

**Memorandum**

APR 20 1995

Date

June Gibbs Brown
Inspector General

From

Subject

Summary Report on Indirect Cost Reviews at Universities and Nonprofit Organizations
for Fiscal Years 1992 and 1993 (A-09-94-01020)

To

Elizabeth M. James
Acting Assistant Secretary for
Management and Budget

The attached final report (i) summarizes the results of 17 Office of Inspector General (OIG) management advisory reports issued in Fiscal Years 1992 and 1993 on indirect cost rate proposals submitted by 13 universities and 4 nonprofit organizations; and (ii) discusses the continued coordinated OIG/Division of Cost Allocation (DCA) oversight function and how it is being refocused based on revisions to Office of Management and Budget Circular A-21 (A-21). These management advisory reviews were requested by and coordinated with DCA within your Office of Grant and Contract Financial Management. The resultant OIG management advisory reports were issued to the requesting offices for internal use only in negotiating indirect cost rates with the universities and nonprofit organizations.

This final report incorporates comments by your staff as well as those expressed by university officials. If you or your staff wish to discuss this final report, please call me or have your staff contact Joseph E. Vengrin, Assistant Inspector General for Audit Policy and Oversight, at (202) 619-1157.

If the original report was distributed to other parties, please provide the same distribution on this report. To facilitate identification, please refer to Common Identification Number A-09-94-01020 in all correspondence relating to this report.

Attachment

Department of Health and Human Services

**OFFICE OF
INSPECTOR GENERAL**

**SUMMARY REPORT ON INDIRECT COST
REVIEWS AT UNIVERSITIES AND
NONPROFIT ORGANIZATIONS FOR
FISCAL YEARS 1992 AND 1993**



JUNE GIBBS BROWN
Inspector General

APRIL 1995
A-09-94-01020

EXECUTIVE SUMMARY

BACKGROUND

During Fiscal Years (FY) 1992 and 1993, the Office of Inspector General (OIG) provided audit assistance to the Division of Cost Allocation (DCA), a component of the Assistant Secretary for Management and Budget (ASMB), in support of negotiating indirect cost rates with universities and nonprofit organizations. In requesting OIG audit assistance, DCA generally identifies selected areas of the indirect cost proposal for which it may have questions or concerns, and, in some instances, DCA negotiators and OIG auditors conduct joint reviews of indirect cost proposals.

Our work is used by DCA in its negotiations with the universities and nonprofit organizations. The negotiation process is important to ensure that indirect costs are allowable and properly allocated and that the maximum number of Federal dollars are available for direct research funding. Based on the results of the negotiation, DCA estimates the savings to the Federal Government, and the extent to which the work performed by the OIG contributed to the overall savings.

OBJECTIVES

The objectives of this report are to: (1) summarize the results of 17 OIG management advisory reports issued in FYs 1992 and 1993 on indirect cost rate proposals submitted by 13 universities and 4 nonprofit organizations; and (2) discuss the continued coordinated OIG/DCA oversight function and how it is being refocused based on revisions to Office of Management and Budget (OMB) Circular A-21, "Cost Principles for Educational Institutions" (hereafter referred to as A-21). The OIG reviews summarized in this report were performed at the request of DCA offices. The resultant OIG management advisory reports were issued to the requesting offices for internal use only in negotiating indirect cost rates with the universities and nonprofit organizations.

SUMMARY OF OIG REVIEWS

Our reviews of the indirect cost rates proposed by the 13 universities and 4 nonprofit institutions proved to be very useful to DCA during its negotiations. Included in the 17 OIG management advisory reports to DCA were 178 recommended adjustments to the indirect costs proposals; 146 of which involved proposals submitted by the universities, and 32 of which involved proposals submitted by the nonprofit organizations.

Using the results of the OIG reviews along with the results of its own reviews of the indirect cost proposals, DCA negotiated indirect cost rates lower than the rates submitted by each of the 13 universities, and 2 of the 4 nonprofit institutions. The DCA estimated that the reduction in rates could save the Federal Government as much as \$276 million over multiple years (generally based on the term of the negotiation agreements), and further estimated that the OIG reviews contributed to about \$179 million of these savings.

**Continued Need for
Coordinated Oversight**

It is clear from the results of the 17 reviews and DCA's estimates of cost savings attributed to them that there is a continued need for coordinated OIG/DCA oversight of indirect cost proposals submitted by universities and nonprofit institutions. We are providing this oversight as follows.

A continuation of the coordinated OIG/DCA reviews of indirect cost proposals submitted by universities and nonprofit organizations.

- ◆ Reviews are being refocused to consider not only the results of prior reviews, but certain revisions to A-21.
 - ☛ Although prior reviews have recommended numerous adjustments to Administration cost pools, revisions to A-21 which capped Administration pools and required certification of cost allowability and allocability have reduced the impact of any unallowable or inappropriate costs included in these pools. Reviews are being focused on possible shifting of costs from pools that are capped to pools that are not capped.
 - ☛ Prior reviews also disclosed a significant number of problems with space surveys and special studies (about 18 percent of our recommended adjustments on indirect cost proposals submitted by universities involve surveys and studies). In the case of space surveys the risk of error could possibly increase due to an A-21 change which eliminated the concept of "predominant use" which was a method of assigning jointly used space to a specific function based on the predominant function in that space. Our reviews are now focused on this issue.
- ◆ Usefulness of refocused reviews could be enhanced through ASMB circulation of results to all DCA offices responsible for negotiation of indirect cost rates. Circulation of results would provide the most current intelligence on trends and patterns in recommended OIG adjustments to DCA offices for use in planning future indirect cost reviews.

