INDEPENDENT ACCOUNTANT'S

REPORT ON THE PERFORMANCE AUDIT OF

COST SHARING PROVIDED BY

CORNELL UNIVERSITY ON AWARDS

DBI-9512240, ESI-9627280, ECS-9512186,

DBI-9512501, AND ECS-9871026

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This audit report addresses cost sharing on five National Science Foundation (NSF) awards at Cornell University from 1995 through 2001. The awards provided funds for equipment (spectrometers and nanofabrication) on four projects and for research and education about bird breeding on another project, which generated program income. NSF requires some award recipients to contribute funds in the form of cost sharing on awards with infrastructure-building benefits such as equipment; and thus it required cost sharing for the awards funding spectrometers and nanofabrication equipment. NSF also requires cost sharing on awards where there is a clear potential to generate income, and thus it required cost sharing on the ornithology award. The total value of the five awards was $4.2 million, and the total amount of required cost sharing was $3.8 million. As of the date of completion of our fieldwork, two of these five awards were still open.

According to NSF records, it has funded over 1,000 awards at Cornell from 1995 through 2001, representing an investment of $612.8 million. On 174 of these awards, NSF records indicate that Cornell has promised $30.6 million of cost sharing.' Thus the $3.8 million of cost sharing required on the five awards included in our audit represents approximately 12 percent of the total cost sharing Cornell promised on the NSF awards it received during this time frame.

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OBJECTIVES, SCOPE, AND METHODOLOGY

NSF's Office of Inspector General (OIG) requested Cotton & Company LLP to conduct a performance audit of cost sharing provided by Cornell under the following awards: ECS-9512186, DBI-9512240, DBI-9512501, ESI-9627280, and ECS-9871026. The primary audit objectives were to:

1. Determine if Cornell met cost-sharing requirements and if the costs claimed are allowable, reasonable, allocable, and in compliance with applicable Office of Management and Budget (OMB) circulars, NSF requirements, and the award agreements.

2. Evaluate the adequacy of Cornell's internal controls to monitor cost sharing throughout the award period, including the annual certification process, and determine if Cornell's Authorized Organizational Representative certified the cost-sharing amount.

3. Evaluate the adequacy of internal controls over recording revenue and expenses for cost sharing to ensure that items are verifiable, reasonable, and allowable, and determine if Cornell's financial system accurately monitors revenue and costs for individual awards.

4. Evaluate internal controls associated with the valuation of in-kind contributions to ensure that they are allowable, allocable, and reasonable, and determine if Cornell has properly valued, recorded, and reported in-kind contributions.

We conducted fieldwork in December 2000, and January, February, and May 2001 at Cornell's campus in Ithaca, New York. Except for the matter described below regarding management representations, the audit was conducted in accordance with the General Accounting Office's (GAO) *Government Auditing Standards,* issued June 1994, applicable to performance audits. The scope of our audit included cost sharing under the five aforementioned awards, with effective dates from August 15, 1995 through August 31, 2001. To accomplish our objectives we reviewed Cornell's records and supporting documentation and interviewed personnel involved in managing and accounting for the awards.

We asked both Cornell's and its for written confirmation of the representations made to us during the audit. Despite our request, Cornell has not provided the requested management representations, which we consider to be a scope limitation under *Government Auditing Standards* on our

[1] The text of the representations we asked Cornell to confirm is included as Appendix B to this report.

forming an opinion regarding whether cost sharing is verifiable, reasonable, and allowable.[2]

AUDIT RESULTS

Cornell did not have an adequate internal control structure for managing, accounting, and reporting on its cost-sharing obligations. Cornell's departments, which set up their own cost-share accounting systems, did not always tie cost sharing to the specific NSF awards on which the cost sharing was claimed. Compounding this problem, departments tracked cost sharing in multiple accounts, some of which commingled both cost-sharing expenses and other expenses unrelated to the NSF projects. In addition, Cornell did not monitor subrecipients' cost sharing, which resulted in inadequate documentation to support the existence of, or the valuation for, claimed cost sharing.

As a result of these inadequacies in Cornell's accounting for cost sharing and Cornell's refusal to provide the requested management representations, we were unable to conclude whether or not the $3.8 million cost sharing Cornell claimed on the five awards was allowable, reasonable, and allocable under federal requirements. More generally, the inadequacies in Cornell's cost-share accounting increase the risk that Cornell may not be adequately accounting for a total of more than $30 million of cost sharing promised on other NSF awards funded concurrently with the five audited awards.

Although Cornell's decentralized departmental system made it more difficult to track cost sharing, the primary systemic weakness was Cornell's lack of oversight over departmental and subrecipient accounting for cost sharing. Cornell did not monitor all reported cost-sharing expenses to ensure that amounts claimed were reasonable, allowable, allocable and in compliance with federal and NSF requirements. Additionally, Cornell did not appear to place a sufficient level of priority on cost-sharing compliance. For example, Cornell officials told us that it would be too costly to set up a system to track cost sharing by means of a separate cost-sharing account on each award. They also told us that for monitoring subrecipient cost sharing they relied on "integrity-based systems," which they thought were adequate. Although Cornell was aware of problems related to its cost-share accounting based on prior audits, the fact that the system is not adequate indicates that Cornell did not take effective corrective action based on those previous audit findings.

Additionally, until our audit, Cornell had not submitted the annual cost-sharing reports with the required certification to NSF, where the required cost sharing was $500,000 or more. As a result of Cornell's inadequate cost-sharing reporting, NSF has less assurance that Cornell met its cost-sharing requirements and that its claimed cost

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[2] Section 6.55 of Government Auditing Standards states:

> Auditors may find it useful to obtain from officials of the auditee written representations concerning the competence of the evidence they obtain. Written representations ordinarily confirm oral representations given to auditors, indicate and document the continuing appropriateness of such representations, and reduce the possibility of misunderstanding concerning the matters that are the subject of the representations.

sharing is allowable. Cornell did not submit cost-sharing reports, or submitted them late, because it did not adequately monitor the departments that tracked the cost-sharing data to ensure that they had provided the required information. Cornell did not adequately certify cost-sharing reports that were filed, because it thought "signing" and "certifying" were synonymous.

We recommend that the Directors of NSF's Divisions of Grants and Agreements (DGA) and Contracts and Policy Oversight (CPO) ensure by follow-up review that Cornell establishes a system to link cost sharing to project accounts for each NSF award, through separate accounts or through other equivalent means, and improves its monitoring, certifying, and reporting of cost sharing at the departmental and subrecipient levels. We also recommend that the Directors ensure that Cornell's Authorized Organizational Representative (AOR) certifies annually the cost sharing for all awards requiring $500,000 or more of mandatory cost sharing.

In its response to our audit draft, Cornell acknowledged that its cost-share accounting system had flaws, but thought the report overstated the seriousness of that finding.[3] However, Cornell agreed to add a data code to the cost-sharing accounts to identify the associated NSF award account, and said that it has modified its procedures for monitoring subrecipients' cost sharing. On the basis of Cornell's responses, we have clarified our report and recommendations.[4] Specifically, we acknowledge that Cornell can use multiple accounts for cost sharing; but these accounts must be linked to the NSF award that is benefiting from the claimed cost sharing. Also, we acknowledge that Cornell does not need to maintain documentation of subrecipients' cost sharing; but it does need to ensure that the subrecipients have reliable processes for compliance with federal and NSF cost-sharing requirements.

CORNELL'S ACCOUNTING FOR COST SHARING NEEDS IMPROVEMENT

OMB Circular A-110, *Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-profit Organizations,* requires that recipients of federal funding have financial management systems that provide "[a]ccurate, current and complete disclosure of the financial results of each federally-sponsored project ... " and "[e]ffective control over and accountability for all funds . . . ." With regard to cost sharing specifically, the circular requires that cost-sharing amounts must be "verifiable from the recipient's records" and "allowable under the applicable cost principles." OMB Circular A-21, *Cost Principles for Educational Institutions,* provides criteria for determining allowable compensation for personal services. The circular states that the payroll system will "be incorporated into the official records of the institution," and that the payroll-system method "must recognize the principle of after-the-fact confirmation or determination so that costs distributed represent actual costs," and must allow "confirmation of activity allocable to each sponsored agreement . . ." We believe that the most effective way to ensure

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[3] We include the verbatim text of Cornell's response to the audit draft in Appendix D.

[4] In addition, a summary of our reply to Cornell's general comments about the audit report appear in Appendix E.

compliance with federal requirements and to ensure the integrity of claimed cost sharing is to establish a financial accounting system that tracks in separate accounts the cost-sharing expenditures for each NSF award. Separate accounts help ensure that amounts are verifiable from source records and are applicable to the NSF project.

