**VOLUME 4, CHAPTER 19: "MANAGERIAL COST ACCOUNTING"**

**SUMMARY OF MAJOR CHANGES**

All changes are denoted by blue font.

Substantive revisions are denoted by an * symbol preceding the section, paragraph, table, or figure that includes the revision.

Unless otherwise noted, chapters referenced are contained in this volume.

Hyperlinks are denoted by ***bold, italic, blue and underlined font*****.**

The previous version dated January 1995 is archived.

| PARAGRAPH | EXPLANATION OF CHANGE/REVISION | PURPOSE |
|---|---|---|
| | Added Table of Contents | Add |
| All | Rewrote entire chapter to use current FASAB concepts, standards and terminology contained in Statement of Federal Financial Accounting Standards Number 4, "Managerial Cost Accounting Concepts and Standards for the Federal Government." | Update |
| Multiple | Added hyperlinks | Add |

## Table of Contents

# CHAPTER 19

## MANAGERIAL COST ACCOUNTING

### 1901 GENERAL

*190101. Scope and Purpose

A. The ***Federal Accounting Standards Advisory Board (FASAB)*** Statement of Federal Financial Accounting Standard (SFFAS) No. 4 – Managerial Cost Accounting Concepts and Standards for the Federal Government – (SFFAS 4) provides cost management guidance and direction to all Federal Government organizational entities. SFFAS 4 was released in July 1995 and mandated implementation for all Federal Agencies by 1998. The principles on cost information collection and related performance measurement depicted in this document will be used first, to support management decision-making across the Department of Defense enterprise and second, to provide accurate, timely cost and performance information for external reporting. The principles herein are applicable to Department of Defense (DoD) organizations that support their mission using appropriated funds, stock funds, and /or working capital funds.

B. Chapter 19 summarizes the basis for DoD cost management. It is the first of four chapters describing how cost management will be executed by organizations within the DoD. Chapters 20 and 21 address concepts and standards for cost accounting in an integrated or interfaced financial management system. Chapter 22 addresses manual cost collection.

C. Cost information is an essential component of any well-managed, cost effective organization. Managerial cost accounting can assist both the Military Services and Defense Agencies as they strive to achieve cost effective mission performance. An operational manager's success depends on a thorough understanding of the organization's mission and the steps needed to accomplish it. This includes knowledge of alternate methods of performing the mission and the costs and impact on output associated with those alternatives. Further, cost information is essential to the Department's compliance with the Government Performance and Results Act (GPRA) of 1993 as cost accounting information coupled with performance measures are essential in evaluating and reporting on efficiency and effectiveness of DoD missions and functions.

D. The objective of managerial cost accounting is to accumulate and record all the elements of cost incurred to accomplish a cost object; i.e., to carry out an activity or operation, or to complete a unit of work with a specific output. The cost object, defined in SFFAS 4 as "an activity or item whose cost is to be measured", must be discrete enough and described in writing to such a level of detail to form a basis to establish cost centers and define output quality requirements. Establishing cost objects is a management decision; however, operations, activities and functions significant to enterprise performance should be included to support organization management and reporting. To assure cost information collection efficiency, managers may aggregate multiple similar outputs for which costs are collected. To support internal management, there may be a series of intermediate cost objects which, when combined, equal the final cost object. For example, a final cost object may be the cost to overhaul a piece of military equipment – a tank, aircraft or ship – while an intermediate cost object might be the cost of the engine overhaul, weapons system upgrade, and so forth. Certain costs are assigned as direct costs – costs directly related to accomplishing the cost object - while others are grouped as indirect costs and then allocated to various benefiting cost objects. Cost objects may vary from large programs or activities to smaller specific cost objects, such as work orders, manufactured products, or parts of a construction project. The ***Standard Financial Information Structure (SFIS)*** provides examples of cost oriented data elements types for the DoD.