A continuation of efforts to strengthen A-21.

- ◆ The OIG and ASMB have contributed to changes made to A-21, have recommended further changes, and currently work with such organizations as the Indirect Cost Interagency Working Group and the National Science Foundation on policy issues involving indirect costs.

ASMB RESPONSE TO REPORT

The ASMB was provided a copy of this report. The ASMB agreed that there is a continued need for coordinated OIG/DCA oversight of indirect cost proposals submitted by universities and nonprofit organizations. It agreed that the coordinated reviews should be refocused on high risk issues and that we should strive to identify additional ways to strengthen OMB Circular A-21. The complete text of ASMB's response to the report is included as the **APPENDIX** to this report.

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APPENDIX COMMENTS FROM THE DEPUTY ASSISTANT SECRETARY FOR GRANTS AND ACQUISITION
MANAGEMENT (ASMB), DATED MARCH 7, 1995

ABBREVIATIONS

ASMB	Assistant Secretary for Management and Budget
CIN	Common Identification Number
DA	Departmental Administration
DCA	Division of Cost Allocation
FTE	Full-time Equivalent
FY	Fiscal Year
GA	General Administration
HHS	Department of Health and Human Services
MTDC	Modified Total Direct Costs
NIH	National Institutes of Health
OCD	OIG Clearance Document
OIG	Office of Inspector General
OMB	Office of Management and Budget
O&M	Operation and Maintenance
PHS	Public Health Service
SPA	Sponsored Projects Administration
SS	Student Administration and Services

INTRODUCTION

BACKGROUND

The Federal Government sponsors research and development at educational institutions and nonprofit organizations through contracts and grants. The total cost of federally sponsored research is comprised of both direct and indirect costs. At universities, direct costs are those that can be identified with a specific research activity, instructional activity, or other institutional activity. Examples of direct costs include salaries and wages of those working on a project, laboratory supplies, equipment, subcontracts and any other costs which can be specifically identified with a project. Conversely, indirect costs are those incurred for common and joint objectives which cannot be readily identified with a specific sponsored project, instructional activity, or other institutional activity. Examples of indirect costs include expenses for heating, lighting and cleaning of space, shared facilities and administrative costs.

For institutions where the Department of Health and Human Services (HHS) is cognizant, DCA negotiates the indirect cost rate agreement based on an indirect cost proposal submitted by the institution. With respect to reviews of indirect cost proposals submitted by an institution, DCA decides whether to perform the work with its staff or to seek audit assistance from the OIG. When audits are required, DCA generally asks the OIG to review selected areas of the indirect cost proposal. Our work is used by DCA in its negotiations.

A majority of the Federal research grant money is awarded by HHS, Public Health Service (PHS). The PHS National Institutes of Health (NIH) awarded about \$6 billion for research grants in FY 1992 to university and nonprofit organizations. Of the \$6 billion, approximately \$1.9 billion was for indirect costs. In its publication on extramural trends, NIH reported that the average direct costs of a traditional research grant increased 75 percent from FY 1983 to 1992 (a 12 percent increase in constant dollars). During the same time, the average indirect costs increased 84 percent (a 17 percent increase in constant dollars).

OFFICE OF MANAGEMENT AND BUDGET CIRCULARS

The "Cost Principles for Educational Institutions" (A-21) and "Cost Principles for Nonprofit Organizations" (A-122) provide the guidelines for determining the allowable and allocable costs to charge federally sponsored agreements. The Circulars define allowable and unallowable costs and describe the methods of allocating indirect costs to research projects.

Cost Principles for Universities

Colleges and universities are reimbursed for indirect costs based on negotiated indirect cost rates. To calculate an indirect cost rate under the long-form method, universities accumulate indirect costs into eight indirect cost pools which are grouped under two broad categories: Administration and Facilities (see shaded box below).

For each cost pool, a base is used to allocate indirect costs to functions, including other pools, in reasonable proportion to the services or benefits received. The two primary functions at a university are instruction and research. Although A-21 differentiates between

**OMB CIRCULAR A-21 COST CATEGORIES
LONG-FORM METHOD**

Administration Category

- ◆ General Administration (GA)
- ◆ Departmental Administration (DA)
- ◆ Sponsored Projects Administration (SPA)
- ◆ Student Administration and Services (SS)

(above pools capped at 26% of the base)

Facilities Category

- ◆ Operations and Maintenance (O&M)
- ◆ Depreciation and Use Allowance
- ◆ Interest
- ◆ Library

distribution bases which are unique to each cost pool and the modified total direct cost (MTDC) base which is the indirect cost base used to compute the indirect cost rate for Federal research, in this report we use base as a generic term referring to both distribution bases and the MTDC base. In addition to standard allocation bases, A-21 allows an institution to distribute certain expenses based on special studies. These special studies, or cost analysis studies, may use weighting factors, population, or space occupied and must be performed in accordance with A-21.

Indirect cost rates are calculated as a ratio of indirect costs applicable to federally sponsored agreements to a direct cost base. The direct cost base for large research universities is usually MTDC. The MTDC consists of salaries and wages, fringe benefits, materials and supplies, services, travel, and

subawards up to \$25,000. The pool related to research is divided by the MTDC research base to compute the indirect cost rates that are applied to federally sponsored research projects.

