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An Evaluation of the Accounting Systems Presently Used by Certain Non-Profit Corporations Engaged in the Activities of Medical Education and Research

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USED BY CERTAIN NON-PROFIT CORPORATIONS
ENGAGED IN THE ACTIVITIES OF MEDICAL
EDUCATION AND RESEARCH

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CHAPTER I

INTRODUCTION

Foundations as humanistic institutions have existed for centuries. The foundation as an American institution has come of age in the last fifty years. Many types exist in this country and their purposes for existence are quite varied. In recent years the foundation has increasingly been used as a legal entity for conducting medical education or research. Several of these foundations have joined together in an association to discuss solutions for their common research and business problems. This association is known as the Association of Independent Research Institutes.

Preliminary discussions with the managerial staffs of several of these foundations indicate that there is no well-defined set of accounting guidelines which these organizations may use in developing their accounting systems, and that many accounting practices have been borrowed from rules or guidelines of profit-making and municipal organizations. These discussions also revealed a strong desire on the part of the managerial staffs to explore possibilities for developing an acceptable set of guidelines for the group as a whole.

Why is a set of accounting guidelines desirable for this group? Would it not be just as desirable for each institution to solve its own problems, and forget about the problems of the other foundations? Obviously, the staffs of the several foundations who have formed a business association to discuss their mutual problems feel that the answer to both of the foregoing questions is "no." The basic reason for the existence of this association is to identify common problems, and to develop information for solving these problems. No studies have been made for these institutions regarding mutual accounting problems and practices. A well-defined set of accounting guidelines must be defined if these foundations are to communicate with each other in a meaningful way. Business problems of the magnitude which confront these foundations can best be solved by sharing ideas and experiences; by such sharing much evidence can be found for the solutions of pertinent common problems.

With the need for a set of accounting guidelines identified, the purposes of this paper can be stated. The basic approach is to determine the actual practices of the several foundations, to develop a set of accounting guidelines, and to compare the accounting practices with the accounting guidelines. The approach must be defined in terms of specific problems to be considered; the scope of these problems must be clearly defined, and a framework of necessary assumptions must be identified.

The first step will be to identify common accounting problems which may confront some or all of these foundations. Accordingly, visits will be made to the Palo Alto Foundation for Medical Research, the Pasadena Foundation for Medical Research, and the Oklahoma Medical Research Foundation. Discussions with the accounting personnel should be quite valuable in determining the problems to be considered in this study, and in defining the scope of these problems.

The next step will be to collect information from the various research organizations relative to selected accounting practices which seem to be troublesome. The basic source of information will be a questionnaire which will be sent to each institution. Secondary sources of information will be independent audit reports for the institutions and other exhibits and correspondence which might become available.

After the acquisition of the data for the accounting practices an investigation of accounting publications will be conducted to acquire authoritative guidelines for the problem areas. A comparison between actual practices and authoritative guidelines will be made and conclusions reached as to the desirability of continuing with, or altering, the existing practices.

Before proceeding further, it might be well to define the word "foundation." A foundation may be defined as:

> . . . a nongovernmental, nonprofit organization having a principal fund of its own and established to maintain or aid social, educational, charitable, or other activities serving the common welfare.[1]

The first problem that must be considered is: "Are these foundations similar in purpose and in basic structure?" The business administrators of these associated foundations must intuitively feel that their respective organizations are similar, but we must know the answer to this question if further comparisons are

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[1]F. Emerson Andrews, Philanthropic Giving (New York, Russell Sage Foundation, 1950) p. 90, cited by Joseph C. Kiger, Operating Principles of the Larger Foundations (New York: Russell Sage Foundation, 1954), p. 11.

to have any merit whatsoever. Certainly items that are alike in nature can be compared, and even unlike items may be compared, when it is known to what extent they differ.

Fund-accounting practices pose many problems for the foundations of the Association of Independent Research Institutes. A foundation by its very nature may receive funds from a number of sources, and it must account to the donors of these funds in many ways, with different conditions for reporting. The question arises: "Are funds which are received for designated purposes handled on a basis consistent with current accepted accounting guidelines?"

The treatment of indirect (overhead) expenses poses many special problems. For example, some foundations may depreciate assets while others may not. In addition, a "use allowance" may be computed to reimburse the foundation for the use of its plant and facilities. An indirect pool of expenses may be allocated to different activities, and different bases of allocation may be used. We might well ask the question: "Are indirect (overhead) expenses treated in a manner which is consistent with current accepted accounting guidelines?"

In order to appraise the progress of any business enterprise, it is necessary to provide current, meaningful reports to interested parties. Since reporting is such a vital part of accounting, it is only natural that we should examine this area. Two basic types of accounting reports are generated: (1) reports for outside distribution, and (2) reports for internal management use. Two reporting questions emerge for consideration in this study. These are: (1) "What reporting practices exist for the foundations under consideration?"

and, (2) "Is it desirable for these foundations to adopt a uniform reporting system?" These questions may prove exceedingly hard to answer, since they involve so many facets of accounting. In order to facilitate the answering of the foregoing questions, a well-defined scope will be necessary. This will be discussed in detail later.

To what extent is accrual accounting practiced, and how does this compare with accepted accounting guidelines? These questions become vital to this study since a comparison of accounting reports is desired. Accrual accounting also affects fund-accounting practices and reports, and failure to record liabilities properly may result in expenditures in excess of fund authorizations. It is necessary to know if accounting data from the foundations under study are presented in a uniform and consistent manner, else misinterpretations may easily creep into the problems under discussion.

Scope of the problems under investigation

In order to limit the number of the foundations which will provide data for this study, only those foundations identified as being members of the Association of Independent Research Institutes will be considered as applicable to this study. This association was formed in 1961, primarily to further research in independent medical centers. A proper sub-set of the purposes of this association is the offering of assistance to its members in the overall research administration and organizational problems which exist. The scope of this study, therefore, will complement the purposes of the association.

The scope of the problems under investigation will be limited to encompass only the areas of accounting which seem to present the most problems. These areas may be classified as (1) fund accounting, (2) overhead or indirect expenses and, (3) reporting.

The area of fund accounting presents a variety of problems for an independent research institution. The sources of income for such an organization are very broad, and may include contracts or grants from federal, state, municipal, or private agencies, as well as specified or unspecified donations from individuals or other institutions or businesses. The requirements for recording the pertinent transactions may differ considerably, depending upon the nature of the funds and the policies of the donor of the fund. For example, criteria for administering a contract with the Atomic Energy Commission differ in many ways from criteria for administering a grant from the Department of Health, Education and Welfare. Within the scope of fund accounting, an attempt will be made to evaluate the practices of the research institutions included in this study and, hopefully, an acceptable way to handle all of these funds with their differing criteria can be developed.

The scope of studying the overhead or indirect expenses will include depreciation accounting or the absence of it, the arrangement or grouping of accounts into common expense pools, and the manner in which these expense pools are distributed to institutional research or other activities. The proper method of presenting these various indirect expenses becomes very important, because an unsound method of presentation may result in a failure to sufficiently recover the indirect expenses. Since these institutions are non-profit by nature, such a loss requires that other funds must be provided, or a loss in working capital may result.

The scope of studying the reporting practices of these institutions will include internal reports to research directors and management officials, as well as reports to outside users. The timeliness of reporting will also be considered along with the contents of the reports.

Accrual accounting is a very important aspect of reporting practices, especially when it is highly desirable to control the rate and amount of expenditures. Penalties may arise for the over or under expenditure of funds; thus it becomes necessary to inform interested institutional members of fund activities on a current basis. Accrual accounting for preparation of statements for outside use is normally not much of a problem when institutions engage an independent accounting firm to perform a periodic audit of the company records. The principle of "full disclosure" insists on the accrual of accounting information, so that financial statements which accompany an audit firm's opinion should be current on the closing date.

Definition of terms

Many terms are frequently misused and misunderstood in accounting and must be defined before we proceed, so that the reader may more clearly understand the scope of this paper. In June, 1963, the Accounting Principles Board appointed a committee to prepare an inventory of generally accepted accounting principles for business enterprises. The following excerpts from the committee's report provide some very important concepts with respect to a hierarchy of certain accounting terms according to importance:

> The broad problem of financial accounting should be visualized as requiring attention at four levels: (1) postulates; (2) principles; (3) rules or other guides for the application of principles in specific situations; and (4) research.
>
> Postulates are few in number and are the basic assumptions in which principles rest. . .
>
> A fairly broad set of coordinated accounting principles should be formulated on the basis of the postulates. . . The principles, together with the postulates, should serve as a framework of reference for the solution of detailed problems.
>
> Rules or other guides for the application of accounting principles in specific situations, then, should be developed in relation to the postulates and principles previously expressed.[2]

The authority to define specific accounting principles and practices rests largely with professional accountants. Paul Grady states:

> The affirmative opinions of practicing and academic certified accountants constitute authoritative support for accounting principles or practices.[3]

This is not the sole source of authority, however.

Some of the guidelines which may be developed may not fall within the authority of the American Institute of Certified Public Accountants. For example, many governmental regulations prescribe their own peculiar policies regarding the administration and control of their respective contracts or grants. Accordingly, it may be necessary to consider others as authorities, depending upon the nature of the

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[2]Paul Grady, Inventory of Generally Accepted Accounting Principles for Business Enterprises (New York: American Institute of Certified Public Accountants, Inc., 1965) p. x.

[3]Paul Grady, "Inventory of Generally Accepted Accounting Principles in the United States of America," The Accounting Review, (January, 1965), pp. 23-24.

guideline under verification. For our purposes then, guidelines will be considered authoritative as expressed by the AICPA, or if sufficient evidence is presented from publications the authors of which are considered as authorities in their field.

The term "fund" is defined in a leading accounting text by a direct quotation from the National Committee on Governmental Accounting as:

> A sum of money or other resources segregated for the purpose of carrying on specific activities or attaining certain objectives in accordance with special regulations, restrictions, or limitations and constituting an independent fiscal and accounting entity.[4]

While this definition is primarily a definition for municipal or governmental accounting, it is also suitable as a definition of "fund" for private enterprises.

Necessary assumptions

It will be necessary to assume that the foundations under investigation will have similar purposes and will be similar in their basic structure. An assumption must also be made that a 50 percent return or better of the questionnaires will be representative of the group as a whole. Finally, an assumption will be made that a set of authoritative guidelines can be developed and that a comparison can be made between the ascertained accounting practices and the authoritative guidelines.

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[4]H. A. Finney and Herbert E. Miller, Principles of Accounting, Advanced (5th ed. rev.; Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1960), p. 523.

CHAPTER II

THE IDENTIFICATION OF EXISTING ACCOUNTING PRACTICES

The collection of accounting information from these institutions was accomplished in two phases. First, trips to Palo Alto and Pasadena, California, and Oklahoma City, Oklahoma, were taken and personal interviews were conducted with key accounting personnel at each research institution relative to their specific accounting practices and problems. The purpose of this phase was to identify specific accounting problems and to collect information to be incorporated into a questionnaire. Next, a questionnaire was prepared for distribution to all institutions affiliated with the Association of Independent Research Institutes. A request for audit reports from independent certified public accountant firms was also requested, along with a request for an organizational chart and an example of a fund commitment report.

The questionnaire was divided into four sections, which were entitled (1) Organization, (2) Fund Accounting, (3) Overhead Practices, and (4) Miscellaneous. These were sent to nineteen institutions and replies were received from eleven. One institution was no longer in business. Of the eleven who replied, seven sent audit reports as requested. One institution sent interim reports and promised to send a current report as soon as the new audit was completed. Three institutions failed to send such a report. Only three provided an organizational chart or listing to permit an analysis of the organizational structure. Five institutions included fund commitment reports as requested.

Table 1 shows the name and locations of the eleven institutions that returned the questionnaire.

TABLE 1

RESEARCH INSTITUTIONS THAT COMPLETED AND RETURNED QUESTIONNAIRE

Name	Location
Alton Ochsner Medical Foundation	New Orleans, La.
Southwest Foundation for Research and Education	San Antonio, Tex.
The Michigan Cancer Foundation	Detroit, Mich.
Woods Hole Oceanographic Institution	Woods Hole, Mass.
Scripps Clinic and Research Foundation	La Jolla, Calif.
Palo Alto Medical Research Foundation	Palo Alto, Calif.
Oklahoma Medical Research Foundation	Oklahoma City, Okla.
The Worcester Foundation for Experimental Biology	Shrewsbury, Mass.
Pasadena Foundation for Medical Research	Pasadena, Calif.
The Jackson Laboratory	Bar Harbor, Maine
The Lovelace Foundation for Medical Education and Research	Albuquerque, New Mex.

Organization

The Organization section was designed to see whether the institutions (1) had similar purposes, (2) employed scientific and technical personnel, (3) were associated with a clinic, hospital, or other organization, or (4) conducted an educational training program at the university level.

All eleven institutions reported that they were engaged in medical research of one type or another. Five reported that they also considered educational or training activities as one of their primary purposes.

The total personnel employed for the reporting institutions amounted to 2,660 employees, of whom 745 were identified as scientists, and 1,915 were identified as technical and other employees. Table 2 shows the employees of each reporting institution.

