ACCOUNTING PRINCIPLES AND STANDARDS HANDBOOK

CHAPTER 12. MANAGERIAL COST ACCOUNTING

Section 1.0 General

Managerial cost accounting is the process of accumulating, measuring, analyzing, interpreting, and reporting cost information useful to both internal and external groups concerned with the way in which the organization uses, accounts for, safeguards, and controls its resources to meet its objectives. In managing Federal programs, management should also take into consideration "stewardship investments" which are costs of resources expended for the benefit of the nation.

Section 2.0 Authority

The policies and procedures contained in this chapter are issued pursuant to the following guidelines:

a. FASAB SFFAS 4, Managerial Cost Accounting Standards and Concepts

b. SFFAS 8, Supplementary Stewardship Reporting

c. SFFAS 29, Heritage Assets and Stewardship Reporting

d. SFFAS 30, Inter-Entity Cost Implementation: Amending SFFAS 4, Managerial Cost Accounting Standards and Concepts

e. SFFAS 31, Accounting for Fiduciary Activities

f. FASAB Interpretation 2, Accounting for Treasury Judgment Fund Transactions

g. FASAB Interpretation 6, Accounting for Imputed Intra-departmental Costs, An Interpretation of SFFAS 4

h. FASAB Statements of Federal Financial Accounting Concepts (SFFAC):
   - SFFAC 1, Objectives of Federal Financial Reporting; and
   - SFFAC 5, Definitions of Elements and Basic Recognition Criteria for Accrual-Basis Financial Statements

i. Staff Implementation Guidance: Guidance for Implementation of SFFAS 31, Accounting for Fiduciary Activities

j. GAO Principles, Standards, and Requirements, Title 2 Standards Not Superseded by FASAB, Standards C30, E20, I10, L40 and R40;

k. OMB Circular A – 25 Revised, User Charges;

l. OMB Circular A – 76, Performance of Commercial Activities;

m. OMB Circular A – 130, Management of Federal Information Resources,

For guidance on specialized cost accounting issues, reference may be made to the Cost Accounting Standards issued by the Cost Accounting Standards Board.

Section 3.0 Responsibility Segments

Management of each reporting entity should define and establish responsibility segments. Managerial cost accounting should be performed to measure and report the costs of each segment's outputs. Special cost studies, if necessary, should also be performed to determine the cost of outputs.

A responsibility segment is a component of a reporting entity that is responsible for carrying out a mission, conducting a major line of activity, or producing one or a group of related products or services. In addition, responsibility segments usually possess the following characteristics:

a. Their managers report to the entity's top management directly; and

b. Their resources and results of operations can be clearly distinguished from those of other segments of the entity.

For each segment, managerial cost accounting should:

a. Define and accumulate outputs, and if feasible, quantify each type of output in units;

b. Accumulate costs and quantitative units of resources consumed in producing the outputs; and

c. Assign costs to outputs, and calculate the cost per unit of each type of output.

The designation of responsibility segments should be based on the following factors: (a) the entity's organization structure, (b) its lines of responsibilities and missions, (c) its outputs (goods or services it delivers), and (d) budget accounts and funding authorities. However, the predominant factor is the reporting entity's organization structure and its existing responsibility components, such as bureaus, administrations, offices, and divisions within the Department.

Planned and actual costs shall be accumulated and reported at least monthly or as needed. The common accounting classifications adopted shall be responsibility oriented. The bureau's core accounting systems support the budget activity and program planning classifications to provide an adequate base for budgetary projections, performance appraisals against predetermined standards wherever feasible, and the administration of internal operations on a cost basis as required by law. The accounting system also enables the bridging of costs to obligations and accrued expenditures at the level where administrative control of funds responsibilities are assigned, i.e., allotment or sub-allotment levels.

Section 4.0 Costing Methodology

Costs of resources consumed by responsibility segments should be accumulated by type of resource (OMB Circular A-11, sec. 83, "Object Classification"). Outputs produced by responsibility segments should be accumulated and, if practicable, measured in units. (This is particularly important for activities measured under the Government Performance and Results Act.) The full costs of resources that directly and indirectly contribute to the production of outputs should be assigned to outputs through costing methodologies or cost finding techniques that are most appropriate to the segment's operating environment and should be followed consistently. Whenever possible, financial accounting and budgetary accounting activities should apply similar costing methodologies.

The cost assignments should be performed by one of the following methods, listed in the order of preference: (a) directly tracing costs wherever feasible and economically practicable, (b) assigning costs on a cause-and-effect basis, or (c) allocating costs on a reasonable and consistent basis.

