based on expected benefit. This estimate is in accordance with A-21 C.4.d(3)

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direct cost allocation principles” If a cost benefits two or more projects or activities in proportions that can be determined without undue effort or cost, the cost should be allocated to the projects based on the proportional benefit. If a cost benefits two or more projects or activities in proportions that cannot be determined because of the interrelationship of the work involved, then, notwithstanding subsection b, the costs may be allocated or transferred to benefited projects on any reasonable basis, consistent with subsections d. (1) and (2).” [REDACTED] is an expert in this field and highly qualified to make such an estimate. The expense is reasonably allocated and is an allowable expense to charge to the award.

WithumSmith+Brown questioned \$24,678 for equipment expenditures in bullet two:

\$24,678 of costs relating to an equipment purchase was charged to an NSF award with no equipment budgeted. The total equipment costs were split almost evenly across four projects (split in half between two labs and then in half among two awards in each lab). SU indicated the split was based on the projected usage by the PI, and that the PI had [REDACTED]. [REDACTED] worked on the NSF project. The PI further explained that the usage of the [REDACTED] on the NSF project and non-NSF project was approximately equal at the time and as projected, so dividing the cost equally was a reasonable approach. However, there was no support provided for how the usage was determined, therefore the reasonableness and accuracy of the methodology could not be determined.

Stanford Response:

Stanford disagrees with WithumSmith+Brown’s questioned costs of \$24,678 for the purchase of a [REDACTED] partially charged to the [REDACTED] NSF award.

Members of [REDACTED] laboratory work closely with members of [REDACTED] laboratory on scientific questions of common interest relating to the [REDACTED]. The [REDACTED] facility is a shared resource that is absolutely central to the experiments that they do. Frequently these experiments are collaborative efforts that result in joint publications. Many of these experiments require observation of the changing location of [REDACTED] and identification of cases when [REDACTED] labeled with [REDACTED]. Owing to the small size of the [REDACTED], these observations are very demanding in terms of [REDACTED] performance in both [REDACTED] and [REDACTED].

The research teams shared the cost of the new [REDACTED] that gave the labs much improved [REDACTED] relative to the former [REDACTED] that was beginning to have performance problems and was an older generation [REDACTED]. The [REDACTED] was not included in the proposal because at the time the Professors did not know these problems were going to arise. The [REDACTED] is an addition to [REDACTED] that enables simultaneous observation of [REDACTED]. In this way the research teams can track [REDACTED] determine if they [REDACTED] and thus might be

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[REDACTED] In these cases, additional [REDACTED] experiments enabled the team to determine the nature of [REDACTED]

The allocation of costs to pay for the [REDACTED] was split between the two labs on the basis of expected usage which was influenced by [REDACTED] in each lab as determined by the Professors. [REDACTED] allocated his laboratory's share of the cost equally between two awards. At the time, [REDACTED] had [REDACTED] on the NSF project [REDACTED] and [REDACTED] on a DOE project. The usage of the [REDACTED] on the two projects was approximately equal at the time and as projected. So, dividing the cost approximately equally between the two projects was a reasonable approach. The expense is appropriately allocated and an allowable and reasonable expense to charge to the award.

WithumSmith+Brown questioned \$9,312 for equipment expenditures in bullet three:

\$9,312 for reimbursement of a portion of costs associated with a summer [REDACTED] course in [REDACTED]. The course occurred during the last three months of this seven year NSF award. The costs were originally charged to a non-NSF award, and then transferred to the NSF award both before and after the expiration of the award. According to a written response provided by SU to our audit inquiry, the PI had agreed to use funds available from the NSF grant to cover some of the participant costs for the course, specifically relating to the speakers attending the mini symposia on the weekends of the last 3 weeks of the first year of the school. However, there was no documentation provided to support the justification or the proportion of costs transferred to the NSF award or that it was in support of the award. SU stated the majority of the costs for this course were charged to the non-NSF award, but that the PI agreed the NSF award would pay for some of the symposium speakers' costs.

Stanford Response:

Stanford disagrees with WithumSmith+Brown's questioned costs of \$9,312 for [REDACTED] training costs charged to the NSF [REDACTED] award.

Providing the workshop for [REDACTED] was part of the project scope. Per the project summary "The project includes two workshops, one for [REDACTED] in the first stage, to publicize some of the harder open problems. Another workshop in the last year will aim to teach [REDACTED] how to use the [REDACTED] tools developed [REDACTED] in practical examples. During the academic year, classes targeted to [REDACTED] will teach [REDACTED] and [REDACTED] methods using [REDACTED]"

The courses are *open source* and available both on CDs and from the project's web page for the widest possible dispersion. The workshop for [REDACTED] which was organized conjointly with [REDACTED] during [REDACTED] summer course to minimize logistic problems with organizing a standalone event. The class expenses were originally charged to a single account and then allocated out in accordance to which projects benefited. The allocated expenses for actual lodging costs for the professors teaching the [REDACTED] is stated in the original proposal, are allowable and reasonable.