TABLE 2

SCIENTIFIC AND TECHNICAL PERSONNEL EMPLOYED BY RESEARCH INSTITUTIONS

Institutions	Scientific (a)	Technical (b)
Ochsner	8	25
Southwest	49	138
Michigan	34	30
Woods Hole	110	440
Scripps	84	400
Palo Alto	50	32
Oklahoma	100	106
Worcester	197	136
Pasadena	5	20
Jackson	36	327
Lovelace	72	261
Total	745	1,915

[a] All personnel have at least a four-year college degree

[b] Includes all other personnel

Of the reporting institutions, only three were not associated in some way with a clinic, hospital, or university. The Southwest Foundation for Research and Education, Woods Hole Oceanographic Institution, and The Jackson Laboratory were engaged solely in research activities.

Table 3 shows a summary of the types of educational programs offered by the reporting institutions.

TABLE 3

EDUCATIONAL PROGRAMS OFFERED BY INSTITUTIONS

Externs	2
Interns	2
Residents	5
Science Students	2
Other	7

Fund accounting

The section of the questionnaire for Fund Accounting was designed to answer the following questions:

1. For what agencies does your institution administer some manner of fund control?

2. When a contract or grant is approved, how does your institution record the authorized funding?

3. Does your institution separate research funds received in advance from other funds?

4. Does your institution establish separate general ledger accounts for income, expenditure, and purchase order commitments?

5. How frequently are financial reports provided to principal investigators of contracts and grants, and do these reports include approved commitments?

6. Are assets acquired from government sources recorded in the general ledger?

7. Are periodic time reports required from your employees, and does the time report permit an analysis of the employee's time by contracts or grants, organizational research, and administrative and other work?

The results of question one show that the research institutions conducted research projects for a number of interests, and that the largest part of their research program was generally supported by government contracts and grants. Table 4 shows the number of agencies or other types of enterprises supporting contracts and grants for which each institution was administering some form of fund control.

TABLE 4

NUMBER OF AGENCIES OR TYPES OF ENTERPRISES PROVIDING CONTRACTS OR GRANTS TO INSTITUTIONS

Institutions	Government Agencies		Other Enterprises	
	Contracts	Grants	Contracts	Grants
Ochsner	1	1		2
Southwest	3	1	1	1
Michigan				1
Woods Hole	4	2		
Scripps	1	4		
Palo Alto	4	1		4
Oklahoma	3	2		2
Worcester	2	2		2
Pasadena	2	3		3
Jackson	3	2		1
Lovelace	4	2		2
Total	27	20	1	18

The results of question two showed that all of the institutions recorded authorized contract or grant funding in the general ledger upon notification of approval of funds, and in dollar terms, except the Michigan Cancer Society, which entered approval in the general ledger in a memorandum form, and the Scripps Clinic and Research Foundation, which made no entry, either in the general ledger or by memorandum entry.

The results of question three showed that six institutions separated research funds received in advance from other funds, and that five institutions made no separation. Table 5 shows the results of question three by institution.

TABLE 5

INSTITUTIONAL PRACTICES OF SEPARATING CONTRACT OR GRANT FUNDS FROM OTHER FUNDS PRIOR TO EXPENDITURE

Institution	Funds Separated
Ochsner	yes
Southwest	yes
Michigan	yes
Woods Hole	no
Scripps	yes
Palo Alto	yes
Oklahoma	no
Worcester	no
Pasadena	no
Jackson	no
Lovelace	yes

The results of question four showed that all institutions maintained separate accounts for each contract or grant activity of income and expenditure by type, either in the general ledger or in a subsidiary ledger. No organization recorded approved commitments in the general ledger.

The results of question five showed that ten institutions furnished monthly financial statements to principal investigators of contracts or grants. The Michigan Cancer Foundation provided statements only upon request of the principal investigator. Eight of the institutions reported that approved commitments were included in reports to principal investigators. Two others reported the inclusion of selected commitments, and only one institution failed to include commitments in any form. Five institutions provided sample reports to principal investigators, as requested.

The results of question six showed a pronounced difference in practice among the institutions regarding the method of recording property acquired from government sources. Table 6 shows the practices for each institution.

The results of question seven showed that ten institutions had time reports which permitted analysis of employees' time worked by contracts or grants. Oklahoma had an "exception" system, where only deviations from normal work routines were reported. Palo Alto, Oklahoma, and Worcester Institutions reported that their time reports did not permit analysis by organizational research projects. Time reports for all of the remaining institutions permitted this type of analysis. Only Palo Alto and Oklahoma reported that their time reports could not be analyzed according to administrative and other projects.

TABLE 6

INSTITUTIONAL PRACTICES OF RECORDING
ASSETS RECEIVED FROM
GOVERNMENT SOURCES

Institutions	Assets Recorded in General Ledger from	
	Surplus Sources	Grants
Ochsner	No	No
Southwest	No	No
Michigan	Yes	Yes
Woods Hole	No	No
Scripps	No	Yes
Palo Alto	No	Yes
Oklahoma	No	No
Worcester	No	Yes
Pasadena	Yes	Yes
Jackson	Yes	Yes
Lovelace	No	Yes

Overhead practices

The section of the questionnaire for Overhead Practices was designed to answer the following questions:

1. Does your institution depreciate capital assets, and, if so, what method or methods are used?

2. Does your institution compute a "use allowance" for capital assets, for subsequent charges to institutional projects, or activities?

3. Does your institution compute an "overhead pool" of indirect expense for the purpose of determining overhead expenses applicable to institutional projects?

a. Is this "overhead pool" apportioned between research activities and other organizational activities?

b. What titles best describe the institutional "overhead pools"?

4. What bases does your institution use to relate indirect expenses to research projects?

5. What employee fringe benefits does your institution treat as direct or indirect expenses?

The results of question one showed that seven institutions depreciated capital assets, and four did not. Of those depreciating capital assets, only one used an accelerated method.

The results of question two showed that three institutions computed a use allowance. Three institutions neither depreciated capital assets nor computed a use allowance. Table 7 shows the particulars for answers to questions one and two. Palo Alto and Jackson Institutions reported using both a depreciation method and a use allowance computation.

The results of question three showed that all institutions computed an overhead pool except Pasadena. Nine institutions reported that they apportioned indirect expenses among research and other organization activities. Southwest and Pasadena Institutions reported that they made no such apportionment. Table 8 shows descriptions of overhead pools used by the reporting institutions.

Seven institutions reported that they used titles of "research administration" and "indirect department" to describe overhead pools. Only four institutions reported the use of "library" as an expense pool.

TABLE 7

DEPRECIATION OR USE ALLOWANCE PRACTICES
OF RESEARCH INSTITUTIONS

Institution	Depreciation Method Used		Use Allowance Computed
	Straight Line	Accelerated	
Ochsner	No	No	No
Southwest	Yes	No	No
Michigan	No	No	No
Woods Hole	Yes	Yes	No
Scripps	Yes	No	No
Palo Alto	Yes	No	Yes
Oklahoma	Yes	No	No
Worcester	No	No	Yes
Pasadena	No	No	No
Jackson	Yes	No	Yes
Lovelace	Yes	No	No

TABLE 8

DESCRIPTIONS OF OVERHEAD POOLS USED BY
RESEARCH INSTITUTIONS

Institution	Research Admin.	Indirect Dept.	Library	Other (as specified)
Ochsner	Yes	Yes	Yes	Communications
Southwest	Yes	Yes	Yes	Maintenance
Michigan	Yes	Yes	Yes	Bldg. & Maint.
Woods Hole	Yes	Yes	No	No
Scripps	No	Yes	No	No
Palo Alto	Yes	No	No	No
Oklahoma	Yes	Yes	No	No
Worcester	No	No	No	General
Pasadena	No	No	No	No
Jackson	No	No	No	Res. & Training
Lovelace	Yes	Yes	Yes	Bldg. & Maint.

The results of question four are presented in Table 9.

TABLE 9

OVERHEAD BASES USED BY
RESEARCH INSTITUTIONS

Overhead Bases	No. of Institutions
Salaries	9
Man-hours	0
Square feet	2
Usage population	2
Salaries and materials	0
Total direct research expense	8

The results of question five show that most fringe benefits for employees are charged directly to research projects, except for various types of insurance benefits. Table 10 shows how each institution treats fringe benefits.

Miscellaneous

The section of the questionnaire for Miscellaneous items was designed to answer the following questions:

1. What transactions are accrued in the general ledger on a monthly basis?
2. How often are financial statements prepared for the Board of Trustees or Executive Officers?
3. What are the amounts and sources of income which you received in your most recent fiscal year?
4. What is your personal accounting background, by education and experience?

5. Does your institution engage an independent audit firm on a yearly basis?

6. What funds does your institution invest?

7. Are employees permitted to carry over unused vacation or sick leave at the end of your accounting period?

8. Do you have any problem areas not covered by this questionnaire?

9. Do you have any comments on this questionnaire?

TABLE 10

INSTITUTIONAL PRACTICES OF RECORDING EMPLOYEES' FRINGE BENEFITS AS DIRECT OR INDIRECT CHARGES

Institution	Vacation	Sick Leave	Other Leave	Pension	Insurance	FICA
Ochsner	D	D	D	D	D	D
Southwest	D	D	D	D	D	D
Michigan	D	D	D	D	I	D
Woods Hole	D	D	N-A	D	I	D
Scripps	D	D	N-A	D	I	D
Palo Alto	D	D	D	D	D	D
Oklahoma	D	D	I	D	I	D
Worcester	D	D&I	D	D	D	D
Pasadena	D	D	D	D	D	D
Jackson	D	D	D	D	D	D
Lovelace	D	D	D	I	I	I

D = Fringe benefits treated as direct charges to research projects.
I = Fringe benefits treated as indirect charges to research projects.
N-A = No answer received from institution.

The results of question one showed a marked variation in practices among institutions. Table 11 shows the accrual practices of the reporting institutions.

TABLE 11

INSTITUTIONAL PRACTICES FOR ACCRUAL OF MONTHLY TRANSACTIONS IN THE GENERAL LEDGER

Institution	Types of Transactions Accrued in General Ledger					
	Contract Invoices	Accts. Payable	Prepaid Exp.	Pension Pmts.	Unpaid Vac. & Sick Leave	Unpaid Salaries & Wages
Ochsner	N-A	Yes	Yes	Yes	No	No
Southwest	Yes	Yes	Yes	Yes	No	Yes
Michigan	No	No	No	No	No	No
Woods Hole	No	No	Yes	Yes	No	No
Scripps	N-A	Yes	Yes	Yes	No	No
Palo Alto	Yes	Yes	Yes	Yes	No	No
Oklahoma	No	No	Yes	Yes	No	No
Worcester	No	No	No	No	No	No
Pasadena	No	No	No	No	No	No
Jackson	No	No	No	No	No	No
Lovelace	Yes	No	Yes	No	No	No

N-A = No answer received from institution.

The results of question two showed that eight institutions prepared monthly financial reports to the Board of Trustees or Executive Officers. Jackson prepared reports on a quarterly basis, Worcester prepared reports semi-annually, and Lovelace prepared reports frequently, as requested.

The results of question three reflect an analysis of income for the institutions. Michigan reported only in percentage form. All other institutions reported actual amounts with a percentage-to-total analysis. Table 12 shows the income of the ten reporting institutions by sources.

TABLE 12

SOURCES OF INCOME FOR RESEARCH INSTITUTIONS
FOR MOST CURRENT YEAR
(10 reporting institutions)

Source	Amount	Per cent of Total
Government contracts	$ 9,567,477	31.56%
Other contracts	252,974	.83
National Institutes of Health grants	8,001.295	26.39
Other government grants	3,054,639	10.08
Other grants	2,472,086	8.15
General donations	1,486,053	4.90
Specific donations	2,588,289	8.54
Other income	2,896,720	9.55
Totals	$30,319,533	100.00%

No analysis of financial income for each institution will be presented in this paper, since an understanding exists with each institution that this information is considered to be confidential. Even a percentage analysis by institution would allow an approximation of income, and so this will also be kept confidential.

The results of question four showed that six of the people answering the questionnaire had college degrees, one was a Certified Public Accountant, two had some college training, one had only a high school diploma, and one failed to answer. Seven had over ten years' experience in the business world, and all who reported had at least five years' experience.

The results of question five showed that all institutions regularly employed an independent audit firm. Seven institutions submitted copies of their audit report with the questionnaire.

The results of question six showed that no institution invested government funds, seven invested endowment funds, and six invested other specific funds.

The results of question seven showed that eight institutions permitted employees to carry over unused leave. Two replied that leave was limited as to the amount which would be carried over, and only one reported that unused leave would not be carried forward.

The results of questions eight and nine were rather limited. An interest was expressed in cost-sharing procedures between the Federal Government and the institutions. No attempt will be made in this paper to answer this inquiry, since it is not within the scope of the stated problems. Another inquiry asked about the proper treatment of pledges in the balance sheet. This will be answered in chapter four.

Finally, an examination was made of the seven copies of independent audit reports which were returned with the questionnaires. All reports presented some manner of fund accounting. One report was fund-oriented by source of income. The remaining six were oriented by general classifications as well, such as general fund, plant fund, etc. All reports showed a schedule of yearly changes for each fund balance. Fund activity was readily distinguishable on six of the balance sheets.

The audit reports were examined for the recording of "pledges receivable." Four reports showed no information. Two reports contained footnotes identifying pledges receivable, but no entry was made on the balance sheet itself. One audit report showed pledges receivable as a balance sheet item, and footnoted the balance sheet to the effect that they were collectable as long as the institution continued operations. One institution provided an unaudited financial statement for a ten-month period of operations which showed pledges receivable.