However, in accounting for cost sharing on the NSF awards audited, Cornell did not establish separate accounts for cost-sharing expenses to track cost sharing claimed by Cornell, nor did it monitor cost sharing claimed by its subrecipients. Specifically, Cornell's departments did not tie claimed cost sharing to specific NSF awards; and further increasing the difficulty of tracing cost sharing, departments used multiple accounts for various projects to track cost sharing and sometimes commingled in the same account both cost-sharing expenses and other expenses unrelated to the NSF projects. In addition, Cornell did not ensure the validity of cost sharing claimed by subrecipients.

Cost-Sharing Accounts Not Linked to NSF Awards

Cornell does not separately track cost sharing benefiting NSF's awards. In addition, Cornell departments administering these awards do not establish unique cost-sharing accounts or coding structures to specifically link the claimed cost-sharing to the relevant NSF awards. Compounding this problem, Cornell's decentralized departmental cost-sharing system utilizes multiple accounts for individual awards to track cost sharing. Specifically, we found that the departments established a total of 35 separate project accounts and claimed portions of the costs reflected in these multiple accounts as cost sharing on the applicable NSF awards. For the five awards audited, we found the following multiple accounts:

Award Number	No. of Accounts Not Linked to NSF Awards	Claimed NSF Cost Share
ESI-9627280	12	$ 667,348
ECS-9512186	10	1,339,202
DBI-9512240	6	765,383
ECS-9871026	4	498,666
DBI-9512501	3	549,939
Total	**3-5**	**$3,820,538**

To illustrate the various project accounts used to support cost sharing for one award only, DBI-9512240 had the following project accounts and account descriptions:

Account Number	Account Description
125-3305	Isotope Lab
125-8502	Mellon Lab of NAIA
183-4300	Budgeted Research
183-5300	Budgeted Research
183-8108	Income Research
183-8513	Mellon Sub Acct 125-8502

Within some of these project accounts Cornell commingled NSF cost sharing with other costs, including direct-funded costs from other sources. For example, Cornell was unable to support $581,808 of salaries and related fringe benefits and indirect costs it claimed as cost sharing in awards ESI-9627280, DBI-9512501, and DBI-9512240. Departmental records identified salary costs for institutional and departmental research but did not contemporaneously certify the portion of such labor effort that was specifically expended in support of the NSF awards. Without performing an audit of *all* awards to the Cornell departments that managed the five NSF awards, we were unable to determine the amount of cost sharing allocated to specific NSF awards, whether the claimed cost sharing was reasonable, allocable, or allowable, or whether the departments had double-counted cost-sharing by claiming the same cost sharing on both NSF awards and other federal awards as well.

Insufficient Support for Subrecipient Cost Sharing

OMB Circular A-110, Subpart C, section 51 (a), states: "Recipients are responsible for managing and monitoring each ... subaward. . . ." As guidance on this requirement for subrecipient monitoring, The American Institute of Certified Public Accountants (AICPA) *Statement of Position 98-3* states: [5]

> If subrecipients have [an A-133] audit, the pass through entity's receipt and review of the results of that audit . . . may be sufficient to meet the subrecipient monitoring requirements of Circular A-133. However, it is more likely that the receipt and review of such audit results should be merely one tool that should be used by the pass-through entity as part of a comprehensive subrecipient-monitoring process.

Suggested additional monitoring procedures include "on-site visits, reviews of documentation supporting requests for reimbursement, and limited-scope audits." [6]

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[5] *AICPA, Statement of Position 98-3,* Section 9.29.

[6] Ibid., section 9.28.

Contrary to the requirements of OMB Circular A-110, Cornell did not have an adequate process to monitor promised subrecipient cost sharing or to ensure that subrecipients had met their cost-sharing obligations. Specifically, during our audit, Cornell initially did not provide any certifications from subrecipients to support $682,497 of their cost sharing, including equipment provided by third parties. After our request for additional support, Cornell did provide additional documentation, including copies of some invoices for both subrecipient reimbursable costs as well as subrecipient cost sharing; however, none of these invoices contained a certification statement applicable to the claimed cost-sharing amounts.

For example, under one award (ECS-9871026), Cornell claimed $376,676 of subrecipient cost sharing, representing 76 percent of the total cost sharing required on this award. Cornell claimed this cost sharing was primarily equipment costs: $200,000 provided by Stanford University (Stanford) and $132,000 provided by Pennsylvania State University (Penn State). Another $44,676 of claimed Penn State cost sharing was identified only as "Penn State Nanofab Facility." However, neither university ever certified that these amounts represented its cost sharing or that its cost-sharing requirement had been fulfilled. Although a document from Stanford stated that the university had cost-shared $200,000 on the award, the document did not itemize the type of cost sharing provided or contain a certification by Stanford that this amount met its cost-sharing obligation. Penn State's documentation consisted of an e-mail message dated around the time of initial audit work (October 10, 2000), showing its *budgeted* cost-sharing amount of $176,676. Upon questioning, Cornell provided a copy of Penn State's invoice to Cornell for reimbursement of direct costs; the invoice also included a note stating: "Total Matching Funds 132,000," but did not itemize the type of cost sharing provided or the associated dollar amount. The notation also did not assert that the $132,000 of cost-sharing actually had been incurred, nor did it contain certification that the claimed cost-sharing was in accordance with applicable federal cost principles. No further Penn State support was provided for the additional $44,676.

Similarly, on a second award (ECS-9512186), Cornell claimed $305,821, 23 percent of the required cost-sharing amount of the entire award, without adequate support from the subrecipient, also Stanford. Cornell stated that this amount consisted of $246,000 for equipment and $59,821 for salaries, fringe benefits, repair and maintenance, and expendable materials and services. However, to support the equipment amount, Cornell provided only a purchase requisition indicating that Stanford had purchased the equipment from Lam Research at a price of $275,000 plus sales tax. [8] The requisition also identified that Lam Research incurred, but did not charge, an additional $246,000 of costs for work, parts, and a warranty on the equipment. Cornell reimbursed Stanford for

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[7] Cornell provided these invoices as evidence to show that section 7 of its standard subcontract agreement required subrecipients to certify its reimbursable costs as well as its cost sharing on each invoice. For further discussion of section 7, see footnote 15, supra.

[8] The Stanford purchase requisition stated that Lam Research sold for $275,000 a high density etch tool valued at $658,000 with a discount of $137,000.

$275,000 and claimed the $246,000 difference as cost sharing.[9] Neither Stanford nor Cornell provided any documentation to indicate how Lam Research arrived at its original valuation of the equipment, or whether that valuation conformed to OMB Circular A- 110, which requires that the basis for valuation of the equipment be documented, that the value be determined in accordance with the usual accounting policies of the recipient, and that the fair market value of equipment not be exceeded.[10] Further, Cornell had no evidence (besides the purchase requisition) that the equipment had, in fact, been purchased by Stanford and used on the NSF grant.

Stanford's support for the $59,821 of salaries, fringe benefits, repair and maintenance, and expendable materials and services was an "Expenditure Statement" for the period 10/1/95 to 9/30/98. While this document detailed the amounts claimed as cost sharing, the statement at the bottom indicated only that the salary and wage costs shown were "reasonably accurate approximations of the work performed on this project;" and although the Expenditure Statement contained a certification statement and signature block, the PI had not signed this statement to attest to the validity and accuracy of these claimed cost-sharing amounts.

Implications of Inadequate Cost-Sharing Controls

The lack of adequate accounting controls over cost sharing at the department and subrecipient levels resulted in our inability to determine if the $3.8 million Cornell claimed as cost sharing on the five audited awards were allowable costs. Without being able to determine whether the costs reflected in the accounts were specifically incurred for the benefit of NSF awards and that the amounts were valued properly, we could not substantiate the validity and accuracy of the cost-sharing amounts that Cornell claimed. Accordingly, we have disclaimed a conclusion as to whether or not any of Cornell's $3.8 million cost sharing claimed on the five awards listed on the schedules in Appendix C, is allowable, reasonable, and allocable in accordance with federal requirements.

Inadequate accounting also resulted in inaccurate reporting of cost sharing and frequent revisions of cost-sharing reports. Specifically, during the course of our audit, Cornell revised its cost-sharing reports on four of five of the grants we were auditing. For example, on award number DBI-9512240, a closed award, cost sharing reported for travel and miscellaneous costs was higher, and for salaries was lower on 9/10/99 than subsequently reported to us on 12/4/00. For award number DBI-9512501, also a closed award, reported cost sharing for fringe benefits and equipment was lower, and for salaries was higher on 9/28/98 than subsequently reported to us on 12/4/00. The variance in

[9] We contacted Lam Research to confirm this transaction was actually consummated and determine how the company had determined that the value of the tool was $658,000, but Lam Research did not respond to our inquiries.