E. Essential to any discussion regarding cost information collection is understanding the difference between budgetary accounting and cost accounting. In any given year, the obligations and outlays incurred may be less than, equal to, or greater than the costs recognized for that period. Costs represent resources used or consumed to accomplish a given cost object. The types of resources consumed may include period outlays for labor and material, while costs may be recognized for the facility at which the work is performed. For example, depreciation costs related to the facility represent a cost to the accounting period and should be allocated to appropriate products/services even though depreciation costs have no impact to the budgetary accounts. Costing is not concerned with the funds used to execute an action, but with the resources (people, supplies, equipment, and so forth) used to complete the action. In budgetary accounting, organizations use allocated funds to acquire inventory and fund employee salaries plus benefits as well as record budgetary obligations to account for the use of the appropriated and allocated funding. In many cases, the unit of issue used for acquiring material is different from the unit of issue for cost consumption. For example, when acquiring inventory, petroleum, oil and lubricants (POL) is purchased by the unit of issue “drum.” This budgetary obligation results in an eventual expenditure in the budgetary accounts and an asset in the proprietary accounts. As the POL is consumed, it is issued by the gallon and the corresponding costs are traced to consuming cost objects. The difference in concept lies in the distribution of these different measures (costs and obligations) over a period of time. Table 19-1 uses the purchase of inventory materials as an example to illustrate these timing differences.

F. The cost of a product, service, or other cost object may be recorded either with an integrated or interfaced cost accounting system or with cost finding techniques. Formal cost accounting should be established when management decides that such information must be continuously accumulated, recorded, and controlled. Cost finding techniques should be designed to produce a result that would approximate the result that would have been obtained if a formal cost accounting system was in place. The difference between the two – structured cost accounting and cost finding – provides the capability for organizations to manage the cost of cost information collection.

*190102. Overview

A. Purpose of Cost Accumulation. A critical step in the cost identification process is establishment of the purpose for the cost accumulation. If the purpose is to support billing a customer, then reference should be made to Volume 11 (Reimbursable Operations) for guidance on the cost elements that are reimbursable. If the purpose is to accumulate the full cost of performing an operation for the purpose of cost comparisons with industry, then all cost elements, including unfunded costs and costs incurred by other entities, should be accumulated. When the full cost to the Federal Government is needed, it may be necessary to include costing rates prescribed by higher authority. For example, OMB uses an unfunded retirement rate for cost comparison purposes in ***OMB Circular No. A-76***. If the purpose is to collect costs required by an organization to support management decision making and internal reporting, then "relevant costs" might be the more appropriate cost information required. Relevant costs are discussed in paragraph 1902. Effective use of cost information comes from understanding the interrelationship of cost information and related value information to management decision making.

B. Program Costs and Costs not Assigned to Programs. Two principal components of cost are Program Costs and Costs not Assigned to Programs. In this context "program" is a broad term that includes product and service outputs for which cost information will be collected. Program costs include direct costs, indirect costs, and non-production costs associated with programs. Program costs include the full cost of the program outputs, which consist of the direct costs and indirect costs. As outlined in paragraph 190405, the cost assignments should be performed by the following methods listed in the order of preference: (a) directly tracing costs whenever feasible and economically practicable, (b) assigning costs on a cause-and-effect basis, or (c) allocating costs on a reasonable and consistent basis. The costs of program outputs shall include the cost of services provided by other federal entities whether or not the providing entity is fully reimbursed. Costs not Assigned to Programs consist of costs that are attributable to the reporting entity or responsibility segment but cannot be assigned reasonably to programs through direct tracing, assignment on a cause-and-effect basis, or a reasonable allocation method. Examples of such costs include high-level general management and administrative support costs. These costs appear on the Statement of Net Costs as part of the entity and sub-organization costs and are labeled "costs not assigned to programs."

