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ACO PERCEPTIONS REGARDING THE UNIFORMITY AND CONSISTENCY IN DEFENSE CONTRACTOR COST ACCOUNTING PRACTICES ACHIEVED BY COST ACCOUNTING STANDARDS 401 - 408

THESIS

AFIT/GSM/SM/77D-16 Joe M. Banks Capt USAF



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ACO PERCEPTIONS REGARDING THE UNIFORMITY AND CONSISTENCY IN DEFENSE CONTRACTOR COST ACCOUNTING PRACTICES ACHIEVED BY COST ACCOUNTING STANDARDS 401 - 408

#### THESIS

Presented to the Faculty of the School of Engineering of the Air Force Institute of Technology Air University in Partial Fulfillment of the Requirements for the Degree of

Master of Science

by Joe M. Banks, B.S. Captain USAF

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#### Preface

This research was performed for two reasons. First, it was accomplished in partial fulfillment of the requirements for a Master of Science degree in Systems Management from the Air Force Institute of Technology (AFIT). Secondly, it was done to satisfy an interest on the part of myself and my advisor concerning the effectiveness of cost accounting standards.

This research could not have been performed without the assistance of many individuals. First, I wish to thank all those individual supervisors in the Defense Contract Administration Services Agency and the Plant Cognizance Program for their assistance in surveying all Department of Defense Administrative Contracting Officers (ACOs). Next, I express my appreciation to all the ACOs and other contract administration personnel for their overwhelming cooperation in completing the thesis questionnaire.

I wish to express special thanks to Dr. Charles McNichols, who served as the reader for this effort, for his assistance with the computer analysis.

Next, I wish to express deep appreciation to Dr. Adrian M. Harrell, my advisor, for the assistance, encouragement, and advice he unselfishly provided throughout this research effort and my entire AFIT experience.

Finally, and most importantly, I wish to dedicate this

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thesis to my wife, Barbara, and my daughter, Jackie. I would have never finished this program without their love and understanding.

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## Abstract

W The primary purpose of this thesis was to determine if the first eight cost accounting standards have achieved the two primary goals of increasing uniformity and consistency of defense contractor cost accounting practices. These two objectives (increased uniformity and consistency) are the primary goals of cost accounting standards according to the Cost Accounting Standards Board.

In order to make this determination, a mailed questionnaire was distributed to all Department of Defense Administrative Contracting Officers (ACOs). ACOs are the contracting officers who administer and enforce the rules, regulations, and standards of the Board. As such, ACOs are the focal point for cost accounting standards in defense contract administration.

The analysis of the survey data shows conclusively that ACOs perceive that each of the first eight cost accounting standards has significantly increased both uniformity and consistency in the cost accounting practices used by defense contractors. In the opinion of ACOs these standards have achieved the stated objectives of the Cost Accounting Standards Board.

An interesting finding of the research was that sizeable percentages of ACOs perceived that certain standards have not changed the uniformity or consistency of cost accounting

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practices. Analysis of the data indicates they responded this way because they felt the standards were unnecessary to begin with rather than that the standards had failed.

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ACO PERCEPTIONS REGARDING THE UNIFORMITY AND CONSISTENCY IN DEFENSE CONTRACTOR COST ACCOUNTING FRACTICES ACHIEVED BY COST ACCOUNTING STANDARDS 401 - 408

## I. Introduction

## Background

On August 15, 1970, Fresident Richard M. Nixon signed into law an amendment to the Defense Production Act of 1950 (Public Law 91-379) which created a new federal agency, the Cost Accounting Standards Board. This law empowered the Board to develop and promulgate cost accounting standards designed to achieve greater uniformity and consistency in the cost accounting practices followed by defense contractors and subcontractors on federal contracts (Public Law 91-379, 1970).

Public Law 91-379 and the establishment of the Cost Accounting Standards Board were the culmination of several years of Congressional hearings, debate, and, most importantly, a General Accounting Office report to the Congress that cost accounting standards were both feasible and desirable. The need for uniform cost accounting standards for defense contractors was first identified by Admiral Hymen G. Rickover, then Director of the Naval Propulsion and Reactor Programs for the Navy and the Atomic Energy Commission. He had recommended some form of government-imposed accounting standards

in 1963, and then annually thereafter, before various committees and subcommittees of the House of Representatives. His testimony in each case referred to the lack of accounting standards and the resulting problems concerning lack of comparability of costs and excessive profits charged by defense contractors (Bulmash, 1974:91-95). These appearances evoked little response until April 1968 when the Committee on Banking and Currency of the House of Representatives was conducting hearings concerning the biennial extension of the Defense Production Act of 1950. The Defense Production Act contained several procurement objectives including one which disallowed cost discrimination toward government contracts (Public Law 81-774, 1950).

Admiral Rickover was a witness at one of these hearings. The essence of his testimony was that the provision in the Production Act prohibiting price discrimination against government contracts was unenforceable. Admiral Rickover claimed that without uniform accounting standards the government could not determine what the actual costs of a contract were or if the contractor was charging prices which were too high (House Comm., 1968). Impressed by this testimony the Committee added an amendment to the Production Act calling for establishing accounting standards. Debate on this amendment eventually resulted in legislation requiring a study to determine the feasibility of applying accounting standards in defense contracting (Congressional Record, 1968:1583-15892, 18847-18852).

The study was undertaken by the General Accounting Office under the direction of the Comptroller General of the United

States in 1969. The major conclusion of this study was that cost accounting standards were feasible and should be pursued (Comptroller General, 1970:20-23). Opponents of cost accounting standards were unable to refute the findings of the study, and a bill authorizing the establishment of the Cost Accounting Standards Board to promulgate cost accounting standards was passed by both houses of Congress (Congressional Record, 1970:23457-23493, 26798-26843, 28491-28800). President Nixon signed the bill in August 1970, making it Public Law 91-379.

Since the Cost Accounting Standards Board was established, it has promulgated certain rules, regulations, and 14 cost accounting standards. The names of these regulations and standards and their effective dates are presented in Appendix A (CASB, 1976). Responsibility for enforcing compliance with these regulations and standards is the duty of the Administrative Contracting Officer (ACO). The ACO is the contracting officer charged with the overall administration of a government contract (ASPR 1-406(c), 1976). In reference to promulgations by the Cost Accounting Standards Board, the ACO is responsible for determining the adequacy of contractor disclosure statements, contractor compliance with cost accounting standards, and making price adjustments pursuant to the Cost Accounting Standards (CAS) Clause (DSA, 1973). A disclosure statement is a detailed report by a contractor describing the cost accounting practices he intends to use on a government contract. The CAS Clause requires the contractor to abide by the provisions of the Cost Accounting Standards Board and must be written into all negotiated defense contracts

in excess of \$500,000 (CASB 331.30, 1976(a)). The decision of the ACO in these matters is final for the government unless appealed by the contractor through the court system (ASPR 1976).

Public Law 91-379 directs that the standards issued by the Cost Accounting Standards Board should achieve uniformity and consistency in the accounting principles followed by defense contractors. In its May 1977 <u>Restatement of Objectives</u>, <u>Policies</u>, and Concepts, the Board further states that:

The primary objective of the Cost Accounting Standards Board is to implement P.L. 91-379 by issuing clearly stated Cost Accounting Standards to achieve (1) an increased degree of uniformity in cost accounting practices among Government contractors in like circumstances, and (2) consistency in cost accounting practices in like circumstances by individual Government contractors over periods of time (CASB, 1977:1).

The issue to be explored in this research effort is: have the cost accounting standards issued by the Board achieved the desired objectives of increased uniformity and consistency in cost accounting practices used by government contractors?

## The Research Question

The objectives of uniformity and consistency in a particular area of cost accounting cannot, of course, be achieved instantaneously just by the issuance of a standard. First, the promulgations of the Board affect only those defense contractors who fall within the limitations of the CAS Clause and, second, even then a certain period of time must pass

before the results of a particular standard can be evaluated. Consequently, this study will focus on those standards which have been in effect for at least two years and have had an impact on defense contractors. Although the first nine standards have been in effect for over two years, standard 409 (CAS 409) will not affect the majority of defense contractors until 1978, and, therefore, will not be considered in this study (CASB, 1976(a); Staats, 1975). This research effort, then, will concentrate on the first eight cost accounting standards (CAS 401-CAS 408) issued by the Cost Accounting Standards Board.

The perceptions of Administrative Contracting Officers (ACOs) will be used to make the determination of whether or not these first eight standards have achieved the desired objectives. As stated earlier, the ACOs are the decision makers for the federal government who are charged with the responsibility of enforcing cost accounting standards on all contracts covered by the CAS Clause. The ACOs were asked their perceptions of defense contractor cost accounting practices before and after the issuance of each of the first eight standards via a mailed questionnaire. A copy of this questionnaire is in Appendix B. Specifically then, the research question is: what effect do Administrative Contracting Officers perceive that each of the first eight cost accounting standards has had on the uniformity and consistency of cost accounting practices employed by defense contractors on federal contracts?