CHAPTER III

THE DEVELOPMENT OF A SET OF ACCOUNTING GUIDELINES

As stated in the "scope of the problem under investigation," the three areas of study are: (1) fund accounting, (2) overhead or indirect expenses, and (3) reporting. Under each of these three areas, a set of proposed "guidelines" will be stated and evidence brought to bear from authoritative sources, in an attempt to verify or disprove them. The proposed "guidelines" have been suggested in preliminary discussions with several key administrative persons employed by the research institutions under investigation, as well as drawn from the writer's personal background in this field.

Fund accounting

The first group of proposed guidelines to be discussed will be in the area of fund accounting. These proposals will cover the recording of authorized research funds, the establishment of a separate fund and separate accounts for each research project, the recording of government assets in the general ledger, and the distribution of employees' time and effort to specific projects or activities. Employees' fringe benefits will be discussed under the heading of overhead or indirect expenses.

The first proposed guideline to be considered is one for the recording of authorized research funds. Funds are generated in two general ways, that is, they may be solicited or non-solicited.

Solicited funds are usually generated in a formal manner, such as an application to a governmental agency or private enterprise for a grant. Funds may be acquired as a result of soliciting the general public for support of specified projects. For example, a fund-raising campaign to construct a research building would most likely be directed toward the local community.

Non-solicited funds usually are received in the form of donations for specific purposes. Many of these donations are received from individuals who are interested in some particular phase of research, and for various reasons they desire to participate in the attainment of selected research goals.

Two distinct types of problems present themselves in recording funds. Non-solicited funds are usually in the form of cash or deeded property, and since the institution has immediate possession or control of the assets, an entry can promptly be made in the books to show their acquisition. At this point, the institution is confronted with an accounting problem. If the donation is recorded as current income, then the institution may incur the related expense in subsequent accounting periods. If it records the donation as a deferred charge, then difficulties arise in filing the tax returns of the institution. The institution certainly desires to avoid embarrassing its donors by causing the Internal Revenue Service to question an individual's tax return. This could quite easily occur as a result of the IRS attempting to match the donations to the institution, as shown on institutional reports to the IRS, with the various donations as shown on individual tax returns.

The other type of problem occurs frequently with solicited funds. Generally, a notice of award is received from an agency or enterprise, with an arrangement for funds to be received at a later date, or pledges may be received from donors as a result of a fund-raising campaign. Are these notices of award and pledges for donations to be recorded as receivables?

Recording authorized research funds

In developing a guideline for recording authorized research funds we must answer two questions: (1) Should grant awards and donation pledges be recorded as receivables when received? (2) Should funds received from grants and specific donations be recorded as deferred or current income? One noted authority says:

> 1. For public reporting, pledges and grants are to be recognized as assets in an agency's balance sheet to the extent that they are judged to be reasonably certain to be collected. . . .
>
> 3. Regular grants or pledges receivable are to be reported as deferred income until the year they are designated to be paid, or until the year in which they are designated to be used.[5]

This expression supports the principle of full-disclosure which is necessary for a fair balance sheet presentation. Some grants are awarded for a specific amount of money while others are awarded to support the expenditures for a specific project. We can conclude then that grants may be shown as receivables on public reports when all of the qualifications for receiving the funds have been met.

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[5]Howard A. Withey and Guy Holman, "Voluntary Health and Welfare Organizations--Standards of Accounting and Financial Reporting," Management Controls, Bulletin of Peat, Marwick, Mitchell & Co., XII, No. 10 (October, 1965), p. 204.

The case for pledges is similar. They are to be reported as "receivables" and "deferred income" until they are paid. Since donations must be reported as income to the Internal Revenue Service in the year they are received, it is improper to carry over donations as "deferred income" in an attempt to match revenue with expenses.[6] This is further supported by the following published principle:

> The matching of revenues and related expenditures of non-profit organizations is required only in situations where the expenditures are incurred in the production of revenues, as in the cases of services provided for a fee.[7]

Guidelines for recording authorized research funds are:

1. Grant awards should be recorded in the books as "receivables" and as "deferred income" upon notification of award. Adjusting entries should be made to reflect only the amount of grants which are reasonably certain to be collected, for reporting purposes.
2. Pledges for donations should be recorded in the books as "receivables" and as "deferred income" upon receipt of the pledge. Upon receipt of payment, the applicable portion of the "deferred income" should be reclassified as "current income."

The establishment of separate funds and separate accounts

The second proposed set of guidelines to be considered is related to the establishment of separate funds and separate accounts

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[6] See Internal Revenue Service Form 990-A.

[7] John C. Overhiser, "Accounting Postulates and Principles for Non-Profit Organizations," Management Controls, Bulletin of Peat, Marwick, Mitchell & Co., XII, No. 10 (October, 1965), p. 200.

for each research project. These guidelines should define what the necessary accounts are within each fund by type, such as cash or other assets, income, and expenditures. A determination should also be made regarding the proper recording of "fund commitments" for which no goods or services have been received as of a given reporting date.

J. C. Overhiser states the following principle for recording assets:

> Non-profit organizations must account separately for assets or asset groups to the extent that the utilization of such assets is restricted to specific purposes. Separate accounting entities, or funds, should be established to record the net assets, accountabilities and transactions relating to the restricted activity or purpose. . . . If the principal is to be held inviolate under the terms of a bequest or gift, as in the case of a true endowment fund, the [accounting] for related assets should not be commingled with any others.[8]

The principle for recording municipal or governmental funds is stated in a more specific manner:

> Since each fund is usually available for one designated purpose, it is imperative that a separate group of accounts be kept for each fund, showing the amounts of its assets, the liabilities and commitments payable therefore, and the amount of its surplus, or the excess of the assets over the liabilities and encumbrances of the fund.[9]

This principle is further supported by an expression of the National Committee on Governmental Accounting, which states:

> Each fund must be so accounted for that the identity of its resources and obligations, receipts and disbursements, and revenues and expenditures is

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[8]Ibid., p. 201.

[9]H. A. Finney and Herbert E. Miller, Principles of Accounting, Advanced, op. cit., p. 524.

> continually maintained. . . it is not necessary to have a separate bank account for the cash of each fund, unless required by law.[10]

These principles are based on the fact that it is illegal to commit municipal or government funds in excess of appropriations authorized or established by law.

As stated previously, non-profit institutions may receive funds from government or private sources. In neither case are they normally subject to the legalistic concept of obligations, as stated above. Government contracts or grants are normally obligated in total by the administering agency, in order to comply with the legal requirements for recording their funds. As a result, the non-profit research institution is limited by the amount of funds which may be received, but it has the freedom to spend additional funds of its own, if it so desires. An exception to the foregoing practices occurs when an institution receives a government allotment or sub-allotment, and is charged with maintaining the related records. In this instance, the institution must comply with the appropriate governmental agency policies. Freedom to provide additional support for a specific private endeavor exists, however.

It can be readily seen that the non-profit institution is not required to record commitments in its accounting journals, since management need not comply with the legal requirements of municipal or governmental fund accounting. Management does have a steward-

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[10]National Committee on Governmental Accounting, Municipal Accounting and Auditing, No. 14 (Ann Arbor, Michigan: Cushing-Mallory, Inc., 1951), pp. 3-4.

ship responsibility, however, which insists on operating efficiently, and at no loss, over the long run.

> . . . income must equal expense in the long run for all organizations, non-profit included. . . . For non-profit institutions, stewardship is probably the most important accounting objective.[11]

The Department of Health, Education, and Welfare further substantiates this freedom in developing acceptable accounting systems by stating:

> Any generally accepted accounting system will be satisfactory if it provides for submission of an annual Expenditures Report and meets the following minimum requirements:
>
> 1. Establishment of separate accounts for each project with separate accountability of receipts, expenditures, and balances. . . .[12]

Guidelines for establishing funds and accounts may be summarized as follows:

1. In order to hold inviolate the terms of a gift, bequest, or trust, a separate accounting fund should be established for each designated purpose.

2. Each fund should have a separate group of accounts for each class of activity within the fund, with the exception of cash, which may be commingled, provided other accounts for the activity reflect the proper accountability.

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[11] Delmer P. Hylton, Principles and Procedures of Modern Accounting Practice (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1965), pp. 199-200.

[12] Grants for Research Projects--Guide to Operating Procedures (Washington: U. S. Dept. of Health, Education and Welfare, July 1, 1965), pp. 58-59.

3. In order to adhere to the objective of good stewardship, it is necessary to account for commitments and encumbrances of a fund, by activity, on a current basis. Commitments and encumbrances may be accounted for by either a formal entry in the books, or by a memorandum procedure.

Recording of government assets

The next set of guidelines to be developed will deal with the proper recording of government assets. Government assets may be obtained in two ways. Property may be acquired at no cost from various government agencies, or it may be by direct purchase by the institution with government funds. In both instances, title initially remains with the government agency. In certain grants, title to government property may be transferred to the institution, at the discretion of the agency involved.

In order to determine whether government property should be recorded in the general ledger as a balance sheet item, we must first see if it can be properly classified as an asset or a liability. In a broad sense, assets are things of value owned, and liabilities are debts. Authoritative definitions of these terms are:

a. Asset (as a balance sheet heading):

> A thing represented by a debit balance (other than a deficit) that is or would be properly carried forward upon a closing of books of accounts kept by double-entry methods, according to the rules or principles of accounting. The presumptive grounds for carrying the balance forward are that it represents either a property right or value acquired, or an expenditure made which has created a property right, or which is properly applicable to the future. Thus, plant, accounts receivable, inventory and a deferred charge are all assets in balance-sheet classification.

b. Liability (as a balance-sheet heading):

> A thing represented by a credit balance that is or would be properly carried forward upon a closing of books of account kept by double-entry methods, according to the rules or principles of accounting, provided such credit balance is not in effect a negative balance applicable to an asset. Thus the word is used broadly to comprise not only items which constitute liabilities in the popular sense of debts or obligations (including provision for those that are unascertained), but also credit balances to be accounted for which do not involve the debtor and creditor relation. For example, capital stock, deferred credits to income and surplus are balance-sheet liabilities in that they represent balances to be accounted for by the company; though these are not liabilities in the ordinary sense of debts owed to legal creditors.[13]

The determining factor in recording property received from government sources as an asset is the passage of title. Thus, property received from grants may be properly shown as assets when it is known that the pertinent government agency is relinquishing any claim to the property. An illustrative policy of this is:

> Title to equipment purchased with grant funds generally resides in the grantee institution. Accountability may be waived by the Public Health Service as long as the equipment is used in accordance with section 52.42 of the Regulations governing research grants.[14]

This policy is obviously conditional and care should be taken to ascertain that title has passed before recording this type of property in the general ledger as an asset.

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[13] Outline of AICPA Accounting Research and Terminology Bulletins, Final Edition, Prepared for GAO CPA Review Course (Washington: U. S. General Accounting Office, 1962), pp. 33-34.

[14] Grants for Research Projects--Guide to Operating Procedures. op. cit., p. 62.

In instances where the institution acts only as an agent of the government in the procurement of property, or where it has custody of government property, no formal entry should be made to record the acquisition as an asset, since the institution has neither a property right or value acquired in the property. Each government agency publishes regulations specifying various policies for maintaining property control records. Since individual contracts may be modified within the particular agency's regulations, it is not feasible to establish a uniform procedure for recording government property in a memorandum form.

The determining factor for recording acquisitions of government property as a liability is whether or not a debt exists. In cases where the institution acts as a custodian of the government property only a contingent liability exists for damaged or lost property not covered by insurance. Current accounting principles advocate disclosing this type of liability as a footnote to financial statements rather than recording government property acquired on a custodial basis as a liability on the balance sheet.

In the case where title to property passes from the government to the institution, an entry can properly be made in the books to show its value as an asset. The related credit should be recorded as a donation or contribution, according to Withey and Holman, who state:

> Gifts of fixed assets, if material in amount, should be reported as contributions to the extent of their reasonable fair value.[15]

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[15] Howard A. Whithey and Guy Holman, _op. cit._, p. 206.

Guidelines for recording government property are:

1. Government property is to be recorded as an asset and as a contribution in the books only when title is transferred to the institution.

2. Government property acquired by the institution on a loan or custodial basis is not to be recorded as a balance sheet item, since only a contingent liability may exist for loss or damage to the property in excess of insurance coverage. Financial statements are to be footnoted whenever the contingent liability is deemed to be material.

3. Memorandum records tailored to the requirements or specified by the appropriate government agency are sufficient.

Distribution of employees' time and salary charges

The final set of guidelines to be discussed under fund accounting is concerned with the proper distribution of employees' time and salary charges to specific projects or research activities. These guidelines should define direct and indirect expenses, and supply direction for distributing salaries to appropriate objectives.

