Federal research grant activities at the University of Rochester for the year ending June 30, 1977, during which the university received $38.6 million in grants and contracts, are reviewed. The report includes: (1) a review of the university's system for administering and accounting for these funds; (2) an analysis of selected major grants awarded by the National Institutes of Health and the National Science Foundation (NSF) to determine whether costs claimed were adequately documented and related to the grants' purposes; (3) an evaluation of the adequacy of audit activities by the Defense Contract Audit Agency; and (4) a review of Health, Education, and Welfare and NSF practices for monitoring research grants and coordinating with other federal agencies. A four-page cover letter to the U.S. House of Representatives Subcommittee on Intergovernmental Relations and Human Resources is included. (Author/MSE)
The Honorable L. H. Fountain  
Chairman, Subcommittee on Inter-
   governmental Relations and Human Resources  
Committee on Government Operations  
House of Representatives  

Dear Mr. Chairman:  

Pursuant to your August 12, 1977, letter, and later discussions with your office, we reviewed Federal research grant activities at the University of Rochester. For the year ended June 30, 1977, the University received $38.6 million in Federal grants and contracts. Of the total Federal funds, about $11 million was paid to three departments in the University's Medical School which we selected for review.

Our work included: (1) a review of the University's system for administering and accounting for Federal grant funds; (2) an analysis of selected major grants awarded by the National Institutes of Health of the Department of Health, Education, and Welfare (HEW) and the National Science Foundation to determine whether costs claimed were adequately documented and related to the purposes of the grants; (3) an evaluation of the adequacy of audit activities by the Defense Contract Audit Agency; and (4) a review of HEW and Foundation practices for monitoring research grants and for coordinating with other Federal agencies.

The results of our review are summarized below and discussed in greater detail in enclosure I. As instructed by your office, we did not request official written comments from HEW, the Foundation, the Defense Contract Audit Agency, or the University of Rochester, but did provide a draft of our report to them and have incorporated their oral comments where appropriate.
UNIVERSITY ADMINISTRATION OF FEDERAL GRANTS

We found that the University's system for administering and accounting for grant funds provides sufficient documentation and utilizes sufficient control procedures to enable the University to comply with Federal regulations for the financial management of grants. Generally we found in our analysis of selected Federal grants that funds were being used for the purposes intended and that costs claimed for reimbursement were adequately documented. However, we did identify certain charges that were not in accordance with HEW or Foundation policy.

The University charged 104 percent of a principal investigator's salary to federally supported research and training grants although he was performing some teaching and administrative functions which should have been charged to University funds. The University cited extenuating circumstances which it said accounted for the error and has agreed to adjust its records accordingly so that the University is charged for nongrant-related time.

Contrary to HEW policy, student stipends were charged to National Institutes of Health-sponsored research grants at one department included in our review. The University took the position that the charges were legitimate because they were for services rendered by the students but an incorrect payment form was used to process the charges. However, Institutes officials said that HEW grants policy requires that student compensation for services rendered on a grant be treated as salary and that the student be classified as an employee. Such payments are not otherwise allowed to be charged to research grants.

The University charged two equipment purchases to a Foundation research grant without obtaining that agency's prior approval, as required under the provisions of the grant. The University acknowledged that it was an oversight to have not obtained Foundation approval. However, an official also said that this was a classic example of confusion caused by numerous and conflicting Federal requirements governing grants and contracts. For example, equipment purchases under an HEW grant do not require prior approval by the Federal agency.
FEDERAL AUDIT ACTIVITIES

The Defense Contract Audit Agency is the cognizant Federal audit agency for the University of Rochester. Audit activity is conducted on a continuous basis through resident audit staff. Our analysis of its audit reviews showed that the work performed by the Audit Agency was sufficiently thorough to adequately and logically develop the findings that were presented.

We have discussed the issues identified during our review with Audit Agency officials who have agreed to include such matters in their audit work during the coming year to assure that corrective measures have been taken by the University.