# Assumptions and Limitations

In order to answer this question certain assumptions are necessary. First, this effort is based on the assumption that an adequate amount of time has passed since the effective dates of these first eight standards to permit evaluation of their effectiveness. Second, this effort assumes that, as a group, Administrative Contracting Officers are capable of evaluating these standards. Third, it is assumed that each respondent completed the questionnaire honestly and exhibited his true perception of how effective these standards have been. Fourth, it is assumed that the reader has some knowledge and understanding of government procurement and, thus, those sections of this report which address the federal procurement process are only discussed in sufficient detail to clarify the role of the Administrative Contracting Officer and various contract specialists. Finally, time limitations on the data gathering phase of the research effort and the large number of ACO locations (over 140) throughout the United States precluded the use of any type of information gathering method other than a mailed questionnaire.

#### II. Literature Survey

#### Introduction

The main thrust of this research is to determine what effect Administrative Contracting Officers perceive the first eight cost accounting standards have had on the cost accounting practices utilized by defense contractors. Have these cost accounting standards achieved an increased degree of uniformity and consistency in the accounting practices used by defense contractors? To explore this question a certain amount of background information is necessary. Following a list of definitions this chapter will begin by describing the Cost Accounting Standards Board in terms of its legislative history, its objectives and policies, and the first eight cost accounting standards it has promulgated. The second half of the chapter will be devoted to describing the portions of the federal procurement process which are involved with administering cost accounting standards.

<u>Definitions</u>. Several procurement terms used throughout this study are defined in this section. The terms are underlined and the definitions are either quoted directly or closely paraphrased from the indicated sources.

The following terms are used very frequently throughout this study.

A <u>cost accounting standard</u> is a statement formally issued by the Cost Accounting Standards Board that (1) enunciates a principle or principles to be followed, (2) establishes practices to be applied, or (3) specifies criteria to be employed in selecting from alternative principles and practices in estimating, accumulating, and reporting costs of contracts subject to the rules of the Board (CASB, 1977:1).

<u>Uniformity</u> relates to comparison of two or more accounting entities and the Board's objective in this respect is to achieve comparability of results of entities operating under like circumstances (CASB, 1977:1). Uniformity is achieved when different defense contractors employ the same cost accounting practices under the same circumstances.

<u>Consistency</u> pertains to the use by one accounting entity of compatible cost accounting practices which permit comparability of contract results under similar circumstances over periods of time. Essentially, consistency relates to the allocation of costs, both direct and indirect, and to the treatment of cost with respect to individual cost objectives as well as among cost objectives in like circumstances (CASB, 1977:2). Consistency is achieved when an individual defense contractor employs the same cost accounting practices over time.

<u>Noncompliance</u> refers to a contractor's (1) failure to comply with an applicable cost accounting standard, or (2) failure to follow any disclosed practice. The contractor must agree to a contract price adjustment if the noncompliance results in any increased costs paid by the United States (Lamm, 1976:107-108; CASB, 1976(b):23).

A <u>defense contractor</u> is any contractor entering into a contract with the United States for the production of material or the performance of services for the national defense (CASB, 1976(b):20).

A <u>defense</u> <u>subcontractor</u> is any person other than the United States who contracts, at any tier, to perform any part of a defense contractor's contract (CASB, 1976(b):20).

A <u>disclosure statement</u> is a comprehensive checklist by which a contractor describes how he determines and distinguishes between indirect and direct costs, and how he allocates these costs within his accounting concept. It is the detailed explanation of the cost accounting practices to be used on a government contract by a defense contractor (Truger, 1971:689).

The following accounting terms are used primarily in the section of this chapter which summarizes the first eight cost accounting standards. All of the definitions were taken from the 1976 <u>Standards</u>, <u>Rules and Regulations</u> of the Cost Accounting Standards Board.

Accumulating costs. The collecting of cost data in an organized manner, such as through a system of accounts.

<u>Actual cost</u>. An amount determined on the basis of cost incurred as distinguished from forecasted cost.

<u>Allocate</u>. To assign an item of cost, or a group of items of cost, to one or more cost objectives. This term includes both direct assignment of cost and the reassignment of a share from an indirect cost pool.

<u>Business</u> <u>Unit</u>. Any segment of an organization, or an entire business organization which is not divided into segments.

<u>Compensated personal absence</u>. Any absence from work for reasons such as illness, vacation, holidays, jury duty or military training, or personal activities for which an employer pays compensation directly to an employee in accordance with a plan or custom of the employer.

<u>Cost objective</u>. A function, organizational subdivision, contract or other work unit for which cost data are desired and for which provision is made to accumulate and measure the cost of processes, products, jobs, capitalized projects, etc.

<u>Direct cost</u>. Any cost which is identified specifically with a particular final cost objective. Direct costs are not limited to items which are incorporated in the end product as material or labor. Costs identified specifically with other final cost objectives of the contractor are direct costs of those cost objectives.

Estimating costs. The process of forecasting a future result in terms of cost, based upon information available at the time.

<u>Final cost objective</u>. A cost objective which has allocated to it both direct and indirect costs, and, in the contractor's accumulation system, is one of the final accumulation points.

<u>Fiscal year</u>. The accounting period for which annual financial statements are regularly prepared, generally a period of 12 months, 52 weeks, or 53 weeks.

<u>General and administrative</u> (<u>G&A</u>) <u>expense</u>. Any management, financial, and other expense which is incurred by or allocated to a business unit and which is for the general management and administration of the business unit as a whole. G&A expense does not include those management expenses whose beneficial or causal relationship to cost objectives can be more directly measured by a base other than a cost input base representing the total activity of a business unit during a cost accounting period.

<u>Home office</u>. An office responsible for directing or managing two or more, but not necessarily all, segments of an organization. It typically establishes policy for, and provides guidance to the segments in their operations. It usually performs management, supervisory, or administrative functions, and may also perform service functions in support of the operations of the various segments. An organization which has intermediate levels, such as groups, may have several home offices which report to a common home office. An intermediate organization may be both a segment and a home office.

<u>Indirect cost</u>. Any cost not directly identified with a single final cost objective, but identified with two or more final cost objectives or with at least one intermediate cost objective.

<u>Indirect cost pool</u>. A grouping of incurred costs identified with two or more objectives but not identified specifically with any final cost objective.

<u>Pricing</u>. The process of establishing the amount or amounts to be paid in return for goods or services.

<u>Proposal</u>. Any offer or other submission used as a basis for pricing a contract, contract modification or termination settlement or for securing payments thereunder.

<u>Reporting costs</u>. Provision of cost information to others. The reporting of costs involves selecting relevant cost data and presenting it in an intelligible manner for use by the recipient.

<u>Segment</u>. One of two or more divisions, product departments, plants, or other subdivisions of an organization reporting directly to a home office, usually identified with responsibility for profit and/or producing a product or service. The term includes Government-owned contractor-operated (GOCO) facilities, and joint ventures and subsidiaries (domestic and foreign) in which the organization has a majority ownership. The term also includes those joint ventures and subsidiaries (domestic and foreign) in which the organization has less than a majority of ownership, but over which it exercises control. <u>Service life</u>. The period of usefulness of a tangible capital asset (or group of assets) to its current owner. The period may be expressed in units of time or output. The estimated service life of a tangible capital asset (or group of assets) is a current forecast of its service life and is the period over which depreciation cost is to be assigned.

<u>Standard cost</u>. Any cost computed with the use of preestablished measures.

<u>Tangible capital asset</u>. An asset that has physical substance, more than minimal value, and is expected to be held by an enterprise for continued use or possession beyond the current accounting period for the services it yields.

<u>Unallowable cost</u>. Any cost which, under the provisions of any pertinent law, regulation, or contract, cannot be included in prices, cost reimbursements, or settlements under a Government contract to which it is allocable.

Variance. The difference between a pre-established measure and an actual measure.

The following terms and job descriptions are used primarily in the discussion of the federal procurement process in the latter part of this chapter.

<u>Contract administration</u>. The management of all facets of assigned contracts to ensure that the contractor's total performance is in accordance with his contractual commitments and that the obligations of the Government are fulfilled. This management is conducted within the framework of delegated responsibility and authority and includes support of buying organizations (Lamm, 1972:9).

The Armed Services Procurement Regulations (ASPR). Implementation of the basic principles and procedures regarding contracts awarded by the Department of Defense is accomplished by the Armed Services Procurement Regulations. These regulations establish uniform procedures and policies for the procurement of supplies and services under the authority of Title 10, Chapter 137, United States Code and the Armed Services Procurement Act of 1947 (Lamm, 1972:13).

<u>Contracting officers</u>. Contracting officers, or their authorized representatives acting within the scope of

their authority are the exclusive agents of their respective Departments to enter into and administer contracts on behalf of the Government in accordance with ASPR and Departmental procedures. Each contracting officer is responsible for performing or having performed all administrative actions necessary for effective contracting... the contracting officer is (1) the procuring contracting officer (PCO) or (2) the administrative contracting officer (ACO) when authorized to perform the duties of the procuring contracting officer (ASPR, 1976: 3-801.2(a)).

<u>Procuring Contracting Officer (PCO)</u>. The PCO is the contracting officer who is ultimately responsible for a government contract from inception to termination (USAF, 1976:9).

<u>Administrative Contracting Officer (ACO)</u>. The ACO is responsible for the contractual duties assigned him by the PCO. These usually are the 69 functions listed in ASPR 1-406(c) (USAF, 1976:9).