The necessity for distinguishing between direct and indirect salary charges arises through government regulations, as reflected in the contracts and grants awarded to an institution. In many instances an overhead pool is related to direct salaries, in order to provide a basis for recovering allowable indirect expenses. In most cases, direct salaries charged to contracts or grants are fully recoverable, but a fractional loss usually occurs on indirect salaries because the institution normally performs some non-funded research, and the indirect salaries are apportioned between government research and non-funded research. It follows that the most efficient practice for recording an employee's salary distribution is to identify as much of his time as possible as a direct charge, in order to optimize the recovery of his wages. In general, direct and indirect costs to government research programs are defined as:

> D. Direct costs.
>
> 1. General. Direct costs are those that can be identified specifically with a particular cost objective. For this purpose, the term cost objective refers not only to the ultimate objectives against which costs are finally lodged such as research agreements, but also to other established cost objectives such as the individual accounts for recording particular objects or items of expense, and the separate account groupings designed to record the expenses incurred by individual organizational units, functions, projects and the like. . . .
>
> E. Indirect costs.
>
> 1. General. Indirect costs are those that have been incurred for common or joint objectives, and thus are not readily subject to treatment as direct costs of research agreements or other ultimate cost objectives.[16]

Timekeeping practices in a research or educational organization are quite different from those employed in a manufacturing concern. Professional and semi-professional employees resist the use of time clocks because their efficiency will be evaluated by their professional peers, in most instances, rather than by management. More often than not, personnel of this type work more than eight hours per day

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[16] United States Bureau of the Budget, Circular No. A-21 (Revised), 1965.

because of their interest in the subject matter, and because the success or failure of a given project is their direct responsibility. The problem of timekeeping is often compounded because many researchers are working on several projects at the same time, and these projects are often closely related, so that it is difficult to ascertain where effort for one project stops and starts for another. In view of this, the government takes the following position relative to the distribution of payroll costs:

> J. General standards for selected items of cost. . . .
>
> 7. Compensation for personal services. . . .
>
> b. Payroll distribution. Amounts charged to organized research for personal services, regardless of whether treated as direct costs or allocated as indirect costs, will be based on institutional payrolls which have been approved and documented in accordance with generally accepted institutional practices. In order to develop necessary direct and indirect allocations of cost, supplementary data on time or effort, as provided in (c) below, normally need be required only for individuals whose compensation is properly chargeable to two or more research agreements or to two or more of the following broad functional categories: (1) instruction; (2) organized research; (3) indirect activities as defined in section E. 1; or (4) other institutional activities as defined in section B. 4.
>
> c. Reporting time or effort. Charges for salaries and wages of individuals other than members of the professional staff will be supported by time and attendance and payroll distribution records. For members of the professional staff, current and reasonable estimate of the percentage distribution of their total effort may be used as support in the absence of actual time records. The term professional staff includes professors, instructors, research associates and assistants, graduate students, and other persons performing professional work. In order to qualify as current and reasonable, estimates must be made no later than one month (though not necessarily a calendar month) after the services were performed; . . .

> d. Preparation of estimates of effort. Where required under (c) above, estimates of effort spent by a member of the professional staff on each research agreement should be prepared by the individual who performed the services, or by a supervisor having firsthand knowledge of the services performed on each research agreement. . . .[17]

This position recognizes that exact timekeeping methods may not be practicable, but it does insist on current estimates of effort by project or activity, for each individual.

In addition to governmental policies, other accounting principles insist that proper payroll distribution procedures should be followed. Current and consistent reporting practices are necessary for the proper stewardship of funds, and payroll costs comprise an important segment of the budget in most instances. Stewardship implies the fixing of fiscal responsibility, and this is supported by the following professional opinion:

> Functionalizing and departmentalizing business activities, with proper delegation of responsibility for the control of each of the various segments of a business, are the principal means of controlling payroll costs.[18]

The treatment of employee fringe benefits and the accumulation of salaries by cost centers for subsequent apportionment to organizational activities are two types of problems which tend to confuse the problems of payroll distribution. For the sake of clarity and convenience, these will be discussed under the section of indirect or overhead expenses.

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[17] Ibid.

[18] Howard F. Stettler, Auditing Principles: Objectives-Procedures-Working Papers, (2d ed.; Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1961), p. 522.

Guidelines for distributing salaries may be expressed in the following manner:

1. Salaries are to be distributed currently to specific funded or non-funded research projects, as well as to administrative or other categories, on the basis of time worked by each employee.

2. Distribution to research projects or established expense centers will be limited to those charges specifically identified with a particular expense objective. Indirect expense centers will be charged for salaries that have been incurred for common or joint research objectives.

Overhead or indirect expenses

The second group of proposed guidelines to be discussed will be in the area of overhead or indirect expenses. This grouping will deal with (1) the depreciation of capital assets versus a "use allowance," (2) the classification of indirect expenses into "overhead pools," (3) the method of relating indirect expenses to direct research expenses, and (4) the treatment of employees' fringe benefits. Two assumptions are that the research institution will normally be engaged in research programs that are supported with government funds and that government requirements for recording indirect expenses will strongly influence the development of these guidelines.

Another assumption is that guidelines should fit the needs of all research programs, whether they are funded from government sources or private sources. In other words, the concept of "consistency" should be followed.

Depreciation and use allowance

The first set of overhead guidelines to be discussed deals with the very controversial subject of depreciation of capital assets for a non-profit corporation versus the development of a "use allowance" in lieu of depreciation charges. The guidelines should determine what methods are best for recording charges to an overhead pool. The government position is expressed as follows:

> J. General standards for selected items of cost. . . .
>
> 10. Depreciation and use allowances.
>
> a. Institutions may be compensated for the use of buildings, capital improvements, and usable equipment on hand through use allowances or depreciation. Use allowances are the means of providing such compensation when depreciation or other equivalent costs are not considered. However, a combination of the two methods may not be used in connection with a single class of fixed assets.[19]

Thus, either method of charging indirect expenses for building and equipment usage is permissible.

Before we can compare the merits of "depreciation" or a "use allowance" we must first determine that depreciation is an acceptable way of recording charges to an overhead pool. We can then compare the merits of depreciation with the merits of the "use allowance" method.

> Depreciation accounting is a system of accounting which aims to distribute the cost or other basic value of tangible capital assets, less salvage (if any), over the estimated useful life of the unit (which may be a group of assets) in a systematic and rational manner. It is a process of allocation, not of valuation. Depreciation for the year is the portion of the total charge under such a system

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[19]United States Bureau of the Budget, Circular No. A-21 (Revised), 1965.

> that is allocated to the year. Although the allocation may properly take into account occurrences during the year, it is not intended to be a measurement of the effect of all such occurrences.[20]

One very important assumption relative to the foundations to be studied is that they all are intended to be self-supporting, and therefore they are operated on a "going concern" basis. Since plant and equipment eventually wear out, future income should cover the cost for replacement. Non-profit institutions are permitted to accumulate income in most cases by the Internal Revenue Service, subject to certain limitations, and therefore it is to the institution's advantage to depreciate its plant and equipment, since failure to do may overstate accumulated income. It is assumed that no institution wants to jeopardize its tax exempt status by accumulating more income than the Internal Revenue Service might allow.

D. P. Hylton evaluates the pros and cons of recording depreciation for non-profit institutions and states:

> . . . it is the opinion of the author that depreciation, whether funded or not, both can and should be recorded much in the same manner as for a commercial enterprise.[21]

He points out that the adoption of depreciation would permit a better comparison of non-profit financial statements with commercial enterprises. Since non-profit institutions often use credit for plant acquisitions and current operations, outside parties are interested

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[20] Paul Grady, Inventory of Generally Accepted Accounting Principles for Business Enterprises (New York, N. Y.: American Institute of Certified Public Accountants, Inc., 1965), p. 420.

[21] Delmer P. Hylton, op. cit., p. 213.

in whether the organization is a good credit risk or not. The principle of "full disclosure" insists upon adequately informing interested readers of financial statements as to the fairness of their presentation. Failure to allow for depreciation would violate this principle.

Withey and Holman summarize the standards developed in a report by the National Health Council and National Social Welfare assembly, as follows:

> 1. Purchases of fixed assets should be reported as current expenditures in an agency's "Summary of Financial Activities" in the year of acquisition.
>
> 2. The balance sheet of a voluntary health and welfare agency should include, in the absence of historical cost values, at least reasonably based values for the major classes of land, building, and equipment that it owns.
>
> 3. An agency that desires to recognize the reduction with time of the value of its buildings and equipment, may do so but only by a direct reduction of the plant fund equity account and a similar reduction in the asset values through a reserve for depreciation. No depreciation charge is to be recorded in the Summary of Financial Activities.[22]

In order to place the above opinion into proper context, it must be pointed out that the statements are designed to fit all types of Health and Welfare organizations, and, as a result, it does not necessarily describe the treatment of depreciation appropriate for a research institution. It does give some support to the recording of depreciation.

Based on the foregoing remarks, we can say that depreciation is an acceptable method for determining periodic charges

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[22] Howard A. Whithey and Guy Holman, _op. cit._, p. 205.

to an overhead pool. The Bureau of the Budget Circular A-21 states that the "use allowance" is an acceptable way to establish a charge to an overhead pool. The next step is to compare the two methods and see if one method will yield better results for the institution than the other.

> J. <u>General standards for selected items of cost</u>. . . .
>
> 10. <u>Depreciation and use allowances</u>. . . .
>
> c. Where the use allowance method is followed, the use allowance for buildings and improvements will be computed at an annual rate not exceeding two percent of acquisition cost. The use allowance for equipment will be computed at an annual rate not exceeding six and two-thirds percent of acquisition cost of usable equipment in those cases where the institution maintains current records with respect to such equipment on hand. Where the institution's records reflect only the cost (actual or estimated) of the original complement of equipment, the use allowance will be computed at an annual rate not exceeding ten percent of such cost. Original complement for this purpose means the complement of equipment initially placed in buildings to perform the functions currently being performed in such buildings; however, where a permanent change in the function of a building takes place, a redetermination of the original complement of equipment may be made at that time to establish a new original complement. In those cases where no equipment records are maintained, the institution will justify a reasonable estimate of the acquisition cost of usable equipment which may be used to compute the use allowance at an annual rate not exceeding six and two-thirds percent of such estimate.
>
> d. Where the depreciation method is followed, adequate property records must be maintained. The period of useful service (service life) established in each case for usable capital assets must be determined on a realistic basis which takes into consideration such factors as type of construction, nature of the equipment used, technological developments in the particular research area, and the renewal and replacement policies followed for the individual items or classes of assets involved. Where the depreciation method is introduced for application to assets acquired in prior years, the annual charges therefrom must not exceed the amounts that would have resulted had the depreciation method been in effect from the date of acquisition of such assets.

> e. Where an institution elects to go on a depreciation basis for a particular class of assets, no depreciation, rental or use charge may be allowed on any such assets that, under (d) above, would be viewed as fully depreciated; provided, however, that reasonable use charges may be negotiated for any such assets if warranted after taking into consideration the cost of the facility or item involved, the estimated useful life remaining at time of negotiation, the actual replacement policy followed in the light of service lives used for calculating depreciation, the effect of any increased maintenance charges or decreased efficiency due to age, and any other factors pertinent to the utilization of the facility or item for the purpose contemplated.[23]

One significant fact must be noted regarding the above policies. The "use allowance" method fixes a rigid ceiling for computing an amount applicable as indirect charges, while the "depreciation" method maintains a far more fluid position, as evidenced by the phrase "realistic basis." The recovery of costs can be at a much faster rate through depreciation. For example, vehicles might well be depreciated at a rate of 20 per cent a year, while the comparable usage allowance is limited to six and two-thirds per cent. "Interest" is non-allowable, either as a direct or indirect charge, and, therefore, since the depreciation method permits a faster recovery of the investment, it is decidedly the more advantageous method.

The proper method of depreciation must also be considered in evaluating the results of depreciation. The term "realistic basis" leaves a good deal of latitude for the research institution. In his book on defense contracts, Trueger states the following regarding accelerated depreciation:

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[23]United States Bureau of the Budget, op. cit.

> The AEC. . . sets forth as unallowable, without qualification: "assets fully amortized or depreciated on a contractor's books". In addition, AEC also lists as unallowable, "accelerated amortization under Certificates of Necessity or other system in excess of normal depreciation."[24]

The reasons advanced for the use of accelerated depreciation methods are many and varied. Some current accounting textbooks explain that these methods match expense and revenue better than other methods because new assets are capable of producing more revenue. Another purpose for using accelerated depreciation methods is the income tax benefits. We have already shown that it is not always necessary to match revenues and expenses, and since the research institutions under study are non-taxable, the straight line method would seem to be more advantageous. Since at least one large government agency disallows these methods, the safest course to adopt is the use of the "straight line" method of depreciation.

Based on the preceding discussion, the guidelines for charging an overhead pool or pools for the use of plant and equipment can be stated as follows:

1. New classes of assets are to be depreciated and the proper depreciation charge for the period is to be included in the appropriate overhead pool, or pools.
2. The "straight line" method is the safest way to depreciate fixed assets, since this method is acceptable by all government agencies, and "accelerated depreciation" methods are not.

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[24]Paul M. Trueger, Accounting Guide for Defense Contracts, (4th ed.; Chicago, Illinois: Commerce Clearing House, Inc., 1963), p. 182.

3. A "use allowance" method is correct procedure for determining plant and equipment usage expenses chargeable to an overhead pool or pools where the institution does not depreciate assets. Where a given class of assets has not aged materially, it will be more advantageous to convert to a "depreciation" method.

Classification of indirect expenses into "overhead pools"

The second set of overhead guidelines to be discussed pertains to the classification of indirect expenses into "overhead pools." These guidelines should establish the necessity of determining overhead pools and identify the types of overhead pools to be developed.