With respect to each responsibility segment, the costs that are to be assigned to outputs include: (a) direct and indirect costs incurred within the responsibility segment, (b) costs of other responsibility segments that are assigned to the segment, and (c) inter-entity costs recognized by the receiving entity and assigned to the segment. If a responsibility segment produces one kind of output only, costs of resources used to produce the output are assigned to the output.

.01 <u>Selecting a Costing Method</u>

Costs should be assigned to outputs in one of the following ways:

a. Directly tracing costs to outputs

Direct tracing applies to resources that are directly used in the production of an output. The method of direct cost tracing usually relies on the observation, counting, and/or recording of the consumption of resource units, such as staff hours or gallons of fuel consumed in a transport mission. Direct tracing also applies to specific resources that are dedicated to particular outputs. Direct cost tracing often minimizes distortion and ensures accuracy in cost assignments. However, it can be a relatively costly process. It should be applied only to items that account for a substantial portion of the cost of an output and only when it is economically feasible.

b. Assigning costs on a cause-and-effect basis

For costs that are not directly traced to outputs, intermediate objects can be established as links between resource costs and outputs. The links reflect a cause-and-effect relationship between resource costs and outputs. Activities or work elements that contribute to or support the production of outputs are commonly used as intermediate objects.

c. Allocating costs

Sometimes, it might not be economically feasible to directly trace or assign costs on a cause-and-effect basis. These costs can be allocated to segments and outputs on a prorated basis. The cost allocations may involve two steps. The first step allocates the costs of support services to segments, and the second step allocates those costs to the outputs of each segment. The cost allocations are usually based on a relevant common denominator such as the number of employees, square footage of office space, or the amount of direct costs incurred in segments.

To assist cost analyses and cost findings, cost accounting should segregate costs that are traced or assigned to outputs from costs that are allocated to outputs.

As a general rule, directly tracing costs and assigning costs on a cause-and-effect basis are more expensive than cost allocations, because they require detailed analyses and record-keeping for costs and activities. However, they are preferable because they produce more reliable cost information than cost allocations.

.02 Selecting a Costing System

SFFAS No. 4, Managerial Cost Accounting Standards and Concepts, "Managerial Cost Accounting Standards and Concepts," requires that a costing system, once adopted, be used consistently. Consistent use provides cost information that can be compared from year to year. Several costing systems have been successful in the private sector and in some government entities. Four are briefly described here. It should be noted in particular that activity-based costing has gained broad acceptance by manufacturing and service industries as an effective managerial tool. It is important to note that those costing systems are not mutually exclusive.

a. Activity-based costing (ABC): ABC focuses on the activities of a production cycle, based on the premises that (a) an output requires activities to produce, and (b) activities consume resources. ABC systems use cost drivers to assign costs through activities to outputs. The ABC cost assignment is a two-stage procedure. The first stage assigns the costs of resources to activities and the second stage assigns activity costs to outputs.

   A major advantage of using ABC is that it avoids or minimizes distortions in product costing that result from arbitrary allocations of indirect costs. By tracing costs through activities, ABC provides more accurate service or product costs.

b. Job order costing: Job order costing is a costing methodology that accumulates and assigns costs to discrete jobs. The word "jobs" refers to products, projects, assignments, or a group of similar outputs. Job order costing is appropriate for responsibility segments that produce special order products, or perform projects and assignments that differ in duration, complexity, or input requirements.

c. Process costing: Process costing is a method that accumulates costs by individual processing divisions. The output of a processing division either becomes the input of the next processing division or becomes a part of the end product. Process costing is appropriate for production of goods or services with the following characteristics: (a) the production involves a regular pattern of process, (b) its output consists of homogeneous units, and (c) all units are produced through the same process procedures.

d. Standard costing: Standard costs are carefully predetermined or expected costs that can be applied to activities, services, or products on a per unit basis. As work is being done, actual costs incurred are compared with standard costs for various tasks or activities to reveal variances. This feedback helps discover better ways of adhering to standards, of altering standards, and of accomplishing objectives. Standard costing helps managers to formulate budgets, control costs, and measure performance.

Agency and program management is in the best position to select a type of costing system that would meet its needs. In making the selection, management should evaluate alternative costing methods and select those that provide the best results under its operating environment.

Section 5.0 Full Cost

Bureaus should report the full costs of outputs in general purpose financial reports. The full cost of an output produced by a responsibility segment is the sum of 1) the costs of resources consumed by the segment that directly or indirectly contributes to the output, and 2) the costs of identifiable supporting services provided by other responsibility segments within the bureau and by other reporting entities.