<u>Contract Auditor</u>. The contract auditor is responsible for providing accounting and financial advisory service to the PCO or ACO in connection with the negotiation, administration, and settlement of contracts and subcontracts (Lamm, 1976:37).

<u>Price Analyst</u>. The price analyst is yet another member of the field contract pricing team who functions in an advisory position to the contracting officer. If the ACO has been assigned the responsibility for negotiating cost and price with the contractor, the price analyst usually develops the ACO's pricing objective by coordinating the review and evaluation of the contractor's proposal. It is the price analyst's job to collect, consolidate and evaluate audit and technical input concerning the contractor's proposal and to compile a comprehensive pricing report for the ACO (Lamm, 1976:38).

<u>Cost Accounting Standards Monitor</u>. The cost accounting standards monitor acts as the focal point for cost accounting standards (CAS) matters in a contract administration component. He interfaces with the contract auditor and the ACO on all CAS promulgations that impact on the cost accounting practices of the contractor. He participates in the review of reports required of the contractor under CAS to determine their adequacy and compliance with CAS promulgations (AFR 40-5, 1974:3-13).

<u>Corporate Administrative Contracting Officer (CACO)</u>. In addition to the ACO, one other contracting officer, the CACO, has been established to discharge specific responsibilities. The duties of the CACO require that he be responsible for visibility and determinations concerning administration items of a corporate wide nature where the Department of Defense has major contracts with two or more major operating units or divisions of the same company. The CACO is usually positioned at a major operating unit of the corporation (ASPR, 1976:20-900; Lamm, 1976:60).

#### Cost Accounting Standards Board

Cost accounting standards and the Cost Accounting Standards Board (CASB) were given life on August 15, 1970, when President Nixon signed into law Public Law 91-379. This was the culmination of several years of Congressional work involving hearings and a study to determine if uniform accounting standards could be applied to defense contracts.

This portion of Chapter II will briefly describe the events leading up to the establishment of the Cost Accounting Standards Board, how cost accounting standards are developed, and the content of the first eight standards.

Legislative Background. Admiral Hymen G. Rickover can certainly be credited for first advocating the use of uniform cost accounting standards in defense procurement. Beginning in 1963, Admiral Rickover, then Director of the Naval Propulsion and Reactor Programs for the Navy and the Atomic Energy Commission, decried the inability of the government to properly identify contractor costs to specific government negotiated contracts. The Admiral stated repeatedly before several Congressional committees that some form of governmentimposed accounting standards were necessary to halt excessive contractor profits. Most of his testimony was given annually from 1963 to 1967 before a subcommittee of the Committee on

Appropriations of the House of Representatives (Bulmash, 1974: 91-94).

The persistence of Admiral Rickover received little attention until April 1968, when the issue of uniform cost accounting standards was addressed before the Committee on Banking and Currency of the House of Representatives. This committee was conducting hearings concerning the biennial extension of the Defense Production Act of 1950, also known as Public Law 81-774. A portion of Title VII, Section 707 of this Act became very pertinent to the discussion of accounting standards and reads as follows:

No person shall discriminate against orders or contracts to which priority is assigned or for which materials or facilities are allocated under title I of this Act, or under any rule, regulation, or order issued thereunder, by charging higher prices or by imposing different terms and conditions for such orders or contracts than for other generally comparable orders or contracts, or in any other manner (Public Law 81-774, 1950:798).

Admiral Rickover was a witness at these hearings and testified that the provision in the Act which prohibited anyone from discriminating against government contracts by charging higher prices was unenforceable. He testified that without standard accounting practices it was impossible for the government to learn what it costs to make an article and what contractor profit really was. Citing past experiences in Naval procurement, the Admiral said that industry did not favor uniform accounting standards because without them (standards) the contractors could use generally accepted accounting principles to their advantage and get greater profits from government contracts. He further stated that:

In my opinion, the lack of uniform accounting standards is the most serious deficiency in Government procurement today ... Industry will not establish such standards because it is not to their advantage to do so. The accounting profession has had ample time and opportunity to establish effective standards; it is clear that they pay only lip service to the concept. The executive branch cannot even get its own agencies to adopt accounting systems to meet minimum standards established by the General Accounting Office. The Bureau of the Budget has not been able to get Government agencies to adopt consistent standards for cost-reimbursement type contracts... Thus, if uniform accounting practices are ever to be established the initiative will have to come from Congress... I recommend that your committee require, by law, the establishment and use of such standards. Without uniform standards of accounting for defense contracts, neither Congress, the executive agencies, program managers, nor the taxpayer will ever know what complex military equipment costs and what profit the Government is actually paying (House Comm., April 11, 1968:80-81).

Based primarily on the testimony of Admiral Rickover the Committee voted to amend the Production Act of 1950 by requiring the Comptroller General to develop and recommend within one year uniform standards of accounting which would provide production costs to the government from all negotiated contracts of more than \$100,000 (Congressional Record, 1968:15883). The extension of the Production Act as amended passed in the House of Representatives and was sent to the Senate Committee on Banking and Currency for consideration (Congressional Record, 1968:15892). At this hearing eleven witnesses from government, industry, and the accounting profession testified, and several written statements concerning the standards were The overwhelming majority of both written and verbal read. statements opposed uniform accounting standards for such reasons as impracticality, difficulty of enforcement, and existing

financial controls such as the Armed Services Procurement Regulations (ASPR) and Defense Contract Audit Agency audits. As a result of these arguments all references to cost accounting standards were deleted from the bill to renew the Production Act (Senate Comm., 1968).

At this point uniform cost accounting standards appeared to be dead for another year, but when the extension bill was presented to the Senate for a floor vote on June 26, 1968, Senator William Proxmire of Wisconsin proposed the following amendment:

The Comptroller General, in cooperation with the Secretary of Defense and the Director of the Bureau of the Budget, shall undertake a study to determine the feasibility of applying uniform cost accounting standards to be used in all negotiated prime contract and subcontract defense procurements of \$100,000 or In carrying out such study the Comptroller Genmore. eral shall consult with representatives of the accounting profession and with representatives of that segment of American industry which is actively engaged in defense contracting. The results of such study shall be reported to the Committees on Banking and Currency and the Committees on Armed Services of the Senate and House of Representatives at the earliest practicable date, but in no event later than eighteen months after the date of enactment of this section (Congressional Record, 1968:18847).

Although there was opposition to this amendment, the idea of a feasibility study as opposed to the actual establishment of standards placated enough senators so that the bill as amended passed. The House passed the Senate version of the bill, and President Johnson signed it into law on July 1, 1968, as Fublic Law 90-370 (Congressional Record, 1968:18852; Public Law 90-370, 1968). The Comptroller General

is the head of the General Accounting Office (GAO), and, hence, that agency conducted the feasibility study. The results of this study will be described in the next portion of this chapter.

General Accounting Office Feasibility Study and Resulting Legislation. As directed by Public Law 90-370, the General Accounting Office under the direction of Comptroller General Elmer B. Staats conducted an extensive study to determine the feasibility of applying uniform cost accounting standards to defense procurement. The study involved participation by government, industry, the accounting profession, and academia. The feasibility study involved four steps. First, research was conducted into the nature of accounting standards and their relationship to generally accepted accounting principles by representatives of the accounting profession and consultants in academia. Second, industry opinions about cost accounting standards were sought. Third, information on various cost accounting practices were solicited from both government and non-government industries via a questionnaire. Fourth, Section XV of the Armed Services Procurement Regulations (ASPR) was evaluated as a starting point for the possible development of standards (Staats, 1969).

The resulting report identified several potential benefits to be gained from adopting a system of uniform cost accounting standards. These can be summarized as follows:

1. By providing a common framework for the buildup of the prospective and actual cost of a product or service, cost accounting standards could supply the

information required for better understood cost estimates and actual cost reports.

- 2. Standards could facilitate the preparation, reporting, and evaluation of cost information.
- 3. Standards could help insure that costs proposed and costs reported are consistent.
- 4. Standards could require that the basis of contractor forecasts be disclosed and that final costs be supported by the accounting records of the contractor.
- 5. Standards could improve communication between the government, Congress, industry, and the public.
- 6. Standards could identify the authoritative support necessary to justify costs incurred by the contractor.
- 7. Standards could establish criteria for when to use certain accounting methods or narrow the choice of alternatives.
- 8. Standards could promote common understanding of methods of cost determination and minimize controversy in the administration and settlement of contracts.
- 9. Standards could largely eliminate differences within the government as to interpretations of acceptable cost accounting practices used in industry (U.S. Comptroller General, 1970:12-13).

The report also identified certain limitations to using cost accounting standards. These limitations were as follows:

- 1. Standards alone could not ensure that contracts would be negotiated, administered, and terminated effectively or that defense contractors would gather their costs in accordance with such standards.
- 2. Standards could not and should not eliminate diversity in contractor business practices or require that all contractors maintain uniform accounts.
- 3. Standards cannot be stated precisely enough so as to cover every contingency and therefore must be broadly stated (Comptroller General, 1970:13-14).