An overhead pool may be defined as a group of indirect expenses which can be related to a single grouping of direct expenses by the use of a single distribution base. A distribution base may be defined as an element or factor which can be expressed quantitatively and which can be associated with a class or classes of direct and indirect expense.

The prime objective of most contracts and grants in regard to the payment for services is to recover all allowable direct and indirect expenses. It becomes imperative to recover the indirect expenses incurred in the support of research activities in the most efficient manner possible, since the non-profit institution is normally considered as a "going concern," and a sizeable loss on the recovery of indirect expenditures might seriously hamper the objectives of the institution. The indirect expenses are expressed as a percentage of a class of direct expenses and paid to the institution in this manner.

The failure to properly record or group indirect expenses into correct "overhead pools" produces some undesirable effects. For one thing, management may possibly be misled into thinking that the amount of recovery of indirect expenses is higher than the amount which will actually be allowed, and this causes an unanticipated loss. Also, a certain amount of ill-feeling might develop between the government auditors and management, owing to misunderstandings about allowable indirect expenses. The extra work that the auditor must perform in order to regroup the expenses into allowable overhead pools does not help relations, either.

Since government funds are assumed to be involved, we once again turn to the Bureau of the Budget for definitions relative to establishing indirect expense pools:

> E. Indirect costs.
>
> 1. General. . . . At educational institutions such costs normally are classified under the following functional categories: general administration and general expenses; research administration expenses; operations and maintenance expenses; library expenses; and departmental administration expenses.
>
> 2. Criteria for distribution. . . .
>
> b. Need for cost groupings. The overall objective of the allocation and apportionment process is to distribute the indirect costs. . .to organized research, instruction, and other activities in reasonable proportions consistent with the nature and extent of the use of the institution's resources by research personnel, academic staff, students, and other personnel or organizations. In order to achieve this objective with reasonable precision, it may be necessary to provide for selective distribution by establishing separate groupings of cost within one or more of the functional categories of indirect costs referred to in section E. 1. In general, the cost groupings established within a functional category should constitute, in each case, a pool of those items of expense that are considered to be of like character

> in terms of their relative contribution to (or degree of remoteness from) the particular cost objectives to which distribution is appropriate. Each such pool or cost grouping should then be distributed individually to the appertaining cost objectives, using the distribution base or method most appropriate in the light of the guides set out. . .[25]

The foregoing points out the necessity for developing overhead pools and provides some very good guidelines for identifying the types of overhead pools which are normally used, but there are some subtleties which must be mentioned regarding the distribution of expenses to these overhead pools. Different government agencies advocate different approaches on determining what is an allowable expense item for an overhead pool, and, unless management is aware of these differences, the possibility of a material loss is present. Trueger provides a very good illustration of this:

> In keeping with its general procurement and business-oriented approach, ASPR treats indirect costs on a broad basis, emphasizing "practical considerations". . . . In contrast, AEC provisions are more extensive and contain considerable dissertation on cost accounting methods. For example, where ASPR stresses generally accepted accounting principles, AEC states that:
>
> > "However, in order to secure the most accurate and equitable results, the various types of cost normally treated as indirect costs by the contractor under its regular accounting procedures should be examined to determine which types should, for purposes of reimbursement under the AEC contract, be treated as direct costs". . . .
>
> AEC cost principles. . . reiterate that "A contractor's general and administrative expenses may be accepted for apportionment to work under an AEC supply or research contract only to the extent that they are estab-

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[25]United States Bureau of the Budget, op. cit.

> lished, after careful examination, to be allowable in nature and, on the basis of incidence to its performance, properly allowable to the work".[26]

This indicates that types of indirect expenses could be recovered under contracts following Armed Services Procurement Regulations, and lost under Atomic Energy Commission Regulations. For example, suppose that an institution permitted a staff member engaged in research to travel to a professional meeting and elected to classify his expenses as indirect expenses. Under the Armed Services Procurement Regulations policies this would be an allowable overhead item, but under Atomic Energy Commission Regulations it would not. We see then that considerable care must be taken in treatment of these types of expenses.

Guidelines for classifying indirect expenses into overhead pools may be stated as follows:

1. "Overhead pools" must be developed in order to properly recover indirect expenses related to funded research work.
2. Separate classes of overhead expenses are to be established by functional categories, such as administration, general, departmental maintenance, library etc., as may be appropriate under the circumstances.

Relating indirect expenses to direct research expenses

The third set of guidelines to be discussed involves the methods for relating indirect expenses to direct research expenses. These

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[26]Paul M. Trueger, _op. cit._, pp. 179-180.

guidelines should determine the correct bases to be used in relating indirect expenses to direct expenses. A logical sequence of operations should also be developed for accomplishing the desired relationship.

Perhaps it would be wise to review some of the things which have been stated in the discussions of the two preceding sets of guidelines, so that these guidelines can be seen in their proper context. Direct expenses must be grouped into expense objectives, such as instruction expenses, organized research expenses, and other expenses. Indirect expenses are to be grouped in numerous functional classes, such as administration, maintenance, etc.

Our problem is two-fold. First, we must apportion the functional classes of indirect expense to overhead pools which can be related to the direct expense objectives. This is accomplished by the use of some base or bases. Second, we must relate the overhead pools developed from distributing the various functional classes to the direct expense objectives. Again, this must be accomplished by the use of some base.

The following quotations support the writer's statements and provide some explicit information relative to the bases to be selected:

> E. Indirect costs. . . .
>
> 2. Criteria for distribution. . . .
>
> c. Selection of distribution method. Actual conditions must be taken into account in selecting the method or base to be used in distributing to applicable cost objectives the expense assembled under each of the individual cost groupings established. . . Where a distribution can be made by assignment of a cost grouping directly to the area benefited, the distribution should be made in that manner. Where the expenses under a cost grouping are more general in nature, the distribution to appertaining cost objectives should be made through use of a selected base which will produce results which are

equitable to both the government and the institution. In general, any cost element or cost-related factor associated with the institution's work is potentially adaptable for use as a distribution base provided (1) it can readily be expressed in terms of dollars or other quantitative measure (total direct expenditures, direct salaries, man-hours applied, square feet utilized, hours of usage, number of documents processed, population served, and the like); and (2) it is common to the appertaining cost objectives during the base period. The essential consideration in selection of the distribution base in each instance is that it be the one best suited for assigning the pool of costs to appertaining cost objectives in accord with the relative benefits derived; the traceable cause and effect relationship; or logic and reason, where neither benefit nor cause and effect relationship is determinable.

G. Determination and application of indirect cost rate or rates.

1. Indirect cost pools.

a. Subject to (b) below, indirect costs allocated to organized research should be treated as a common pool, and the costs in such common pool should then be distributed to individual research agreements benefiting therefrom on a single rate basis.

b. In some instances a single rate basis for use across the board on all government research at an institution may not be appropriate, since it would not take into account those different environmental factors which may affect substantially the indirect costs applicable to a particular segment of government research at the institution. For this purpose, a particular segment of government research may be that performed under a single research agreement or it may consist of research under a group of research agreements performed in a common environment. The environmental factors are not limited to the physical location of the work. Other important factors are the level of the administrative support required, the nature of the facilities or other resources employed, the scientific disciplines or technical skills involved, the organizational arrangements used, or any combination thereof. Where a particular segment of government research is performed within an environment which appears to generate a significantly different level of indirect costs, provision should be made for a separate indirect cost pool applicable to such work. The separate indirect cost pool should be developed during the course of the regular distribution process, and the separate indirect cost rate resulting therefrom should be utilized provided it is determined that (1) such indirect cost rate differs significantly from that which would have obtained under (a) above, and (2) the volume of research work to which such rate would apply is material in relation to other government research at the institution.

2. The distribution base. Indirect costs allocated to organized research should be distributed to applicable research agreements on the basis of direct salaries and wages. For this purpose, an indirect cost rate should be determined for each of the separate indirect cost pools developed pursuant to section G. 1. The rate in each case should be stated as the percentage which the amount of the particular indirect cost pool is of the total direct salaries and wages of all research agreements identified with such pool.[27]

Paragraph G. 1. b., above, may be confusing without some additional clarification. An example of where two overhead rates might be appropriate would arise in a situation where the institution provided only part of the physical plant which was utilized for organized research, and the remaining physical plant was furnished by the government. It would be improper to relate the indirect expenses of building depreciation and maintenance to research salaries of personnel working in the government plant. Instead, the indirect building expenses must be related to the direct salaries of those personnel working in the institutional plant only. Since certain administrative and general expenses arise in support of personnel at both plant sites, one can readily see that two overhead pools must be developed, each with its own base.

Guidelines for determining the correct bases for relating indirect expenses to direct expenses can now be stated. In addition, a

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[27] United States Bureau of the Budget, op. cit.

logical sequence of operations can be stated relative to the use of these bases. The following guidelines will comply with Bureau of the Budget Circular A-21:

1. The correct bases for relating indirect expenses to direct expenses must be expressed in quantitative units of measurement or in monetary terms, and these bases must possess a logical relationship to both the direct expense objectives and the indirect expense pools.

2. The correct base for relating an indirect overhead pool or pools to organized research should be direct salaries and wages.

3. A logical sequence of operations is as follows:

    a. Direct expenses must be grouped according to institutional objectives.

    b. Each class of indirect expenses should be distributed to an indirect expense pool which is related to an institutional grouping of direct expenses. This distribution is accomplished by selecting the most appropriate base.

    c. The appropriate overhead pool is then related to its applicable direct expense group. This relationship is expressed as a rate.

Treatment of employees' fringe benefits

The final set of guidelines to be discussed for indirect expenses involves the treatment of employees' fringe benefits. As previously stated, these charges may be classified as either direct expenses or indirect expenses. These guidelines should determine under what circumstances fringe benefits should be treated as direct expenses, and under what circumstances they are to be treated as indirect expenses.

Employees' fringe benefits may be defined as expenses paid by the employer, other than direct salaries and wages, that promote the well being of his employees. Most of these benefits may be classified as leave benefits, educational benefits, or insurance benefits of one type or another.

The distribution of fringe benefits to related projects is apt to be quite arbitrary, whether treated as a direct expense or an indirect expense. For example, let us consider the problems which arise regarding the distribution of the employer's portion of social security taxes. Even though the expense rate is fixed, as well as the amount of the employee's salary subject to taxation, the results of distribution may be quite uneven. For example, if the distribution is based on the current social security rate as a direct charge, the expense accounts will receive a lesser charge in the last months of the calendar year because many of the employees will have earned the maximum wages subject to taxation, and the related taxes stop at some time before the end of the year. Inequities are bound to occur when expenses such as the above are treated as direct expenses because (1) research projects may stop or start in such a manner as to absorb a disproportionate share of their expenses, and (2) employees may change from one research project to another in such a way as to load one research project with more expense than another.

The same type of situation exists with respect to employees' annual and sick leave benefits when they are treated as a direct charge. Vacations are generally heavier in the summer and sick leave is generally heavier in the winter, but these two types of leave are not necessarily compensating with respect to dollar amounts chargeable to expense accounts. More often than not, the treatment of these charges as direct expenses will result in an inequitable distribution.

Once again we must turn to federal policies to ascertain what is allowable, since one of our basic assumptions is that the institution must try to recover as much as it is entitled to under any research program, in order to continue as a "going concern." A loss might occur when distribution is not equitable because one agency might accept a rate highly favorable to research projects supported by his agency, and another agency might disallow the inequitable fringe benefits charges. The following selected statements generally apply to all federally funded projects:

> J. <u>General standards for selected items of cost</u>. . . .
>
> 7. <u>Compensation for personal services.</u>
>
> a. <u>General.</u> Compensation for personal services covers all remuneration paid currently or accrued to employees of the institution for services rendered during the period of performance under government research agreements. Such remuneration includes salaries, wages, staff benefits (see section J.39), and pension plan costs (see section J.23). The costs of such remuneration are allowable to the extent that the total compensation to individual employees is reasonable for the services rendered and conforms to the established policy of the institution consistently applied, and provided that the charges for work performed directly on government research agreements and for other work allocable as indirect costs to organized research are determined and supported as hereinafter provided. . . .

23. Pension plan costs. Costs of the institution's pension plan which are incurred in accordance with the established policies of the institution are allowable, provided such policies meet the test of reasonableness and the methods of cost allocation are not discriminatory, and provided appropriate adjustments are made for credits or gains arising out of normal and abnormal employee turnover or any other contingencies that can result in forfeitures by employees which inure to the benefit of the institution. . . .

34. Sabbatical leave costs. Costs of leave of absence to employees for performance of graduate work or sabbatical study, travel, or research are allowable provided the institution has a uniform policy on sabbatical leave for persons engaged in. . . research. Such costs will be allocated on an equitable basis among all appertaining activities of the institution. Where sabbatical leave is included in fringe benefits for which a cost is determined for assessment as a direct charge, the aggregate amount of such assessments applicable to all work of the institution during the base period must be reasonable in relation to the institution's actual experience under its sabbatical leave policy. . . .