Direct and indirect costs shall be identified in the cost statements in an organized manner. Cost categories must relate to OMB object classifications. Allocations of indirect costs shall provide for reconciliation to object classifications on a reasonable basis where such information is required for budgeting purposes.

.01 Direct Costs

Direct costs are costs that can be specifically identified with an output. All direct costs should be included in the full cost of outputs.

.02 Indirect Costs

Indirect costs are costs of resources that are jointly or commonly used to produce two or more types of outputs but are not specifically identifiable with any of the outputs. There are two levels of indirect costs:

a. Indirect costs incurred within a responsibility segment. These indirect costs should be assigned to outputs on a cause-and-effect basis, if such an assignment is economically feasible, or through reasonable allocations.

b. Costs of support services that a responsibility segment receives from other segments or entities. The support costs should be first directly traced or assigned to various segments that receive the support services. They should then be assigned to outputs.

A bureau and its responsibility segments may incur general management and administrative support costs that cannot be traced, assigned, or allocated to segments and their outputs. These unassigned costs are part of the organization costs, and they should be reported on the entity's financial statements as costs not assigned to programs.

The accounting system(s) shall provide for a formalized set of predetermined rates for the distribution of indirect costs showing the type of rate and its basis.

Distribution rates shall be estimated on an annual basis and adjusted when material variations occur between costs incurred and costs distributed. Where indirect costs must be distributed across appropriation or fund lines, full use shall be made of consolidated working (capital) funds and other accounting techniques permitted by 31 U.S.C. Sec. 1534, "Transfers and Reimbursements – Adjustments between Appropriations."

.03 Certain Cost Elements

a. Costs of Employees' Benefits

Employee benefits include:

1. Health and life insurance benefits for current employees;

2. Pension benefits for employees, their survivors and dependents, covered by defined pension plans such as Civil Service Retirement System (CSRS), Federal Employees Retirement System (FERS), and Military Retirement System (MRS);

3. Health and life insurance benefits for retired employees, their survivors and dependents, referred to as "other retirement benefits" (ORB); and

4. Other post-employment benefits (OPEB) for terminated and inactive employees, which include severance payments, training and counseling, continued health care, and unemployment and workers compensation.

Federal financial accounting standards require that the employing entity accrue the costs to the Federal Government of providing pension and ORB benefits to employees and recognize the costs as an expense when the benefits are earned. The employing entity should recognize those expenses regardless of whether the benefits are funded by the reporting entity or by direct appropriations to the trust funds. This principle should also be applied to health and life insurance benefits for current employees. The costs of employee benefits incurred by responsibility segments should be directly traced or assigned to outputs.

Federal financial accounting standards require that OPEB costs be reported as an expense for the period during which a future outflow or other sacrifice of resources is probable and measurable on the basis of events occurring on or before the accounting date. Since the recognition of OPEB costs is linked to the occurrence of an OPEB event rather than the production of output, in many instances, assigning OPEB costs recognized for a period to output of that period would distort the cost of output. In special purpose cost studies or cost findings, management may distribute OPEB costs over a number of years in the past to determine the costs of the outputs that the OPEB recipients helped to produce.

b. Costs of Public Assistance Programs

The full cost of public assistance programs includes: (a) the costs of Federal resources that have been or will be transferred to individuals and state/local governments, and (b) the costs of operating the programs. These two types of costs should be separately identified so that each can be used for different analytic purposes. Grant programs administered by Commerce would fall under this category.

c. Costs Related to Property, Plant and Equipment

1. Depreciation expense. General property, plant and equipment are used in the production of goods and services. Their consumption is recognized as depreciation expense. The depreciation expense incurred by responsibility segments should be included in the full costs of the goods and services that the segments produce.

2. Recognizing property acquisition costs as expenses. The costs of acquiring or constructing national defense and heritage property, plant and equipment may be charged to expenses at the time the acquisition costs are incurred. Since the recognition of these expenses is linked to property acquisition rather than production of goods and services, those expenses should not be included in the full costs of goods and services. However, they are part of the costs of the entity or the program that makes the property acquisitions.

3. Capitalizing costs of acquisition, betterment, or reconstruction of “multi-use heritage assets.” In cases where a heritage asset serves two purposes and if the predominant use of the asset is in general government operations, the heritage asset shall be considered a multi-use heritage asset. The cost of acquisition, betterment, or reconstruction of all multi-use heritage assets shall be capitalized as general PP&E and depreciated.

d. Non-production Costs

There are also other costs that may be reported as a period expense but not recognized as an output cost. Examples include OPEB costs discussed earlier, reorganization costs, and nonrecurring cleanup costs resulting from facility abandonments. In special purpose cost studies, management may have reasons to determine output costs by distributing some of these costs to outputs over a number of periods. The practice should meet the conditions: (a) experience shows that the costs are recurring in a regular pattern, and (b) a connection can be established between the costs and the production of outputs. If such practice results in differences between financial reporting and special cost reporting, management should be able to explain the reasons for assigning the costs to outputs and reconcile the differences.