[10] OMB Circular A-110, Subpart C, section 23 (h) (2) states: "The value of donated equipment shall not exceed the fair market value of equipment of the same age and condition at the time of donation."

equipment costs alone that was reported to us on this award (DBI-9512501) was $171,834 ($219,352 reported on 9/28/98 and $391,186 reported on 12/4/00)."

Additionally, because accounting control deficiencies may have allowed for counting cost-sharing amounts more than once, NSF awards may be experiencing cost-sharing shortfalls on **its** five awards. Cost sharing was supposed to be approximately 42 percent of the total budget for these five programs. Consequently, cost-sharing shortfalls could have had detrimental effects on the science programs funded by these awards. Further, to the extent that inadequacies in Cornell's decentralized departmental systems for cost sharing on these audited awards are occurring in other Cornell departments, there are potential implications beyond the departments included in this audit. Cornell may have inaccurately reported and claimed cost-sharing amounts on its other 174 NSF awards, for which it had promised more than $30 million of cost sharing.

Inadequate University Oversight

We believe that Cornell's decentralized departmental systems for cost sharing and the lack of oversight over these systems contributed to the problems identified during our audit. While Cornell utilized a single account to track and manage the direct-funded costs of each NSF award, it allowed departments to decide independently how to account for its cost-sharing obligations. Each department established its own record-keeping system, without Cornell's adequate oversight to ensure that these decentralized systems supported cost-sharing obligations in accordance with federal and NSF requirements. As a result, of the four departments covered by our audit, [12] none was able to support that the cost sharing Cornell claimed was accurate or that it specifically benefited NSF's awards. Had Cornell exercised adequate oversight of the departments' accounting processes, it presumably would have identified the multiple accounts not linked to NSF awards, the commingling of cost-sharing and other expenses in one account, and the insufficient documentation used to support subrecipient cost sharing. Adequate oversight would also have revealed that some of the annual cost-sharing reports were not submitted as required, that some of the cost-sharing reports that were submitted were unsigned, and that supporting documentation and equipment valuations were inadequate.

Additionally, it does not appear that cost-sharing compliance was a sufficient priority for the university. Cornell did not follow its own procedures and policies regarding cost sharing. Specifically, Cornell's Policy *1.1 Cost Sharing,* of March 1997, stated:

> To facilitate the accumulation and reporting of cost-sharing expenditures by specific awards, unit administrators should track cost-sharing expenditures by award in the cost-sharing account by use of separate accounts ...
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> The university effort distribution and certification process requires that all effort directly associated with a sponsored project be classified consistently ....

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[11] See Appendix C for details.

[12] One department managed two of the NSF awards.

Cornell told us that it was concerned about the costs of implementing an accounting system to separately track cost sharing attributed to NSF awards; and it was not until after our audit began that Cornell informed us that it was planning to set up a system to track cost sharing separately. In addition, Cornell indicated that it did not do more to monitor subrecipient cost sharing, because it relied on "integrity-based systems," which it deemed to be sufficient.'[3]

Finally, Cornell was on notice from prior audits that it needed to monitor its decentralized departmental cost-sharing system more effectively. Cornell's internal auditors noted in a March 7, 2000, audit report that "[n]ot properly monitoring cost-sharing and documenting and authorizing cost-transfers may increase the risk of errors in charges made to sponsored projects." In a June 30, 2000, report, Cornell's internal auditors noted that a department reported estimated, rather than actual, cost-sharing contributions. Had Cornell heeded the findings of its internal auditors, it would have strengthened its controls over cost-share accounting, and in particular, its oversight of the system.

Recommendation

We recommend that NSF's Directors of DGA and CPO ensure by a follow-up review that Cornell has taken action to:

1) implement an accounting system that links the cost-sharing accounts with the project accounts benefiting from the cost sharing on each award,
2) support its cost-shared labor costs with certified after-the-fact labor distribution reports,
3) monitor departmental and subrecipient accounting for cost sharing, including periodic reviews and site visits to ensure the adequacy and completeness of departmental and subrecipient controls and processes for meeting federal and NSF cost-sharing requirements, and
4) revise its standard subrecipient agreement to require its subrecipients to account for, document, report, and certify their annual cost-sharing contributions to Cornell.

Based on the outcomes of the site visit, NSF should take appropriate action, including, if necessary, withholding funds for any new awards with cost-sharing requirements to Cornell until it has fully addressed all four recommendations.

Awardee Comments: Although Cornell disagrees that its departmental cost-sharing system is inadequate and that it does not have adequate procedures for monitoring

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13 [redacted] the Office of Sponsored Programs stated that section 7 of Cornell's standard agreement required annual certifications of cost sharing. However, section 7 required subcontractor certification of reimbursable costs only, not of cost-sharing expenses ("An authorized representative of the Subcontractor shall certify on each invoice that the costs for which reimbursement is requested are the actual costs"). Further, as discussed in this report, the subrecipient invoices that Cornell provided to show that subrecipients certified cost-sharing did not contain such certifications.

subrecipient cost sharing, it has agreed to take remedial action. It has stated that it will add a new data field to the cost-sharing accounts to link the cost sharing to NSF awards and will require subrecipients to certify on each invoice that claimed cost-sharing expenses were actual expenses incurred for NSF awards. Regarding labor costs, Cornell has stated that it would use labor distribution reports certified after-the-fact to support cost-shared labor costs, but that it would continue to maintain its system of subsidiary departmental records, which it thought provided adequate support for the distribution of cost-shared labor costs to specific NSF awards.

Cornell also disagrees that its oversight of the system for accounting for cost sharing is inadequate, stating that an accountant in the Sponsored Funds Accounting Office undertakes analytical reviews of cost-sharing on each award before submission to NSF, that the indirect cost department performs a cost-sharing review as part of its annual procedures, that internal audit performs cost-sharing reviews as part of its routine work, and that as part of its annual Single Audit (the A-133 audit) the external CPA firm ([redacted]) reviews cost sharing. Cornell also states that our auditors did not bring findings to its attention during audit fieldwork and that auditors who performed interviews were "pulled off the audit after their fieldwork" and that "their findings have not been incorporated in the report." As for the findings from prior internal audits, Cornell replies that these findings were, in fact, minor.

Regarding subrecipient monitoring, Cornell replies that following our fieldwork, it implemented improved subrecipient monitoring procedures by updating subaward procedures, modifying the standard subaward agreement to include a requirement for subrecipients to include certifications on invoices, [14] and conducting departmental training in the area of subrecipient monitoring.

Auditor Reply: If fully implemented, the addition of a data element in the general ledger and the requirement that a subrecipient certify on each invoice that claimed cost sharing expenses were actual costs incurred for specific NSF awards, would address two of the conditions we reported. However, since cost-shared labor costs will be tied to NSF awards by the new data element, our remaining concern is that labor distributions reports with after-the-fact certifications support these costs. If Cornell does utilize these certified labor distribution reports, it should not need to continue to rely on departmental records. Thus, the university's expressed intention to maintain such departmental records suggests that its certified labor distribution reports may not support cost-sharing amounts. Therefore, we continue to recommend that NSF Directors of CPO and DGA verify the implementation and adequacy of Cornell's purported changes and determine whether or not Cornell has implemented certifications of labor distribution reports to support claimed cost sharing of labor costs.

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[14] According to Cornell, the language in the standard subaward agreement now reads:

> An authorized representative of the Subcontractor shall certify on each invoice that the costs, including those requested for reimbursement and those shown as the Subcontractor's share, are actual costs as recorded in Subcontractor's records and as expended for the work actually performed in accordance with the terms of this Agreement.

Regarding the review process that Cornell states that it uses to oversee cost sharing, Cornell did not provide us with evidence of reviews of cost-sharing reports the Sponsored Funds Accounting Office purportedly undertook before submission of the reports to NSF. In fact, as we discuss below, prior to our audit Cornell had not submitted the required cost-sharing reports. Cornell also did not provide evidence of reviews by the indirect cost department. Both kinds of reviews, if properly implemented, would strengthen Cornell's internal controls over cost sharing. However, had the reviews been as thorough and accurate as they were portrayed, they would have detected the inadequacies in departmental and subrecipient reporting of cost sharing.