Since 1991, A-21 has been revised twice. In the October 1991 revision to A-21, administrative costs were limited to, or capped at, 26 percent of MTDC. The administrative costs included General Administration (GA), Departmental Administration (DA) and Sponsored Projects Administration (SPA). With the July 1993 revision, Student Administration and Services (SS) was added to administrative costs and the cap remained at 26 percent. The 1993 revisions were effective with the institutions' fiscal year beginning on or after January 1, 1994. In addition to limiting administrative costs, other changes to A-21 include:

- ◆ A high-level university official must certify, under penalty of perjury, that he/she has reviewed the indirect cost proposal and that all the costs included in the proposal are allowable and properly allocable to Federal agreements.
- ◆ The method of allocating facilities costs (except the Library component) has significantly changed with the elimination of the "predominant use" approach. Under "predominant use," the entire cost of jointly used space could be assigned to the function which made "predominant use" of the facility, usually defined as a relatively high percentage of use. After the revision, the costs of each jointly used unit of space (e.g., individual rooms and laboratories) must be allocated between benefiting functions based on how the specific unit of space is used or how space is used throughout the institution.
- ◆ Interest associated with the debt on certain buildings, equipment and capital improvements is classified as a separate indirect cost pool under the Facilities category. The interest costs should be allocated in the same manner as the depreciation or use allowance on the capital asset to which the interest relates.

Cost Principles for Nonprofits

Circular A-122 provides the cost principles for nonprofit organizations. These principles are similar to those provided in A-21; however, there are no standard indirect cost pools prescribed. Where a nonprofit organization has only one major function, or where all its major functions benefit from its indirect costs about the same degree, indirect costs may be allocated by simply dividing total allowable indirect costs by an equitable distribution base. If an organization's indirect costs benefit its major functions in varying degrees, then costs shall be accumulated into separate cost groupings or pools.

OBJECTIVES, SCOPE AND METHODOLOGY

OBJECTIVES

The objectives of this report are to: (1) summarize the results of OIG management advisory reports issued in FYs 1992 and 1993 on indirect cost rate proposals and (2) discuss the continued coordinated OIG/DCA oversight function and how it is being refocused based on revisions to A-21. The OIG reviews summarized in this report were performed at the request of DCA offices. The resultant OIG management advisory reports were issued to the requesting offices for internal use only in negotiating indirect cost rates with the universities and nonprofit organizations.

SCOPE

In FYs 1992 and 1993 the OIG issued 17 management advisory reports to DCA on reviews of indirect cost proposals at 13 universities and 4 nonprofit organizations. The indirect cost proposals were submitted and our reviews were performed prior to the implementation of the 1993 revisions to A-21. Generally, the universities and nonprofit organizations selected have significant Federal funding. Of the 13 universities, 10 were in the top 60 universities receiving Federal research dollars; of the 4 nonprofit organizations, 3 were in the top 60 nonprofits receiving Federal research dollars in 1991 based on data prepared by the National Science Foundation. For FY 1991, the 13 universities in our review represented about \$1.6 billion, or 16 percent, of total Federal funding of \$10 billion for research and development at colleges and universities. The four nonprofits received about \$119 million in Federal research dollars.

METHODOLOGY

To accomplish our objectives, we analyzed the 17 management advisory reports, the related OIG Clearance Documents (OCD), DCA rate agreements and other records, and revisions to A-21. The rates ultimately negotiated with institutions do not reflect all the recommended OIG adjustments. However, data was not available to identify the rate negotiated by DCA for each specific OIG adjustment and, thus, we were not able to reconcile the rates based on OIG adjustment to the negotiated rates. We relied on the estimations provided by DCA for the savings to the Federal Government.

We also reviewed prior OIG reports and a report entitled, "Management of Research Costs: Indirect Costs," prepared by the HHS Working Group on the Costs of Research. The HHS working group's report was issued in May 1992.

The results of reviews were analyzed and summarized at the OIG in San Francisco, California during the months of May 1994 through March 1995.

SUMMARY OF OIG REVIEWS

In FYs 1992 and 1993 the OIG, at DCA's request, reviewed 17 indirect cost proposals submitted by 13 universities and 4 nonprofit institutions. We issued management advisory reports to the requesting DCA offices for their internal use in negotiating indirect cost rates. In the reports we recommended 178 specific adjustments to indirect cost pools and the bases which were used to allocate expenses to the cost pools. The 178 recommended adjustments represented 146 adjustments for universities and 32 adjustments for nonprofit institutions. In the aggregate, the recommended adjustments tended to reduce the indirect cost rates proposed.

For universities our 146 recommended adjustments were grouped into categories as shown in the table below.

OIG RECOMMENDED ADJUSTMENTS AT UNIVERSITIES			
<i>Cost Element Category</i>	<i>Pool</i>	<i>Base</i>	<i>Total</i>
General Administration	19	2	21
Departmental Administration	22	7	29
Sponsored Projects Administration	8	0	8
Student Administration and Services	3	1	4
Operations and Maintenance	15	0	15
Depreciation and Use Allowance	23	3	26
Interest	1	0	1
Library	6	3	9
Multiple Category	2	31	33
Total	99	47	146

The shaded cost element categories represent **Administration issues** at universities, and comprise about 42 percent of our recommended adjustments for universities. These categories are now capped at 26 percent of the MTDC. The unshaded cost element categories represent **Facilities issues** at universities, and comprise about 35 percent of our recommended adjustments for universities. These categories remain uncapped. The bolded cost element category--**Multiple category**--represents both the Administration and Facilities issues, and comprise about 23 percent of our recommended adjustments for universities.

For nonprofit institutions, the 32 recommended adjustments consist of reductions to indirect cost pools for unallowable general and administration (22 adjustments), equipment and building depreciation, and lease costs (8 adjustments). In addition, we recommended two adjustments in the bases used to allocate the costs.