FEDERAL MONITORING

Federal agencies monitor grants primarily through reports submitted to the agencies by the grantee. Fiscal reports are required to be submitted annually on National Institutes of Health grants and at the end of the project period on Foundation grants. Foundation and Institutes officials said that such reports are the principal means for monitoring fiscal activity and determining whether grant expenditures are in accordance with the grant awards made by the agencies. The only other fiscal review would be performed by the cognizant Federal audit agency. Institutes officials expressed concern over recent changes in fiscal reporting requirements established by Office of Management and Budget Circular A-110 which calls for eliminating the fiscal reports which the Institutes has been requiring grantees to submit. They said this change will eliminate any fiscal control of research grants by grants management officers.

One of the principal investigators included in our review had received several grants from both the Foundation and the Institutes which appeared to involve related research activities. We determined that the projects had been coordinated and that grant officials at both agencies were each aware of the close relationship of the grants awarded.

We have informed the Foundation and the Institutes of the questionable charges identified during our review and both agencies have assured us that follow-up has been or will be taken on these matters to determine appropriate action.
As agreed with your office, further distribution of this report will be made upon your notification but not later than 30 days from the issue date.

We trust that this report is responsive to your request.

Sincerely yours,

[Signature]

Comptroller General of the United States

Enclosure
RESEARCH GRANT ACTIVITIES AT
THE UNIVERSITY OF ROCHESTER

Our review at the University of Rochester focused on federally supported research at its Medical School. For its fiscal year ended June 30, 1977, the University received $38.6 million in Federal grants and contracts of which $23 million was for research at the Medical School. Approximately $19.4 million was sponsored by the Department of Health, Education, and Welfare (HEW), $307,000 by the National Science Foundation (NSF), and the balance by other Federal agencies.

ADMINISTRATION AND ACCOUNTABILITY

All federally sponsored grants and contracts received by the University of Rochester are administered and controlled by the Office of Research and Project Administration (ORPA). With the exception of a Department of Energy (DOE) contract to operate the Radiation Biology and Biophysics Department and a Navy contract to operate the Center for Naval Analyses in Arlington, Virginia, the fiscal responsibility for all contracts and grants is monitored and controlled by Research Accounting. The requirements by the sponsors to maintain separate accounting and reporting for these two special projects result in a limited responsibility for Research Accounting.

ORPA

ORPA is responsible for managing grant processing from the original proposal through the award of a grant by a Federal agency. After award, ORPA is responsible for approving all grant expenditures for services and equipment of over $1,000, consulting agreements, grant extensions, foreign travel, and equipment transfers when a principal investigator wishes to continue his research at another institution. In addition, ORPA is responsible for making sure that each principal investigator submits an annual technical report to the grantor which summarizes the accomplishments under the grant during the project year.

Research Accounting

Research Accounting is responsible for maintaining an accounting system for Federal grants and contracts; developing staff-benefit and indirect-cost rates; and accounting for Government-furnished equipment. After a grant has been
awarded to the University, ORPA sends a notice of the award to Research Accounting and to the principal investigator of the grant.

Research Accounting sends monthly reports of expenditures to the appropriate person or department responsible for the grant. This report provides the principal investigator details of monthly expenditures and shows the cumulative total of expenditures from the inception of the project. Only expenditures approved by the principal investigator and made in accordance with the purposes of the award should be charged to the grant.

Accountability reports

Both HEW and NSF require the University to submit for each grant a quarterly report accounting for Federal funds received and showing the total expenditures during the previous quarter. This report, however, does not include any breakdown of expenditures by budget category.

HEW also requires a fiscal report of grant activity at the end of each grant budget year. The report is prepared by Research Accounting and verified by the principal investigator. It includes total expenditures by budget category, expenditures previously reported, total expenditures, total amount awarded, unexpended balance, and cost-sharing information.