36. Severance pay.

a. Severance pay is compensation in addition to regular salaries and wages which is paid by an institution to employees whose services are being terminated. Costs of severance pay are allowable only to the extent that such payments are required by law, by employer-employee agreement, by established policy that constitutes in effect an implied agreement on the institution's part, or by circumstances of the particular employment.

b. Severance payments that are due to normal, recurring turnover and which otherwise meet the conditions of (a) above may be allowed provided the actual costs of such severance payments are regarded as expenses applicable to the current fiscal year and are equitably distributed among the institution's activities during that period. . . .

39. Staff benefits.

a. Staff benefits in the form of regular compensation paid to employees during periods of authorized absences from the job, such as for annual leave, sick leave, military leave, and the like, are allowable provided such costs are absorbed by all institutional activities, including organized research, in proportion to the relative amount of time or effort actually devoted to each. (See J. 34. for treatment of sabbatical leave.)

b. Staff benefits in the form of employer contributions or expenses for social security, employee insurance, workmen's compensation insurance, the pension plan (see section J. 23.), tuition or remission of tuition for individual employees or their families. . . are allowable provided such benefits are granted in accordance with established institutional policies, and provided such contributions and other expenses, whether treated as indirect costs or as an increment of direct labor costs, are distributed to particular research agreements and other activities in a manner consistent with the pattern of benefits accruing to the individuals or groups of employees whose salaries and wages are chargeable to such research agreements and other activities.[28]

The tone of the preceding policies is one of generality. Treatment of fringe benefits may be by either as a direct expense or as an indirect expense, subject to its reasonableness and to its non-discrimination.

Reasonableness and non-discrimination are really the key words in determining whether fringe benefits should be charged as direct or indirect expenses. With these two criteria in mind, we can state the following guidelines for the treatment of fringe benefit expenses:

1. Fringe benefits may be charged as direct expenses to research projects whenever research projects last a year or more, and when the employee works a constant percentage of his time on research projects. In addition, the fringe benefits so charged must be readily associated with an individual employee.

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[28]United States Bureau of the Budget, op. cit.

2. Fringe benefits are to be charged as indirect expenses whenever the research project period is less than one year or when the employee works a varying percentage of his time on research projects. The resulting fringe benefits pool is to be related to operating activities on the basis of direct salaries.

Reporting

The last group of proposed guidelines to be discussed will be related to reporting. This group will consider guidelines for reporting in general, internal reporting and external reporting.

Reporting requirements in general

The first group of guidelines to be discussed will be concerned with reporting requirements in general. The guidelines to be developed should be concerned with (1) accrual accounting rules and (2) rules for report preparation, rather than the illustration of particular styles.

Accrual accounting concerns itself primarily with receivables, deferred charges, payables and deferred credits. Part of this problem was discussed under fund accounting, in the discussion relative to the first guideline. The results of this guideline were that pledges and grants are to be accrued as receivables and deferred income until paid and earned respectively. This fairly well states the case for deferred credits, but it leaves unanswered the solution for recording the other areas of accrual accounting.

Accrual accounting as it affects financial reports is extremely important. One authority states:

> . . . agencies must adopt the accrual basis of accounting and thereby include in their financial statements all significant or material accounts receivable, accounts payable, accruals, prepayments and deferred items.[29]

Another authority presents a very similar position:

> The fairness of the presentation of the financial position at the reporting date and the results of financial operations for the reporting period are important in the determination of the availability of funds with which to carry on the programs of non-profit organizations. It therefore follows that the accrual basis should be used. As a general rule, this is the only accounting method under which all assets will be included and all liabilities recognized. Departure from the accrual basis should be justified only by application of the doctrine of materiality.[30]

These two quotation leave little doubt as to the proper reporting of accruals.

The next general aspect of reporting is the establishment of guidelines for the preparation of reports, whether they are for internal usage, or for external dissemination. An excellent summation of guidelines and supplementary consideration has been developed by Heckert and Wilson for profit-making enterprises. Since foundations are assumed to be "going concerns," the materials in the summation are highly relevant to report preparation for non-profit institutions. The items as summarized are:

> The "Responsibility" Concept Should Be Employed. . . .
>
> The "Exception" Principle Should Be Applied As Much As Possible. . . .
>
> In General, Figures Should Be Comparative. . . .
>
> To The Extent Practical, Data Should Be Increasingly in Summary Form for Each Successively Higher Level of Management. . . .

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[29] Howard A. Withey and Guy Holman, op. cit., p. 203.

[30] John C. Overhiser, op. cit., p. 200

Reports Generally Should Include Interpretative Commentary or Be Self-Explanatory. . . .

Reports Should Be Timely. . . .

Reports Should Be Simple and Clear. . . .

Reports Should Be Expressed in Language and Terms Familiar to Executive Who Will Use Them. . . .

Information Should Be Presented in Logical Sequence. . . .

Reports Must Be Accurate. . . .

The Form of Presentation Should Be Suited to the Executive Who Will Use it. . . .

. . . .

Reports Should Be Standardized Wherever Possible. . . .

The Report Design Should Reflect the Viewpoint of the Executive. . . .

Reports Must Be Useful. . . .

The Cost of Report Preparation Should Be Considered. . . .

The Care Taken in Preparing a Report Should Be Commensurate With Its Use. . . .[31]

General guidelines for financial reporting may be stated as follows, in the light of the preceding discussion:

1. Accrual accounting is to be reflected in all financial reports, except where items are immaterial.

2. Timely reports are to be prepared which will be useful and meaningful to the user. These reports must be consistent in nature and adhere to the concept of "full disclosure."

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[31] J. Brooks Heckert and James D. Willson, Controllership, (2d ed.; New York: The Ronald Press Co., 1963), pp. 523-526.

Internal reporting

The next set of guidelines to be discussed will deal specifically with internal reporting. The purpose, contents, and timing of internal financial reports should be clarified, in order to prepare suitable guidelines.

In considering the purposes of internal reporting we should recognize that there are two general classes of management who will need reports. The first class of management may be described as "Principal Investigators" of specific research projects. The second class of management may be described as "Executive Officers" of the institution. Quite naturally, the contents of the reports to these two groups will differ a great deal, since their respective purposes are different.

The main purpose of preparing reports for principal investigators is to advise them of the status of their respective research funds. This mostly involves the presentation of an authorized budget for some time period, the scheduling of related project expenditures, and the computation of a budget balance which is available for expenditure.

The main purpose of preparing reports for executive officers is for control purposes. This division of management is interested in measuring and correcting performance so that organizational objectives and plans are accomplished. Reports should cover all aspects of the business activities, and should be in a more condensed form, in order to best serve the executive needs.

Finney and Miller state the following regarding the purpose of financial reports:

> Financial statements are receiving increasing attention from management, credit grantors, stockholders, governmental agencies, and the general public. They provide a basis for the formulation of many business decisions. Financial statements also serve as a device by which management reports on its accountability for, or stewardship of, the properties placed under its control.[32]

The contents of management reports should adhere to similar guidelines for both classes of management. It is understood that the information presented to each class will differ according to stated purposes, but the problem of control is common to all phases of management. A plan of control is usually presented in financial terms, the common language of any business, and it is by financial means that the acceptability of any program or project is measured.

In most areas of management reporting, we find a strong need for budgetary statements. Welsch says that:

> It is through performance reports to management that. . . control is achieved. . . . Control action may be assured through a continuous reporting of actual results as compared with planned results.[33]

The actual operating results must include commitments of funds, according to Overhiser, who states:

> . . . the financial statements of non-profit organizations should recognize properly approved commitments for expenditures of funds in future periods.[34]

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[32]H. A. Finney and Herbert E. Miller, Principles of Accounting, Intermediate, op. cit., pp. 62-63.

[33]Glenn A. Welsch, Budgeting: Profit Planning and Control (2d ed.; Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1963) pp. 54-55.

[34]John C. Overhiser, op. cit., p. 200.

Since management is vitally concerned with budgetary information it is only natural that we should turn to an authoritative source in the field of fund accounting for a statement pertaining to the timing, or timeliness of reports:

> Financial reports should be prepared monthly or oftener, to show the current condition of the budgetary accounts and other information necessary to control operations. At least once a year a general financial report should be prepared and published.[35]

The following guidelines may be stated for internal reporting:

1. Internal management reports should provide the basic instruments for financial control, particularly with respect to designated funds.

2. The contents of internal management reports should present a comparison of actual operations with planned operations. Commitments for expenditures of designated funds are to be included in the reports.

3. The timeliness of internal management reports is highly important, and reports should be routinely prepared at least once a month in order to show the current condition of the organization or organizational project.

External reporting

The last set of guidelines for reporting deals with external reporting. These guidelines should specify the basic contents of

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[35]National Committee on Governmental Accounting, op. cit., p. 3.

external reports and establish a philosophy regarding the dissemination of information via external reports.

One premise that exists for all accounting reports is that statements should not be misleading, and that significant information should be fully disclosed. With this in mind, let us consider Overhiser's description relative to the contents of financial reports for non-profit institutions:

> The financial statements of non-profit organizations should include:
>
> 1. A balance sheet showing separately the assets, liabilities and principal of the general or operating fund and of any other fund for which the organization is required to maintain a separate accounting group.
>
> 2. Statements of operations and of changes in principal of the general fund.
>
> 3. Statements of changes in principal of each fund other than the general fund, reflecting informative disclosure of all material transactions during the period. . . .
>
> Revenues should be reported by source, such as unrestricted contributions, restricted or special contributions, sales of services, fees, investment income, etc. Expenditures should be reported by function, according to the stated programs or purposes of the organization. The costs of general administration and of fund raising should be shown separately.[36]

Hylton also has some good thoughts which complement Overhiser's remarks:

> It seems that for the presentation of operating results to the public, consolidated statements for non-profit institutions have considerable merit. . . . Expenses,

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[36] John C. Overhiser, op. cit., p. 202.

> including depreciation, should be shown for all funds, again with inter-funds eliminated. . . . A non-profit institution can no more operate indefinitely with revenue less than costs and expenses than can a business enterprise. A comparison of these relevant in-flow and out-flow for the unit as a whole is therefore useful supplementary information, just as the consolidated income statement is useful for a business enterprise. . . . Within the consolidated balance sheet, the separate fund balances may be shown, thus preserving to some extent the fund concept.[37]

In discussing a philosophy regarding the dissemination of external reports, we must note one basic difference between non-profit institutions and private enterprises. There is a decided decrease in competition in the foundations under study, as compared to industry in general. To be sure, some competition exists between non-profit institutions. In some cases, two or more research foundations might submit proposals to do a common project, but there is no organized market to develop the keen competition which permeates other industry as a whole. Accordingly, the necessity of withholding information from competitors is almost non-existent.

On the contrary, many such instituions actively cooperate with each other, and view themselves as stewards of public funds, and, as such, they assume that the general public is entitled to know the basic facts regarding their financial affairs. J. C. Kiger summarized the Final Report of the Select House Committee to Investigate Foundations and other organizations:

> The larger Foundations take the position that as public trusts they are accountable to the public and that the public is entitled to know in detail about their resources, income, expenditures, personnel, and programs. Stated in the words of one of their trustees "Foundations should not only operate in a goldfish bowl - they should

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[37]Delmer P. Hylton, op. cit., pp. 218-219.

operate with glass pockets." In short, the larger Foundations favor public accountability and public accounting.[38]

We can now advance some external reporting guidelines, as follows:

1. The external financial statements should include a balance sheet showing pertinent funds, a statement of operations, and a statement of changes in principal for each fund.

2. The statement of operations should show revenues by source, and expenditures by function. Administrative and general expenses are to be shown separately.

3. The basic philosophy of reporting to external users is one of stewardship. Reporting in condensed form is an acceptable presentation for public consumption.

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[38]Joseph C. Kiger, op. cit., p. 101.

CHAPTER IV

COMPARISON OF THE ACCOUNTING GUIDELINES WITH THE ACCOUNTING PRACTICES REPORTED BY THE RESEARCH INSTITUTIONS

Several things must be considered before a comparison can be made between our accounting guidelines and the related practices reported by the research institutions. For one thing, the quantity and quality of data obtained must be sufficient to conduct a comparison, or the results will be inconclusive. Also, there are certain assumptions about these organizations which must be validated. We must determine that their purposes are similar and that their financial support is from similar types of sources, or the data will not be comparable to the guidelines. We should have some general idea about the education and experience of the individuals who complete the questionnaire, so that we can assure ourselves that the data are acceptable for the purposes of the study.

Eleven of eighteen organizations, or sixty-one per cent provided information for the study. Based on the income which was reported, we can say that one institution was large, eight were medium in size, and two were rather small. Evaluation of the reliability of the answers to the questionnaire may be subject to a number of limitations. However, it is my opinion that the individuals who provided the answers were well informed and cognizant of the meaning and intent of the questions. This is based on the educational background and experience reported by each individual, as well as the generally negative response to questions eight and nine, which provided an opportunity for comments relative to the questionnaire. The data appear to be sufficiently reliable and meaningful for the purposes of this study, and consequently, usable conclusions should be forthcoming from the comparisons.

Preliminary inquiries suggested that these institutions had similar organizational purposes and that their operating funds were derived largely from government sources. These two groups of guidelines are strongly influenced by government requirements; therefore, if these early indications proved to be false, the guidelines for fund accounting and indirect expenses might be quite immaterial to the operations of these institutions. Table 4, page 14, indicates that ten of the eleven were engaged in research projects supported by government contracts or grants. Table 12, page 23, shows that 68.03 per cent of the income for ten reporting institutions was from government sources. All institutions reported that research in medicine or biology was their primary organizational purpose. It appears that the reporting organizations are quite comparable with respect to purposes and funding.