As a result of the entire research effort, Comptroller General Staats reached the following conclusions and presented them to the House Committee on Banking and Currency in January 1970:

- 1. It is feasible to establish and apply cost accounting standards to provide a greater degree of uniformity and consistency in cost accounting as a basis for negotiating and administering procurement contracts.
- 2. Cost accounting standards should not be limited to Defense cost-type contracts. They should apply to negotiated procurement contracts and subcontracts, both cost type and fixed price. They should be made applicable Government-wide.
- 3. Cumulative benefits from the establishment of cost accounting standards should outweigh the cost of implementation.
- 4. New machinery should be established for the development of cost accounting standards. The objective should be to adopt at an early date the standards of disclosure and consistency and to strive for the elimination of unnecessary alternative cost accounting practices--alternatives not required for equitable recognition of differing circumstances.
- 5. Contractors should be required to maintain records of contract performance costs in conformity with cost accounting standards and any approved practices set forth in a disclosure agreement or be required to maintain the data from which such information could be readily provided (U.S. Comptroller General, 1970:20-21).

Following submission of the study results, both the House and Senate held hearings in the spring and summer of 1970 to examine the GAO conclusions and recommendations and to hear the testimonies of various federal agencies and representatives from industry concerning the GAO findings. Those individuals who opposed establishing cost accounting standards in 1968 were now forced to refute an entire research study concluding that such standards were both feasible and desirable. Opponents of establishing such standards were unable to get enough support to refute the GAO findings and, as a result, the Subcommittee on Production and Stabilization of the Senate Committee on Banking and Currency passed, in April 1970, an amendment to the Production Act of 1950. The amendment proposed that a five man independent Cost Accounting Board be established, reporting directly to Congress, and charged with the responsibility for developing cost accounting standards for application to negotiated defense contracts and subcontracts. The standards would only apply to defense contractors who had received more than \$25,000,000 in government contracts the preceding fiscal year (Senate Comm., 1970).

In July of 1970, the House Committee on Banking and Currency passed a similar amendment to the Production Act, but the House version authorized the Board to <u>periodically recom-</u> <u>mend</u> standards to Congress affecting <u>all</u> negotiated defense contracts, whereas the Senate version directed the Board to <u>promulgate</u> standards affecting <u>only</u> defense contractors who had more than \$25,000,000 in government contracts in a fiscal year (House Comm., 1970). After each house of Congress passed its version of the bill, a compromise was reached in conference committee, and on August 15, 1970, the President signed into law Section 719 of the Defense Production Act of 1950, known as Public Law 91-379 (Congressional Record, 1970: 23457-23493; 26798-26843). The Law authorized the establishment

of the Cost Accounting Standards Board and reads in part as follows:

SEC. 719. (a) There is established, as an agent of the Congress a Cost-Accounting Standards Board which shall be independent of the executive departments and shall consist of the Comptroller General of the United States who shall serve as Chairman of the Board and four members to be appointed by the Comptroller General. Of the members appointed to the Board, two, of whom one shall be particularly knowledgeable about the cost accounting problems of small business, shall be from the accounting profession, one shall be representative of industry, and one shall be from a department or agency of the Federal Government who shall be appointed with the consent of the head of the department or agency concerned...

(g) The Board shall from time to time promulgate cost-accounting standards designed to achieve uniformity and consistency in the cost-accounting principles followed by defense contractors and subcontractors under Federal contracts. Such promulgated standards shall be used by all relevant Federal agencies and by defense contractors and subcontractors in estimating, accumulating, and reporting costs in connection with the pricing, administration and settlement of all negotiated prime contract and subcontract national defense procurements with the United States in excess of \$100,000, other than contracts or subcontracts where the price negotiated is based on (1) established catalog or market prices of commercial items sold in substantial quantities to the general public, or (2) prices set by law or regulation. In promulgating such standards the Board shall take into account the probable costs of implementation compared to the probable benefits (Public Law 91-379, 1970).

The next portion of this chapter will describe the composition of the Cost Accounting Standards Board, the objectives of the Board, and how standards are formed.

<u>Composition</u>, <u>Objectives</u>, <u>and Operating Policy</u>. As directed by Public Law 91-379, the Comptroller General of the United States is the Chairman of the Board and is directed

to appoint four additional members for four year terms. Of these four members two represent the accounting profession, one represents the defense industry, and one represents the federal government. The current Board members are:

- 1. Elmer B. Staats, Comptroller General of the United States
- 2. Herman W. Bevis, formerly the Senior Partner of the firm of Price Waterhouse & Company, Certified Public Accountants
- 3. Robert K. Mautz, Partner in the firm of Ernst & Ernst, Certified Public Accountants
- 4. Terrence E. McClary, Assistant Secretary of Defense (Comptroller)
- 5. John M. Walker, Senior Vice President and Corporate Treasurer, Texas Instruments, Incorporated (CASB, 1976(b)).

In addition to these five members the Board has a full time staff of 27 professional and 13 administrative personnel (CASB, 1976(b)).

Other directives in Public Law 91-379 form the basis for the objectives of the Cost Accounting Standards Board. In its 1977 <u>Restatement of Objectives</u>, <u>Policies</u>, <u>and Concepts</u>, the Board lists as its primary objective the implementation of Public Law 91-379 by issuing "clearly stated Cost Accounting Standards to achieve (1) an increased degree of uniformity in cost accounting practices among government contractors, and (2) consistency in cost accounting practices in like circumstances by individual contractors over periods of time" (CASB, 1977:1). In addition, the Board feels that increased uniformity and consistency in accounting practices will lead to collateral objectives of improved communication and understanding between all parties involved in government contracting (CASB, 1977:1).

Before issuing any cost accounting standard, the Board adheres to a research process characterized by an in-depth study of the subject areas and the participation of all interested parties. Topics are selected by the Board for research and possible development of standards after considering the importance and nature of the costing problems involved. Initial research usually involves a review of applicable accounting literature, government procurement regulations, and decisions of the Boards of Contract Appeals. The Board then develops questions and analytical discussions of the cost accounting issues designed to elicit opinions and relevant empirical data and sends these to various interested parties. Analysis of the responses, current practices, comments, and possible courses of action lead the Board to develop a specific proposal of a possible cost accounting standard. This proposed rough draft is then distributed to various defense contractors and government agencies for comment. Later, after consideration of the various research steps, the Board determines whether it will proceed with development of the standard. If it decides to proceed, a follow on smooth draft of the proposed standard is published in the Federal Register for 60 days. As part of the research process the public is invited to comment at this time. During the entire development process, the Board evaluates the benefits and costs of implementing the proposed standard.

After considering all the comments received, the Board makes any appropriate revisions necessary and then formally promulgates the finalized version of the standard, along with an analysis of the major issues identified in the comments received, in the Federal Register for an additional 60 days. At the same time the standard is put in the Federal Register the second time, it is sent to Congress. The standard then becomes effective unless the Congress, within 60 days of continuous session, passes a concurrent resolution stating disapproval. Unless disapproved, the promulgations of the Board have the full effect and force of law. This entire section summarizing the research process was taken from the May 1977 <u>Restatement of Objectives</u>, <u>Policies</u>, <u>and Concepts</u> of the Cost Accounting Standards Board.

To date the Board has issued several rules, regulations, and 14 cost accounting standards. A list of these promulgations and their effective dates are presented in Appendix A. As indicated in the Appendix, the Board has withdrawn one standard, CAS 413 - Adjustment of Historical Depreciation Costs for Inflation. It was withdrawn because Congress felt that the implementation costs would be too great (Jacobs and Herring, 1976). As of June 30, 1976, there were 14 subjects for possible standards in various stages of research and development by the Board (CASB, 1976(b)). A short description of these issues is presented in Appendix C.

The promulgations of the Board apply to all negotiated defense contracts in excess of \$100,000 (except as provided by the Board) awarded to satisfy a requirement for national
defense. In these cases the Cost Accounting Standard (CAS) Clause is inserted into the contract (CASB, 1976(a):20). The CAS Clause requires that the contractor disclose in writing (in a disclosure statement) his cost accounting practices, if his total defense contracts subject to cost accounting standards for the preceding fiscal year totaled 10 million dollars or more (CASB, 1976(a):40). The clause also requires that the contractor consistently follow his disclosed accounting practices and comply with all cost accounting standards. Finally, the clause requires the contractor to agree to certain equitable price adjustments for contract changes or new standards (CASB, 1976(a):23).

In 1975, the Board revised the dollar limitation for applying cost accounting standards to defense contracts. Now the CAS Clause must be inserted in all negotiated defense contracts in excess of \$500,000. Again, this limitation is still subject to certain provisions as provided by the Board (Mayer, 1975).

As mentioned earlier, this study will involve the first eight cost accounting standards. These standards have been in effect for more than two years and it is felt that a sufficient number of defense contractors have been affected by them to warrant a study of their effectiveness. A brief discussion of the main points of these standards will now be presented.

<u>Cost Accounting Standards 401 - 408</u>. The Board uses the same general format for all of its standards to facilitate their use. In summary, these sections and their contents

are as follows:

General Applicability-establishes the coverage of each standard.

Purpose-provides a brief description of the goals of the CASB in issuing the standard.

Definitions-presents terms which are prominent in the standard.

Fundamental Requirements-contains the cost accounting principles or practices covered by the standard.

Techniques for Application-provides criteria for selecting alternative practices to implement the cost accounting practices covered in the preceding section.

Illustrations-presents examples of how the standard is to operate in specific circumstances.

Exemptions-identifies any exceptions to the standard. Effective Date-the date the standard takes effect (CASB, 1977).