AWARDEE RESPONSE

WithumSmith+Brown questioned \$2,704 for equipment expenditures in bullet four:

\$2,704 related to internal service charges for use of an instrument in April 2010. A total of 170 hours were logged on the equipment by a [REDACTED]. Approximately half of this time was charged to [REDACTED] and approximately half charged to an NSF award. Other than the PI statement "it was a series of experiments that equally benefited the awards based on the results they produced", there was no documentation provided to support the allocation of these costs to the NSF award.

Stanford Response:

Stanford disagrees with WithumSmith+Brown's questioned costs of \$2,704 from the Stanford [REDACTED] billed to the [REDACTED] NSF award. The experimental series initiated at the end of April overlapped into the beginning of May. It was an [REDACTED] so billed together in April. [REDACTED] here meaning, one study sample [REDACTED]. According to the PI the [REDACTED] experiments equally benefited the awards based on the results they produced and so allocated the costs 50/50 between the two awards.

WithumSmith+Brown questioned \$1,290 for equipment expenditures in bullet five:

\$1,290 representing 50 percent of a purchase of lab supplies, which was originally charged 100 percent to an NIH award. According to SU, upon notification of receipt of the NSF award, the PI determined that this purchase (purchased within the 90-day period of allowable pre-award costs) benefited multiple projects, which require "roughly the same amount" of supplies. No further documentation was provided; therefore the reasonableness and accuracy of the allocation could not be determined.

Stanford Response:

Stanford disagrees with WithumSmith+Brown's questioned costs of \$1,290 for [REDACTED] billed to the [REDACTED] NSF award.

[REDACTED] is essential for [REDACTED] that is the subject of study in the laboratory. [REDACTED] extensive effort was put into optimization of the [REDACTED]. This [REDACTED] was necessary to facilitate making accurate measurements of [REDACTED] and [REDACTED] changes. Experiments performed using [REDACTED] purchased include optimizing [REDACTED]. This work set the foundation for experiments in which we successfully addressed Aim 3 of the NSF proposal, to characterize the [REDACTED]. This work is described in the manuscript [REDACTED].

AWARDEE RESPONSE

The method to determine the allocation is as follows: when the new grant funding was received, a review was done by the PI and the finance manager to determine the percentage of some items that were purchased for one project but actually were used on multiple projects. In this case the two projects that benefited were the [REDACTED] NSF award and the [REDACTED] NIH award. [REDACTED] lab used the [REDACTED] purchased from [REDACTED] to create [REDACTED] for [REDACTED] two main projects, one funded by NSF, the other by NIH. The PI and the finance manager determined that the projects required roughly the same amount of [REDACTED] so the split of the order was allocated as such. The expense is reasonably allocated and is an allowable expense to charge to the award.

*WithumSmith+Brown questioned \$244 for equipment expenditures in bullet six:
See details in WithumSmith+Brown audit report.*

Stanford agrees with WithumSmith+Brown's questioned cost of \$244 and removed the costs from the award.

WithumSmith+Brown questioned \$16,000 for equipment expenditures in bullet seven:

\$16,000 for a portion of lab supplies originally charged in total [REDACTED] to a Departmental account and then later allocated and transferred to NIH and NSF awards. The PI further estimated that the total cost of the use of [REDACTED] in an experiment was [REDACTED]. The PI estimated that the NSF experiment would use [REDACTED] and the NIH grant [REDACTED] was allocated to the NSF award as direct costs (with [REDACTED] added as indirect costs). There was no documentation provided to support either the [REDACTED] total cost or the methodology used to allocate the amount to the two federal awards. The reasonableness and accuracy of the \$16,000 charged to NSF could not be determined.

Stanford Response:

Stanford disagrees with WithumSmith+Brown's questioned costs of \$16,000 for [REDACTED] lab supplies for the [REDACTED] NSF award.

These [REDACTED] are vital to the [REDACTED] grant. Without them, the [REDACTED] lab would not have been able to perform the [REDACTED] studies. The [REDACTED] were used for successful [REDACTED] studies that followed upon [REDACTED] analyses.

[REDACTED] provides [REDACTED] and other supplies to the [REDACTED]. To manage costs and guarantee lower prices, [REDACTED] negotiates with [REDACTED] to obtain volume discounts, which sometimes requires [REDACTED] to commit to these purchases in advance in anticipation of future use. [REDACTED] is also required to set a delivery schedule in advance as well for many of these [REDACTED] to ensure availability and to lock in the bulk discounts. Depending on the size of the order and knowledge of what grants will be benefiting from the order [REDACTED] either direct bills the award or charges a non-sponsored account. As the need for services arises and per PI's instructions [REDACTED] posts journals to allocate [REDACTED] used by the grants from the non-sponsored account.