It was necessary to determine that the formal education level of the institutional employees was significantly more advanced than the national average for all employees, so that timekeeping guidelines could be developed which would be compatible to government policies. Table 2, page 12, shows 745 scientific personnel and 1,915 technical personnel employed by the several research institutions, or 28 per cent and 72 per cent respectively. Since the government regulations assume that the scientist is normally a person not inclined to punch a clock, it was necessary to ascertain that there were scientific personnel at our research institutions in a sizeable number; otherwise, the guideline might not be applicable. In 1960, the percentage of the United States population 25 years old and older who had completed four or more years of college was 7.66 per cent.[39] The institutions employed persons with four or more years of college education in a ratio of 3.7 to 1 over the national average of employment, and this indicates a significant difference in the educational level of the institutional employee over the educational level of the average employee.

In the treatment of overhead expenses, it was suspected that the research institutions would frequently be engaged in activities other than organized research, and that direct and indirect expenses would therefore have to be recorded in the light of these activities. Eight of the eleven reporting institutions stated that they were associated with a clinic, hospital, university or other organization, and five stated that they conducted formal educational activities. It can be seen that the institutions are engaged in various activities other than organized research, and that the guidelines for indirect expenses are relevant to their problems. Table 3, page 13, indicates the types of educational programs offered by the institutions.

Comparisons can now be made between guidelines and institutional practices. In keeping with the general format of Chapter III, comparisons will be made in the areas of Fund Accounting, Overhead or Indirect Expenses, and Reporting. Practices will be compared to each guideline or set of guidelines within each area, compliances

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[39] United States Bureau of the Census, Statistical Abstract of the United States (Washington: U. S. Government Printing Office, 1963), p. 119.

or deviations will be noted, and an evaluation of the results will be presented. The guidelines will be repeated in the following discussion in order to spare the reader from continually referring back to Chapter III.

Fund accounting

The first guideline under Fund Accounting states:

> Grant awards should be recorded in the books as "receivables" and as "deferred income" upon notification of award. Adjusting entries should be made to reflect only the amount of grants which are reasonably certain to be collected for reporting purposes.

The institutions generally complied with this guideline, with the exception of one which recorded this information in a memorandum form and one which did not comply with the guideline. Of the seven audit reports examined, five showed "grants receivable" and "deferred income" as balance sheet items. One institution which complied with the guideline on a day-to-day basis did not present the items in the audit report in any form.

Based on discussions with administrative personnel from three of the institutions, the case for the minority seems to center about the interpretation of "what is reasonably certain to be collected." The reasoning is that grants are awarded conditionally upon services being rendered, and that since there is no guarantee that any such services will be performed, no receivable should be created. The assertion is made that no receivable exists until a right to income has been created.

The minority viewpoint further states that there is no way to determine accurately how much of a grant authorization is really a "receivable," since there is no way to predict the amount of utilization of the funds so awarded.

The case for the majority may be stated in a more positive manner. Historically, the services related to "grant receivables" have been accomplished, for the most part. The total grant award is frequently not consumed during the fiscal year; however, the balance left at the end of the grant period is apt to be small, since an earnest attempt will be made to utilize the funds. The assertion is made that it is more correct to show the total grant award as a receivable than to omit it simply because its utilization cannot be accurately determined. An assertion is also made that the institution is a "going concern" and that the full amount of the grant award "is reasonably certain to be collected." This seems to be a stronger case, in my opinion.

The guideline for recording pledges for donations was stated as follows:

> Pledges for donations should be recorded in the books as "receivables" and as "deferred income" upon receipt of the pledges. Upon receipt of payment, the applicable portion of the "deferred income" should be reclassified as "current income."

This guideline arose during the preparation of the paper and was not included in the questionnaire. A question was asked in one of the completed questionnaires about the proper treatment of pledges; since authoritative expressions were available, the decision to include it within the scope of the study was made.

An examination of the seven audit reports and one unaudited statement returned with the questionnaires disclosed a division of opinions about the proper treatment of pledges. Two audit reports had only a note regarding pledges receivable, and one audit report presented pledges in the balance sheet. I think it is safe to assume that the institution sending the unaudited financial statement also presents pledges in the balance sheet of the audit report. This opinion is based on a discussion I had with the controller of the organization concerning "receivables" in general, and the fact that the interim financial reports reflected pledges. Thus, it appears that we have two affirmative balance sheet presentations and two footnotes out of seven. Also, one institution is known to have omitted mentioning pledges in its audit report, even though a material pledge existed.

The problem of properly recording pledges seems to center around "full disclosure" and "conservatism." The matter of the collectability of the pledge should not be a problem, since the business world commonly accepts a "pledge" as a binding agreement. As such, it is just as collectable as a note. In this type of transaction, there seems to be no case for conservative practices, since it defeats the purposes of "full disclosure."

The guideline for establishing funds is:

> In order to hold inviolate the terms of a gift, bequest, or trust, a separate accounting fund should be established for each designated purpose.

There was almost universal compliance with this guideline as Table 4, page 14 and Table 5, page 15 indicate. The audit reports also showed general compliance, although the form of presentation varied from report to report. The essential quality of the fund was that it was presented as a self-balancing segment of the balance sheet and was a distinct entity. One institution presented a consolidated balance sheet only in the audit report but indicated fund accounting practices on Tables 4 and 5. Supplementary schedules in the audit report confirm the above indicated practices.

The guideline for establishing separate accounts within each fund is:

> Each fund should have a separate group of accounts for each class of activity within the fund, with the exception of cash, which may be commingled, provided other accounts for the activity reflect the proper accountability.

There was complete compliance reported relative to this guideline, as indicated by the replies to question four under the Fund Accounting section of the questionnaire. All available financial reports supported the answers. With such unanimous responses, there is little one can say, except that no problem was discovered relative to complying with this guideline.

The guideline for commitment accounting states:

> In order to adhere to the objectives of good stewardship, it is necessary to account for commitments and encumbrances of a fund, by activity, on a current basis. Commitments and encumbrances may be

accounted for by either a formal entry in the books
or by a memorandum procedure.

The practices relative to this guideline showed that no institution accounted for commitments by formal book entries. With ten of eleven institutions reporting commitments on internal reports to some degree, we can say that there is a general compliance with the guideline.

It seems significant that no formal commitment accounting is practiced by the reporting institutions, especially when we consider that this is the normal practice in government fund accounting. Perhaps the reason why informal methods are so highly favored is that the process of procurement is speeded up, while at the same time the clerical expense of recording the transactions is virtually eliminated. Some loss of control occurs because the status of funds is known only at reporting intervals, rather than on a day-to-day basis. On the other hand, speedy procurement is necessary and often vital for a researcher to conduct his activities. Research is oriented toward problem-solving procedures, and frequently the researcher cannot anticipate his material needs until some phase of his research activity is finished. At this point difficulty may be experienced in proceeding until materials are acquired, so that it becomes inefficient to delay the research activity by slowing down the procurement activity. Perhaps the informal procedures are simply the result of taking the line of least resistance.

In talking with administrative personnel employed by three institutions, it was established that the normal procedures for developing unfilled commitment information was to analyze a file of incomplete purchase orders. Care must be taken in this type of procedure to assure an effective cut-off at the end of the period; otherwise significant errors may result.

The guidelines for recording government property acquisitions are as follows:

> 1. Government property is to be recorded as an asset and as a contribution in the books only when title is transferred to the institution.
>
> 2. Government property acquired by the institution on a loan or custodial basis is not to be recorded as a balance sheet item, since only a contingent liability may exist for loss or damage to the property in excess of insurance coverage. Financial statements are to be footnoted whenever the contingent liability is deemed to be material.
>
> 3. Memorandum records tailored to the requirements or specified by the appropriate government agency are sufficient.

Since these are so closely related, they will be treated together.

Table 6, page 17, shows that only three institutions recorded surplus government property on the books, and seven recorded property acquired from grants on the books. This would seem to indicate that a good deal of confusion exists about the proper treatment of government property acquisitions. One institution reported that it recorded both government-deeded and loan property as an asset in the general ledger, and it reported elsewhere in the questionnaire that all assets were written down to one dollar on the balance sheet. The majority of the institutions were following the practices advocated by the guidelines, however. An examination of the seven audit reports disclosed that no balance sheet entries existed for government property acquired by the institutions on a loan basis. Only two of the audit statements showed sufficient detail to determine that assets procured from grant funds were capitalized.

In evaluating the foregoing practices with the guidelines we must note that the recording of government property which has been deeded to the institution, must be consistent with the institutional policies for recording assets. It would seem improper to capitalize acquisitions of this type when the policy of the institution is to carry such assets at a nominal value.

The two guidelines under Fund Accounting pertaining to salary distribution are:

1. Salaries are to be distributed currently to specific funded or non-funded research projects, as well as to administrative or other categories, on the basis of time worked for each employee.

2. Distribution to research projects or established expense centers will be limited to those charges specifically identified with a particular expense objective. Indirect expense centers will be charged for salaries that have been incurred for common or joint research objectives.

The practices reported by the eleven institutions were decisive, with ten of the eleven reporting that time reports were secured from their employees periodically. All indications were that this was done monthly, or more often. The one institution which said it did not require periodic time reports had established a system of reporting changes only. Apparently, the research work performed at this institution is done in such a manner that employees do not frequently change research projects. Even so, this practice permitted a current distribution of salaries to operational activities.

As stated previously, the replies to question seven under Fund Accounting showed that time reports permitted analysis by contracts, grants, organized research, administration, and other by all but two or three institutions. Based on discussions with employees of two institutions and an examination of an audit report of another, it is my opinion that all institutions are making analyses of salaries and distributing salaries expenses to various projects and accounts in some manner, but not necessarily by use of a time report.

In evaluating the practices with the guidelines, one must realize that the process of distributing salaries can become quite laborious. The work situation in some institutions may be quite stable, with the employees devoting full-time to a given endeavor until it is completed. On the other hand, the work situation might be quite complex, with many employees working on a variety of projects concurrently, with individual effort varying daily with respect to each project. The normal business condition of these institutions seems to be one of growth, and, this being the case, the problems of salary distribution will tend to move from simple procedures to more complex methods. In view of this, it seems advisable for those institutions which are not utilizing an employee time report to adopt a time reporting system which will permit a detailed analysis of employees' time on at least a monthly basis.

Overhead or indirect expenses

The guidelines for charging overhead pools for the use of plant and equipment were previously stated as:

1. New classes of assets are to be depreciated and the proper depreciation charge for the period is to be included in the appropriate overhead pool or pools.

2. The "straight line" method is the safest way to depreciate fixed assets, since this method is acceptable by all government agencies, and "accelerated depreciation" methods are not.

3. A "use allowance" method is correct procedure for determining plant and equipment usage expenses chargeable to an overhead pool or pools where the institution does not depreciate assets. Where a given class of assets has not aged materially, it will be more advantageous to convert to a "depreciation" method.

Table 7, page 19, shows that seven institutions depreciated assets using the straight line method and one institution also used an accelerated depreciation method. Four institutions did not depreciate assets, and three of these reported computing a "use allowance" for determining charges to an overhead pool. One interesting fact is that two institutions depreciated capital assets and reported computing a use allowance. This seems to indicate a change in policy regarding the depreciation of assets and perhaps in the presentation of assets in the balance sheet, or perhaps a misunderstanding of part of the question. An examination of the one available audit report showed only that depreciation accounting was used, and no supporting evidence could be discovered to clarify this situation.

All indications show that most of the institutions are complying with the guidelines with only few exceptions. In my opinion, these are three of the more important guidelines because the recovery of the capital investment of an organization is a vital part of the concept that the organization is a "going concern." The guideline for depreciation is much sounder than the guideline for a use allowance because it provides an opportunity to recover capital faster, and the resultant accumulated depreciation is important in presenting the balance sheet in a fair and reasonable manner.

The guidelines for classifying indirect expenses into overhead pools are:

1. "Overhead pools" must be developed in order to properly recover indirect expenses related to funded research work.

2. Separate classes of overhead expenses are to be established by functional categories, such as administration, general, departmental maintenance, library, etc., as may be appropriate under the circumstances.

The practices relating to the development of an overhead pool or pools, of the research institutions are shown in Table 8, page 19. Ten of the eleven institutions computed one or more overhead pools. Seven used overhead pools called "Research Administration," seven used "Indirect Department," four used "Library" and six used "Others" in describing overhead pools. This indicates a strong compliance between the above guidelines and the institutional practices. The single institution which reported that no overhead pools were developed had never experienced a government audit, but it was expecting one in the very near future.

The strong compliance with these guidelines may well be the result of experience gained by the several organizations in establishing audited overhead rates for government projects. This ability to adapt to the circumstances is indicative of good management.

The guidelines for relating direct and indirect expenses are:

1. The correct bases for relating indirect expenses to direct expenses must be expressed in quantitative units of measurement or in monetary terms, and these bases must possess a logical relationship to both the direct expense objectives and the indirect expense pools.

2. The correct base for relating an indirect overhead pool or pools to organized research should be direct salaries and wages.