C. Funded/Unfunded and Reimbursed/Non-reimbursed Costs. Funded and/or Reimbursed Costs include amounts that were either financed by funds allocated to the entity or that were paid to another entity for goods and services provided by that entity. Unfunded Costs represent amounts for which no entity has paid. An example of an unfunded cost is accrued annual leave. Non-reimbursed, or "imputed" costs represent amounts that were paid by an entity other than the entity receiving the benefit. An example of a non-reimbursed cost is the retirement costs paid by the Office of Personnel Management for federal retirees. If goods and services are received from another federal entity with no or partial reimbursement, the receiving entity may need to record non-reimbursed costs in addition to the reimbursed costs in order to determine the full cost to the government of goods and services received and of outputs ultimately produced by the receiving entity. Recognition of these inter-entity costs that are not fully reimbursed is limited to items that (1) are significant to the receiving entity (the cost of the good or service is large enough that management should be aware of the cost when making decisions), (2) have a direct relationship to the entity's operations (the good or service is an integral part of and necessary to the output produced by the entity), 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. See Volume 4, Chapter 16 for a discussion of imputed costs.

D. Direct Costs. Direct costs are costs that can be specifically identified with a single cost object. Direct costs are assigned to cost objects by direct tracing of units of resources consumed by individual activities that lead to the production of an output. Examples of resources consumed would include materials used in the production of the output, labor hours directly worked on the output, facilities and equipment used exclusively in the production of the output, and goods or services received from other entities that are directly used in the production of the output. Although direct cost tracing increases accuracy in cost assignments, it can be expensive. Management must use judgment to determine whether the information and accuracy obtained by direct tracing to identify direct costs is worth the effort and expense of doing so. Many direct costs are incurred internally by the program, responsibility segment, reporting entity, or other cost object, depending on the level of reporting needed. The full cost of these items is to be included in the cost of the output whether or not it is funded in the budget covering the program.

E. Indirect Costs. Indirect costs are costs of resources jointly or commonly used to produce two or more types of outputs but not specifically identifiable with any one of the outputs. Typical examples of indirect costs include costs of general administrative services, general research and technical support, security, rent, employee health and recreation facilities, and operational and maintenance cost for buildings, equipment, and utilities. As with direct costs, indirect costs can be incurred internally or for goods and services received from other federal entities and may or may not be funded in the budget covering the program.

## 1902 FASAB SFFAS NO. 4 - MANAGERIAL COST ACCOUNTING CONCEPTS AND STANDARDS FOR THE FEDERAL GOVERNMENT

***** SFFAS 4 states: "Managerial cost accounting should be a fundamental part of the financial management system and, to the extent practicable, should be integrated with other parts of the system. Managerial costing should use as a basis of accounting, recognition, and measurement appropriate for the intended purpose. Cost information developed for different purposes should be drawn from a common data source, and output reports should be reconcilable to each other." The common data source (paragraph 190302) is an aggregation of related cost and performance information where the cost information is drawn from the financial management system.

*****190201. Full Cost and Relevant Cost

While emphasizing the need to provide reliable and timely information on the full cost of federal programs, SFFAS 4 recognizes various uses of cost information. "Full Cost" is defined in SFFAS 4 as the sum of (1) the cost of resources used or consumed by the segment that directly or indirectly contribute to the output, and (2) the costs of identifiable supporting services provided by other responsibility segments within the reporting entity, and by external reporting entities. SFFAS 4 requires "the full cost of outputs to be reported in general purpose financial reports" such as financial statements and performance measurement under the GPRA. SFFAS 4 also discusses the need to provide program managers with relevant and reliable information relating costs to outputs and activities. "Relevant costs" for DoD are those cost elements that are necessary for organization management analyses and/or decision-making purposes when full cost does not add value. Relevant costs are appropriate for decision-making purposes such as internal management decisions and the pricing of government user fees. Within DoD, cost information is essential in the following five areas: (1) cost control and budgeting, (2) performance measurement, (3) determining reimbursements and setting fees and prices, (4) program evaluations, and (5) making economic choice decisions. Each of these uses is discussed below.

*****190202. Cost Control and Budgeting

Information on the costs of program activities can be used as a basis to estimate future costs in preparing and reviewing budgets. Once budgets are approved and executed, cost information serves as a feedback mechanism to guide future budget development and decisions. Using cost information federal managers can control and reduce costs, find and avoid waste, and benefit the warfighter by having the right equipment at the right place and time. For example, with appropriate cost information, federal managers can:

A. Compare costs with known or assumed activity benefits, identify value-added and non-value added activities, and make decisions to reduce resources devoted to activities that do not add value.