AWARDEE RESPONSE

Per [REDACTED] performed a high volume of [REDACTED] studies for the [REDACTED] grant. Each experiment [REDACTED] costs approximately [REDACTED] in [REDACTED] [REDACTED] this translates to roughly [REDACTED]. The experiments take between 10 to 12 days to run [REDACTED]. The [REDACTED] lab was running multiple [REDACTED] simultaneously.

The \$16,000 of questioned costs is made up of \$ [REDACTED] associated indirect costs. [REDACTED] could be required which is why [REDACTED] NSF award. Stanford provided iJournal [REDACTED] which documents the cost allocation split between the NSF award and a NIH award. The total cost being allocated was tied back to PO Number: [REDACTED] transaction line [REDACTED] showing the cost paid to the vendor, [REDACTED]. Stanford also provided the actual usage data for [REDACTED]. The expense is an allowable and reasonable expense to charge to the award.

Finding 4 – Improperly Charged or Inadequately Documented Costs
See finding details in WithumSmith+Brown audit report.

WithumSmith+Brown Recommendation 4:

We recommend that the NSF's Director of the DIAS address and resolve the following SU recommendations:

- a. *Work with NSF to resolve the \$89,875 of questioned costs; and*
- b. *Strengthen the administrative and management controls and processes for maintaining adequate supporting documentation for transactions.*
- c. *Strengthen the administrative and management controls and processes for documenting and reviewing consulting agreements and invoices.*
- d. *Strengthen the administrative and management controls and processes for internal service charges and ensure that charges for specialized services are in compliance with the requirements of OMB Circular A-21.*
- e. *Strengthen the administrative and management controls and processes for reviewing and approving equipment costs charged to NSF, especially general purpose computer equipment.*

Stanford Response to Recommendation 4:

Stanford agrees with WithumSmith+Brown's questioned costs of \$41,853 of the \$89,875 and has removed the costs from the awards.

Stanford will work with the Cost Analysis & Audit Resolution Branch within the Division of Institution and Award Support of the NSF to determine if any further adjustments need to be made and whether Stanford needs to modify administrative and management controls. Responses to each finding are below.

AWARDEE RESPONSE

*WithumSmith+Brown questioned \$3,067 for equipment expenditures in bullet one:
See details in WithumSmith+Brown audit report.*

Stanford agrees with WithumSmith+Brown's questioned costs of \$3,067 and removed the costs from the awards.

WithumSmith+Brown questioned \$4,071 for a laptop expenditures in bullet two:

\$4,071 for [REDACTED] laptop computer charged entirely to one NSF award. There was no evidence provided that this computer was used primarily or exclusively for the research related to this award. This purchase was made six months prior to the award expiration date. Although SU stated this computer was used exclusively on this award by a particular researcher, we question whether a laptop, which has a useful life of longer than 6 months, could have been used exclusively on this award. We also believe this purchase is not of a type that is typically charged as a direct cost on a sponsored award.

Stanford Response:

Stanford disagrees with WithumSmith+Brown's questioned costs of \$4,071 for [REDACTED] laptop computer charged to the [REDACTED] NSF award. Stanford has provided extensive payroll data showing that [REDACTED] worked exclusively on the [REDACTED] award from 9/01/09 through 8/31/10.

[REDACTED] research group does theoretical [REDACTED] research. This is entirely carried out on computers. In order to accomplish any of the research listed in the proposals for the award, students and postdocs need both a computer cluster and also a means of accessing said cluster. Laptops are the computers used for this purpose and also for development, debugging, and implementation of the methods that are developed as part of the awards in question. In order to carry out debugging and review of source code, it is necessary that these laptops be augmented with [REDACTED] (and keyboards and mice). Laptops and [REDACTED] are assigned to a student and used for their research only. It is made clear to the students that these are exclusively for research and not for other purposes. The PI moved from the [REDACTED] to Stanford in the middle of the grant. This necessitated the purchase of monitors and computers which could be used by the students, as the [REDACTED] retained claim to the equipment purchased for the project at the [REDACTED]. Quoting from the proposal - "The work proposed on the award focused on 1) [REDACTED] 2) [REDACTED] and 3) [REDACTED]. Items 1 and 2 above are concerned with the development of methods and their implementation/debugging in software. These tasks require [REDACTED] and standalone computers. The [REDACTED] was used exclusively for research on this award by [REDACTED]. The expense is an allowable and reasonable expense to charge to the award.

WithumSmith+Brown questioned \$30,000 for consulting costs expenditures:

AWARDEE RESPONSE

See details in WithumSmith+Brown audit report.