Prior to October 1977 NSF required a similar fiscal report but only upon completion of the grant period. For example, if the grant was for 4 years, the report was prepared at the end of 4 years and covered the entire period. As of October 1977 NSF eliminated this fiscal reporting requirement and now requires only the submission of the quarterly report previously discussed. This action was taken to comply with Office of Management and Budget Circular A-110 which establishes uniform reporting requirements for all Federal agencies. These requirements, however, provide for the reporting of total expenditures only, with no breakdown by cost categories. HEW is in the process of implementing this circular. (See p. 12.)

Cost overruns

The Research Accounting system does not allow cost overruns to be charged to a grant. As charges are made, the grant budget is automatically reduced until it is completely expended. Charges made after this point are identified by the
system as cash shortages. When an overrun is identified, Research Accounting sends a deficit notice to the principal investigator and to his department chairman. The purpose of the notice is to determine which funds can be used for the overrun. Funds can come from other non-Federal grants or from other University sources. A principal investigator is not permitted to transfer the overrun to another federally sponsored grant.

**Pre-audit function**

In addition to other duties, Research Accounting pre-audits all purchase orders, cost transfers, stipend payments, and payroll forms that pertain to Federal grants and contracts.

In the area of purchase orders, the Research Accounting staff checks to make sure that equipment and supplies are properly classified. For example, items costing $300 or more with a useful life of more than 1 year are classified as equipment and excluded from the indirect cost allocation base.

According to Federal regulations, costs of scholarships, fellowships, and other forms of student aid apply only to instruction and, therefore, are not allocable to research grants, either as direct or indirect costs. Research Accounting checks all payroll forms to verify that each individual charged to a federally sponsored research grant is a bonafide employee and not a student receiving financial aid.

Regarding cost transfers, Research Accounting pre-audits all journal vouchers in order to verify that the transfers are appropriate and are made within the required time period, 4 months after the cost was incurred. Transfers found to be inappropriate are disallowed and the expenditure will either have to be absorbed by the grant to which it was originally charged, or by the University.

**Radiation Biology and Biophysics (RB&B)**

The RB&B Department is funded by a contract with DOE and maintains an accounting system separate from the rest of the University, reporting to the regional office of DOE in Chicago. Although this Department operates as a contractor to DOE, it is allowed by DOE to accept grants from other agencies for specific research projects in related areas. Charges that are incurred on these projects are first charged to the DOE contract and then reallocated via a journal voucher to the sponsoring agency's account. After reallocation, such
Enclosure I

Charges enter the research accounting system that was previously discussed.

Tests of Charges to Nine Research Grants

Of particular concern to the Subcommittee is whether the University adequately documents costs claimed for reimbursement and whether grant funds are being used solely for grant purposes. In order to determine if any deficiencies in these areas existed at the University of Rochester, we tested the charges made to nine research grants sponsored by HEW's National Institutes of Health (NIH) and by NSF at three of the five academic departments of the Medical School which had received the most Federal grant and contract funds during the year ended June 30, 1977. The three departments we selected (Medicine; Pharmacology; and Radiation Biology and Biophysics) accounted for about $11 million, or 48 percent, of the $23 million in Federal funds received by the Medical School. In addition, we interviewed the respective principal investigators and department chairmen regarding activities on these projects.

Direct Personnel Charges

We reviewed all salary charges for the principal investigators and other selected personnel for each of the nine grants. Our review included payroll authorization forms, grant budgets, monthly time and effort reports, and Federal tax deduction records. Payroll authorization forms show for each employee the total yearly salary and percentage of effort applicable to each grant or other activity. Time and effort reports show actual salary distributions based on the payroll authorization forms and are sent to the Department Chairman for certification.

No discrepancies were found in the Department of Pharmacology. All monthly time and effort reports were certified by the Department Chairman and there were no significant changes from payroll authorization forms in the percentages of effort reported. Total percentages for each employee did not exceed 100 percent and according to the Department Chairman, those employees in our sample who were charging 100 percent of their time to Federal grants were hired for that purpose and therefore had no academic and administrative functions.