B. Compare and determine reasons for variances between actual and budgeted costs of an activity or a product. Standard rates used to estimate future costs could facilitate variance analysis.

C. Compare cost changes over time and identify their causes.

D. Identify and reduce, where appropriate, excess capacity costs.

E. Compare costs of similar activities and find causes for cost differences, if any.

F. Support business process improvement initiatives.

*190203. Performance Measurement

A. Measuring performance provides a means of improving program efficiency, effectiveness, and program results. One of the stated purposes of the GPRA of 1993 is to ". . . improve the confidence of the American people in the capability of the federal government, by systematically holding federal agencies accountable for achieving program results." Measuring costs is an integral part of measuring performance in terms of efficiency and cost-effectiveness. Efficiency is measured by relating outputs to inputs and is often expressed by the cost per unit of output. While effectiveness in itself is measured by the outcome or the degree to which a predetermined objective is met, it is commonly combined with full cost information to show "cost-effectiveness.". The efforts and accomplishments of a government entity can be evaluated with the following measures:

1. Measures of organization efforts; the costs of resources used or consumed.

2. Measures of accomplishments which are outputs (the quantity of services provided) and outcomes (the results of those services).

3. Measures that relate efforts to accomplishments, such as cost per unit of output or cost-effectiveness.

B. Performance measurement requires both financial and non-financial measures. Cost is a necessary element for performance measurement, but is not the only element. SFFAS 4 makes the point in many areas that both cost and value information are critical to internal decision making.

*****190204. Determining Reimbursements and Setting Fees and Prices

Cost information is an important basis in setting fees and reimbursements. Pricing and costing, however, are two different concepts. In the federal government, setting prices is a policy matter, sometimes governed by statutory provisions and regulations, and other times by managerial or public policies. Thus, the price of a good or service does not necessarily equal the cost of the good or the service determined under a particular set of principles.

*****190205. Program Evaluations

Cost of resources consumed by programs coupled with program performance are the primary factors in making policy decisions related to program authorization, modification, and discontinuation. These decisions are usually subject to policy constraints, and often require the consideration of social and economic costs and benefits affecting different sectors of the economy and society.

*****190206. Economic Choice Decisions

Often, agencies and programs face decisions involving choices among alternative actions, such as whether to do a project in-house or contract it out; to accept or reject a proposal; or to continue or discontinue a product or service. Making these decisions requires cost comparisons among available alternatives.

## 1903 SFFAS 4 CONCEPTS

*****SFFAS 4 contains both Concepts and Standards that provide guidance for implementation of managerial cost accounting in the federal government. The concepts are intended to provide general guidance rather than specifically defined solutions. Paragraphs 190301 through 190303 discuss the concepts deemed significant to the DoD.

*190301. Concept 1, The Role of Managerial Cost Accounting (MCA) in Financial Management

From SFFAS 4: "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." MCA serves financial management - budgetary and financial accounting and reporting - and Organization Management because it provides information to support both functions. Responsibility for managerial cost accounting rests equally between functional/operational and financial managers.

*190302. Concept 2, Common Data Source

SFFAS 4 explains, "The common data source may include many different kinds of data. It is far more than the information about financial transactions found in the standard general ledger, although that is a significant part of the data source. Few organizations or entities maintain all these data in any one system or location. Furthermore, the use of the term 'data source' is not meant to imply the use of computerized systems for source information. Instead, the term is used in a broad way to include many sources of information." As noted in the excerpt from SFFAS 4, the common data source contains both performance and cost information to support management and decision-making. Maintaining a balance between cost and value is critical within DoD. In addition, acquisition decisions will consider business and operational risk, value to the defense enterprise and cost. The "Common Data Source" concept is intended to ensure that the information necessary, including cost, is used by DoD and DoD component decision makers. With the use of a common data source, cost information reflecting different accounting bases or different recognition and measurement methods should still be traceable back to the original common data source. To be reconcilable, the amount of the differences in the information reported should be ascertainable and the reasons for the differences should be explainable