The Board emphasizes that no one section of a standard can stand alone and that all of the sections must be read in the context of the standard as a whole. The intent of this part of the chapter is to familiarize the reader with the general content of each of the first eight standards which are addressed in this study. Appendix D presents the Purpose and Fundamental Requirement sections of each of these standards for further reader clarification. The following information is in no way intended to represent the total context of these eight standards.

Cost accounting standards are presented as parts of a total document containing all the standards, rules, and regulations of the Board (CASB, 1976(a)). They will be presented

here as CAS 401, CAS 402, etc., followed by the title of the standard and a short description.

<u>CAS 401</u> - <u>Consistency in Estimating</u>, <u>Accumulating</u>, <u>and</u> <u>Reporting Costs</u>. The first standard requires all government contractors to be consistent in practices they use in estimating costs in pricing a proposal and practices they use in accumulating and reporting these costs. Consistency is also required in treating a cost as either a direct or as an indirect cost and methods of allocating indirect costs.

<u>CAS</u> <u>402</u> - <u>Consistency in Allocating Costs Incurred for</u> <u>the Same Purpose</u>. The second standard requires that each type of cost be allocated only once to a given cost objective and on only one basis. The standard is designed to eliminate the double counting of costs. It disallows instances in which cost items are allocated directly to a cost objective without eliminating like cost items from indirect cost pools which are also allocated to that cost objective. No cost may be allocated to a final cost objective as both an indirect and a direct cost.

<u>CAS</u> <u>403</u> - <u>Allocation of Home Office Expenses to Segments</u>. The third standard establishes criteria for allocating home office expenses to segments of an organization and the manner in which these costs are charged to government contracts. Whenever possible, costs are to be directly allocated on the basis of a beneficial or causal relationship between home office expenses and the receiving segments. Where direct allocation is not possible, the costs are to be placed in homogenous pools and then apportioned in a reasonable manner. Any remaining or residual home office expenses should be allocated to all segments by any method.

<u>CAS</u> <u>404</u> - <u>Capitalization of Tangible Assets</u>. The fourth standard sets rules for asset capitalization. Basically, it affects the time period in which costs may be charged to government contracts. Each contractor must establish capitalization policies that designate economic and physical characteristics for tangible assets to facilitate consistent measurement of costs. The contractor can decide not to capitalize any item under \$500 or any item having a useful life of under two years. Additions and improvements that either extend the life of an asset or its usefulness must be capitalized. The standard also specifies capitalization of the cost of constructed assets, including any general and administrative costs identifiable with the asset. <u>CAS</u> 405 - Accounting for Unallowable Costs. The fifth standard provides that contractors must identify unallowable costs and exclude these costs from billings, claims, and proposals for government contracts. Furthermore, unallowable costs are subject to the same cost accounting principles as are allowable costs. Unallowable costs in an allocation base shall bear their pro rata share of allocable indirect costs.

<u>CAS</u> <u>406</u> - <u>Cost Accounting Period</u>. The sixth standard deals with the establishment of the cost accounting period of a contractor and the circumstances in which it can be other than his fiscal year. A contractor should use his fiscal year to accumulate and allocate costs whenever possible. However, the contractor and the government may mutually agree on another accounting period. In all cases, though, the time period used to accumulate costs in an indirect cost pool must be the same as the period used to establish the allocation base.

<u>CAS 407 - Use of Standard Costs for Direct Material and</u> <u>Direct Labor</u>. The seventh standard provides criteria under which standard costs may be used for direct materials and direct labor. The standard also provides criteria for establishing standards, accumulating standard costs, and disposition of variances from standard costs. Standard costs may be used for direct labor and direct material if they are entered into the books of account, if they are accumulated at the production unit level, and if the practices involved with standard costing are written and consistently followed.

<u>CAS</u> <u>408</u> - <u>Accounting for Costs of Compensated Personal</u> <u>Absence</u>. The eighth standard provides criteria for the allocation of compensated personal absence costs. Costs of compensated personal absence must be assigned to the cost accounting period in which they were earned and the sum of these costs for an entire cost accounting period must be allocated on a pro-rata basis to the final cost objectives of that period.

Once again, these summaries of the first eight cost accounting standards are presented here for reader familiarity purposes only and are taken from the context of the full standards as found in <u>Standards</u>, <u>Rules and Regulations</u>, July 1, 1976, of the Cost Accounting Standards Board.

The final portion of this chapter will briefly describe the federal procurement process. The discussion will cover

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the role of the contracting officer, the organization of the Department of Defense (DOD) contract administration and how cost accounting standards are administered.

## Federal Procurement Process

The intent of the final portion of chapter two is to provide an overview of the federal procurement process so that the reader may better understand who is responsible for administering government contracts and, in particular, who must administer cost accounting standards. As stated in chapter one, it is assumed that the reader has some knowledge of the DOD procurement process, and, thus, certain details concerning procurement and contract administration are either lightly described or eliminated altogether from the following discussion.

<u>Contract Officers</u>. The Armed Services Procurement Regulations (ASPR) emphasize that it is the policy of the Department of Defense to procure supplies and services from responsible sources at reasonable prices calculated to result in the lowest overall cost to the government. In order to implement this policy the government makes use of contracting officers. These individuals are responsible for negotiated defense contracts from inception to termination. ASPR sets forth the responsibilities of contracting officers by stating:

Contracting officers, or their authorized representatives acting within the scope of their authority, are the exclusive agents of their respective Departments to enter into and administer contracts on behalf of the Government in accordance with ASPR and Departmental procedures. Each contracting officer is responsible for

performing or having performed all administrative actions necessary for effective contracting. The contracting officer shall avail himself of all appropriate organizational tools such as the advice of specialists in the fields of contracting, finance, law, contract audit, packaging, engineering, traffic management, and price analysis (ASPR, 1976:3-801.2(a)).

The contracting officer which has this overall responsibility for a contract is called the Procuring Contracting Officer (PCO). The PCO is usually located at a central buying activity and is primarily involved with a procurement action until the time of contract award. The duties and responsibilities of the PCO are extensive and are found throughout the ASPR, but they can be summarized into five major areas:

- 1. The PCO must plan how the item or service will be procured, either by formal advertising or negotiation. This includes determining the type of contract that will be used.
- 2. The PCO must solicit and select the source of the purchase.
- 3. The PCO must negotiate with the contractor to arrive at a fair and reasonable price satisfactory to both parties and award the contract.
- 4. The PCO must assure contract performance through proper administration of the contract.
- 5. The PCO must make final settlement of the contract (Lamm, 1976).

Although the PCO is ultimately responsible for a contract, the government has recognized that the task of administering a contract can become very complex and involved. Contract administration often requires that an agent of the government with decision-making capability be on location at the scene of contract performance. For this reason the position of Administrative Contracting Officer (ACO) was created to relieve the PCO of many administrative functions (Lamm, 1974: 36). ASPR provides a list of 69 separate functions to be accomplished by a contract administration component when a contract is assigned to an ACO (ASPR, 1976:1-406(c)).

The PCO is still ultimately responsible for the contract, but he usually delegates the authority for administering the contract to an ACO. The PCO does not assign a contract for administration directly to an individual ACO, but rather uses the <u>DOD Directory of Contract Administration Services Compo-</u> <u>nents</u> to determine the cognizant contract administration services component to contact (DOD Directory, 1977:vii). The component contacted will assign the contract to an ACO, who in turn contacts both the PCO and the contractor by letter informing them of his identity and the personnel assigned responsibility for various areas of the contract (USAF, 1975:12).

<u>Department of Defense Organization for Contract Adminis-</u> <u>tration</u>. Operational responsibility for DOD contract administration rests either with the Defense Supply Agency which controls the activities of the Defense Contract Administration Services (DCAS) or with the three Military Departments through the Plant Cognizance Program. The cognizant component found in the <u>DOD Directory of Contract Administration</u> <u>Services</u> will either be in DCAS or in one the the Military Departments (USAF, 1975:10-11).

The major contract administration responsibility for DOD, however, rests with the Defense Contract Administration Services Agency. This agency is divided geographically into

nine Defense Contract Administration Services Regions, each with a regional headquarters. These regions in turn are subdivided into district, plant, and area offices, as necessary in relation to the volume of defense contracts throughout the nation (Kunsemiller, 1976). At present there are some 90 different DCAS locations (regional headquarters, district, plant, and area offices) which have a total of approximately 400 ACOs. The number of ACOs at any given location depends on the workload involved (DOD, 1976; Kunsemiller, 1976).

Normally all defense contracts requiring field administration will be administered by DCAS, except those listed in ASPR 20-703.2. Among this list are the plants and facilities of manufacturers which have been assigned to the Military Departments for contract administration under the Plant Cognizance Program. The Assistant Secretary of Defense (Installations and Logistics) is responsible for the Plant Cognizance Program, and he determines the applicable plant cognizance assignments. Two primary criteria are used to determine when a Military Department will receive plant cognizance. First, the Military Department desiring such cognizance must have a contract in the plant for a major system or subsystem. Second, the system must be of such critical importance to the Nation that contract performance requires unusually close technical direction and control by the appropriate program manager. Other factors considered in determining plant cognizance are undelivered dollar balances of contracts in the plant, portion of the plant used for the system, and duration

of the system contract. The number of plants under Military Department cognizance is usually relatively small, involving approximately 40 plants at any one time (USAF, 1975).