Stanford Response:

Stanford disagrees with WithumSmith+Brown's questioned costs of \$30,000 for [REDACTED] of [REDACTED] services charged to the [REDACTED] NSF award.

WithumSmith+Brown's calculation of questioned costs is incorrect. [REDACTED] was paid \$12,483 from the [REDACTED] NSF award. Stanford believes these costs are reasonable and appropriate.

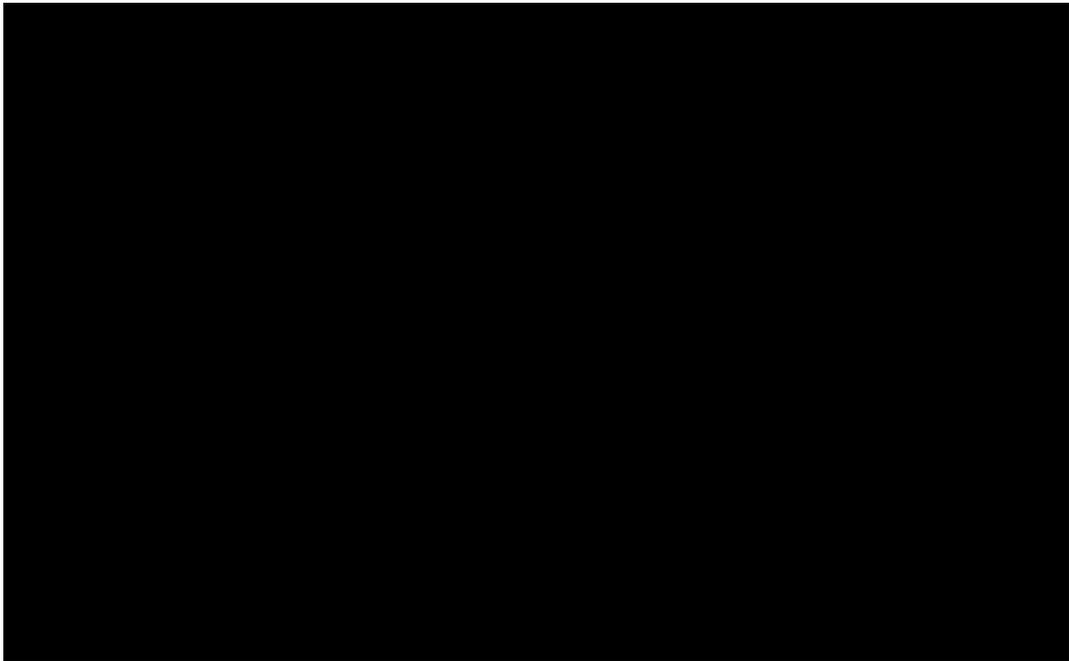
Stanford University received written authorization for [REDACTED] services from [REDACTED] Program Director, [REDACTED], NSF.

The statement of work and research services to be provided are clear from the "Statement of Work" included in the contract:

Feb/4/2010

Statement of Work

[REDACTED]



AWARDEE RESPONSE

[REDACTED]

According to the principle investigator [REDACTED] [REDACTED] was engaged to work on two awards. "For the NIH grant [REDACTED] worked on [REDACTED] [REDACTED] which contributed to Specific Aim 3, study principal components and [REDACTED] and Specific Aim 5, further topics in [REDACTED] [REDACTED]. For the NSF grant, [REDACTED] worked on estimation of the [REDACTED] [REDACTED]. This work contributed to theme 2 of the NSF grant. "[REDACTED] supporting [REDACTED] contributed about equal amounts of his time to the two efforts." [REDACTED] who managed both the NIH grant, [REDACTED] and the NSF award, the [REDACTED] was clearly the most qualified to determine the appropriate allocation of costs and whether charges for the services provided by [REDACTED] were reasonable. Stanford maintains that the consulting payments made to [REDACTED] and charged to the award are allowable and reasonable.

*WithumSmith+Brown questioned \$11,400 for computer cost usage allocations:
See details in WithumSmith+Brown audit report.*

Stanford Response:

Stanford agrees with WithumSmith+Brown's questioned costs of \$11,400 for use of computer [REDACTED] processing and has removed the costs, however the circumstances were different than that stated by WithumSmith+Brown. The charging for the [REDACTED] was not set up as a service center or a specialized service center. The costs were accumulated in an allocation account and allocated based on use. The award clearly benefited from the services but the department allocating the charges did not retain adequate records from 2010 to adequately support the allocations, therefore these charges have been removed.