Based on the results of completed negotiations at all 17 institutions, DCA estimated that reduced indirect cost rates could save the Federal Government about \$276 million over multiple years (generally based on the term of the negotiation agreements). The DCA further estimated that the OIG reviews contributed to as much as \$179 million of these savings. The results of our reviews and DCA's estimates of the cost savings attributed to them demonstrate the need for continued coordinated oversight over submissions of indirect cost proposals. The ASMB agreed that such oversight is required.

ADMINISTRATION ISSUES AT UNIVERSITIES

The Administration category in A-21 is composed of GA, DA, SPA, and SS. In reviews at 13 universities we recommended 62 adjustments in these categories, 52 of which applied to pool costs and 10 of which applied to base costs. Details on the individual cost elements follow.

GENERAL ADMINISTRATION

Expenses for GA are incurred for general executive and administrative offices of universities, and other expenses of a general character which do not relate solely to any major function of a university. We reviewed the GA cost pool at 6 universities, and recommended 21 adjustments which are summarized into 5 categories.

GENERAL ADMINISTRATION 21 RECOMMENDED ADJUSTMENTS	
<i>Category</i>	<i>Number</i>
Inappropriate pool costs	7
Unallowable pool costs	6
Unsupported pool costs	5
Understated base	2
Duplicate recovery	1

As examples of the types of GA issues we identified, at one university we found that the salary and wage component of the MTDC base for the allocation of GA costs did not include \$21.2 million of compensation paid to physicians employed at the university. However, the physicians benefitted from the GA function and the related compensation should have been included in the allocation of GA costs. At the same university we found \$13.3 million of inappropriate GA costs. Some of these inappropriate GA costs were related to service centers, related solely to the College of Medicine or included in the Operations and Maintenance (O&M) cost pool. In general, the inappropriate GA costs related to activities which either did not benefit

the entire campus or sponsored research or, in the case of service centers, should have been reimbursed through direct billings to benefiting programs.

DEPARTMENTAL ADMINISTRATION

Expenses for DA are incurred for administrative and support services that benefit common or joint departmental activities or objectives in academic deans' offices, academic departments and divisions, and organized research institutes, study centers and research centers. Historically, the DA pool has been problematic because of inconsistent accounting treatment between effort spent on research and effort spent on instruction.

The July 1993 revisions to A-21 provide new standards and definitions for treatment of DA expenses. The salaries of technical staff must be treated as direct cost

wherever possible. Salaries of administrative and clerical staff should normally be treated as indirect costs, with certain exceptions for major projects which meet specific criteria.

DEPARTMENTAL ADMINISTRATION 29 RECOMMENDED ADJUSTMENTS	
<i>Category</i>	<i>Number</i>
Inappropriate pool costs	7
Unallowable pool costs	5
Understated base	4
Unsupported pool costs	3
Overstated base	3
Inappropriate methodology used	2
Inequitable allocation	2
Duplicate recovery	2
Inconsistent treatment of costs	1

Prior to the implementation of the July 1993 revisions, we reviewed the DA cost pool at 6 universities, and recommended 29 adjustments which are summarized into 9 categories.

The categories with significant recommended adjustments related to the use of an understated DA base, inappropriate costs in the pool and an inappropriate methodology for calculating DA. For example, two schools significantly understated the base, or denominator, used for calculating DA which caused the indirect cost rate to be overstated. One of the schools did not consider the use of voluntary clinical faculty at the School of Medicine and therefore did not increase the base by \$36.3 million for imputed salaries. The other school did not include \$26.8 million of its Medical School Clinical Compensation Plan related to patient care in the base.

As another example, one university inappropriately included \$6.4 million of malpractice insurance premium costs in the School of Medicine cost pool. Although malpractice insurance costs usually relate to providing health care in the teaching hospital, the university allocated some to research. The insurance premiums were allocated to organized research based on an analysis of research activities of 50 physicians, selected at random, who were covered under the insurance policy.

However, the analysis did not identify which physicians used human subjects and which used animals. Only research that used human subjects would involve a risk of liability and would benefit from the malpractice insurance. However, research using animals would not involve a risk of liability. Thus, the allocation to research was overstated.

As further illustration, two schools used inappropriate methodologies for calculating DA. One of these schools deviated from DCA's preferred formula to calculate DA by including a weighting factor which assumed that research activities required four times as much administrative support as instruction. However, the school did not have a current study or other verifiable data to support this weighting factor. Furthermore, our analysis of departments with large amounts of research compared to departments without any research did not support the school's position that research used more support services than instruction. The use of the arbitrary weighting factor caused an overallocation of DA to organized research.

SPONSORED PROJECTS ADMINISTRATION

Expenses for SPA are incurred by a separate organization established primarily to administer sponsored projects, including such functions as grant and contract

administration, special security, purchasing, personnel administration, and editing and publishing research reports. Generally, SPA has the highest rates of federally sponsored research of any pool. Thus, when general costs are inappropriately included in the SPA pool, it results in an overallocation of costs to Federal research.

In our review of SPA at two universities we recommended eight adjustments for inappropriate pool costs. For example, one of the universities inappropriately included \$1.3 million in environmental health and safety costs which benefitted the entire university and not just SPA projects. The costs should have been included in the GA pool which allocated a lower percentage of costs to research.

SPONSORED PROJECTS ADMINISTRATION
8 RECOMMENDED ADJUSTMENTS
FOR INAPPROPRIATE POOL COSTS

STUDENT ADMINISTRATION AND SERVICES

STUDENT ADMINISTRATION & SERVICES	
4 RECOMMENDED ADJUSTMENTS	
<u>Category</u>	<u>Number</u>
Inappropriate pool costs	3
Understated base	1

Expenses for SS are incurred for the administration of student affairs and for services to students, including expenses of such activities as deans of students, admissions, registrar, counseling and placement

services, student advisors, student health and infirmary services, catalogs, and commencement convocations. Generally, only those Student Services costs which are analogous to fringe benefits for employees should be allocated to organized research. Student Services costs which relate to instruction should not be allocated to research.