In the Department of Medicine, we found through discussion with the Acting Department Chairman, that one individual was performing academic and administrative duties while charging 100 percent of his time to Federal grants for a major portion of fiscal year 1977. The Acting Chairman indicated
that approximately 14 percent of this investigator's time was apportioned to nongrant activities. We discussed this issue with the investigator in question and he agreed that during fiscal year 1977, his entire salary was charged to Federal grants although he had other duties. Notwithstanding, he indicated that there were extenuating circumstances. In the fall of 1976, the University's head of the Hematology Unit died suddenly and this investigator had to take over all of his responsibilities. He indicated that it was an oversight that he did not charge some of his time to the University.

The Acting Chairman of the Department of Medicine assured us that this investigator's payroll records will be adjusted retroactively so that the University is charged for his non-grant-related time. We provided information on this matter to NIH officials who have informed us that action will be taken to assure that necessary adjustments are made.

In the RB&B Department, we found that seven employees were receiving stipends totaling approximately $63,000 from the NIH grants we reviewed. Payment authorizations for these individuals were processed on student aid forms instead of employment forms. Consequently, Federal tax withholding records showed that no payroll or social security taxes were withheld during fiscal year 1977. Stipends are payments to fellows and trainees for living expenses. These payments are allowable only from fellowship or training grants. They are not allowed to be charged to other grants. This does not preclude salary payments (not stipends) to students for actual work on projects, which may also provide on-the-job training toward a degree, provided the intent of the employer-employee relationship is directly related to services rendered.

The business manager of the RB&B Department stated that although these payments were stipends, they should be charged to Federal grants because they were for services rendered to the grants by the employees. The Associate Controller in charge of Research Accounting told us that since the RB&B Department accounting system is separate from the Research Accounting system, he does not pre-audit RB&B's payroll forms. He stated that he would not have permitted these seven employees' stipends to be charged to a research grant as stipends. The Department would have had to generate regular employee payroll forms for these individuals in order to charge the grants when services are rendered.

We discussed this issue with the Chairman of the RB&B Department. He indicated that as of January 1, 1978, all
post-doctoral students rendering a service to a federally sponsored research project were placed on regular employee status. Pre-doctoral students working on research projects continue to be carried on stipends. It is the Chairman's contention that students working toward a degree may receive stipends for services performed on a grant. This position is not in agreement with NIH policy on student stipends which states that stipends may not be paid from research grant funds and makes no distinction between pre- and post-doctoral students. Also, NIH has sent a letter to the University reiterating its position that such charges are unallowable.

Travel expenses

Eight of the nine grants reviewed had travel charges in fiscal year 1977. For each grant, we reviewed the month having the most travel charges. The review included an examination of the payment records and the travel provisions of the grant budget. We found that the travel was budgeted in all cases and the purpose of the travel was grant related.

Consultant services

Only two grants in our sample showed expenditures for consultants: one grant in the Pharmacology Department and one in RB&B. These services were (1) authorized in both grant budgets and (2) fully documented in the University's accounting records. The canceled remittance checks were made out to the consultants.

Supplies expenditures

We determined whether items included as direct-supply charges should instead have been charged as equipment and thereby excluded from the University's indirect-cost allocation base. (Indirect cost charges are based on a percentage of total direct costs excluding equipment.) We also determined whether supply charges were directly related to the specific grant or were general-purpose supplies which should rather have been included in the indirect cost base. In addition, we reviewed each charge for documentary backup, payment approval, authorization for purchase, and inclusion in the grant budget. A total of nine charges for supplies were reviewed and no discrepancies were identified.

Equipment expenditures

We selected 1 month showing the largest equipment purchases for fiscal year 1977. Only six of our sampled grants had equipment charged during that period. We examined the payment
records, the purchasing unit records, and the grant budgets for compliance with sponsoring agency regulations, and University regulations.

In the Departments of Pharmacology and Medicine, according to the University’s Director of Materials and Operations, the equipment was not available prior to purchase in these departments or other departments of the University. We verified that the equipment was budgeted in the grant award or approved subsequent to award, was backed up by the necessary accounting documentation, and actually existed at the research site.