As noted subsequently, we did see evidence of limited cost-sharing reviews by internal auditors, who, in fact, found deficiencies in Cornell's procedures. Cornell's University Audit Office in its Annual Report of Recommendations for FY 2000 stated that one of the most significant issues of non-compliance for sponsored projects was the failure of Cornell's staff to properly record cost-sharing expenditures. As for the external CPA firm, [redacted], which conducted the A-133 audits, the partner declined to talk with Cotton & Company auditors; and the OIG is still attempting to discuss and obtain an understanding from [redacted] of its workpapers for its Cornell audits. Contrary to Cornell's assertion that no findings were brought to its attention during fieldwork, we provided Cornell with detailed write-ups of three specific findings at the conclusion of our survey work in September 2000. Finally, no auditors were "pulled off the audit after their fieldwork."

Regarding subrecipient monitoring, we acknowledge the changes Cornell states that it has implemented. Such modifications should strengthen Cornell's internal controls over subrecipient cost sharing. However, to evaluate these changes, we reiterate our recommendation that the NSF Directors of DGA and CPO ensure by follow up review that Cornell has, in fact, implemented adequate procedures to monitor subrecipient accounting for cost sharing, and has revised its standard subrecipient agreement to require subrecipients to account for, document, report, and certify their annual cost-sharing contributions to Cornell.

CORNELL IS NOT SUBMITTING ADEQUATE ANNUAL CERTIFIED COST-SHARING REPORTS TO NSF

NSF's *Grant Policy Manual,* Section 33.6 b, states:

> . . . [I]n cases where grantee cost sharing commitments are $500,000 or more, the grant instrument will require as a condition of the grant, the Authorized Organizational Representative to report and certify the amount of cost sharing on an annual and cumulative basis. These cost sharing reports shall be included as part of the annual progress and final project reports.

Prior to our audit, Cornell had not submitted the annual cost-sharing reports with the required certification to NSF for the five awards we reviewed. We notified Cornell of our planned audit in July 2000. At that point in time, Cornell should have submitted a total of 14 cost-sharing reports under the five grants within the audit's scope. However, Cornell only produced three cost-sharing reports that were dated prior to August 2000; and we could not verify that any of these three reports had been submitted to NSF. Following commencement of our audit, Cornell did submit cost-sharing reports for the five grants. However, while four of the five reports were signed by departmental personnel, they contained no assertion of what the signatures represented or that the amounts reported were in conformance with NSF requirements or Cornell's policy. The cost-sharing report for the fifth award was neither signed nor contained a certification statement or assertions about the integrity and accuracy of the report's contents.

Cornell's failure to submit the required certifications reduces NSF's assurance that cost-sharing requirements are being met. In addition, because the certifications Cornell finally supplied did not indicate whether the amounts listed conformed to NSF or federal requirements, it was not clear what the certifications actually represented. Although the *Grant Policy Manual* does not state explicitly that attestations of compliance with NSF cost-sharing requirements accompany cost-sharing certifications, such attached explanations would provide NSF with more assurance that the cost-sharing certifications are complete and accurate.

Cornell did not submit required annual cost-sharing reports because it did not adequately monitor the departments' tracking of cost sharing, and thus did not realize when they had not submitted the required cost-sharing information. In one case the administering department did not know there was a cost-sharing requirement until after the award ended. Further, Cornell personnel indicated that they did not certify the cost-sharing reports because they believed signing the reports was the equivalent of a certification. They asserted that "signed" and "certified" are synonymous terms. Nevertheless, during our audit, Cornell submitted to NSF certified cost-sharing reports for all five of the awards. In addition, Cornell initiated corrective actions based on the recommendations we made at the conclusion of the survey phase of this audit, and prior to the commencement of audit fieldwork in December 2000. On December 1, 2000, Cornell's Division of Financial Affairs issued a memorandum to department accounting personnel on preparing and transmitting standardized *Cost Share Report* forms. The form includes the following certification language:

> *This is to certify that, to the best of my knowledge and belief, all cost-sharing expenditures:*
>
> 1. *Are verifiable from University records.*
> 2. *Are not included as contributions for any other federally-assisted project or program.*
> 3. *Are necessary and reasonable for proper accomplishment of the project.*
> 4. *Are allowable under the applicable cost principles.*

5. *Are not paid for by the Federal Government under another award, except where authorized by Federal statute to be used as cost sharing or matching.*

Recommendation

We recommend that NSF's Directors of DGA and CPO ensure by follow-up review that Cornell takes action to both develop and implement policies and procedures to certify cost sharing on all awards with $500,000 or more in mandatory cost sharing and to submit these certifications as part of the annual progress and final project reports. Although not explicitly required by the *Grant Policy Manual,* we believe that best practices require Cornell to certify amounts by line items, and to state in the certifications that the amounts reported conform to NSF requirements and federal cost principles.

Awardee Comments: Cornell disagrees with this finding, asserting that the certification on its Federal Cash Transactions Report meets the cost-sharing reporting requirements of NSF's *Grant Policy Manual.* Although Cornell disagrees that a certification in addition to a signature is required on the cost-sharing reports, the university has added certification language to its cost-sharing reports.

Auditor Reply: We disagree with Cornell's assertion that a certification on Federal Cash Transaction Reports meets the requirements for certified annual cost share reports, since that certification does not list any annual or cumulative cost-sharing amounts, as required by NSF's *Grant Policy Manual.* Therefore we reaffirm our recommendation.

OTHER MATTER

Under OMB Circular A-133*, Audits of States, Local Governments, and Non-Profit Organizations,* Cornell is required to have an annual university-wide audit by an independent public accounting firm. [redacted] conducted the A-133 audits for 1995 and 1996, and [redacted] conducted the A-133 audits from 1997 through 1999. Neither the audit reports nor management letters for these years revealed cost-sharing problems, except for a reference to a Defense Contract Audit Agency (DCAA) audit finding related to cost-share accounting controls in the 1995 A-133 report.

We contacted [redacted] on May 31, 2001, and asked to review [redacted] workpapers to determine if any non-reportable weaknesses related to cost-share accounting and internal controls were noted in any of the audits. We also asked [redacted] (a) how [redacted] auditors selected programs, contracts, or grants for audit; (b) how [redacted] tested for cost-sharing compliance; and (c) for the most recent audit, how many awards with cost-sharing requirements were tested for compliance and how many departments these awards covered. [redacted] never provided this information to Cotton & Company auditors.

Awardee Comments: Cornell asserted that the auditors made it "appear that [redacted] was unresponsive" and that they failed "to mention that a [redacted] representative contacted the NFS OIG's office in August 2001 to offer to facilitate a meeting between the NSF OIG and the national CPA firms to discuss perceived A133 [sic] audit issues related to cost sharing."

Auditor Response: [redacted] did not, in fact, respond to Cotton & Company's requests for information regarding the extent of cost-sharing compliance audit testing performed as part of the A-133 audit process. OIG has informed us that it is in the process of reviewing [redacted] workpapers for its Cornell audits and is attempting to obtain answers to its questions regarding the scope of [redacted] audit with respect to cost sharing at Cornell.

COTTON & COMPANY LLP

[redacted]

By: ______________________

[redacted], CPA, CFE, CGFM

APPENDIX A

Awards Included in This Audit

Grant No.	Effective Dates	Award Amount	Cost-Sharing Amount	Grant Purpose
DBI-9512240	8/15/95 - 7/31/99	$750,000	$750,000	Acquisition of Mass Spectrometers for the Cornell Laboratory for Natural Abundance Isotope Analysis
ESI-9627280	8/1/96 - 7/31/01	$1,305,765	$756,170	Cornell Nestbox Network
ECS-9512186	10/1/95 - 9/30/98	$1,294,352	$1,256,000	Acquisition of Nanofabrication Instrumentation to Enhance the Effectiveness and Efficiency of the National Nanofabrication Users Network
DBI-9512501	8/15/95 - 7/31/98	$400,000	$527,830	Acquisition of a 500 MHz NMR Spectrometer for Structural Analysis of Biological Macromolecules
ECS-9871026	9/1/98 - 8/31/01	$466,100	$543,960	MRI: Nanofabrication Equipment to Support MEMS Research
Total		**$4,216,217**	**$3,833,960**	

APPENDIX B

TEXT OF MANAGEMENT REPRESENTATIONS REQUESTED BUT NOT PROVIDED

Cornell University Letterhead

June 1, 2001

Cotton & Company
333 North Fairfax Street
Suite 401
Alexandria, Virginia 22314

This confirmation is in connection with your audit of cost sharing incurred under National Science Foundation (NSF) Agreements DBI-9512240, ESI-9627280, ECS-9512186, DBI-9512501, and ECS-9871026. We understand that this audit is being performed to (a) determine if all cost share expenses claimed under these agreements are supported, reasonable, and allowable in accordance with the terms and conditions of the basic agreements, general conditions, agreement scopes of work, and all applicable Federal cost principles and administrative requirements; and (b) identify any control weaknesses regarding the accounting for and reporting of cost share commitments. Accordingly, we confirm, to the best of our knowledge and belief, the following representations made to you during your examination:

1. We are responsible for all receipts and disbursements of funds under the terms of the agreements and also for accurately reporting the aforementioned to NSF.