We reviewed the SS cost pool at three universities and recommended four adjustments--three related to inappropriate pool costs and one related to an understated base. At one university, we found that the SS cost pool was overstated by the inclusion of inappropriate costs. Although school officials stated that only SS costs which were analogous to employee benefits were included in the pool, we found that the pool included costs for other activities such as the Housing Office, recreational facilities, and the Financial Aid Office. There was about \$8.5 million in the SS pool which did not appear to parallel employee benefits.

The same school excluded student activities, such as laboratory sessions and study hours, from the base used to calculate SS. Generally, the SS pool included costs, like the student health center, incurred to protect students while in the classroom, playing sports, studying and working. The allocation base should include an element for each of these activities. By excluding one or more activities from the base, the other activities are relatively overstated and, in turn, the SS costs allocated to research are overstated.

FACILITIES ISSUES AT UNIVERSITIES

The Facilities category in A-21 is composed of O&M, Building and Equipment Use Allowance or Depreciation, Interest and Libraries. We recommended 51 adjustments in these categories, 45 of which applied to pool cost and 6 of which applied to a base. Our reviews at the 13 universities were based on A-21 principles effective prior to the implementation of the July 1993 revisions. Details on the individual cost elements follow.

OPERATIONS AND MAINTENANCE

Expenses for O&M are incurred for the administration, supervision, preservation and protection of the institution's physical plant. This includes expenses incurred for such items as janitorial and utility services, repairs and ordinary alterations. We reviewed the O&M cost pool at 8 universities and recommended 15 adjustments which are summarized in 6 categories.

The most significant recommended adjustment was the inconsistent treatment of departmental O&M costs at one university. Although the accounting system recorded certain O&M costs as direct charges to departments, the university reclassified \$35.4 million of these costs to the O&M pool. However, the software did not reclassify similar departmental O&M costs which had been directly charged to Federal projects. The reclassification of these accounts to the O&M pool represents

an inconsistent treatment of costs and is contrary to A-21. The inconsistent treatment of costs in this case resulted in duplicate charges to the Federal Government. Sponsored research was charged directly for O&M costs which benefit Federal projects and indirectly for O&M costs which benefit all

other university functions such as instruction. The \$35.4 million should have remained as costs of the ordering departments. Although inconsistent treatment of departmental O&M has the obvious benefit to the university of duplicate recovery, it also shifts costs from administrative pools which are capped to the O&M pool which is not capped.

OPERATIONS AND MAINTENANCE 15 RECOMMENDED ADJUSTMENTS	
<i>Category</i>	<i>Number</i>
Inequitable allocation of costs	7
Overstated pool costs	3
Inappropriate pool costs	2
Understated pool costs	1
Inconsistent treatment of costs	1
Unacceptable utility special study	1

Special studies can be used to allocate utilities costs in the O&M cost pool. We reviewed a special study at one school on utility costs. Based on our review, we found that the study did not use the correct utility charges to compute the increased usage by Federal research. The school agreed that the study was flawed. It did not support the proposed increase for utilities. In fact, the study showed that the total utility costs for research was less than the amount originally proposed.

DEPRECIATION AND USE ALLOWANCE

Institutions are compensated for the use of buildings, capital improvements and equipment through depreciation expense or use allowance. The institution may select either method initially, but must obtain approval from the cognizant Federal agency for any change. Depreciation is an

DEPRECIATION & USE ALLOWANCE 26 RECOMMENDED ADJUSTMENTS	
<i>Category</i>	<i>Number</i>
Excess depreciation or use allowance	7
Unsupported depreciation or use allowance	5
Inappropriate methodology used	5
Inappropriate base used	3
Unallowable use allowance	1
Misstated use allowance	1
Inappropriate pool costs	1
Inconsistent treatment of costs	1
Unacceptable building componentization special study	1
Unacceptable equipment special study	1

accounting means to spread the cost of an asset over its useful life. Use allowance is an alternative methodology for compensating institutions when depreciation is not used. Depreciation is limited to the expected life of the asset even if the asset is used for a longer period; use allowance can

be claimed as long as the asset is in use. In some cases, institutions may negotiate with DCA to claim additional use allowance on assets that are considered to be fully depreciated. A use allowance is charged at 2 percent of the cost of a building and 6 2/3 percent of the cost of equipment. In addition to testing the computations, allowability and allocability, auditors generally test assets' recorded value, existence and use.

We reviewed the building depreciation and use allowance at 7 universities and equipment depreciation and use allowance at 11 universities, and recommended 26 adjustments which are summarized into 10 categories.

Our review of depreciation and use allowance for buildings and equipment disclosed seven instances of excess depreciation or use allowances charged to indirect costs. At one university, sponsored research was allocated excessive use allowance for structures and improvements because an inappropriate base was used. The university allocated the use allowance based on assignable square feet of the structures rather than on the functional use of the structures as required by A-21. An analysis of the actual use of the structure showed that the use allowance allocated to sponsored research was overstated.

Another significant adjustment recommended in our reviews was unsupported depreciation or use allowances. For example, at one school we found that the equipment acquisition costs used to calculate use allowance in the proposal were overstated by \$28.3 million when compared to the university's inventory records; thus, a portion of the proposed amount was unsupported. The same school also included in its proposal depreciation on fully depreciated equipment. The school did not have a negotiated agreement with DCA to claim additional use allowance on \$19.3 million of equipment which had been fully depreciated.