Section 6.0 Work for Others

A sufficient number of project cost accounts will be established to ensure that the full costs relating to each request for products or services, or cost sharing agreement, can be determined at least monthly, or as needed. Generally, separate projects shall be established for each agreement and costs shall be accumulated in accordance with the regular cost accounting techniques used by the primary organization units. Cost accumulation shall be consistent and should facilitate billing as provided for in these standards.

It is a Federal policy that, with certain exceptions, user charges (prices or fees) should be sufficient to recover the full cost of goods, services, and resources provided by the Federal Government as sovereign. The policy further states that when the Government sells goods and services under business-like conditions rather than in a sovereign capacity, user charges should be based on market prices and may yield a net revenue in excess of the full cost. The objectives of the policy are to: (1) ensure that Government goods and services are provided on a self-sustaining basis, (2) promote efficient allocation of national resources, and (3) allow fair competition with comparable goods and services provided by the private sector.

Full cost of performing work for others shall be recorded for each project regardless of agreements made as to the amount of reimbursement. This is done so that costs will be known on a historical basis for negotiation of future agreements. The standard of determining full cost discussed in this document, however, should not be construed as a standard for setting fees, prices, and reimbursements. Federal entities should comply with laws and regulations related to pricing policies in general and for specific types of goods and services. Those laws and regulations (including OMB Circular A-25 Revised, User Charges) may prescribe costing requirements other than the full cost standard. Full cost defined by this standard can serve as a point of reference for managerial decisions. However, it is not intended to supersede any costing concept that management is required or permitted by law to use in pricing goods and services.

.01 Reimbursable Services

The Department's policy is to provide special services on a cost reimbursable basis to Federal agencies, state, local municipalities, private persons, profit making businesses, and non-profit organizations only when:

a. The service would not be considered to be in competition with private enterprise. In the case of research activities and special studies, this would be projects that cannot be done at all or done as effectively by a private research agency because basic data, knowledge, or facilities needed to accomplish the project are available only in the Department.

b. The end results of the project will serve the public interest and are consistent with Department programs.

c. Undertaking the project will not result in the diversion of resources to the detriment of the basic programs of the operating unit.

d. The results of the service, or the fact that the Department has undertaken the service, will not result in controversy which will have an adverse effect upon the reputation of the responsible operating unit for impartiality and objectivity.

e. A written agreement is entered into covering the service to be performed; and such agreement shall provide, unless determined otherwise for good reason shown, that no exclusive proprietary interest shall accrue to the individual or group. The agreement shall also provide that the results of special studies are the joint property of the individual or group and of the Department, and that the Department may publish or make use of the results of studies without any obligation to the sponsor.

f. It is authorized by law.

.02 Joint Projects

Joint projects may be undertaken with business organizations, research organizations, public organizations and agencies. The results of the joint project should be available to all sponsors. Each sponsor should have the right to publish or make use of the study without obligation to the other co-sponsors. The agreement will specify the rights of each sponsor to the results of the joint project. Unless otherwise provided by statute, a joint project will be undertaken only when both of the following conditions exist:

a. The project cannot be done at all or done as effectively without the participation of the outside entity; and

b. The project is essential to a Department program.

.03 Access to Confidential Information

No service, publication, access or information will be provided other Government agencies or the public which would violate the provisions of any law requiring that information be held confidential.

.04 Full Cost Recovery Standard

The cost of activities performed will be determined in accordance with Section 5.0 – "Full Cost" of this chapter. Accordingly, the accounting records shall be the official source of such cost determinations. The legal or administrative basis for exception to full cost recovery shall be reflected in the accounting records.

.05 Delegated Authority

The authority of the Secretary, under 15 U.S.C. Sec. 1525-1527 and other provisions of law, to engage in joint projects with non-profit organizations, research organizations, industry, or public organizations and agencies; and to apportion equitably the costs of the joint project, is delegated to the heads of operating units.

.06 Waiver of Payment

Payment by a non-profit research or public organization or agency of its share of the cost of joint projects may be waived under conditions set forth in Sec. 6.07 – “Exceptions” of this chapter. Payments may also be waived when it is determined that the organization is financially unable to pay its full apportioned cost.