*190303. Concept 3, Relationship to Budgetary Accounting

MCA should also provide budgetary accounting with cost information for use in preparing yearly and long-term budgets for required resources needed to produce different levels of outputs. MCA also helps in making many budgetary decisions such as those concerning future capital expenditures and purchase/lease alternatives. Actual costs provided by MCA can be useful to forecast future budgetary requirements. Entities can develop standard rates as a tool to estimate future costs and conduct variance analyses. When MCA supplies information for the preparation and review of budgets, cost data should be consistent with the basis of accounting and recognition/measurement used in financial reporting, but may be adjusted to meet budgetary information needs.

## 1904 SFFAS 4 STANDARDS

*****DoD components and agencies are required to implement the SFFAS 4 standards. The standards provide significant flexibility based on organization size, capabilities and resources. Organizations should take advantage of the flexibility in designing cost accounting capability to meet mission needs.

*190401. Standard 1: Accumulate and Report Costs of Activities on a Regular Basis for Management Information Purposes

A. SFFAS 4 states, “Cost information is essential to effective financial management and should play an important role in federal financial reporting. Managerial Cost Accounting processes are the means of providing cost information in an efficient and reliable manner on a continuing basis….Consistent and regular cost accounting is needed to meet the second objective of federal financial reporting, which states information should be provided to help the user determine the costs of providing specific programs and activities and the composition of, and changes in those costs. That objective also requires the reporting of performance information of federal programs and the changes over time in that performance in relation to the costs….The CFO Act of 1990 states that agency CFOs shall provide for the development and reporting of cost information and the periodic measurement of performance. In addition, the GPRA of 1993 requires each agency, for each program, to establish performance indicators and measure or assess relevant outputs,…Appropriate procedures and practices should also be established to enable the collection, measurement, accumulation, analysis, interpretation, and communication of cost information. Service levels, and outcomes of each program as a basis for comparing actual results with established goals….the methods and procedures followed should be designed to perform at least a certain minimum level of cost accounting and provide a basic amount of cost information necessary to accomplish the many objectives associated with planning, decision making, control, and reporting.”

B. SFFAS 4 also clarifies that, “While each entity's managerial cost accounting should meet the basics discussed above, this standard does not specify the degree of complexity or sophistication of any managerial cost accounting process. Each reporting entity should determine the appropriate detail for its cost accounting processes and procedures based on several factors. These include the:

1. Nature of the entity's operations.

2. Precision desired and needed in cost information.

3. Practicality of data collection and processing.

4. Availability of electronic data handling facilities.

5. Cost of installing, operating, and maintaining the cost accounting processes.

6. Any specific information needs of management.”

C. There are significant differences in size, mission complexity, and resource availability between the military services and agencies that comprise the DoD. DoD entities must balance cost and value in support of the warfighter. Larger DoD organizations should leverage their Enterprise Resource Planning (ERP) systems to support MCA and related cost information collection. Smaller DoD organizations could use cost-finding techniques or perhaps obtain MCA services from outside entities. All DoD organizations shall exercise the SFFAS 4 concepts and standards to support financially informed planning, decision-making, control, and reporting.

*190402. Standard 2: Establishing Responsibility Segments to Match Costs with Outputs

SFFAS 4 describes a responsibility segment as "…a component of an organizational 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 or whose reports are compiled with other lower-level managers and then forwarded to the level one executive;

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

From the DoD perspective, a reporting entity is a DoD component (Military Service or Defense Agency) that produces a Financial Statement, while the term "responsibility segment" refers to an organization within each DoD component whose commander/director reports directly to the DoD Component Lead. The components may define responsibility segments at lower levels. The functions defined for the "responsibility segment" should be assumed by the commander/director of each direct reporting organization responsible for carrying out a mission, conducting a major line of activity, or producing one or a group of related products or services.