2. We have made available to you all financial records and related data, including correspondence and memorandums, that support costs claimed and cost-shared amounts under the agreements.

3. There have been no:

   a. Irregularities involving management or employees who have significant roles in the system of internal accounting control related to cost share accounting and reporting.

   b. Irregularities involving other employees or subcontractors that could have a material effect on the financial reports or invoices submitted related to cost share accounting and reporting.

   c. Communications from NSF or other regulatory agencies concerning noncompliance with agreement terms or financial reporting practices related to cost share accounting and reporting.

4. We are responsible for compliance with all applicable laws and regulations.

5. We have identified and disclosed to you all laws and regulations that have a material effect on the determination of financial statement amounts for all costs related to cost share accounting and reporting.

6. We know of no violations or possible violations of laws or regulations related to cost share accounting and reporting whose effects should be considered for disclosure.

7. No unasserted claims, liabilities (contingent or otherwise), or assessments exist that are probable of assertion and should be disclosed.

8. All material transactions (actual or expected) for all costs have been properly recorded in the accounting records related to cost share accounting and reporting.

9. We have complied with all aspects of the agreements related to cost share accounting and reporting.

10. Our procedures for accounting for and reporting costs related to cost share accounting and for preparing cost share reports under the agreements have not deviated from the procedures we follow for other similar agreements we have with other State and Federal agencies or other nongovernmental donors.

11. The accounting system modification being implemented now and expected to be completed in June 2001 related to an OSP number attribute being added to account numbers will enable Cornell to identify all costs related to grants (including cost-shared amounts) and will effectively preclude cost-shared amounts from being claimed as cost share under more than one Federal grant.

No events have occurred subsequent to the dates of submission of the most recent cost share reports under these agreements that would require adjustment to, or disclosure in, these cost share reports.

Very truly yours,

By: ______________________
[redacted]

By: ______________________
[redacted]

Appendix C-1

National Science Foundation Grant Number ECS-9512186
Awarded to
Cornell University

Schedule of Cost Sharing
For the Period October 1, 1995 to September 30, 1998
Final

Cost Category	Amount Budgeted	Amount Claimed (09/99)	Amount Claimed (12/00)
Equipment	$ 0	$1,033,381	$1,033,381
Subcontracts:			
Stanford University (Equipment)	0	246,000	246,000
Stanford University (Others)	0	59,821	59,821
Total Costs	$1,256,000 (a)	339,202	$1,339,202

(a) According to the original award letter dated September 14, 1995, Cornell University was required to cost share $2,357,500. However, Amendment Number One dated July 8, 1999 reduced the cost-sharing requirement to $1,256,000. The documents obtained from NSF do not contain a budget breakdown of the cost-sharing amount.

Appendix C-2

National Science Foundation Grant Number DBI-9512240
Awarded to
Cornell University

Schedule of Cost Sharing
For the Period August 15, 1995 to December 4, 2000
Final

Cost Category	Amount Budgeted	Amount Claimed (09/10/99)	Amount Claimed (12/04/00)
Salaries & Wages (a)	$246,648	$149,596	$167,605
Fringe Benefits	51,206	52,703	52,507
Equipment (Mass Spectrometer)	416,722	171,061	171,061
Liquid Argon/Nitrogen Tanks	8,835	0	0
Materials & Supplies	26,589	123,572	123,572
Travel	0	4,220	2,432
Miscellaneous (Other)	0	39,108	30,524
Facilities & Admin.	0	209,741	217,682
Total Costs	$750,000 (b)	$750,001	$765,383

(a) The salaries and wages include salaries for graduate students, undergraduate students, and a facilities manager.

(b) According to award letter dated August 3, 1995, Cornell University is required to cost share $750,000.

National Science Foundation Grant Number DBI-9512501
Awarded to
Cornell University

Schedule of Cost Sharing
For the Period August 15, 1995 to December 4, 2000
Final

Cost Category	Amount Budgeted	Amount Claimed (09/28/98)	Amount Claimed (12/04/00)
Salaries & Wages	$ 93,648	$ 76,652	$ 61,607
Fringe Benefits	34,182	14,111	19,449
Equipment	400,000	219,352	391,186
Materials & Supplies	0	3,294	0
Tuition	0	0	23,568
Facilities & Admin.	0	40,032	54,128
Total Costs	$527.83" (a)	$353,441	$549,939

(a) According to the original award letter dated August 19, 1995, Cornell University was required to cost share $527,830.

Appendix C-4

National Science Foundation Grant Number ESI-9627280
Awarded to
Cornell University

Schedule of Cost Sharing
For the Period August 1, 1996 to December 7, 2000
Interim

Cost Category	Amount Budgeted	Amount Claimed (08/10/00)	Amount Claimed (12/07/00)
Salaries & Wages	$285,488	$294,208	$294,208
Fringe Benefits	84,284	98,790	89,937
Ambassadors	27,000	0	0
Recruitment	19,000	0	0
Travel	16,750	0	4,316
Materials & Supplies	21,000	0	0
Publication Costs/Page Charges	61,000	0	0
Miscellaneous (Other)	24,750	35,138	30,821
Facilities & Admin.	216,898	257,220	248,066
Total Costs	$756,.110 (a)	$685,355	$667,349

(a) According to the original award letter dated August 29, 1996, and Amendment Number One dated September 9, 1998, Cornell University was required to cost share $756,170 over four years.

Appendix C-5

National Science Foundation Grant Number ECS-9871026
Awarded to
Cornell University

Schedule of Cost Sharing
For the Period September 1, 1998 to November 30, 2000
Interim

Cost Category	Amount Budgeted	Amount Claimed (08/15/00)	Amount Claimed (11/30/00)
Equipment	$ 0	$149,822	$121,990
Subcontracts:	0		
Pennsylvania State University	0	0	176,676
Stanford University	0	0	200,000
Total Costs	$543,960	$149,822	$498,666
	(a)		(b)

(a) According to the original award letter dated September 8, 1998, Cornell University was required to cost share $536,000 in unspecified categories. An amendment in September 2000 required additional cost share of $7,960, also in unspecified categories.

(b) An exact breakdown of the $498,666 on Cornell's November 11, 2000 cost share report is unclear. Cornell records indicate $122,440 of equipment costs; and, as described in this report, support for the $176,676 and $200,000 of subcontract costs was inadequate.

Appendix D

Cornell University's
Verbatim Response to
Draft Audit Report

APPENDIX E

Summary of Auditor's Reply to Cornell Response

A draft of our audit report was sent to Cornell on March 1, 2002, and Cornell provided a detailed response to the draft report on March 26, 2002. This response is reprinted in its entirety in Appendix D. Cornell's response makes several general comments about the audit report and the way the audit was conducted and also comments on each specific fording. In the text of this audit report we have included a synopsis of Cornell's comments on the findings, along with our responses. Cornell disagreed with our findings; but, as we have previously discussed, asserted that it has implemented corrective actions to rectify them.

Most of Cornell's general comments do not warrant a response. However, Cornell states that our findings are based on "four erroneous assumptions." Because Cornell's assertions regarding these "assumptions" appear to be the foundation for Cornell's comments on specific findings, and because Cornell's assertions misstate our position, we provide brief responses to these incorrect assertions.

Cornell's response states:

Cotton & Company based its findings of [sic] our five NSF cost-sharing awards on the following four erroneous assumptions:

- *It is not possible to decentralize responsibility and maintain adequate internal control;*
- *Documentation requirements for expenses reported to cover the cost-share commitment (unreimbursed expenses) are greater that the documentation requirements for reimbursed expenses;*
- *A certification is only valid if it attests to every possible condition; and*
- *The prime recipient must maintain sub-recipient documentation.*

We have never stated that decentralized responsibility makes it impossible to maintain adequate internal control. Our position has been and continues to be that Cornell's decentralized system for accounting for cost sharing lacks adequate internal control.

We have never stated that cost-sharing documentation or accounting requirements are greater than documentation or accounting requirements for reimbursed expenses. Our position has been and continues to be that the documentation and accounting requirements are the same and that Cornell's system treats them differently.