However, in the RB&B Department, we found that equipment charges made to one NSF grant were not completely in compliance with the agency’s requirement that equipment not approved in the grant award may not be purchased without prior approval from the sponsor. While prior agency approval was requested for some equipment, two items—an ultracentrifuge costing $16,370 and an ultrasonic disintegrator costing $1,950—had received only internal approval by ORPA.

We asked an NSF official whether approval was requested for the ultracentrifuge. He said that it was not, and if it had been he would not have recommended approval because the grant period was ending when the purchase was made.

When we questioned the principal investigator, he explained that this NSF grant was part of the Research Applied to National Needs Program and that it was the policy of NSF under this program to support research for only a limited period of time. HEW agreed to bear the costs of the project at the point where the NSF grant terminated. Although the centrifuge was purchased at the end of the NSF grant, this investigator felt that his research was continuing under HEW sponsorship; therefore, he believed the purchase was project related. He indicated that it was an oversight not to request approval from NSF for the equipment.

The Associate Controller told us that this was a classic example of a university being confused by the numerous and conflicting regulations governing Federal grants and contracts. If the purchases had been charged to an HEW grant, internal approval would have been sufficient; but, because the grant was sponsored by NSF, the purchases required prior approval from the sponsor. However, despite the confusion over agency requirements, the fact that equipment was internally approved for purchase at the end of the project period indicates that the University’s prior approval system may not be functioning effectively.
NSF has written to the University stating that such charges will be disallowed unless additional justification satisfactory to NSF can be provided.

Other expenses

Other expenses include those not previously discussed that are legitimate direct charges to research grants and contracts, such as data processing and reproduction costs.

A total of eight payments from eight grants was selected for detailed review. We attempted to determine whether items directly charged to each grant should have been included in indirect costs. We found no discrepancies in the documentary backup, budget authorizations, and compliance with direct and indirect cost guidelines for each of the eight payments.

Cost transfers

From 5 grants, we selected a sample of 10 cost transfers which we perceived to be substantial or to warrant additional inquiry based on the monthly reports of expenditures. An unallowable transfer is one made (1) without adequate documentation or reason for the transfer; (2) to use available funds remaining at the end of the grant period; (3) to avoid an overrun; and (4) for convenience. Costs in one budget year may be transferred to a subsequent budget year within the same project period, but may not be charged to any preceding budget year or to any budget year in another project period. In addition, the University has established a strict 90-day deadline (1 month earlier than Federal requirements) for initiating transfers and any transfer initiated after this time period is not to be permitted.

The sample of 10 reallocations met the criteria of adequate documentation, funding, project period, and allowable time. No discrepancies were noted.

DEFENSE CONTRACT AUDIT AGENCY (DCAA) AUDIT COVERAGE

DCAA maintains a resident audit staff at the University of Rochester. A DCAA official told us that the principal criteria in the decision to establish a resident staff are the continuing nature of the audit workload and the complexity and volume of Federal grants and contracts. DCAA classified the University of Rochester as a major audit on the basis that it exceeded an annual dollar volume of $30 million. For fiscal year 1977, the University received $38.6 million
from the Federal Government. According to the DCAA official, 1.5 staff years of audit effort was required to adequately cover that volume of Federal support.

Audits by DCAA of organizations performing substantial Government business are performed on a comprehensive basis as contrasted with a contract by contract approach. The auditor evaluates the organization's policies and procedures and examines selected transactions to the extent necessary to enable him to reach an opinion regarding the accuracy and reliability of the organization's records and cost representations.

At the beginning of each fiscal year, the DCAA auditors in residence at the University establish an audit plan for the year. The plan consists of usually from 40 to 50 individual audits. The types of audits decided upon depend on the frequency of coverage needed in particular areas and the problems identified in previous audits. Usually audits involving direct charges, cost transfers, and labor verification are performed on an annual basis, while departmental administration may be on a biannual basis.

The following are some of the more significant examples of the types of audits that are undertaken.

Financial statements—used to determine the accuracy of information used in preparation of overhead statements.

Cost transfers—used to assure that transfers in the nature of correcting accounting entries are properly documented and are made within a reasonable period of time.