WithumSmith+Brown questioned \$13,951 for a computer equipment purchase not approved in the budget:

Additionally, we found \$13,951 of computer equipment charged to an award that did not have equipment (or materials and supplies) approved in the budget. The purchase was for a computer server, without which, the PI stated the results for the project would have been impossible. This seems to contradict the award proposal, which states that the Stanford University [REDACTED] has "dozens of workstations equipped with cutting edge 3D accelerator cards and . . . computation resources provided by [REDACTED]". The PI stated that after starting the research project, he realized the equipment in the lab was outdated, and that "more powerful computing resources were available outside the [lab], but they were heavily booked by many research groups and we could not get enough time [REDACTED]"

AWARDEE RESPONSE

Therefore, we are questioning the reasonableness and necessity of these costs given the resources that SU stated in the award proposal they already had.

Stanford Response:

Stanford disagrees with WithumSmith+Brown's questioned costs of \$13,951 in computer equipment purchased to support the [REDACTED] NSF award. When the award was proposed in 2009 [REDACTED] believed the equipment in the [REDACTED] would be adequate to complete the scope of work. However, during the course of the award due to advances in technology it became apparent that the equipment in the [REDACTED] was no longer powerful enough to perform the computing tasks necessary to complete the scope of the award. Therefore, in the fall of 2012 [REDACTED] purchased an economical [REDACTED] which had the computing power to accomplish the scope of work. Per [REDACTED] "It's a [REDACTED] it was needed to train [REDACTED] models of [REDACTED] Even with this [REDACTED] training took days, and we needed to iterate the training many times for each model. Without [REDACTED], we wouldn't have had the compute power to do our work. Without it, the results reported for the project would have been impossible. We wouldn't have had the compute power to train the [REDACTED] we developed." [REDACTED] used his re-budgeting authority to adjust to the ever changing nature of research and technology. Stanford maintains that the expenses charged to the award are allowable and reasonable.

*WithumSmith+Brown questioned \$27,386 in miscellaneous costs:
See details in WithumSmith+Brown audit report.*

Stanford Response:

Stanford agrees with WithumSmith+Brown concerning the \$27,386 of the questioned costs and has removed the costs from the awards.

*Finding 5 – Cost Transfer Due to Overrun
See finding details in WithumSmith+Brown audit report.*

WithumSmith+Brown Recommendation 5:

We recommend that the NSF's Director of the DIAS address and resolve the following SU recommendations:

- a. Work with NSF to resolve the \$12,018 of questioned costs; and
- b. Strengthen the administrative and management controls and processes for reviewing and approving cost transfers that appear to be due to cost overruns.

Stanford Response:

AWARDEE RESPONSE

Stanford disagrees with WithumSmith+Brown's questioned labor charges of \$12,018 for [REDACTED]

[REDACTED] a [REDACTED] different projects to match skills to project needs is common. The [REDACTED] SF project benefited from the costs transferred which supported [REDACTED]

The explanation of [REDACTED] transfer from the [REDACTED] project to the [REDACTED] project in the summer of 2012 follows:

[REDACTED] joined, [REDACTED] and, by courtesy, of [REDACTED] group in the Fall of 2011, first as a [REDACTED] and later as a [REDACTED] in January 2012. [REDACTED]

As noted in the Labor Distribution Adjustment (transfer), when the PI was reviewing [REDACTED] summer quarter financial statements which were available in October [REDACTED] noticed that [REDACTED] was still being charged to the [REDACTED] project and not to the [REDACTED] project. As soon as [REDACTED] noticed the error, [REDACTED] requested a correction to the appropriate NSF award [REDACTED] and the LDA was processed immediately.

Here is a link to a paper submitted in 2013 that [REDACTED] group) which acknowledges only the [REDACTED] grant as a support (see the very end, just before references: [REDACTED]

This paper describes the work that [REDACTED] did in [REDACTED] group in 2012.

Below are the first two pages of the NSF interim report submitted for the [REDACTED] grant in June of 2012. The report makes it clear that [REDACTED] was an active member of the project. The complete report was submitted to WithumSmith+Brown. This covers the period through August 2012, and lists [REDACTED] as an active project participant on the 1st page and says "[REDACTED] joined this project and our team this year."

AWARDEE RESPONSE

This documentation proves that [REDACTED] worked on the project and the transfer is appropriate.