The Army Material Command is responsible for the procurement of material and related services required by the Army and presently has three plants under its cognizance (Hindman, 1977).

The Navy Material Command has a similar responsibility toward Naval procurement and is made up of subordinate commands known as systems commands. These systems commands are responsible for procurement of certain items such as ships (Naval Sea Systems Command), aircraft (Naval Air Systems Command), shore facilities (Naval Facilities Engineering Command), and electronics (Naval Electronics Systems Command). The contract division of the respective systems command controls the procurements of that command. However, in the majority of cases DCAS will administer the contracts. The Navy presently has 20 plants under its cognizance (DOD, 1977).

In the Air Force two commands, the Air Force Systems Command and the Air Force Logistics Command, are responsible for the bulk of procurement. Systems Command is responsible for research, development, and production of all major Air Force weapon systems, and Logistics Command is responsible for the support of all major Air Force systems once they enter the operational inventory. The Air Force Contract Management Division has overall responsibility for administering contracts in plants which are under Air Force cognizance (USAF, 1975:11). At the plant level this responsibility is

carried out by Air Force Plant Representative Offices, and at present there are 19 of these (Barbara, 1977).

In each one of the plants assigned to the Military Departments for cognizance there will usually be at least one primary ACO and various contract specialists to assist him. These specialists are usually in the areas of financial analysis, price and cost analysis, production management, quality assurance, and cost accounting standards (USAF, 1975:12).

It is important to remember that the ACO is only one member of the procurement team. The PCO is still untimately responsible for the contract even though the ACO is regarded as the head of the contract administration component. The final portion of this chapter will describe how the establishment of cost accounting standards has changed the scope of PCO responsibility in relation to contract administration.

Contract Administration and Cost Accounting Standards. Until the issuance of cost accounting standards the PCO had total responsibility for all aspects of the contract he had devised, especially in the area of price determination. Even though Department of Defense policy was to make maximum use of contract administration facilities, the PCO still retained the right to take whatever action he deemed necessary to protect the government (ASPR, 1976:20-701; 20-703.3). In many cases this included retaining some or all of the contract administration functions listed in ASPR 1-406(c). The ACO was merely a contract advisor to the PCO and had only such authority as the PCO delegated to him (Lamm, 1976:279).

Since the issuance of cost accounting standards, the position of ACO in the procurement process has changed considerably. The ASPR now directs that when a contract contains the CAS Clause, the ACO will be responsible for performing the functions in Section 1-406(c)(1ix) through (1xii) (ASPR, 1976:3-1208(a)). These four functions are stated as follows:

- (1ix) determine adequacy of prime contractor's Disclosure Statements;
  - (1x) determine whether prime contractor's Disclosure Statements are in compliance with Section XV and Cost Accounting Standards;
- (1xi) determine contractor compliance with Cost Accounting Standards and Disclosure Statements, if applicable;
- (1xii) negotiate price adjustments and execute supplemental agreements pursuant to the Cost Accounting Standards clauses in 7-104.83 (ASPR 1-406(c), 1976).

The PCO is bound by the decisions of the ACO in these areas. Thus, under cost accounting standards the PCO now shares responsibility for contract price with the ACO. The ACO, and not the PCO, is responsible for negotiating the effect of cost accounting practice changes on the contract. The net result of cost accounting standards on the procurement process has been to significantly strengthen the position of the ACO. The changes have made the ACO a decision maker with far-reaching influence concerning contract cost and pricing matters (Lamm, 1976:280-281). As quoted in Lamm, 1976, one ACO stated that "the ACO isn't performing a service function in CAS but rather he is performing the prime function" (Lamm, 1976:281).

The reason for this shift of decision making power to the ACO regarding cost accounting standards came from the Cost Accounting Standards Board. In its interpretations, the Board encouraged federal agencies to establish procedures so that a contractor could reach agreement with a single agency official concerning cost accounting standards matters (CASB, 1976(a)). The Department of Defense implemented this recommendation by assigning prime responsibility for cost accounting standards to the cognizant ACO since he was already geographically located in a position to deal with the contractor (Lamm, 1976:282).

In order to carry out his duties regarding cost accounting standards, the ACO makes use of several specialists in the applicable contract administration facility: the contract auditor, the price analyst, and sometimes a cost accounting standards monitor or specialist that the ACO has appointed to assist him. The definition of these positions and their primary duties have been included in the first part of this chapter under definitions.

#### Summary

The background information presented in this chapter forms the basis for the research effort and was presented in three major sections. First, in the introduction the major thrust of the study was presented along with a working vocabulary of procurement terms. Second, the Cost Accounting Standards

Board was described in terms of its history, its policies, and the first eight standards it has promulgated. Third, those portions of the federal procurement process which have a direct bearing on this study were discussed: the duties of the contracting officer, the organization of DOD contract administration, and, finally, how cost accounting standards are administered.

The ACO is the contracting officer responsible for administering the standards and rules issued by the Cost Accounting Standards Board. He is the decision maker who must determine whether or not a contractor is in compliance with the promulgations of the Board. This responsibility makes the Administrative Contracting Officer the focal point for cost accounting standards in defense contract administration.

#### III. Methodology

This chapter describes the methods used to gather and analyze the data associated with this research effort. The first portion of the chapter discusses the sample population, the survey technique selected, and the distribution and collection of the survey results. The second portion of the chapter discusses the statistical techniques used to analyze the data in order to answer the research question.

## Sample Population

This study seeks to determine the impact that cost accounting standards have had on the cost accounting practices of defense contractors. As emphasized in chapter II, the Administrative Contracting Officer (ACO) is the contracting officer responsible for administering all contracts which contain the Cost Accounting Standards (CAS) Clause. In this capacity the ACO is the focal point for the government in all matters involving cost accounting standards. For these reasons the sample population chosen for this research was all Department of Defense (DOD) ACOs and Corporate ACOs. Corporate ACOs (CACOs) were included in the research because they perform functions similar to ACOs. CACOs make contract administration determinations of a corporate wide nature where DOD has contracts with two or more major operating divisions of the same company.

## Survey Technique

A mailed questionnaire was chosen as the best method for gathering the data necessary for this research effort. There were several reasons why this method was selected. The primary ones were the sample population size, the geographic dispersal of the sample population, and the limited time available to gather the data. The sample population consisted of approximately 420 DOD ACOs and CACOs located in some 140 locations throughout the United States. These two facts along with the limited time available to gather data made a mailed questionnaire the only feasible method of data collection.

Questionnaire Development. The complete questionnaire in Appendix B was the culmination of several format changes and revisions which took place after pretesting the instrument. The portion of the questionnaire which deals with before and after evaluation of defense contractor cost accounting practices is an adaptation of a questionnaire developed by Lt. Col. Adrian M. Harrell, Assistant Professor of Accounting at the Air Force Institute of Technology (AFIT). Lt. Col. Harrell originated the idea of studying the impact of cost accounting standards on defense contractor cost accounting practices, and he acted as the faculty advisor in the subsequent research effort.

Twelve individuals pretested the questionnaire; ten were AFIT graduate students who had completed a course in cost accounting standards and two were ACOs. These individuals offered several suggestions and recommendations which were incorporated into the final survey instrument.

The final questionnaire, located in Appendix B, consists of 45 questions. The first nine questions seek demographic information about the respondent. The next 34 questions are designed to elicit respondent perceptions concerning the impact of cost accounting standards 401-408 (CAS 401-408) on defense contractor cost accounting practices. The last two questions ask the respondent to evaluate his own expertise in answering questions regarding the standards.

Each standard is considered separately. First, the contents of the standard are briefly described, and then four questions regarding cost accounting practices affected by the standard follow this description. The four questions are arranged in pairs. The first pair of questions is structured to elicit respondent perceptions to a statement of how <u>uniform</u> cost accounting practices were before the issuance of the standard and, then, how uniform these practices are now. The second pair asks very similar before and after perceptions in regard to <u>consistency</u>.

Respondent perceptions concerning how uniform and consistent cost accounting practices were before and after the issuance of each standard formed the basis for the majority of this data gathering effort. This is due to the fact that the primary objective of the Cost Accounting Standards Board is to issue clearly stated cost accounting standards which achieve an <u>increased</u> degree of <u>uniformity</u> and <u>consistency</u> in the cost accounting practices utilized by defense contractors (CASB, 1977:1). This study seeks to determine if cost accounting standards 401-408 have achieved this objective.

An example of the format of these paired questions is now presented as it appears in the questionnaire for CAS 403. The perceptions of the respondent are measured on a seven point scale (1 to 7).

Cost Accounting Standard 403 (effective July 1, 1973) establishes criteria for allocating home office expenses to the segments of an organization.