The head of the operating unit or designee, acting with the advice of the operating unit’s Chief Financial Officer, will determine the appropriate portion of the project’s costs to be waived. A waiver of cost must be obtained before signing any agreement to perform the joint project and before beginning work on the project. The legal or administrative basis for exception to full cost recovery shall be documented in the accounting records.

.07 Exceptions

Exceptions to full cost recovery may be made when any of the following conditions are met. Exceptions and the documentation thereof should be undertaken with the advice of the operating unit’s Chief Financial Officer.

a. The recovery of full cost is in conflict with statutory requirements or would seriously impair the objectives of the program or public policy.

b. The furnishing of the service without charge is an appropriate or reciprocal courtesy to a foreign country or international agreement to which the U.S. has subscribed.

c. Comparable fees are set on a reciprocal basis with a foreign country.

A bureau CFO may recommend to the Office of Management and Budget (OMB) exceptions to the general policy be made when:

a. The cost of collecting the fees would be an unduly large part of the receipts of the activity.

b. The recipient is engaged in a non-profit activity designed for the public safety, health, or welfare.

c. Payment of the full cost by a Federal agency, state or local government, or non-profit group would not be in the best interest of the program.

d. The furnishing of information to a recipient is clearly a reasonable exchange of information with a voluntary contributor or information to a Department program.

e. Any other condition exists that, in the opinion of the CFO, justifies an exception.

.08 Disposition of Receipts

All receipts for work performed or to be performed under 15 U.S.C. 1525 shall be deposited in a separate account or accounts. Such receipts may be used to directly pay the costs of such work or services, to repay or make advances to appropriations or funds which will bear all or part of such costs, or to refund excess sums when necessary, provided that said receipts may be credited to a working capital fund otherwise established by law, and used as mandated. The fund to which the receipts are credited must be available for use by the operating unit which is responsible for performing the work or services for which payment is received.

All receipts for work or services performed for other Government agencies under Section 601 of the Economy Act, 31 U.S.C. Sec. 1535 shall be deposited:

a. In the case of advance payments to special working funds; or

b. In the case of payments other than advance payments, to the appropriation or funds against which charges have been made pursuant to any such order, or such other fund as may be necessary until an appropriate determination can be made.

All receipts for furnishing specialized or technical services authorized under Title III of the Intergovernmental Cooperation Act may be deposited in appropriations or funds from which the cost of providing such services has been paid or is to be charged. Receipts for work or services performed for the public must be deposited to Treasury miscellaneous receipt accounts unless deposit to Department appropriations and funds is otherwise specifically authorized by statute.

Section 7.0 Inter-Entity Costs

Effective FY 2009, each entity's full cost should incorporate the full cost of goods and services that it receives from other entities, in accordance with SFFAS No. 4, Managerial Cost Accounting Concepts and Standards for the Federal Government, and SFFAS 30, Inter-Entity Cost Implementation: Amending SFFAS 4, Managerial Cost Accounting Standards and Concepts. These standards are elaborated on below.

The entity providing the goods or services has the responsibility to provide the receiving entity with information on the full cost of such goods or services either through billing or other advice. Recognition of inter-entity costs that are not fully reimbursed is limited to material items that (1) are significant to the receiving entity, (2) form an integral or necessary part of the receiving entity's output, and (3) can be identified or matched to the receiving entity with reasonable precision. Broad and general support services provided by an entity to all or most other entities should not be recognized unless such services form a vital and integral part of the operations or output of the receiving entity. If an entity provides goods or services to another entity, regardless of whether full reimbursement is received, the providing entity should continue to recognize in its accounting records the full cost of those goods or services. The full costs of the goods or services provided should also be reported to the receiving entity by the providing entity.

The receiving entity should recognize in its accounting records the full cost of the goods or services it receives as an expense or, if appropriate, as an asset (such as work-in-process inventory). The cost of non-reimbursed or under-reimbursed goods or services should be available from the providing entity. Bureaus should obtain documentation on costs from the providing entity to verify, as best they can, actual costs. However, if such cost information is not provided, or is partially provided, a reasonable estimate may be used by the receiving entity. The estimate should be of the cost of the goods or services received. To the extent that reimbursement is less than full cost, the receiving entity should recognize the difference in its accounting records as a financing source. Inter-entity expenses/assets and financing sources would be eliminated for any consolidated financial statements covering both entities.