190403. Standard 3: Determine Full Costs of Government Goods and Services

A. SFFAS 4 states, "Reporting entities should report the full cost of outputs in general purpose financial reports. The full cost of an output produced by a responsibility segment is the sum of (1) the cost of resources consumed by the segment that directly or indirectly contribute to the output, and (2) the costs of identifiable supporting services provided by other responsibility segments within the reporting entity, and by other reporting entities…."Outputs" means products and services generated from the consumption of resources. The full cost of a responsibility segment's output is the total amount of resources used to produce the output. This includes direct and indirect costs that contribute to the output, regardless of funding sources. It also includes costs of supporting services provided by other responsibility segments."

B. Full Cost information is required for general purpose financial reporting. Relevant Cost, on the other hand, is a subset of full cost that is necessary or 'relevant' to a particular management need. Depending on the need, a component's relevant costs may exclude unfunded future costs including Other Retirement Benefits, Other Post Employment Benefits (OPEB), and future funded portions of retirement benefits. DoD components will collect "relevant" cost information to support management and financially informed decision-making. The DoD Comptroller will coordinate with the owners of funds supporting future costs to develop algorithms to calculate consistent full cost additions to collected relevant cost information.

190404. Standard 4: Recognize the Costs of Goods and Services Provided among Federal Entities

SFFAS 4 directs, "Each entity's full cost should incorporate the full costs of goods and services that it receives from other entities. The entity providing the goods or services has the responsibility to provide the receiving entity with information on the full cost of such goods and services through either 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 generally should not be recognized unless such services form a vital and integral part of the operations or output of the receiving entity." SFFAS 4, when released, contained implementation guidance language requiring transition to procedures discussed above for recognizing costs among Federal Entities. SFFAS 30, "Inter-Entity Cost Implementation Amending SFFAS 4, *Managerial Cost Accounting Standards and Concepts*", rescinds the transition language and requires full implementation of Standard 4 as written.

190405. Standard 5: Use Appropriate Costing Methodologies to Accumulate and Assign Costs to Outputs

Per SFFAS 4, the "Cost of resources consumed by responsibility segments should be accumulated by type of resource. Outputs produced by responsibility segments should be accumulated and, if practicable, measured in units. The full costs of resources that directly or indirectly contribute to the production of outputs should be assigned to outputs through cost methodologies or cost finding techniques that are most appropriate to the segment's operating environment and should be followed consistently. The cost assignments should be performed using 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."

190406. Predominant Costing Methodologies and Techniques

Volume 4, Chapters 20, 21 and 22 discuss the predominant costing methodologies and techniques to be used within DoD. Reporting entities may use other methodologies if they meet the intent of SFFAS 4, are well documented, and provide the required results.

Table 9-1 Transaction Stages

| **TRANSACTION** | **WHEN ORDER IS PLACED**<br><br>**OBLIGATION** | **WHEN MATERIALS ARE RECEIVED**<br><br>**ACCRUED EXPENDITURE** | **WHEN MATERIALS ARE USED**<br><br>**COST OR EXPENSE** | **WHEN INVOICE IS PAID**<br><br>**OUTLAY** |
|---|---|---|---|---|
| Order for materials is placed. | Record the obligation as an undelivered order and decrease uncommitted/ unobligated budgetary resources (see ***DoD FMR Volume 3***). | | | |
| Materials are received or constructively received. | | Record in the proprietary accounts as an account payable and as an increase in the inventory or OM&S accounts. Record in the budgetary accounts a decrease to undelivered orders and an increase to accrued expenditures unpaid. (see ***DoD FMR Volume 3***) | | |
| Materials are used or consumed. | | | Record cost (resources consumed) in the proprietary accounts as a decrease in inventory and a charge to the applicable expense account or work in process account. (see ***Chapters 4 and 18*** of this Volume). | |
| Payment is made for the materials. | | | | Record an outlay in the proprietary accounts as a reduction of accounts payable and a reduction to cash.<br>Record in the budgetary accounts as a decrease to accrued expenditures unpaid and an increase to accrued expenditures paid. (see ***DoD FMR Volume 3*** and ***Chapter 2*** of this Volume). |