3. A logical sequence of operations is as follows:

    a. Direct expenses must be grouped according to institutional objectives.

    b. Each class of indirect expenses should be distributed to an indirect expense pool which is related to an institutional grouping of direct expenses. This distribution is accomplished by selecting the most appropriate base.

c. The appropriate overhead pool is then related to its applicable direct expense group. This relationship is expressed as a rate.

The overhead bases used by the reporting institutions are summarized in Table 9, page 20. Salaries form the most frequently used base, followed by total direct research expenses. Based on the information acquired from the questionnaire it would appear that the institutions generally complied with the guidelines, particularly to numbers one and two. Guideline number three arose during the preparation of the paper and was not tested by the questionnaire. Discussions with members of four institutions support an assumption that this logical sequence of operations is commonly understood among the several controllers of the organizations. In my opinion, the institutions are complying with guideline number three, also. Failure to do so would create a problem with government auditors which would be serious enough to generate an indication by the institution in question eight, under the "Miscellaneous" section. No problems were indicated in the replies to this question relative to guideline number three.

It might seem surprising that eight institutions reported using total direct expenses as a base, since guideline number two advocates using direct salaries and wages. An examination of the income analysis provided by the organizations shows that seven of them are engaged in research supported by National Institutes of Health grants. Policies for administering these grants have been changed considerably in recent months, and part of the changes involve a switch in overhead bases. Under National Institutes of Health grants awarded prior to July 1, 1965, it is permissible to continue the use of total allowable direct expenses as a base for relating indirect expenses to grants. The new policy advocates using direct salaries as the appropriate base. Apparently, the research institutions still have grants which were awarded prior to July 1, 1965, and are using the old procedures. As these grants are completed, there is an excellent possibility that total direct expenses will be discarded as an appropriate base.

The last guidelines for indirect expenses state:

1. Fringe benefits may be charged as direct expenses to research projects whenever research projects last a year or more, and when the employee works a constant percentage of his time on research projects. In addition, the fringe benefits so charged must be readily associated with an individual employee.

2. Fringe benefits are to be charged as indirect expenses whenever the research project period is less than one year or when the employee works a varying percentage of his time on research projects. The resulting fringe benefits pool is to be related to operating activities on the basis of direct salaries.

The institutional practices of recording employees' fringe benefits are shown in Table 10, page 21. The predominant tendency was to treat fringe benefits as a direct expense. There was a strong minority who treated insurance as an indirect expense. Other than for insurance, there was only an occasional treatment of fringe benefits as an indirect expense. As far as the institutional practices are concerned, it must be said that there was complete compliance with the guideline for the reporting institutions. Indeed, the only possible way not to comply would be the failure to treat fringe benefits at all. This situation exists because the guidelines permits great flexibility in treating fringe benefits as either direct or indirect expenses.

The evaluation of fringe benefits practices will be presented in two parts. First of all, my opinion will be presented as to the reasons these institutions are treating fringe benefits predominantly as direct charges. The second part will be a personal recommendation relative to the treatment of fringe benefits.

It seems to me that the National Institutes of Health grant application form and the related instructions and policies for its completions have influenced the treatment of fringe benefits as direct charges. The detailed budget schedules for grant applications have consistently asked for personnel costs to be analyzed by salary, fringe benefits, and total for each employee. The basic manual prior to July 1, 1965, allowed fringe benefits as direct expenses. Since the policies also allowed a fixed percentage of allowable direct expenses for overhead, the research institutions were compelled to treat fringe benefits as direct expenses, even though the procedure often proved cumbersome. It seems to me that the procedures for recording fringe benefits as reported by the research institutions are a carry-over of these old policies. In addition, this carry-over is encouraged by the format of the new National Institutes of Health grant application form, which patterns its detailed budget schedule after the old form.

A recent change in policy by National Institutes of Health could have a significant bearing on the treatment of fringe benefits. An authoritative publication states:

> The Public Health Service has announced that effective March 1, 1966, it will discontinue the practice of including in grant awards a provisional allowance for indirect cost in the absence of an acceptable indirect cost rate. To be acceptable to the PHS, an indirect cost rate proposal must be based on salaries and wages as required by Bureau of the Budget Circular A-21, except for small educational institutions which have less than $500,000 of research and development work sponsored by the Federal Government and which qualify under Section H of Circular A-21.[40]

In other words, National Institutes of Health has now adopted a policy which discontinues a stated overhead rate based on total allowable direct expenses, and has adopted a policy allowing an indirect overhead rate based on salaries and wages. While the above quotation speaks of a provisional rate, it must be understood that the indirect overhead rate will be adjusted to actual rate, as determined by governmental audit. The true significance of this comes about in that the National Institutes of Health is complying with Circular A-21, which permits treatment of fringe benefits as direct or indirect expenses. Footnote number 27 of this paper describes this. Also, a letter from the Department of Health, Education, and Welfare to Business Officers and Coordinators of Research at Grantee Institutions, dated December 20, 1965, relative to submission of Indirect Cost Rates for Research Grants, expressed compliance with Circular A-21, and requested a determination of what fringe benefits were being treated as direct expenses and what were being treated as indirect expenses by the institution. It can be seen then, that a definite option exists for the treatment of fringe benefits under National Institutes of Health policies,

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[40]United States National Institutes of Health, Division of Research Grants, Newsletter, Vol. 2, No. 5, December, 1965.

and that they may be treated as either direct or indirect expenses. National Institutes of Health policies are now compatible with policies which govern government contracts.

In considering the various types of problems which arise in distributing F. I. C. A. taxes, vacation pay, and sick leave pay, it seems that a treatment as an indirect expense would be more equitable to all organizational projects or activities, in most cases. This certainly would be true in complex situations of employee activity.

One disadvantage to treating fringe benefits completely as indirect expenses is that the overhead rate rises sharply. Institutions normally want the overhead rate to be as low as possible for appearances sake. An acceptable presentation of this would be to divide fringe benefits into two groups, and treat one group somewhat as direct expenses and the other group as indirect expenses. The direct expense group would include those expenses which were paid directly to the employees, such as vacation and sick leave. The second group would be those benefits which were not paid directly to the employee, such as pension plan benefits, insurance benefits, etc.

Entries into the books for the first group would be as follows:

Dr. Group I Fringe Benefits
    Cr. Payroll (or accrued payroll accounts)

Dr. Institutional Salaries Accounts
    Cr. Group I Fringe Benefits applied

The second entry would be expressed as an estimated percentage of direct salaries. At the end of the year, the following entry would be made:

Dr. Group I Fringe Benefits applied
    Cr. Group I Fringe Benefits
    Dr. (Cr.) Fringe Benefits Variance

The Fringe Benefits Variance account balance would then be included in the overhead pool of indirect expenses. In a discussion with Mr. J. L. Samberson, an auditor for the Defense Contract Audit Agency, Dallas, Texas, it was determined that this would be an acceptable presentation of fringe benefits.

Entries for the second class of fringe benefits would simply be:

Dr. Group II Fringe Benefits
    Cr. Accrued expense accounts (or cash)

The expenses thus accumulated would be considered as indirect expenses.

The above prescribed treatment of fringe benefits represents a highly desirable way of recording fringe benefits. It should eliminate many of the distortion problems discussed in Chapter III. It would also be unnecessary to adjust the fringe benefits applied to direct salaries, since this would be accomplished by including the under-applied or over-applied fringe benefits in the overhead pool at the end of the accounting period.

Reporting

The first set of guidelines developed for reporting pertain to reporting in general. They are:

1. Accrual accounting is to be reflected in all financial reports, except where items are immaterial.
2. Timely reports are to be prepared which will be useful and meaningful to the user. These reports must be consistent in nature and adhere to "full disclosure."

Table 11, page 22, shows the replies of the institutions relative to transactions which were accrued monthly in the general ledger. The majority of the institutions reported that they did not accrue contract invoices, accounts payable, employees' leave, and employees' salaries on a monthly basis. The majority did accrue prepaid expenses and employees' pension payments.

Ten of the institutions provided monthly reports to principal investigators. Five institutions provided samples of these internal reports and seven provided independent Certified Public Accountant reports. Eight institutions prepared reports for executive officers on a monthly basis.

From the answers given and an examination of the reports submitted, it appears that the institutions are complying with the guidelines in most instances. While accrual accounting does not appear to be entered in the books in all cases on a monthly basis, a determination of the unrecorded transactions appears to be made and entered on the statements.

Based on the information obtained, it would appear that the majority of the reporting institutions did not create an invoices receivable register or a vouchers payable register by formal entries. In all likelihood, the control features are present on an informal basis. Four institutions confirmed this control verbally.

The next group of guidelines pertains to internal reporting. They are:

1. Internal management reports should provide the basic instruments for financial control, particularly with respect to designated funds.

2. The contents of internal management reports should present a comparison of actual operations with planned operations. Commitments for expenditures of designated funds are to be included in the reports.

3. The timeliness of internal management reports is highly important, and reports should be routinely prepared at least once a month, in order to show the current condition of the organization or organizational project.

All five of the internal reports received from the research institutions provided a comparison of budgeted expenditures with actual expenditures. Each report also showed commitments outstanding. A principal investigator or supervisor was named as a recipient of the report, thus establishing financial responsibility. Ten institutions reported that monthly reports were sent to principal investigators, and that commitments were included in some form. In regard to reports submitted to executive officers or trustees, eight institutions reported monthly. The remaining three reported at various intervals.

Based on the information obtained, we can conclude that the institutions are generally complying with the guidelines for internal reporting. Since the group is generally complying with the guidelines, it would seem reasonable to assume that management is adequately informed of operating results on a current basis.

The last group of guidelines to be discussed is concerned with external reports. These guidelines are:

1. The external financial statements should include a balance sheet showing pertinent funds, a statement of operations, and a statement of changes in principal for each fund.

2. The statement of operations should show revenues by source, and expenditures by function. Administration and general expenses are to be shown separately.

3. The basic philosophy of reporting to external users is one of stewardship. Reporting in condensed form is an acceptable presentation for public consumption.

In examining the audit reports which were received from the responding institutions, a marked uniformity of compliance was observed with guidelines one and two, as would be expected from professional auditors. One institution published an abbreviated form of the audit report in its annual report. Compliance with the third guideline could not be determined. All eleven institutions reported that independent auditors were used, and, based on the information obtained, it seems reasonable to state that there is general compliance with guidelines one and two.

In evaluating the audit reports one practice should be specifically mentioned. Some reports present overhead collected on research projects as an expense item, and reduce administrative and general expenses by the same amount. Other reports do not reflect this reclassification of overhead. This transfer seems to be a more meaningful presentation, since it also shows an amount of indirect expenses which must be recovered from non-research funds. This comparison is important if an institution is to remain a "going concern," since it affords an opportunity to evaluate this portion of income and its related expenses.

In summary, it can be stated that the eleven institutions examined seemed to conform to the guidelines to a large degree. Depreciation, fringe benefits, and accrual accounting produced some pronounced variations, but in no case did the actual practices appear to refute the guidelines.

SUMMARY

In the preceding chapters guidelines have been identified for Fund Accounting, Overhead Practices, and Reporting for non-profit institutions engaged in medical or biological research and related educational programs. Information was secured from eleven institutions concerning their accounting practices in the above areas, and comparisons were made between the guidelines and the institutional practices. The results of these comparisons showed that the institutions were basically adhering to the guidelines, and that the older institutions were adhering closer than the newer ones. This is quite understandable, since each institution has had to develop an accounting system without the use of any well-defined guidelines.

Perhaps the one practice which influenced the adherence to the guidelines more than any other was the consistent use by these institutions of independent audit firms. These audit firms adhere to generally accepted accounting principles, as defined by various pronouncements of the American Institute of Certified Public Accountants and other authoratative bodies, consistent adherence to generally accepted accounting principles by the independent auditors provided a broad outline within which each institution could develop its own accounting system. While this framework did not identify specific guidelines, it did serve as a restraining element in that it curtailed any significant departures from sound accounting practices. Thus, the institutions were united in most respects with generally accepted accounting principles, and they were able to ferret out specific practices which generally agreed with the accounting guidelines set forth in this paper.

Some problems do exist, however. We noted earlier that the treatment of pledges as receivables was not consistent, depreciation accounting was not completely practiced, the treatment of fringe benefits was ambiguous, and a philosophy of external reporting was unidentified. Perhaps one of the beneficial aspects of this paper will be the focusing of attention on these problem areas, and, hopefully, a closer uniformity of practices will be developed in the future.

Certain recommendations appear to be in order to the institutions concerned. First of all, the guidelines should be accepted as applicable to the accounting systems of the institutions. In the area of depreciation it is further recommended that each institution re-examine its position relative to depreciation accounting. While this may cause some problems with respect to consistency between reporting periods, it should be considered since little merit can be found in a practice that is consistently wrong. Finally, it is recommended that the treatment of fringe benefits be changed to conform to the plan described in Chapter IV.

An area that presents itself for future exploration is the centralized use of a computer facility to process the accounting records of these institutions. The extent of computer usage by the various organizations is not known. One Foundation does have data processing capabilities, however, and it is now possible to transmit information via telephone in an economical manner. It would appear that other institutions could utilize a central data processing center for the preparation of their accounting records. A study in this area should prove informative and challenging.

From the inception of this paper, it has been the author's desire to conduct a study that would produce some useful information for persons or organizations engaged in the accounting affairs of research institutions; while very little new information may have been produced, the study has brought together an identifiable system of guidelines which should prove useful for the institutions investigated.

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