Recognition Criteria

Ideally, all inter-entity costs should be recognized by the receiving entity. However, there are some cases in which the cost of non-reimbursed or under-reimbursed goods or services received from other entities need not be recognized as part of the cost of the receiving entity. The following general criteria are provided to help in determining the types of inter-entity costs that should or should not be recognized.

a. Materiality. In the context of deciding which inter-entity transactions are to be recognized, materiality, as used here, is directed to the individual inter-entity transaction rather than to all inter-entity transactions as a whole. Under this concept a much more limited recognition is intended than would be achieved by reference to the general materiality concept. Materiality should be considered in terms of the importance of the inter-entity transaction to the receiving entity. The importance of the transaction, and thereby its recognition, should be judged in light of the following factors:

   1. Significance to the entity. The cost of the good or service is large enough that management should be aware of the cost when making decisions.
   2. Directness of relationship to the entity's operations. The good or service provided is an integral part of and necessary to the output produced by the entity.
   3. Identifiably. The cost of the good or service provided to the entity can be matched to the entity with reasonable precision.

   The determination of whether the cost is material requires the exercise of considerable judgment, based on the specific facts and circumstances of each transaction.

b. Broad, general support. Some entities provide broad, general support to many, if not all, reporting entities in the Federal Government. Most often this type of support involves the establishment of policies and/or the provision of general guidance. The costs of such broad services should not be recognized as an expense (or asset) by the receiving entities when there is no reimbursement of costs. Thus, SFFAS No. 4, Managerial Cost Accounting Concepts and Standards for the Federal Government and SFFAS 30, Inter-Entity Cost Implementation: Amending SFFAS 4, Managerial Cost Accounting Standards and Concepts does not apply when support is of a general nature provided to all or most entities of the Federal Government.

The decision as to whether the cost of non-reimbursed or under-reimbursed goods and services should be recognized requires the use of judgment. None of the criteria listed above are, by themselves, fully or exclusively determinative. They should be considered in combination.

Section 8.0 Imputed Interest Rate

Imputed interest cost on Government investment must be computed and included in the selling price when bureaus produce and sell goods and services solely outside the Government. When bureau sales, however, are not solely outside the Government, but also to other Government agencies, some other basis, such as the percentage of total sales outside the Government would provide a rationale basis for such a determination.

The rate of interest used shall be the average interest rate for marketable interest-bearing debt determined by the Secretary of the Treasury. The interest cost for each year shall be based on a weighted average of the Government investment engaged in sales outside the Government.

Unless specified by law, that portion of sales revenue that covers imputed interest must be returned to Treasury as interest.

Section 9.0 Long-term Contract Accounting

.01 Long-term contracts for the Purchase or Sale of Goods (Excluding Property, Plant, and Equipment) or Services

Bureaus must recognize the liability for goods and services purchased under long-term contracts in the period in which the goods or services (or a portion thereof) are received or accepted. The related asset (i.e., inventory, materials and supplies, or work in process) or expense, as appropriate, will be recorded at the same time as the liability. Bureaus must recognize the revenue and costs of goods and services sold under a long-term contract in the period in which the goods or services are delivered or constructively delivered to the purchaser.

.02 Long-term Contracts for the Purchase or Sale of Property, Plant, and Equipment

For financial reporting purposes, bureaus must compute the liability for property, plant, and equipment manufactured or constructed for them under long-term contracts on the basis of verified estimates of work completed (percentage-of-completion method). Contractor reports or invoices should be used to determine work completed, rather than disbursements made. Appropriate liabilities for contract retainages, if any, will also be recorded. The appropriate property, plant, and equipment accounts (including construction in progress) will also be adjusted based on liabilities recorded.

.03 Advances Under Long-term Contracts

Payments by bureaus to contractors under any long-term contract in excess of related liabilities at the end of an accounting period will be accounted for as advances under long-term contracts until goods or services are received or until contract terms are met. When goods or services are received or contract terms met, the expense or acquired asset shall be recognized and the advances or prepayments reduced.

For advance payments to grant recipients, see DOC's Cash Management Policies and Procedures Handbook, Chapter 5.

Receipts by a bureau from purchasers under any long-term contract in excess of revenues earned as of the end of an accounting period will be reported as revenues received in advance (a liability account). The liability amount will be decreased as the revenues are earned and recognized.

Section 10.0 Stewardship Investments

"Stewardship investments" are substantial investments made by the Federal Government for the benefit of the nation. When incurred, they are treated as expenses in determining the net costs of operations. However, these items merit special treatment so that readers of Government financial reports know the extent of these investments that are made for long-term benefit. Such investments will be measured in terms of expenses incurred for certain education and training programs; Federally financed research and development; and Federally financed but not Federally owned property, such as bridges and roads.

.01 Definition - Non-Federal Physical Property

"Investment in non-Federal physical property" refers to those expenses incurred by the Federal Government for the purchase, the construction, or the major renovation of physical property owned by state and local governments, including major additions, alterations, and replacements; the purchase of major equipment; and the purchase or improvement of other physical assets. Grants for maintenance and operations are not considered investments.