Grant and contract administration—used to determine whether the University has instituted proper controls to assure that all financial reporting and other specific requirements of the grants and contracts are being followed.

Material costs and requirements—used to determine whether material charges to grants and contracts are adequately documented and whether the material charged is actually required by tracing the requirement to the department and grant budget.

Direct and indirect labor—used to evaluate the applicability of labor charges to contracts and grants and to determine that the labor costs are reasonable, allocable, and in accordance with the terms of the grants charged.
Overhead—used to review costs used in establishing predetermined overhead rates for the University.

Audit reports

The DCAA Rochester Branch Manager told us that a report is generated from each audit and the results are discussed with University officials. The reports are filed with supporting documentation and documentary evidence of corrective action taken by the University. Each audit report includes purpose, scope, results, conclusions, and recommendations for corrective action. The reports are summarized and circulated at the end of the fiscal year to the various Federal agencies sponsoring grants. The summaries are statements of fact with little detail. Details are provided only when a problem is identified; otherwise, individual audit reports are provided to sponsors only upon specific request.

DCAA findings

The Subcommittee expressed interest in the benefits gained by the continuous audit coverage provided by resident audit staff at Rochester. During fiscal year 1977, an audit of the indirect cost proposal resulted in a $123,000 reduction of the costs proposed for inclusion in the indirect cost base. DCAA also identified $40,000 in cost avoidance areas. As discussed below, however, these amounts do not represent direct savings to the Federal Government. In addition, an audit of direct cost of the DOE laser contract resulted in $320,000 of cost questioned pending DOE approval of a subcontract and the direct charging of purchasing personnel. These direct costs were subsequently approved by DOE. During the same period it cost the Federal Government $46,000 to keep auditors in residence at the University.

According to a DCAA official, problems requiring significant disallowances are not usually found because of DCAA's continuous audit coverage. If a problem is found, it is usually corrected long before the dollars involved become significant. Any reduction made in the University's indirect cost proposal will result in a lower indirect cost rate to be applied to Federal grants. The rate is based on the ratio of the University indirect costs to its direct costs. The Federal Government would benefit from such reduction only to the extent of its share of the University's total indirect cost.
In recent years, DCAA has identified through operational audits various ways the University can avoid costs which could have an impact on costs applied to Federal grants. By examining organizational structures, plans, policies, methods of operation, and use of human, physical, and financial resources, DCAA is able to comment on the effectiveness, efficiency, and economy of University operations.

In prior fiscal years, DCAA has made disclosures similar in nature to those identified above. In fiscal year 1976, DCAA questioned approximately $371,000 in the indirect cost proposal; the proposal was reduced by $88,000 after negotiation. This amount was also considered in establishing the projected rate for a future year. In fiscal year 1976, DCAA also identified $299,000 in cost avoidance areas. In fiscal year 1975 DCAA questioned $200,000 of indirect costs for fiscal year 1974—the indirect cost proposal was reduced by $180,000 after negotiation. In fiscal year 1975, DCAA also questioned $391,000 of indirect costs for fiscal year 1975—the indirect cost proposal was reduced by $88,000 after negotiations. DCAA also identified $623,000 in cost avoidance areas. While these figures appear to be substantial, it was not possible to determine how much in dollars was actually saved by the Federal Government because of DCAA's audit efforts.

Analysis of DCAA audits

We reviewed eight DCAA audit packages prepared during fiscal years 1975, 1976, and 1977. In each of the audits we found that the work performed by DCAA was thorough enough to adequately and logically develop the findings that were presented. In addition, the scope of the audits usually included followup on recommendations made in previous reports.