We have never stated that a cost-sharing certification is only valid if it attests to every possible condition. Our position has been and continues to be that cost-sharing certifications should comply with the requirements of OMB Circular A-110, Subpart C, section 23 (a) (meet seven listed criteria for allowable cost sharing) and the NSF *Grant Policy Manual* (certify the amount of cost sharing on an annual and cumulative basis).

We have never stated that a prime recipient must maintain sub-recipient documentation. Our position has been and continues to be that prime recipients must employ a comprehensive sub-recipient monitoring process designed to assure that claimed sub-recipient costs are reasonable, allowable, allocable, and adequately supported. Cornell had no such process.

CORNELL

[redacted]

March 26, 2002

Ms. Christine Boesz
Inspector General
National Science Foundation
4201 Wilson Boulevard Suite
1135
Arlington, Virginia 2 2 2 3 0

Dear Ms. Boesz:

On behalf of Cornell University, I would like to state the university's strong exception to the draft audit report prepared by [redacted] of Cotton and Company and my objection to the manner in which it was conducted. Cornell is in compliance with all applicable cost share governmental regulations. There is adequate documentation to support all costs claimed as cost sharing, and these were provided to the Cotton and Company auditors. The audit report is both inaccurate and unfair based on existing regulations and the documentation provided.

I am enclosing our management responses to the audit report regarding cost sharing on five National Science Foundation (NSF) awards at Cornell University from 1995 - 2001. Cornell staff has had many conversations with [redacted] regarding the accuracy of his findings. Much of his report continues to be inaccurate in relation to the facts. Furthermore, [redacted] has introduced novel standards that exceed those required by the existing regulations as well as what has been long established and accepted industry practice. Clearly, it is not fair to hold Cornell to his arbitrary standards, particularly in light of no regulatory requirement or guidance to support [redacted] positions or recommendations.

Background:
Cornell first received notice of this audit in June 2000. A preliminary assessment was made in September 2000 to determine if Cornell should be subjected to a full audit. It was during this assessment phase on September 13th, after only three days of reviewing Cornell policies in our central office, that [redacted] concluded that our accounting system was inadequate for cost sharing and our cost-sharing certifications were inadequate.

Fieldwork for the actual audit of amounts cost shared on five awards began on December 4th 2000 and continued through December 21st of that year. Three days into the audit,

MAR 29 2002

and before any actual review of the cost-sharing documentation or interviews with departmental employees, a preliminary draft audit report was written and provided to us with the same comments that had been made at [redacted] September 13th meeting.

Fieldwork ended after all cost-sharing expenses were scrutinized for these five awards. Throughout the months of January, February, and March of 2001, Cotton and Company continued to request additional information. In May 2001, [redacted] returned with a representative from the National Science Foundation Inspector General's Office to finalize the audit.

An exit conference was held on June 1st 2001; all three findings that had been presented prior to the fieldwork were still on the table, along with a new finding concerning subrecipients that had not been discussed previously. After [redacted] departed, he contacted Cornell, and, for the first time, requested that we submit a management representation letter. This highly unusual and unique practice has no precedent in any review conducted by a sponsoring agency at Cornell. After reviewing the representations that [redacted] was asking us to sign, we declined his request. We took this action after consultation with other audit professionals. We received no further correspondence from [redacted] until March 1st, 2002, approximately nine months after the exit conference, when this draft report arrived.

Cornell's Position:

Cornell has provided its best efforts, and substantial time, in cooperating with the audit team and in providing requested documentation. Further, we have fully responded to all of the audit inquiries throughout this prolonged 18-month period that was spent reviewing five awards. (We will be happy to share with you a summary chronology of events.) The auditor has misstated many of our positions, as you will see in our responses to the specific comments; additionally, regulations and records do not support his conclusions.

We believe that [redacted] came to this audit with a predetermined outcome, and that his conclusions had been reached before the audit began. To be blunt, we are concerned that there was auditor impairment throughout the review. It is apparent to us that [redacted] desire to discredit the A133 audit influenced [redacted] conduct of the cost-sharing audit, the stated intent of which is described in the primary objectives listed on page 2 of the draft audit report. We cannot acquiesce to an audit report that impugns the integrity of Cornell's financial systems based on unsupported findings.

We strongly encourage the NSF's Divisions of Grants and Agreements and Contracts, Policy, and Oversight to visit Cornell and directly review our records. We believe our financial records and program results demonstrate that Cornell meets and exceeds all NSF obligations and requirements. Further, based on the questions we were asked repeatedly throughout the audit, we believe that [redacted] and his staff neither understand non-profit organizations-- particularly higher education organizations-- nor their accounting systems and existing controls.

We believe that the attached responses appropriately and effectively refute the audit "findings." Our books and records are open to any NSF staff member who wishes to confirm the status of our systems.

Because the differences between Cornell and the outside auditor's report are so great, we should meet as rapidly as possible to discuss how to resolve these differences. I will contact you next week to set up an appointment. We look forward to working directly with you, the Division of Grants and Agreements and the Division of Contracts, Policy and Oversight to satisfy NSF that Cornell is fully compliant with NSF guidelines and that our programs are accurately reported. Clearly, NSF's continued support of our distinguished faculty and their many research projects now in progress is critical to the research mission of this institution and promotes the public benefit.

Sincerely,

[redacted]

[redacted]

Enclosure

[redacted]

R. Colwell - Director NSF
T. Cooley - NSF - CFO
J. Noeth - NSF - OIG

Cornell Management Response

What follows are Cornell University's (Cornell) management responses to the audit report presented by Cotton and Company on March 1, 2002. After numerous conversations with [redacted] regarding his draft reports, we continue to disagree strongly with his findings.

Cotton and Company based its findings of our five NSF cost-sharing awards on the following four erroneous assumptions:

- It is not possible to decentralize responsibility and maintain adequate internal control;
- Documentation requirements for expenses reported to cover the cost-share commitment (unreimbursed expenses) are greater than the documentation requirements for reimbursed expenses;
- A certification is only valid if it attests to every possible condition; and
- The prime recipient must maintain sub-recipient documentation.

Cornell repeatedly asked [redacted] to provide the regulations to support these assumptions. He has been unable to do so. His findings and corresponding recommendations were attempts to modify our accounting systems beyond the regulatory requirements.

Cornell has searched the regulations to support [redacted] assertion that cost-sharing responsibility and monitoring must be centralized. We have not found such language in current regulations. From a practical perspective, Cornell expends over $1.5 billion per year; it is impossible for one central authority to have complete knowledge of every expense that it has incurred. Much like the effort-reporting regulations in OMB Circular A21, section J.8, Cornell requires that the certification rest with individuals closest to and most knowledgeable about the projects.

Expenses claimed as cost sharing are institutional direct costs that are not reimbursed by an agency. There is no distinction between cost-share expenses and reimbursable expenses other than how the expenses are funded. For. example, a purchase order is adequate substantiation for a reimbursed cost. However, [redacted] has required more than ordinary documentation to validate a cost-shared expenditure.

Finally, Cornell requires the responsible individual for each project to certify cost-sharing reports. A signature on the first page of the report accomplishes this. [redacted] has stated that our certifications are not adequate because they don't contain the appropriate language. We have not found any required language in current regulations. We agreed to incorporate the A 110, section 23 language on cost sharing on future cost-share reports. However, [redacted] did not accept that language without further modification of his own to the federally approved language.

We believe we cannot and should not be held to auditor-created standards that are not in the federal guidelines. While [redacted] may wish to change the guidelines, as he stated several times during the audit, it is both unfair and inappropriate for him to impose his own desired regulations on Cornell and consider the lack of following his standards as weaknesses in our systems. Cornell policies are based on existing regulations.

Cost-sharing Accounts Not Linked to NSF Awards:,

Comment: Cornell does not track separately cost sharing that benefits NSF awards. Cornell's decentralized cost-sharing system utilizes multiple accounts for its awards to track cost sharing.

Management Response: When a principal investigator (PI) is preparing to submit a proposal and is committing cost sharing, the PI must determine how the cost-sharing obligations will be met. We are a large institution with many sources of funding from which cost-sharing commitments may be met, e.g., departmental funds, college funds, institutional funds, interest earned on invested endowment funds, non-government awards, or in the case of the contract colleges, New York State appropriated funds. We are not allowed to commingle our fund sources because we have specific reporting requirements, including financial statements to our Board, to New York State, to donors, and to sponsors. As a result, contrary to [redacted] recommendation that a single cost-sharing account be created to match the NSF award account, we cannot provide one cost-sharing account per award and be compliant with our other reporting obligations. We have explained this to [redacted] on many occasions.