In addition to our recommended adjustments for excess and unsupported depreciation, we recommended that a special study on building components not be used. The university proposed claiming depreciation based on a special study for selected buildings which contained the largest portion of space related to research. The university proposed building use allowances for about 230 buildings and depreciation for 40 selected buildings. The depreciation cost for the 40 buildings was developed from the special study by allocating buildings costs to specific components on the building. Each component was then depreciated over its estimated useful life. The A-21 does not allow a combination of depreciation and use allowance methods to be used for a single class of assets. Therefore, this special study was not performed in accordance with A-21.

INTEREST

Interest expense first became allowable on debt associated with certain buildings, capital improvements, and equipment acquired or completed on or after July 1, 1982.

Interest expense is allowed provided the assets are used in support of sponsored agreements (i.e., Federal research). Over the past decade, interest has been one of the fastest growing categories of indirect costs. In recognition of this trend, the July 1993 revisions to A-21 created a separate interest cost pool under the Facilities category.

At one university, we reviewed interest costs based on estimated completion dates of buildings under construction. At the time, interest costs, not yet a separate cost pool, were included in the buildings category. In its proposals for FYs 1992 and 1993, the university included interest costs for eight buildings which were estimated to be completed in these years. However, as of June 1992, only three buildings were completed and used for the entire year and one building was completed at the end of May. Of the remaining four buildings, three were scheduled to be completed in FY 1993. For one of these buildings, construction had not yet begun. The incorrect completion dates for buildings affect the amounts proposed for interest costs as well as depreciation and use allowance. The inappropriate interest costs on buildings not yet completed amounted to \$1.2 million and \$1.6 million for FYs 1992 and 1993, respectively.

LIBRARY

The library cost pool includes expenses for the operation of the school's general library, including the cost of books and library materials. We reviewed the library expenses at five universities and recommended nine adjustments which are summarized into five categories.

The most frequently recommended adjustment was for inequitable allocation of costs. At one school the cost of circulation and reference was not allocated to all users; the allocation base did not include an element for public usage. Although the library costs were allocated based on about 50,000 university users, the base did not include the Chief Librarian's estimate of 40,000 outside users of the libraries. Because the allocation base did not include all users, library costs were overallocated to research. At another school we found that the full-time equivalent (FTE) distribution base understated the number of full-time students which effectively shifted costs from instruction to research.

LIBRARY 9 RECOMMENDED ADJUSTMENTS	
<i>Category</i>	<i>Number</i>
Inequitable allocation of costs	4
Inappropriate base used	2
Inappropriate pool costs	1
Understated base	1
Unacceptable library special study	1

We also reviewed one unacceptable library special study. The library study included an unreliable survey. Over 50 percent of the library users who were surveyed reported using the library for research, but they were not assigned to research projects. Students often said they were using the library for research, but the research usually involved working on a paper for a class, not scientific research projects.

MULTIPLE CATEGORY ADJUSTMENTS

MULTIPLE CATEGORY 33 RECOMMENDED ADJUSTMENTS	
<i>Category</i>	<i>Number</i>
Understated MTDC base	9
Inequitable space allocation	6
Unallowable space	4
Space inappropriately assigned	4
Inaccurate square footage	3
Understated square footage base	2
Incomplete space study	2
Unsupported space	1
Inequitable cost allocation	1
Inappropriate methodology used	1

During our reviews at 9 of the 13 universities, we recommended 33 adjustments which affected costs in more than one cost element in either the Administration or Facilities category. We categorized these adjustments as Multiple category adjustments. Twenty-two of these adjustments resulted from our review of 9 space surveys which were used to accumulate statistics for allocating facility costs such as building and equipment depreciation or use allowance and costs for operation and maintenance of facilities. We have included two examples of problematic

space surveys, and examples of a base adjustment and a pool adjustment which affected multiple pools.

For example, in our review of a new building at one university, we determined that the university incorrectly computed the percentage of space assigned to organized research and that the university's space study was not sufficient to support space distribution costs. The university did not apply the same methodology consistently in computing the percentage of space assigned to each functional area (i.e., organized research, instruction, etc.). As a result, the percentage of space allocated to organized research was overstated by 13 percent.

In another example, one university performed a space survey of existing buildings which included less than half of the total assignable square feet. The university inappropriately classified the unsurveyed space as joint use space which it allocated based on salaries and wages. However, this was not in accordance with A-21. Circular A-21 requires that all space be identified to a single function first and the remaining joint use space be allocated based on salaries and wages within the appropriate departments.

One university included \$14,496,980 of private gift accounts for research in the instructional category, but the space related to these accounts was coded as research. Although these funds were not based on contracts or grant awards, they were funds from private sources for specific research efforts which should have been included in the research base. By not being consistent in coding the costs and space, the university understated GA and DA allocations to organized research but overstated the allocation of space related costs. This resulted in a net overstatement of 6 percentage points to the indirect cost rate.

Another university used an understated estimate of unallowable costs in its rate proposal which affected multiple pools. The university used the results of an internal audit review of a prior proposal to estimate unallowable costs which were included as an unspecified adjustment in the proposal. However, the adjustment was understated because it did not take into account the 1991 changes to A-21. The resultant OIG adjustment related to all cost pools except space and building costs.