Rotation of auditors

The Subcommittee requested information on whether DCAA had an established rotation policy to assure independence of its resident audit staff. The Rochester Branch Manager of DCAA told us that the DCAA personnel manual encourages staff rotation for personal development. However, his office has no preestablished plan for rotating auditors but tries to rotate them every 2 years, if possible. One of the auditors in residence at the time of our review has since been rotated.
FEDERAL MONITORING ACTIVITIES

According to NIH and NSF grants management officials, grants are monitored primarily through reviews of reports submitted to the agencies by the grantee. (See p. 2.) Grants officers compare these expenditure reports with amounts budgeted in grant awards to determine significant deviations from budgeted amounts and if cost limitations have been exceeded. The only other fiscal review is performed by Federal auditors.

The day-to-day administration of grants is normally conducted by the grantee institution. The Federal grants officer's function is primarily to respond to inquiries made by the grantee concerning matters relating to his grant, and to review and approve expenditures when prior authorization is required by agency policy. Other communication usually results from inquiries made by the grants officer requesting explanation for questioned expenses. Site visits are not made by grants officers on a routine basis. Grants officers would usually make site visits only when a problem is encountered on a grant that the grants management officer believes may require a personal visit with the grantee. Questions about grants are usually resolved by telephone or by letter.

Both NIH and NSF officials said that if reported expenditures are in accordance with the budget awarded, they have little basis for questioning them. With certain exceptions, both agencies allow the grantee to reallocate funds between expense categories. The principal exceptions are foreign travel and general-purpose equipment. In addition, NSF requires agency prior approval for special-purpose equipment reallocations. Other items are questioned only if there is a material deviation from the budget. Grant officials said they have no other basis for determining if grant funds have been spent for the intended purpose. They must rely on HEW's audit agency and DCAA to make such determinations.

We reviewed fiscal reports submitted to NIH and NSF for the grants we examined at Rochester to determine the extent to which variations between fiscal reports and grant awards were questioned by the granting agency. We could not review one NSF grant because it had not terminated at the time of our review and only a final fiscal report was required by NSF.
ENCLOSURE I

For each of the eight grants reviewed, we found that although total expenditures did not exceed the grant award, there were many variations in specific cost categories. Most variations occurred in the cost categories for salaries, equipment, or supplies. In several cases, the variations between actual costs and grant award were relatively minor; however, in a few instances costs varied more than 50 percent from the grant award.

We discussed each of the variations with the responsible grants officers. They acknowledged that the costs reported had not been questioned because in each instance, the variations were permissible under the rebudgeting authority granted to the University, and there was no basis for disapproving the reported costs.

The only instance we found where actual costs were questioned by the granting agency was an expenditure of $1,305 for foreign travel whereas the grant award showed that only $1,000 had been approved by NIH. NIH approved the expenditure after reviewing additional information supplied by the principal investigator indicating that the trip included in the budget had cost more than anticipated. The NIH grants officer said that the foreign travel was questioned because each trip must be approved by NIH. She said that additional cost for an approved trip would usually be allowed.

Office of Management and Budget Circular A-110 calls for eliminating the submission of grant expenditure reports now required by NIH. NIH officials said that under these guidelines, grantees would submit an annual report showing only the total amount expended. The report would not identify the various expense categories in which funds were spent. According to NIH officials, this change would eliminate the controls that grants officers now have for monitoring grant expenditures. They said that if grantees are not requested to submit expenditure reports, grants officers will have to rely totally on audits to monitor grant expenses. They believed that this would eliminate an important tool for grant management. We were informed that NIH has appealed the Office of Management and Budget requirements.

One of the principal investigators included in our review had received several grants from both NIH and NSF, some of which appeared to involve related research activities. We spoke with officials and reviewed documentation in grant files at NSF and at the National Institute of Environmental Health Sciences, a component of NIH, to determine the relationship of the several projects and whether activities had been
coordinated between the two agencies. The grant files showed that the projects had been coordinated by the two agencies. Also officials from both agencies said that they were each aware of the close relationship of the several grants awarded. They said that the principal investigator's research activities were initiated under the NSF Research Applied to National Needs research program. As his work became more specifically related to environmental health sciences, funding had been assumed by the National Institute of Environmental Health Sciences. They acknowledged that several of the grants have similar titles only because the research work is related to the same general issue and that each grant relates to specific projects within that issue area.