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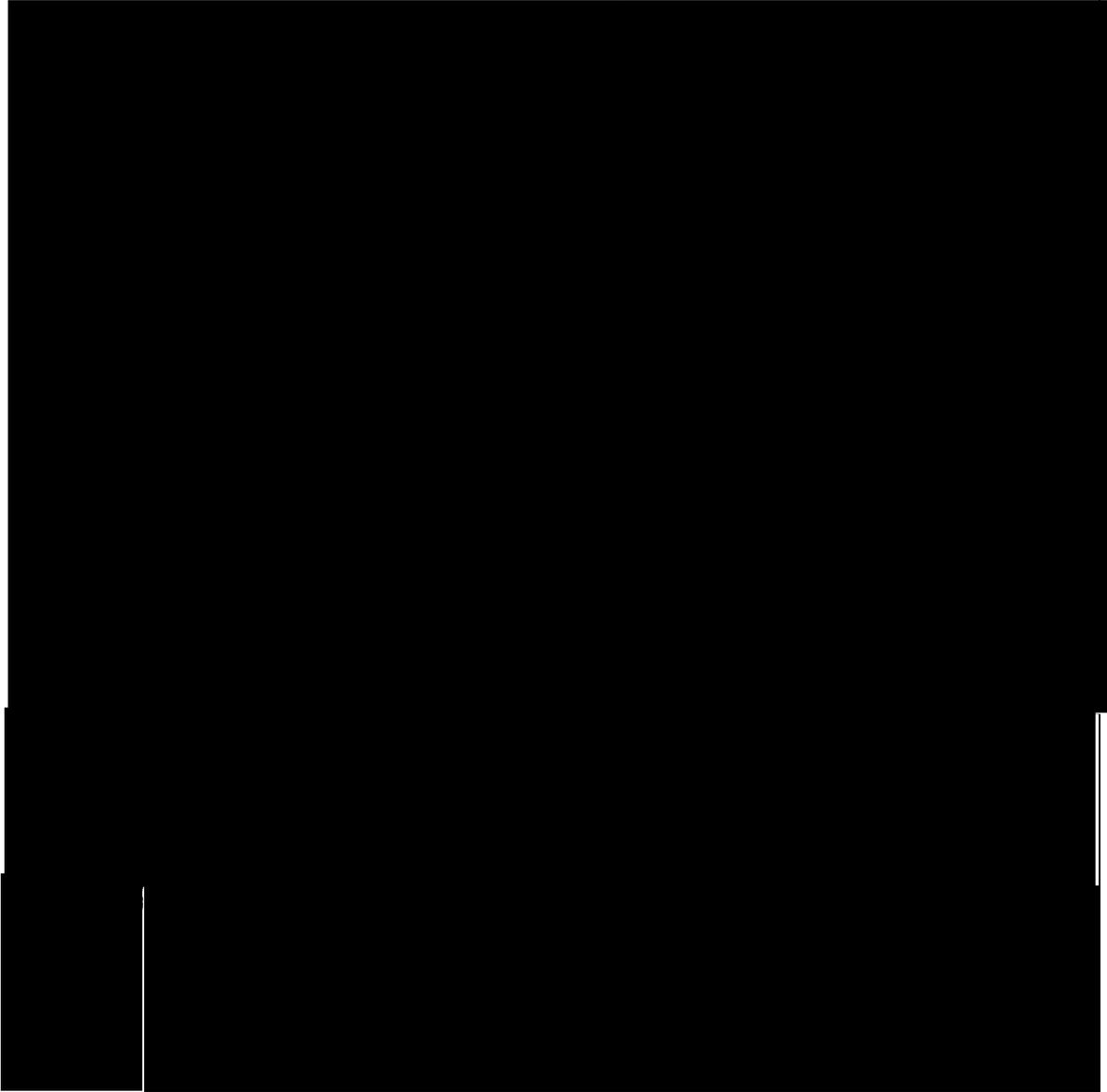


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Activities and Findings



Stanford will work with the Cost Analysis & Audit Resolution Branch within the Division of Institution and Award Support of the NSF to determine if any further adjustments need to be made and whether Stanford needs to modify administrative and management controls.

AWARDEE RESPONSE

Appendix A

Research Terms and Conditions Prior Approval and Other Requirements Matrix* **
October 2008

	AFOSR	ARO	AMRMC	EPA	NASA	NIH	NSF	ONR	USDA	DOC	DOE
General Requirements											
Change in Scope	Prior approval required										R
Absence or Change of PI	R	R	R	R	R	21	R	R	R	R	R
Need for Additional Funding	Prior approval required										R
Subaward of "significant part" of programmatic effort	R	R	R	R	R	2	R	R	3	R	1
Pre-award costs (90 days)	Prior approval waived										W
Pre-award costs (more than 90 days)	Prior approval required										W
Initial no-cost extension of up to 12 months (per competitive segment)	R	R	W	4	W	W	W	R	5	W	W
Subsequent no-cost extension or extension of more than 12 months	Prior approval required										R
Carry-forward of unexpended balances to subsequent funding	W	W	W	W	6	7	W	W	W	W	22
Cost-related Requirements											
Rebudgeting among budget categories	W	W	W	W	W	8	W	W	W	W	22
Rebudgeting between direct and F&A costs	W	W	W	W	W	8	W	W	W	W	22
Rebudgeting of funds allotted for training allowances (direct payment to trainees) to other categories of expense.	W	W	W	W	W	9	R	W	W	W	W
Equipment not in approved budget	W	W	W	W	W	8	W	W	W	W	22
Capital expenditures for improvement of equipment not in the	Prior approval waived										22
Alterations and Renovations costing less than \$25,000	W	W	W	W	W	11	W	W	W	W	W
Foreign Travel	W	10	W	R	W	W	W	W	W	W	W
Inclusion of costs requiring prior approval in Cost Principles	W	W	W	W	W	12	W	W	W	W	22
Faculty consulting compensation that exceeds base salary	Prior approval waived										22
Restrictions on costs not explicitly unallowable under Cost Principles	none	none	none	none	none	14	15	none	16	none	13