As a higher education institution, we are required to maintain the integrity of our fund sources within our chart of accounts. Cornell's cost-sharing support comes overwhelmingly from Cornell-funded accounts, New York State appropriations, and investment earnings on endowments or non-government awards or gifts. FASB reporting requirements do not allow us to commingle funds by source, as [redacted] repeatedly suggested.

Example cited in audit report:
DBI-9512240, Come]] account number 125-8327, had six project accounts as illustrated in the audit report. These accounts were necessary because the cost-sharing obligation was met by multiple fund sources as follows:

- 125-3305 is an institutionally funded account.
- 125-8502 is funding from the Mellon Foundation.
- Accounts 183-4300 and 183-5300 are NYS appropriated accounts. Because there is an overlap of spending authority on fiscal year appropriated funds, the university establishes two accounts for NYS appropriations. Dept 183-4300 signifies even-year appropriated funds; Dept 183-5300 signifies odd-year appropriations.
- 183-8108 was established to record investment income earnings from an endowment account
- 183-8513 is a sub-account in department 183 of the above-mentioned Mellon Foundation award.

Cornell agreed to add a data field to the cost-share accounts to identify the associated award account; however, this does not mean that the university will have fewer cost--sharing accounts for each sponsored award.

As for the $581,808 for salaries, fringe, and indirect cost that was claimed and considered by [redacted] to be unsupported, Cornell does not know which salaries, related fringe benefits, and indirect costs were considered unsupported. All salaries and wages are certified as part of the annual plan-confirmation process. OMB Circular A21 section J.8.2 states that the criteria for acceptable methods of payroll distribution are the following:

(a) The payroll system will (i) be incorporated into the official records of the institution, (ii) reasonably reflect the activity for which the employee is compensated by the institution, and (iii) encompass both sponsored and all other activities in an integrated basis, but may include the use of subsidiary records.

For cost-sharing expenses, to the extent that the account is able to be unique, the entire effort is associated with the sponsored project. For state-appropriated accounts or university-appropriated accounts, a department's subsidiary system for identifying the costs to specific projects may be required. Documentation to support the subsidiary records and to assure expenses were not double counted was provided to Cotton and Company auditors when they conducted their interviews. The indirect cost department reviews the records, at least annually, and training sessions are conducted several times per year in the research-intensive areas to educate the units on the documentation requirements. In addition, Cotton and Company auditors, along with central university staff, interviewed many of the people whose salaries were considered part of the cost-sharing commitment and no questionable amounts of efforts were identified.

Insufficient Support for Subrecipient Cost Sharing:

Comment: Cornell did not have sufficient documentation, and in some cases, did not have any documentation to support $682,497 of subrecipient cost-sharing requirements.

Management Response: Management believes that there is adequate documentation to substantiate the $682,497 reported as subrecipient cost sharing. In subaward relationships, the subrecipients become the grantees; therefore, the records and supporting documentation for these awards are required to be maintained at the subrecipients' places of business and are not required to be submitted to Corn ell, as the primary recipient. Recognizing that we have an oversight responsibility to ensure accountability at the subrecipient level, we do, prior to issuing subawards, perform a risk assessment of the subrecipients' ability to maintain records and monitor federal funds by establishing subrecipient profiles.

The profiles verify that subrecipients have the appropriate control systems in place to monitor and account for the receipt of federal funds. In all cases related to this audit, the subrecipients did have documentation to support their ability to independently monitor federal funds based on their OMB Circular A 133 audits. We have on file a copy of their audit reports (or certifications) for all of the years covered by these awards. No findings related to these awards are noted.

In addition, prior to issuing subawards, a cost and pricing analysis (Section 45 of A 110) is documented in the files. Cost-sharing commitments are included in this analysis. In all three cases cited in this report, the cost and pricing analysis examination determined reasonableness, allowability, allocability and necessity to the proposed project. Subawards are then issued. The subaward document itself requires the subrecipient to be in compliance with A2 1, the Federal Demonstration Partnership (FDP) terms and conditions and NSF Agency Specifics (or the NSF Grant General Conditions) and A 133.

The report indicates that we do not have adequate documentation for the subrecipient claims for cost sharing because we could not support the existence of, or the valuation for, the equipment. Furthermore, it questions the claims associated with the nonequipment costs, citing the lack of appropriate documentation. This finding is simply not supported by the requirements detailed in the relevant circulars or applicable terms and conditions. As previously mentioned, subrecipients are responsible for maintaining this documentation, available via the audit clause incorporated into each of the three subawards in question. To the best of our knowledge, [redacted] did not interview the subrecipients nor were the subrecipients asked to provide the supporting documentation.

The report also claimed that adequate certifications were not obtained. The NSF terms and conditions state that the cost-share report must be "certified," but there is no certification language required in the corresponding document. There are several instances when the NSF requires specific certifications. In these cases it provides the required certifications, verbatim, in its terms and conditions. Without such specificity, our presumption is that Cornell has the option to certify subrecipients through appropriate means. Cornell maintains that its means were and are adequate.

The report states, "They also told us that for monitoring subrecipients' cost sharing they relied on 'integrity-based systems', which they thought were adequate." Elsewhere the report states, "In addition, Cornell indicated that it did not monitor subrecipient cost sharing adequately because it relied on 'integrity-based systems,' which it deemed to be sufficient." These statements are not an accurate reflection of the interview. The interview was primarily a discussion of what constitutes "certification. Additionally, the interview did not include a statement from Cornell indicating that it did not adequately monitor subrecipients. We believe that the grant terms and conditions are not clear about how one obtains confirmation from a subrecipient; therefore, in our judgment, email verifications coupled with the information in the technical reports and invoices were adequate.

We believe that our policies and procedures are adequate for monitoring subrecipients. At the same time, we work in an environment of continuous improvement, and we strive to make a good system better. In the spirit of what the audit process is intended to be, we felt that we should incorporate Cotton and Company's suggested modification to our standard subaward agreement. The language now reads:

> "An authorized representative of the Subcontractor shall certify on each invoice that the costs, including those requested for reimbursement and those shown as the Subcontractor's share, are the actual costs as recorded in Subcontractor's records and as expended for the work actually performed in accordance with the terms of this Agreement."

This change was incorporated on December 8, 2001 for all newly issued subcontracts; all pre-existing subcontracts have been amended to include the new language. In addition, we have updated our subaward procedures and have conducted departmental trainings in the area of subrecipient monitoring. The introduction of electronic research administration has brought about many process changes. And, it is worth noting that the

NSF has been in the forefront of this effort for several years. Given these changes in our shared business environment, Cornell suggests that the NSF address and clarify what methods of communication may be used to satisfy the requirements associated with the administration of subawards.

Cornell maintains that the issues in this report related to subrecipients are based on differences in interpretation of the appropriate regulations and grant terms and conditions. Cornell does not believe that there is any question as to whether or not the subrecipients have satisfied their cost-sharing obligations.

Implications of Inadequate Cost-Sharing Controls:.

Comment: The lack of adequate accounting controls over cost-sharing at the department and subrecipient levels resulted in our inability to determine if the $3.8 million Cornell claimed as cost-sharing on the five audited awards were allowable costs.

Management Response: Management strongly disagrees with this statement. Non-salary cost-shared expenses are reviewed to determine allowability and allocability in the central finance office. Cotton and Company reviewed these documents. Purchasing procedures are followed to ensure appropriate valuation of our procured goods or services. Cotton and Company auditors reviewed over 1,000 transactions associated with the five awards as part of this audit, and no costs were determined to be unallowable.

Effort that is committed in the NSF proposal is reported through the financial systems and verified through the effort certification system. If there was an issue with valuation of this effort, it was not expressed by the auditors. If NSF feels that there is a difference between the value of the effort received versus what was promised in the award agreement, the NSF program staff should provide Cornell with feedback regarding that difference.

In addition to Cornell's *University Policy 1.1 Cost Sharing,* which does not allow costs to be used more than once to meet a cost-sharing obligation, Cornell has analytical methods for testing cost-share expenses to ensure the costs have not been reported on more than one award. For example, one accountant in the central Sponsored Funds Accounting Office is assigned NSF reporting responsibility. All cost-share reports go to this individual for analytical review before submission to NSF. Our indirect cost department performs a cost-sharing review as part of its annual procedures, and internal audit performs cost-sharing reviews as part of its routine audits. Finally [redacted], as part of its A133 audit work, reviews cost sharing.