INDIRECT COST ISSUES AT NONPROFIT ORGANIZATIONS

Nonprofit organizations do not categorize costs in the same manner as universities. Generally, nonprofit organizations have a single pool for indirect costs and use

NONPROFIT ORGANIZATIONS 32 RECOMMENDED ADJUSTMENTS	
<i>Category</i>	<i>Number</i>
General administration	22
Buildings depreciation and lease	5
Equipment depreciation and use	3
Base adjustments	2

salaries and wages as an allocation base. Typical examples of indirect costs for many nonprofit organizations may include depreciation or use allowances on buildings and equipment, operation and maintenance of facilities, and general and administrative expenses, such as salaries and

expenses of executive officers, personnel administration and accounting. Our reviews at 4 nonprofit organizations resulted in 32 recommended adjustments which we categorized as general administration, equipment depreciation and use, building depreciation and lease, and base adjustments. Most of the recommended adjustments fell in the general administration category.

Almost half of the total number of recommended adjustments were for unallowable costs. At one organization the unallowable costs included the following:

- ◆ Travel costs (first-class airfare and airfare for spouses)
- ◆ Legal fees
- ◆ Catering afternoon teas for the Director and staff
- ◆ Membership in private clubs for the president and his executive secretary
- ◆ Fund raising costs (annual golf tournament)

Three of the recommended adjustments related to equipment depreciation. One institution overstated equipment depreciation as a result of changing from the use allowance method for recovering equipment costs to the use of a depreciation method. This resulted in equipment being depreciated beyond its estimated useful life.

We recommended five adjustments related to building depreciation and lease. For example, our review of the building depreciation and lease costs at one organization disclosed that unallowable charges were included in the proposal. We recommended adjustments which included: (i) a reduction for two buildings which were being claimed as owned buildings in the proposal and were also included as lease costs; (ii) a reduction for building depreciation which should be based on a 20-year useful life instead of a 10-year life as proposed by the organization; and (iii) an increase for depreciation related to a building which was erroneously excluded from the FY 1991 proposal.

CONTINUED NEED FOR COORDINATED OVERSIGHT

The results of our 17 management advisory reviews summarized above as well as DCA's estimates of the cost savings attributed to them demonstrate a continued need for coordinated OIG/DCA oversight of the allowability and allocability of indirect cost proposals submitted by universities and nonprofit organizations. The OIG is providing this oversight in basically two ways--conducting specific reviews of indirect cost proposals and proposing changes to A-21 to further strengthen controls over indirect costs.

COORDINATED REVIEWS OF INDIRECT COST PROPOSALS

The OIG continues to provide coordinated assistance (OIG auditors and DCA negotiators) in reviewing indirect cost proposals submitted by universities and nonprofit organizations. These reviews are being refocused to consider not only results of past reviews but changes to A-21, particularly as they relate to capped pools and space surveys. The usefulness of these reviews could be enhanced through broader distribution to all DCA offices.

Since 1991, A-21 has been revised twice. The October 1991 revisions specified certain costs as unallowable and capped administrative costs at 26 percent of the modified total direct costs of federally sponsored research. In addition, the revisions required a high-level university official to certify, under penalty of perjury, that all the costs included in the proposal are allowable and properly allocable to Federal agreements. The 1993 revisions changed the method of allocating facilities costs (except the Library component). These changes to A-21 have caused us to refocus our coordinated reviews of indirect cost proposals as follows.

CAPPED ADMINISTRATION POOLS

The A-21 revisions should strengthen controls over the Administration pools. The requirement that cost allowability and allocability be certified by a high-level university official could encourage universities to further improve their controls to prevent unallowable or unallocable costs from being included in their indirect cost proposals. In addition, the pool cap of 26 percent of MTDC could reduce the impact on the indirect cost rate of any unallowable or unallocable costs that were included in the pools.

Considering that about 42 percent of our recommended adjustments related to cost pools that are now capped, we are refocusing our review efforts in the area of Administration pools on possible cost shifting from these pools to other pools that are not capped in the Facilities category (this category accounts for more than half of the indirect costs and is the fastest growing cost component).

SPACE SURVEYS AND SPECIAL STUDIES

Our reviews at the 13 universities resulted in 26 recommended adjustments resulting from inadequate space surveys and special studies. This represents about 18 percent of all recommended adjustments, and points out the need for continued review of space surveys and special studies. Recent changes to A-21 further substantiate the need to review how space costs are allocated.

The revisions to A-21 have eliminated the concept of "predominant use" which was a way of assigning jointly used space to a specific function, such as instruction or research, based on the predominant function which used the space. Joint space will now be classified based on space surveys which specifically identify usage or distribute joint space based on the salaries and wages or FTE positions of the staff using the space or of all staff university-wide. It may be advantageous for universities to identify specific users of jointly used space because the research ratio for jointly used space tends to be higher than the university-wide research ratio. To do this, universities will have to associate payroll costs by room or laboratory to allocate the cost of jointly used facilities which were previously assigned to a specific function based on predominant use. However, universities may find it difficult to integrate the payroll system and the space inventory. The OIG will review the method used to accumulate allocation statistics, either salaries and wages or FTEs, by specific location.

The HHS Working Group on the Costs of Research reported that universities frequently use special studies to provide higher research allocations than the standard allocation methods for utility and library costs. Special studies generally increase the cost of preparing an indirect cost proposal, and result in computing a higher indirect cost rate. The HHS Working Group asserted that the Administration cap of 26 percent may cause a significant increase in the number of special studies as institutions attempt to increase reimbursements lost by the cap.

In our review at the 13 universities, we evaluated four special studies and found that they were flawed. The studies are often performed by outside consultants, and institutions attempt to allocate the majority of the study's costs to federally supported activities. However, accumulating the data for a special study may be problematic. If the study is not performed in accordance with A-21 requirements, the study may not be used as a basis for allocating costs and the resultant proposed rate may be negotiated downward by DCA.