.02 Measurement - Non-Federal Physical Property

The financial investment shall be measured on the same basis of accounting as used for financial statement purposes, including appropriate accrual adjustments, general and administrative overhead, and costs of facilities. Amounts shall be reported in nominal dollars. Cash grants related to non-Federal physical property programs are recognized and reported as expenses in arriving at the net cost of operations. Expenses incurred for program costs, contracts, or grants with split purposes[1] shall be reported on the basis of an allocation of the expenses. If allocation is not feasible, the investment shall be reported on the basis of the predominant application of the expense or transfer.

.03 Definition - Human Capital

"Investment in human capital" refers to those expenses incurred for programs for education and training of the public that are intended to maintain or increase national productive capacity and that produce outputs and outcomes that provide evidence of maintaining or increasing national productive capacity. The definition excludes education and training expenses for Federal civilian and military personnel. It also excludes education and training expenses whose purpose is not maintaining or enhancing national productive capacity.

.04 Measurement - Human Capital

The investment shall be measured on the same basis of accounting as used for financial statements, including appropriate accrual adjustments, general and administrative overhead, and costs of facilities. Amounts shall be reported in nominal dollars.

Expenses incurred for programs, contracts, or grants with split purposes[2] shall be reported on the basis of an allocation of the investment expenses. If allocation is not feasible, the investment shall be reported on the basis of the predominant application of the expenses incurred.

[1] An example of an investment (non-federal physical property) with split purposes is a grant issued to a state to construct segments of the National Highway System and to conduct highway research.
[2] Another example of an investment (human capital) with a split purpose is a grant issued to a teaching hospital to perform both medical education and medical research.

Managers of the investment program should be able to provide information on the outcomes for the programs for which the investments are reported. If outcome data are not available (for example, the agency has not agreed on outcome measures for the program, the agency is unable to collect reliable outcome data or the outcomes will not occur for several years), output data that best provide indications of the intended program outcomes shall be used to justify continued treatment of expenses as investments until outcome data are available. Definitions and characteristics of outputs and outcomes are provided below.[3]

- Output. A tabulation, calculation, or recording of activity or effort that can be expressed in a quantitative or qualitative manner. Outputs shall have two key characteristics: (1) they shall be systematically or periodically captured through an accounting or management information system, and (2) there shall be a logical connection between the reported measures and the program's purpose. Examples of human capital output are high school and college graduates as a percentage of population over 25.

- Outcome. An assessment of the results of a program compared to its intended purpose. Outcomes shall: (1) be capable of being described in financial, economic, or quantitative terms and (2) provide a plausible basis for concluding that the program has had or will have its intended effect. Examples of human capital outcomes are program graduates obtaining jobs within 2 months of program completion or program graduates obtaining jobs making more money than they previously received on Federal aid.

.05 Definition - Research and Development

"Investment in research and development" refers to those expenses incurred to support the search for new or refined knowledge and ideas and for the application or use of such knowledge and ideas for the development of new or improved products and processes with the expectation of maintaining or increasing national economic productive capacity or yielding other future benefits. Research and development is composed of the following:

a. Basic research: systematic study to gain knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications toward processes or products in mind;

[3] The human capital outputs and outcomes should be the same as those measured for the Government Performance and Results Act (GPRA) and the budget could be reported in a Statement of Program Performance Measures as described in Appendix 1-F to the concepts statement entitled, "Entity and Display," SFFAC No. 2, Entity and Display.

b. Applied research: systematic study to gain knowledge or understanding necessary for determining the means by which a recognized and specific need may be met; and

c. Development: systematic use of the knowledge and understanding gained from research for the production of useful materials, devices, systems, or methods, including the design and development of prototypes and processes.[4]

Research and development includes laboratory research to discover new knowledge, seeking applications for new research findings, formulation and design of product or process alternatives, testing of product or process alternatives, modification of products or processes, pre-production prototypes and models, design of tools, jigs, molds and dies involving new technology, and engineering activities until the product meets specific functional and economic requirements and is ready for production.

Research and development excludes routine product testing, quality control, mapping, collection of general purpose statistics, experimental production, routine monitoring and evaluation of an operational program, and the training of scientific and technical personnel.

.06 Measurement - Research and Development

The investment shall be measured on the same basis of accounting as used for financial statements, including appropriate accrual adjustments, general and administrative overhead, and costs of facilities. Amounts shall be reported in nominal dollars.