R Prior approval required. *Prior approval* means prior written approval from the sponsor. Prior approval can take the form of the sponsor's acceptance of the proposal and/or proposal budget and subsequent incorporation into the award, or written approval of a separate request submitted by the recipient.

W Prior approval requirement waived

- 1 Waived except when subaward would be more than 25% of the total dollars of the award
- 2 Waived unless change in scope and except when subawardee is foreign
- 3 Waived except when subaward(s) would be more than 50% of the total dollars of the award; required for any subaward to federal agencies
- 4 Waived except for extensions that would result in a project period in excess of five years
- 5 Waived only for first-time requests for extensions of 12 months or less
- 6 Uncommitted carryforward funds are to be included in the continuation proposal if they are "substantial."
- 7 Waived except when award indicates prior approval is required
- 8 Waived unless change in scope
- 9 Waived except for Kirschstein-NSRA grants
- 10 Waived, but trip report is required within 30 days after trip completion. See agency specific requirements, Article Nc. 17, Foreign Travel Reporting Requirements.
- 11 Waived for alterations and renovations costing up to \$300,000, unless change in scope or rebudgeting into A&R exceeds 25% of budget period total
- 12 Waived, but costs not specifically covered in the Circulars are subject to NIHGPS.
- 13 Interest penalties for late payment are not allowable
- 14 Prior approval required for patient care costs if change in scope
- 15 Prior approval required to modify the amount of cost sharing reflected on Line M of the award budget.
- 16 Non-working meals and compensation for harm to persons or property are unallowable; also other unallowable costs for awards made under statutory authority cited in Article 3 of the ASR are: graduate assistant tuition remission, F&A in excess of statutory amount, and fixed and real property.

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October 2008

AWARDEE RESPONSE

Research Terms and Conditions Prior Approval and Other Requirements Matrix* **
October 2008

	AFOSS	ARO	AMRMC	EPA	NASA	NIH	NSF	ONR	USDA	DOC	DOE
Cost-related Requirements (cont.)											
Inclusion of unrecovered F&A costs as cost sharing	Permitted										P
Transfer of funds between construction and non-construction	Prior approval required										R
Use of program income earned during the project period	Funds added to the amount available for the project										Same
Use of program income earned after the project period	No obligation to the federal government										23
Property-related requirements											
Title to supplies with value of more than \$5,000 at the end of a	R	R	R	W	W	W	W	R	W	W	W
Acquire real property	Prior approval required										R
Encumber real property acquired with federal funds	Prior approval required										R
Use real property acquired with federal funds for other non-federal projects rather than compensating the federal government for its fair	Prior approval required										R
Encumber equipment acquired with federal funds	Prior approval required										R
Trade in equipment purchased with project funds to buy replacement	Permitted										P
Own equipment upon acquisition without conditions or without obligation to the sponsor at termination of project	Permitted										P
Funding agencies' rights in data	Not waived										Not waived
Use of valuation methods other than the lesser of book value or fair market value for contributed capital assets	Permitted										P
Procurement requirements associated with the simplified acquisition threshold	Wherever FDP Terms and Conditions incorporate A-110 provisions referring to the "Small Purchase Threshold," the term "Simplified Acquisition Threshold" is substituted.										Same
Equipment threshold	Even if institutions establish a threshold for equipment lower than \$5,000, the FDP provisions relating to equipment apply only to those items costing \$5,000 or more.										Same
Project Management Requirements											
Monthly submission of Cash Transaction Reports when advances exceed \$1 million/year	Not required										24
Up-front specification of interrelationship among projects	Not required										24
Publication acknowledgment and disclaimers	Required										R
Additional requirements for use of human subjects beyond those imposed by federal law	none	none	17	none							
Additional requirements for use of anatomical substances beyond those imposed by federal law	none	none	17	none							
Use of sponsor budget forms for budget revisions	18	18	18	18	18	19	20	18	18	18	18
Use of electronic records to meet record retention requirements	Permitted										P

- 17 Army Surgeon General approval also required
- 18 Not required, but budget should be in same general format as original
- 19 Not required for SNAP awards, but others use "Next Period Budget" form page from PHS2590.
- 20 Must be submitted electronically via the NSF FastLane system at <https://www.fastlane.nsf.gov>
- 21 Required for the PI and any other individuals specifically named in the Notice of Award
- 22 Prior approval required for non-profits
- 23 For universities - no obligation to the federal government; for non-profits see special terms and conditions
- 24 Not required for universities

* Any of the waivers noted above may be over-riden by a special term or condition of award.
** Only the full text of the Research Terms & Conditions and the Agency-specific Requirements (ASR) available electronically at: <http://www.nsf.gov/ba/dias/policy/rtc/index.jsp> are authoritative.