DISTRIBUTE RESULTS OF OIG REVIEWS TO DCA OFFICES

The OIG has assisted various DCA offices in the review of indirect cost proposals, but the OIG management advisory reports have only been issued to the DCA office that generally requests the review. Reports of work conducted in New York, for example, would not be routinely distributed to the DCA office in San Francisco. We

believe that the usefulness of the OIG reports could be enhanced if ASMB distributed the reports or report summaries to all DCA offices. Wider report distribution would enable the offices to maintain a current update on trends and patterns being detected by the OIG, particularly as the universities strive to meet the revised requirements of A-21, and would be useful in the planning of future reviews.

PROPOSING CHANGES TO STRENGTHEN A-21

The OIG will continue to identify ways to strengthen OMB Circular A-21. During the earlier revisions to A-21, the OIG and ASMB both contributed to the efforts of OMB to strengthen A-21. For example, the OIG performed a series of reviews of indirect cost proposals to identify types of costs which were claimed as GA expenses which did not seem to contribute to the research effort. This information was used by OMB to expand and clarify the list of unallowable costs under A-21. In addition, both the OIG and ASMB testified before congressional committees which were investigating indirect cost issues at research universities.

During FYs 1992 and 1993, the OIG and ASMB continued to recommend ways to strengthen A-21. In a report titled, "Summary Report on Audits of Recharge Centers at 12 universities," dated January 1994 (CIN: A-09-92-04020), the OIG recommended a number of changes to A-21 designed to provide clear and definitive guidance for operating recharge centers. Currently, the OIG participates in the Indirect Cost Interagency Working Group which was recently created to develop policy for the reimbursement of indirect costs in financing university research facilities. The ASMB is currently working with the National Science Foundation and the Office of Naval Research regarding the use of special studies to determine indirect cost rates. The results will be presented to OMB for consideration of changes to A-21.

SUMMARY AND CONCLUSION

During FYs 1992 and 1993, the OIG provided audit assistance to DCA in support of negotiating indirect cost rates with universities and nonprofit organizations. At 13 universities and 4 nonprofit organizations the OIG reviewed the proposed indirect cost rates and recommended 178 adjustments to both pool costs and base costs. In the aggregate, the recommended adjustments tended to reduce the proposed indirect cost rates. The DCA used the results of these reviews during negotiations with the universities and nonprofit organizations, and attributed significant cost savings to them.

The results of our reviews and DCA's positive response to them demonstrate the need for continued oversight of indirect cost rate proposals. The OIG intends to continue to carry out its oversight function in this area by:

- ◆ continuing its coordinated reviews with DCA offices.
- ◆ continuing to refocus these reviews as appropriate. For example, the OIG is refocusing reviews to take into consideration changes to A-21, particularly as they pertain to capped pools and space surveys.
- ◆ recommending that ASMB distribute the results of the OIG reviews to DCA offices responsible for negotiating indirect cost rates as a means of identifying current trends and patterns in recommended adjustments.
- ◆ continuing to propose changes to strengthen A-21 wherever appropriate.

ASMB COMMENTS

In written comments dated March 7, 1995, the ASMB endorsed the OIG's management advisory report system used by its DCA staff to conduct more productive negotiations. The ASMB also agreed with our efforts to refocus our reviews to areas posing a potentially high risk of error; and to identify additional ways to strengthen OMB Circular A-21. The ASMB agreed that a coordinated OIG/DCA joint initiative is the best way of pursuing these goals. The complete text of the ASMB's response to the report is included in the **APPENDIX**.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Office of the Secretary

MAR 7 1995

Washington, D.C. 20201

TO: June Gibbs Brown
Inspector General

FROM: Terrence J. Tychan
Deputy Assistant Secretary for
Grants and Acquisition Management

IG	_____
SAIG	_____
PDIG	_____
DIG-AS	_____ ✓
DIG-EI	_____
DIG-OI	_____
AIG-CFAA	_____
AIG-MP	_____
OGC/IG	_____ ✓
EXSEC	_____ ✓
DATE SENT	3/8

SUBJECT: Request for Comment -- Summary Report on Indirect Cost Reviews at Universities and Nonprofit Organizations for FY 1992 and 1993 (A-09-94-01020)

This report demonstrates the positive results that can be obtained when OIG auditors coordinate efforts with Division of Cost Allocation (DCA) negotiators in reviewing indirect cost proposals submitted by universities and nonprofit organizations. We agree that DCA and OIG should maintain this collaborative venture because of continuing OMB and Congressional scrutiny in the indirect cost area. Our joint approach to problem solving is a proven method of using diminishing resources in an efficient and effective manner.

Your report consolidates results of 17 management advisory reports that were furnished to DCA offices responsible for negotiating certain indirect cost proposals. We endorse this management advisory report system because it enables DCA staff to conduct more productive negotiations by obtaining detailed information which may not be available under routine conditions. In sum, a more informed negotiator can produce better results.

In addition, this report advances a strategy to: (1) focus OIG/DCA efforts on high risk areas; (2) encourage universities to improve financial systems used in preparing indirect cost proposals and (3) identify additional ways to strengthen Circular A-21. We agree that a DCA/OIG joint initiative is the best way of pursuing these goals. One expected outcome would be simplification of the indirect cost proposal process and greater assurance that claims made by organizations are limited to reasonable and allowable costs.

We look forward to continuing our coordinated efforts in the future so that we can focus on high risk areas and identify additional ways to strengthen Circular A-21. In sum, working together is the best way to do our job.