Costs for property, plant, or equipment acquired or constructed for a particular research and development project with no alternative future uses are to be depreciated over the life of the specific project.

a. Materials, equipment, and facilities:

1. If alternative future uses exist, the cost should be capitalized as a tangible asset when acquired or constructed. The cost of materials used in research and development activities and depreciation of equipment or facilities are to be shown as operating costs.

2. If acquired or constructed for a particular research and development project and no alternative future use exists, such costs are expensed as operating costs when incurred.

[4] See OMB Circular A-11, Section 84.

b. Salaries, wages, and other costs of personnel engaged in research and development are expensed when incurred.

c. Intangibles purchased from others:

1. If alternative uses exist, the cost of such assets should be capitalized and depreciated over the estimated useful life of the asset. The depreciation of intangible assets used in research and development is to be shown as an operating expense.

2. If purchased for a particular research and development project and no alternative future use exists, such expenditures are expensed as research and development when incurred.

d. Research and development services performed by outside contractors are expensed as operating costs when incurred.

d. Research and development costs include a reasonable allocation of indirect costs. General and administrative costs not clearly related to research and development activities are not expensed as research and development

Expenses incurred for programs, contracts, or grants with split purposes[4] shall be reported on the basis of an allocation of the investment expenses. If allocation is not feasible, the investment shall be reported on the basis of the predominant application of the expenses incurred.

Managers of the investment program should be able to provide information on the outcomes for the programs for which the investments are reported. If outcome data are not available (for example, the agency has not agreed on outcome measures for the program, the agency is unable to collect reliable outcome data, or the outcomes will not occur for several years), the outputs that best provide indications of the intended program outcomes shall be used to justify continued treatment of expenses as investments until outcome data are available. Definitions and characteristics of outputs and outcomes follow.

[4] An example of an investment with a split purpose is a grant issued to a teaching hospital to perform both medical education and medical research.

- Output. A tabulation, calculation, or recording of activity or effort that can be expressed in a quantitative or qualitative manner. They shall have two key characteristics: (1) they shall be systematically or periodically captured through an accounting or management information system, and (2) there shall be a logical connection between the reported measures and the program's purpose. In research and development programs, this might consist of data for the year concerning the number of new projects initiated, the number continued from the prior year, the number completed and the number terminated. It also might consist of such quantitative measures as bibliometrics (for example, publication counts, citation counts and analysis, and peer evaluation); patent counts and analysis; and science "indicators" that assess the ongoing vitality of the research (for example, statistics on scientific and engineering personnel, graduate students and degree recipients by field and sector).[5]

- Outcome. An assessment of the results of a program compared to its intended purpose. Because of the difficulty of measuring such results for research and development programs in financial, economic, or quantitative terms, outcome data for such programs are expected to consist typically of a narrative discussion of the major results achieved by the program during the year, along the following lines:

    - Basic Research - an identification of any major new discoveries that were made during the year;
    - Applied Research - an identification of any major new applications that were developed during the year; or
    - Development - the progress of major developmental projects including the results with respect to projects completed or otherwise terminated during the year and the status of projects that will continue.

The information provided concerning outcomes should be chosen to provide, in concise form, a plausible basis for judging the extent to which the program is achieving its purpose.

[5] "Research Funding as an Investment: Can We Measure the Returns?" A Technical Memorandum, Congress of the United States, Office of Technology Assessment (Apr. 1986).

Section 11.0: Bureau Evaluations of Material or Significant Possible or Actual Unusual Accounting Transactions

Bureaus are required to evaluate material or significant possible or actual unusual accounting transactions (e.g. a possible or actual accrued receivable/revenue or accrued payable/expense or asset, a possible, anticipated, or actual transfer, a possible, anticipated, or actual budgetary resource or reduction of budgetary resources, a possible or actual contingency), regardless of whether the item has been apportioned or not apportioned on the SF 132, *Apportionment and Reapportionment Schedule*, and research if a) a proprietary accounting transaction(s) should be recorded; b) a budgetary accounting transaction should be recorded; and c) if yes to either a) or b), the appropriate accounting transactions that should be recorded and when (month/year) the accounting transactions should be recorded.

For these material or significant possible or actual unusual accounting transactions, the bureau's evaluation is required to include consultation with a) the bureau's CFO or equivalent, of both the underlying bureau and that bureau's accounting service provider, if applicable, or his or her designee(s); and b) the Department's Office of Financial Management. As appropriate, consultations should also include c) other bureau or Departmental offices; d) the U.S. Department of the Treasury, the Office of Management and Budget, and/or the Federal Accounting Standards Advisory Board; e) any other federal agencies; and f) any other relevant or applicable sources.