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October 2008

OBJECTIVES, SCOPE, AND METHODOLOGY

Our audit included assessing the allowability, allocability and reasonableness of costs claimed by SU on the quarterly Federal Financial Reports (FFR) for the three-year period beginning January 1, 2010 and ending December 31, 2012. We also reviewed the accuracy, reasonableness, and timeliness of SU's ARRA reporting.

The audit was performed in accordance with generally accepted government auditing standards for performance audits. The audit objectives were to:

1. Identify and report on instances of unallowable, unallocable, and unreasonable costs from the transactions tested;
2. Identify and report on instances of noncompliance with regulations, federal financial assistance requirements (e.g. OMB Circulars), and the provisions of the NSF award agreements as they relate to the transactions tested; and
3. Determine the reasonableness, accuracy, and timeliness of the awardee's ARRA quarterly reporting, including reporting of jobs created under ARRA and grant expenditures for the two most recent quarters.

To accomplish our objectives, we reviewed SU's policies, procedures, and systems, and interviewed appropriate SU personnel responsible for establishing and implementing control policies, procedures, and systems. We assessed the reasonableness, accuracy, and timeliness of the awardee's ARRA quarterly reporting, including reporting of jobs created under ARRA and grant expenditures for the two most recent quarters, by 1) recomputing the number of jobs created or retained in compliance with OMB Memorandum M-10-08, *Updated Guidance on the American Recovery and Reinvestment Act – Data Quality, Non-Reporting Recipients, and Reporting of Job Estimates*; 2) reconciled expenditures per the general ledger to the ARRA expenditures; and 3) reviewed the ARRA reporting submission dates.

To aid in determining reasonableness, allowability, and allocability of costs, we obtained from SU all awards for which costs were reported to NSF during the period of January 1, 2010 and ending December 31, 2012. This provided an audit universe of approximately \$211 million, in more than 389,000 transactions, across 885 individual NSF awards and an NSF ARRA universe of approximately \$27.3 million in more than 36,500 transactions, across 48 awards.

Our work required reliance on computer-processed data obtained from SU and NSF. At our request, SU provided detailed transaction data for all costs charged to NSF awards during our audit period. We also obtained award data directly from NSF which was collected by directly accessing NSF's various data systems. To select transactions for further review, we designed and performed automated tests of SU and NSF data to identify areas of risk and conducted detailed reviews of transactions in those areas.

We assessed the reliability of the data provided by SU by: 1) comparing costs charged to NSF award accounts within SU's accounting records to reported net expenditures, as reflected in SU's quarterly financial reports submitted to NSF for the corresponding periods; 2) performing general ledger to sub-ledger reconciliations of accounting data; and 3) reviewing and testing the parameters SU used to extract transaction data from its accounting records and systems.

Based on our testing, we found SU computer-processed data sufficiently reliable for the purposes of this audit. We did not review or test whether the data contained in, or controls over, NSF's databases were

OBJECTIVES, SCOPE, AND METHODOLOGY

accurate or reliable; however the independent auditors' report on NSF's financial statements for fiscal years 2010 and 2011 found no reportable instances in which NSF's financial management systems did not substantially comply with applicable requirements.

In assessing the allowability of costs reported to NSF by SU, we also gained an understanding of the internal controls applicable to the scope of this audit through interviews with SU staff, review of policies and procedures, and conducting walkthroughs as applicable and reviews.

We assessed SU's compliance with the University's internal policies and procedures, as well as the following:

- Public Law 111-5, *American Recovery and Reinvestment Act of 2009*;
- OMB Circular A-21, *Cost Principles for Educational Institutions* (2 C.F.R., Part 220);
- OMB Circular A-110, *Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations* (2 C.F.R., Part 215);
- OMB Memorandum M-10-08, *Updated Guidance on the American Recovery and Reinvestment Act – Data Quality, Non-Reporting Recipients, and Reporting of Job Estimates*;
- NSF Proposal and Award Policies and Procedures Guide (includes the Grant Proposal Guide and Awards and Administration Guide);
- NSF Award Specific Terms and Conditions; and
- NSF Federal Demonstration Partnership Terms and Conditions.

| [REDACTED] |
|------------|------------|------------|------------|------------|------------|------------|
| [REDACTED] |

The remaining attachments contain non-public material and are not posted.