Cornell's practice has been to submit reports up to the amounts that were obligated, which is similar to the direct reimbursement process. NSF does not recognize expenses greater than the award amount. This practice confused the Cotton and Company auditors, particularly because they did not understand why we did not claim more salary for particular individuals. To assist in the audit, we revised our reports to show all salary costs that could be claimed as cost sharing and provided the requested certifications using [redacted] suggested language. In addition, revisions were made to the cost-sharing reports to incorporate all information through the date of the revised cost-sharing reports.

Cornell has often exceeded its cost-sharing obligations. We have typically reported only amounts up to the cost-sharing commitment. Based on the audit report, we are changing our policies and instructing Principal Investigators 1) to promise cost sharing only when required, and 2) in the future, to incur cost-sharing expenses only up to the amounts promised.

Inadequate University Oversight:

Comment: We believe that Cornell's decentralized departmental systems for cost sharing and the lack of oversight over these systems contributed to the problems identified during our audit.

Management Response: Management strongly disagrees with this statement. All expenditures are reported in an institutional accounting system. Departments do not have their own accounting systems. In certain cases, departments may use a subsidiary system to record cost-sharing details further: Generally, this is necessary for salary recording, particularly in order to meet our New York State reporting requirements. OMB A21 allows this type of subsidiary record and does not require it to be an automated system.

As stated previously, purchases of goods and services follow our established purchasing policies, as required by OMB Circular Al 10; effort policies are based on OMB Circular A2 1. Central accounting staff members review transactions for accuracy and allowability. In addition, we have compensating controls in place whereby our internal auditors perform cost-sharing reviews as part of their unit audits, and our indirect cost staff members review cost sharing on an annual basis.

As previously stated, all departmental expenses are included in the central accounting system. The only decentralized responsibility that a departmental representative may have is to track the specific projects for each faculty member, because the funding may be from multiple sources. Depending on the volume of research performed, tracking in a department with multiple awards may be more elaborate than in a department with only one award. There are governing university policies in place, and central staff members meet regularly with department personnel to discuss documentation requirements and to provide training.

Finally, all agency financial reporting goes through the central Sponsored Funds Accounting Office. Departments may prepare the cost-sharing report and certify its accuracy; however, the reports must pass the review of the responsible individual within Sponsored Funds Accounting before they can be submitted to the agency. Given the size of Cornell, we strongly believe that this process enhances our controls. We require a certification by the responsible individual closest to the project; and, additionally, we have a central oversight function.

Central staff members accompanied Cotton and Company auditors to the departmental interviews when the departmental records were reviewed. There was <u>not one instance</u> when Cotton and Company left the department claiming the costs or levels of effort claimed were unsupported. Manual systems are not prohibited by federal regulations, and the departments were able to provide adequate records to support their claimed costs.
NSF Agency specifics under the Federal Demonstration Partnership, "Other Additional

Requirements," No. 2 - Cost Sharing and Cost-Sharing Records, Article C Cost-Sharing Records states that "the grantee must maintain records of all project costs that are claimed by the grantee as cost sharing as well as records of cost to be paid by the Government. Such records are subject to audit". Nowhere does it specify where or by what method the records must be maintained.

Nonetheless, we were willing to further enhance our systems by creating a new data field in. our general ledger. This field will allow us to identify the specific NSF project related to the cost shared expenses. Programming for the new field was complete in June 2001. From now on, all mandatory cost-sharing accounts will be managed in separate accounts with the new attribute field populated. This means that unless 100% of another account is claimed as cost sharing, we will create a new account. However, the auditor's assertion that Cornell does not need 35 cost-sharing accounts, as stated in the *"costsharing accounts not linked to NSF awards"* comment, is untrue. We will be required to establish up to 35 additional accounts in order to track the sources of funding properly.

By referencing our own internal audit findings, [redacted] mentions that Cornell was on notice from prior audits that it needed to monitor its decentralized cost-sharing systems more effectively. These internal audit findings detected clerical errors and not systemic issues, as implied by [redacted]. Additionally, Cornell central staff members and audit employees from Cotton and Company interviewed Cornell employees whose efforts were charged to the cost-sharing accounts. The results of these interviews concluded that adequate effort was performed on these awards, and the auditors stated that they had a better understanding of our systems and commitment to NSF. For some reason, however, the Cotton and Company auditors who performed these interviews were pulled off the audit after their fieldwork, and their findings have not been incorporated into the report. If there were systemic issues, as [redacted] suggests it is logical to conclude that there would have been specific findings during the departmental reviews.

<u>Cornell Is Not Submitting Adequate Annual Certified Cost-Sharing Reports to NSF:</u>

Comment: Cornell has not submitted the annual cost-sharing reports with the required certification to NSF for the five awards we reviewed.

Management does not concur with this finding. Cornell University is required by the National Science Foundation to certify to agency-stipulated attestations upon submission of its quarterly NSF Federal Cash Transactions Report:

NSF Federal Cash Transactions Report

Certification

I certify:
(A) That to the best of my knowledge and belief, this report is true in all respects and that, all disbursements have been made for the purposes and conditions (including cost-sharing requirements as stated In the NSF grant policy manual) of the awards---

Management firmly believes that the language, contained in paragraph (A) of the certification meets the cost-sharing reporting requirements of Section 333.6.b of NSF's *Grant Policy Manual.*

Grantee Reports. Unless otherwise required by the grant Instrument or requested by NSF, the actual cost participation by the grantee need not be reported to NSF. However, in cases where grantee cost sharing commitments are $500,000 or more, the grant instrument will require as a condition of the grant, the Authorized Organizational Representative to report and certify the amount of cost sharing on an annual and cumulative basis. These cost sharing reports shall be Included as part of the annual progress and final project reports.

However, [redacted] has argued that specific attestations are a requirement of these cost-sharing reports; yet he fails to cite the regulation(s) that support this position. On December 1, 2000, the university voluntarily issued a memorandum to department accounting personnel on cost-share reporting requirements and transmitting a standardized *Cost Share Report* form. The form includes the following certification language:

This is to certify that, to the best of my knowledge and belief, all cost sharing expenditures:

1. **Are verifiable from University records.**
2. **Are not. included as contributions for any other federally-assisted project or program.**
3. **Are necessary and reasonable for proper accomplishment of the project.**
4. **Are allowable under the applicable cost principles.**
5. **Are not paid for by the Federal Government under another award, except where authorized by Federal statute to be used as cost sharing or matching.**

This language is Al 10's language. Even so, [redacted] continued to enhance the language on our new certification beyond A110's requirement. In conclusion, management believes that if the NSF desires the annual cost-sharing reports to be independently certified with the specific attestations prescribed by [redacted], it should revise its *Grant Policy Manual,* Section 333.6.b, rather than achieve that result through the piecemeal approach that is suggested in this audit report.

<u>Other Matter:</u>

Comment: Cornell is required to have an annual university-wide audit under OMB Circular No. A133, Audits of States, Local Governments, and Non-Profit Organizations. Neither the audit reports nor management letters for these years revealed cost sharing problems, except for a reference to a DCAA audit finding related to cost sharing accounting controls in the 1995 A133 audit report.

Management Response: Management disagrees. As we previously stated, Cotton and Company. ([redacted]) took a position during its preliminary assessment, before the firm commenced its audit fieldwork, that the A133 audits performed by [redacted] and [redacted] failed to address the perceived cost-sharing system shortcomings. (The A133 audit was actually performed by [redacted] in 1995 and 1996, rather than by [redacted] as stated in [redacted] report.) He indicated that this was a global issue identified by the NSF-OIG. This preliminary assessment was reached between [redacted] and the NSF-OIG's representative without benefit of any substantive discussion with the external auditors or review of workpapers.

As for characterization of his request to the external auditor during his audit, he makes it appear that was unresponsive. In truth, M fails to mention that a representative contacted the NSF OIG's office in August 2001 to offer to facilitate a meeting between the NSF OIG and the national CPA firms to discuss perceived A133 audit issues related to cost sharing. The NSF OIG did not respond to this offer.

Conclusion:

took 18 months to review five awards. His recommendations attempt to modify our accounting systems in ways that are not required by regulations. He has effectively rewritten NSF's certification language as well as OMB Circular A21 and A110 documentation requirements. He failed to audit based on existing regulations. There were no findings that any of our costs claimed as cost sharing were over-stated.

Cornell met its cost-sharing obligations and expenditures for the five awards that were reviewed for allowability, reasonableness, allocability, and compliance with federal regulations. Cornell does have a system of internal controls to monitor cost sharing that complies with current regulations. Our internal audit reports identified only isolated instances of clerical errors. Cornell's financial system accurately records revenue and expenses. The valuation of in-kind contributions is monitored based on OMB Circular A21 and A110 guidelines.

Thank you for your attention to these matters.