Cost accounting practices in this area:

	(UNIFORMITY)	Stror						rongl; gree	У
18.	Were highly uniform <u>before</u> this CAS became effective.	1	2	3	4	5	6	7	
19.	Are highly uniform at the present time.	1	2	3	4	5	6	7	
20.	(CONSISTENCY) Were highly consistent <u>befo</u> this CAS became effective.	<u>re</u> 1	2	3	4	5	6	7	
21.	Are highly consistent at th present time.	.e 1	2	3	4	5	6	7	

Distribution and Collection. As explained in chapter II, operational responsibility for DOD contract administration restantiate with the Defense Contract Administration Services Agency (DCAS) or one of the three Military Departments under the Plant Cognizance Program. There are presently 88 DCAS components in addition to the approximately 45 plants assigned to the Military Departments for cognizance (DOD Directory, 1977). The location and mailing address of all of these components and plants are in the <u>DOD Directory</u> <u>of Contract Administration Components</u>. Depending on the workload involved, each one of these locations may have one or more ACOs assigned. In order to determine the scope of the research effort and the number of questionnaires needed, an attempt was made to determine the number of ACOs at each location.

DCAS, which has the major contract administration for DOD and the largest number of ACOs, was contacted first. Headquarters DCAS provided the name and autovon (DOD telephone) extension of the nine regional Contract Administration Specialists in each of the regional headquarters. These individuals in turn provided the writer with the number of ACOs and CACOs (if applicable) in each district, plant, and area office. Each Military Department was contacted so that a similar determination could be made of the number of ACOs and CACOs involved in the Plant Cognizance Program.

A total of 450 questionnaires were mailed to 134 different locations and to an estimated 420 ACOs and 30 CACOs. In each mailed packet of questionnaire(s) was an instruction letter addressed to the Chief of the Contract Administration Division. The letter (in Appendix B) asked this individual to do three things: (1) confirm the number of ACOs and CACOs (if applicable) in the contract administration component, (2) return the uncompleted questionnaires of any ACO or CACO unavailable to answer the questionnaire, and (3) distribute, collect, and mail the questionnaires back. This was done in the hope that it would result in a high response rate and enable the writer to determine an accurate count of available respondents.

The combined response rate for ACOs and CACOs was 81%. Of the respondents sought, 397 ACOs and CACOs were available to answer the questionnaire and 321 chose to do so. Responses were also received from a number of various other contract specialists. Their responses were not included in the results, however, as this research effort was directed toward ACOs and CACOs. Their response and interest was and is greatly appreciated. The last portion of this chapter will describe the analysis of the data collected.

## Statistical Techniques

Four analytical tools were used to analyze the data gathered in this research. These tools are statistical programs or subprograms found in the <u>Statistical Package for the Social</u> <u>Sciences</u> (Nie, et al., 1975), and all references in this chapter will come from this source. The methods will be described in the order in which they were performed: frequency distribution, paired sample t test, frequency delta run, and crosstabulation.

Frequency Distribution. The first step in the analysis of the survey data was to determine the number of respondents who were ACOs and CACOs and review their responses to all of the survey questions. To do this the frequencies program as found in the <u>Statistical Package for the Social Sciences</u> (SPSS) was used. The SPSS frequencies program computes and presents a one way frequency distribution in table form for any variables (in this case 45 questions) which have a limited number of values (that is, responses). Histograms presenting a

graphic display of the relative frequency distribution of responses of the variables requested can also be obtained.

The reason for this initial analysis was three-fold. First, it was done in order to insure that the responses were coded properly during the transfer of information from questionnaires to key punch cards. Second, it was done in order to determine the demographics of the sample population and the sample means on questions 42 to 45. Finally, histograms of the responses were desired in order to visually confirm that the sampling distribution of the mean could be approximated closely with a normal distribution. The normality requirement was necessary in order to perform the t test which was the next analytical tool employed.

<u>Paired Sample t Test</u>. The paired sample t test program in SFSS is used in this study to determine if the group mean for a given variable, after a certain treatment, is greater than the group mean for that variable before the treatment. The variables in this case are the two goals of the Cost Accounting Standards Board: <u>uniformity</u> and <u>consistency</u> in defense contractor cost accounting practices. The treatment is the issuance of a cost accounting standard. An example of the questionnaire form for CAS 403 has already been presented in this chapter, and it will be used as an example to explain how and why each statistical test was done. Referring to questions 18 and 19, the questionnaire asks the ACOs and CACOs to give their perceptions of how uniform defense contractor cost accounting practices were before and then after the issuance of CAS 403.

To calculate the paired sample t value the SPSS program forms the variable  $D = X_2 - X_1$  where  $X_1$  is the measurement before treatment (question 18) and  $X_2$  is the measurement after treatment (question 19). D has a mean and is normally distributed. In this research the question is, have the standards achieved <u>increased</u> uniformity and consistency in the cost accounting practices of defense contractors? To answer this question the null hypotheses (H<sub>0</sub>) was formed that

= 0 and tested against the alternate hypothesis  $(H_1)$  that

0 for each standard. This is done first for uniformity and then for consistency. That is, did the standard, say CAS 403, achieve increased uniformity in defense contractor cost accounting practices?

In order to make this test, the paired sample t test program was used to compute the appropriate t value and its associated probability for each pair of questions from 10 through 41. As calculated by SPSS, this is a two-tailed probability and must be divided by two to convert it to the appropriate one-tailed probability value. If this one-tailed probability value is less than the significance level chosen to conduct the hypothesis test of  $H_0$  vs  $H_1$ , then  $H_0$  can be rejected and  $H_1$  accepted. In the case of CAS 403 and questions 18 and 19, this rejection of  $H_0$  and acceptance of  $H_1$ would mean that in the opinion of ACOs and CACOs CAS 403 increased uniformity in defense contractor cost accounting practices to a statistically significant degree. This same test was performed 16 times, twice for each of the first eight

standards, first for uniformity and then for consistency. The results of these tests will be presented in tabular form in chapter IV.

<u>Delta Frequencies</u>. The next portion of the analysis was done in order to determine the frequency of the amount of change the ACOs and CACOs perceived had taken place since the issuance of the standards. To do this the variable  $D = X_2 - X_1$  was again formed for paired questions 10 through 41, and then the SFSS frequencies program was used. This resulted in a tabular printout of the relative frequency of the value of D for each standard, first for uniformity and then for consistency. The values of D could vary from -6 to +6 in each case. For example, referring to questions 18 and 19 for CAS 403, the respondent could have marked a 1 on question 18 and then a 7 on question 19, resulting in a D or delta of +6. The frequency program would then indicate how many respondents had a D = +6 between question 18 and question 19.

This analysis was performed in order to determine the percentage of the respondents who felt that the standards (or which standard) had resulted in (1) decreased uniformity or consistency in contractor cost accounting practices (a negative D), (2) no change (a D of zero), or (3) increased uniformity or consistency (a positive D). The results of this analysis will also be presented in tabular form in chapter IV. These results raised questions which led to the final stage of the analysis.

Crosstabulations. Crosstabulations is an SPSS program which enables the user to obtain a joint frequency distribution of cases (respondents) according to two or more classificatory variables (questions). The printed output from the program was a two dimensional table for each pair of questions (Q18 and 19, Q20 and 21, etc.) from question 10 through question 41. The tables enabled the writer to determine how the respondents who had a D or delta of zero on the previous test had answered each pair of questions. That is, out of the 306 respondents who answered Q18 and Q19 on CAS 403 a certain number indicated a D of zero. This D of zero is made up of people who marked the first question in the pair (Q18) with a certain number (1 to 7) and then marked the second question (Q19) with the same number. Thus, the crosstabulations program enabled the writer to determine how many respondents marked the paired questions 1/1, 2/2, 3/3, 4/4, 5/5, 6/6, or 7/7. The reason this was important was so that the statistical results obtained previously could be interpreted properly. Implications drawn from this analysis will be presented in chapter V.

## Summary

This chapter has presented the methods used to gather and analyze the data associated with this research. The first half of the chapter described the sample population, the survey technique, and how the survey instrument was developed and distributed. The second half of the chapter presented the statistical techniques used to analyze the survey data. The results of this analysis will be presented in the next chapter.

## IV. Findings

The purpose of this chapter is to present the results of the analysis of the survey data. It begins with a presentation of the demographics of the ACOs and CACOs. Following this, the results of the statistical analyses performed on the data are presented and briefly discussed.

#### Demographics

This section presents an overview of the demographic information gathered on the sample population. For a detailed description of this information refer to Appendix E where the demographic questions and frequencies of responses are presented.

Of the respondents who answered the questionnaire, 310 were ACOs and 11 were CACOs. Of these individuals, 64.9% had held their position as ACO or CACO for more than five years, and 96.6% had been involved in contract administration for more than five years. Five years was chosen as a point of information since the first two cost accounting standards considered in this study were issued in 1972.

Of the 321 contracting officers, 54.5% were involved in administering contracts with more than one contractor at the time the questionnaires were returned, and 75.7% have been involved with more than one contractor in the past five years. Almost all of the contracting officers (98.5%) are civil servants who serve in the grade of GS-12, 13, or 14. Information

on the educational level and formal accounting hours or credits earned by the respondents was also collected, and this is described in detail in Appendix E.

In addition to obtaining this demographic information, the SPSS frequencies program was used to visually confirm that the sampling distribution of the responses for questions 10 through 41 could be approximated closely with a normal distribution. As expected, this result was the case. Furthermore, in all instances the size of the groups under consideration was sufficiently large as to allow the central limit theorem to be invoked. The assumptions necessary in order to use the paired t test to analyze the data were present.

The next portion of this chapter will present a summary of the statistical results obtained on the first eight cost accounting standards.

## CAS 401-408 Results

The results of the three statistical programs (paired t test, frequency of delta values, and crosstabulations) used to analyze the data for each standard are presented in separate tables at the end of this chapter. The discussion of the results is presented separately for each table. A general description of the overall findings illustrated in the table is discussed first, followed by a detailed explanation of the findings for a specific standard. The standard used as an example for the discussion in each case is cost accounting standard 402 (CAS 402). The format of the results for the rest of the standards in each table is the same as those

explained for CAS 402. The reader can use the general description of results coupled with the specific example to study and interpret the findings for the other standards in each table.

Table I: Paired t Test Results for CAS 401-CAS 408. This table presents the results of the paired sample t test statistical program used to analyze the survey data collected on question 10 (Q10) through Q41. As explained in chapter III, this test was performed to determine if ACOs perceived that a significant shift occurred in the uniformity and consistency of defense contractor cost accounting practices as a result of the first eight cost accounting standards. For each standard the ACOs answered a pair of questions regarding uniformity of cost accounting practices before and then after the issuance of the standard and a similar pair of questions regarding consistency.

The standards are presented in all of the tables in nuerical sequence followed by a U or C suffix indicating whether the findings are for uniformity or consistency. The number of the paired questions, mean of responses, standard deviation of responses, and number of respondents who answered both of the paired questions are also presented. Finally, the t value obtained from the t test and its associated onetailed probability value are presented. The t values were all quite large (ranging from 13.10 to 18.52) resulting in a one-tailed probability value significant at the .000 level in each case. That is, the paired sample t test detected that ACOs perceived a highly significant shift in the uniformity

and consistency of defense contractor cost accounting practices.

As an example of how to read the table, the findings regarding uniformity for CAS 402 are now discussed. The results in Table I for this variable (CAS 402) are presented to the right of CAS 402U. In this case, questions 14 and 15 were the paired survey questions which addressed uniformity for CAS 402. The perceived mean of uniformity in defense contractor cost accounting practices prior to CAS 402 (Group I) was 3.54, and the perceived mean at the time of the survey (Group II) was 4.96. The standard deviation of the 309 responses for these questions was 1.7 and 1.3 respectively. The paired sample t test resulted in a t value of 16.89 and an associated one-tailed probability significant at the .000 level. Thus, the finding is that ACOs perceived CAS 402 has resulted in a significant shift in the uniformity of defense contractor cost accounting practices. The findings for the remaining standards are in the same format as those discussed for CAS 402.

Table II: Frequencies on Delta Values. For each standard there were some ACOs who perceived that the standard resulted in (1) decreased uniformity/consistency in contractor cost accounting practices, (2) no change in the uniformity/ consistency of these practices, or (3) increased uniformity/ consistency of these practices. This table presents the number and percentage of ACOs in each of these categories for each standard. These findings are reported to present the range of responses in the interest of fairness to the respondents.

The number and percentage of ACOs in each of the three categories for CAS 402 regarding uniformity are presented to the right of CAS 402U. Of the 309 ACOs who answered questions 14 and 15 (see Appendix B), nine (3%) perceived that CAS 402 resulted in decreased uniformity, 100 (32%) perceived the standard had no effect on uniformity, and 200 (65%) perceived uniformity increased. The number and percentage of respondents in each category for the other standards are presented in the same format as those for CAS 402.

Table III: Crosstabulation Results. The percentage of respondents in Table II who perceived no change occurred in cost accounting practices as a result of the standards was sizeable, ranging from 27% to 50%, depending on the standard. Table III presents the results of additional analysis performed on this category of respondents from Table II. The analysis performed enabled the writer to determine how the respondents who perceived no change (in Table II) answered each pair of questions from Q10 through Q41. To indicate the standard had resulted in no change the respondent marked the first question of a pair (for example, Q18 and Q19) with a number from 1 to 7 and then marked the second question with the same number. The computer program enabled the writer to determine how many respondents marked a 1/1, 2/2, 3/3, 4/4, 5/5, 6/6, or 7/7 for each pair of questions. The frequencies of these responses were then grouped into three categories: 1/1, 2/2; 3/3, 4/4, 5/5; 6/6, 7/7. The results are presented in Table III.

It is presumed that the respondents who marked a pair of questions 1/1 or 2/2 are indicating that a standard was needed, but that the standard issued has had no effect. That is, they perceived the standard has not done what it was intended to do (increase uniformity and consistency in defense contractor cost accounting practices). Conversely, it is presumed that those respondents who marked a pair of questions with a 6/6 or 7/7 are indicating they perceived that cost accounting practices were highly uniform or consistent prior to the issuance of the standard and this is still true. In other words, these respondents are indicating they perceived that a standard was not necessary in the beginning, and <u>not</u> that the standard has failed. These are clearly two different meanings. In addition, it is surmised that little inference can be drawn from the middle numbers (3/3, 4/4, or 5/5).

The frequency of responses within these groups indicates that only a small percentage (1% to 6%) of ACOs perceived that a standard which had no effect felt so because they thought the standard had failed. That is, they marked the paired questions for a standard either 1/1 or 2/2. A larger percentage (7% to 29%) of ACOs perceived that a standard which had no effect thought so because they perceived the standard was not necessary in the first place. That is, they marked the paired questions 6/6 or 7/7. This latter finding was especially evident for two standards, CAS 402 and CAS 406. In the case of CAS 402, 15% of the ACOs apparently perceived that a standard was not necessary to improve uniformity, and 17% perceived that a standard was not necessary to improve

consistency. For CAS 406, these percentages were 21% and 29% respectively.

Thus, there were sizeable percentages of ACOs who perceived certain standards resulted in no change to uniformity and consistency, even though the results of the paired t test indicated that each of the standards had achieved significant results. Implications were drawn from these responses which indicated no-change in order to understand why ACOs responded this way. These implications are presented in chapter V.

## Questions 42 to 45

Questions 42 and 43 asked the respondents to react to statements that cost accounting standards 401 to 408 had increased uniformity (Q42) and consistency (Q43) in defense contractor cost accounting practices. The mean (on a 7 point scale) for Q42 was 4.394, and the mean for Q43 was 4.703.

Questions 44 and 45 asked the respondents to react to statements regarding their expertise to answer the survey questions regarding uniformity (Q44) and consistency (Q45). The mean on Q44 was 4.332, and the mean on Q45 was 4.885.

## Summary

This chapter has presented the results of the statistical methods used to analyze the survey data. No attempt was made to draw conclusions or implications from these results or relate them to the thesis research questions as this is done in the next chapter.

TABLE I

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Paired t Test Results for CAS 401-CAS 408

Group 2: Defense <u>VARIABLE</u> <u>QUES</u> CAS 401U Q10 Q11	contractor	contractor cost accounting practices				
			ing practices	at the t	the time of the a	survey
	GRP	MEAN	ទ្ធា	zl	÷'I	1-TAIL PROB
	ч «	3.06 4.53	1.6 1.4	309	18.49	.000
ELD DIDY CAD	ч «	3.45 4.99	1.6 1.3	315	17.36	000.
CAS 402U Q14 Q15	ч «	3.54 4.96	1.7 1.3	309	16.89	000.
CAS 402C Q16 Q17	н Q	3.86 5.20	1.7 1.2	317	15.66	.000
CAS 403U Q18 Q19	- N	2.94 4.58	1.6 1.4	306	18.52	000.
CAS 403C Q20 Q21	-	3.72 5.03	1.7	313	15.46	000.
CAS 404U Q22 Q23	Ч N	3.12 4.66	1.6 1.4	307	16.33	000.
CAS 404C Q24 Q25	Ч Q	3.84 5.09	1.6 1.3	316	14.82	000.

TABLE I (Continued)

Group 1:	Defense		cost a	ccounting	contractor cost accounting practices before the standard was	before	the sta	andard v	vas
•	issued								
Group 21	Defense	contractor	cost	accounting	practices	at the	time of	the	survey
VARIABLE	QUES	GRP	MEAN		SD	zi		<b> </b> 4+	1-TAIL PROB
CAS 405U	Q26 Q27	ы м М	2.97		1.7 1.4	307	18	18.04	000.
CAS 405C	Q28 Q29	5	3.53		1.7	315	15	15.96	.000
CAS 4060	030 031	7 N	ų.v.	3.91 1 5.25 1	1.9 1.4	304	13	13.62	000.
CAS 406C	032 033	ы М	4.0	4.38 1 5.50 1	1.9 1.3	314	13	13.10	000.
CAS 407U	Q34 Q35	ч м	£-9	3.15 1 4.49 1	1.6 1.3	288	16	16.51	.000
CAS 407C	036 037	5 Ъ	ω.v.	3.87 1 5.01 1	1.6 1.3	293	14	14.12	000.
CAS 408U	038 039	9 F	<del>1</del>	3.12 1 4.78 1	1.7	305	18	18.18	.000
CAS 408C	140 040	5 Г	3.92 5.25		1.2 1.6	315	16	16.19	.000

TABLE II

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Frequencies on Delta Values

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NO CHANGE &amp; INCREASE<br/>S 401U 309 8 3 91 227 218<br/>S 401U 309 9 3 117 32 200<br/>S 403U 307 5 2 97 326 192<br/>S 405U 304 7 2 118 38 191<br/>S 405U 305 8 103<br/>S 405U 305 8 103<br/>S 405U 306 6 2 118 38 191<br/>S 405U 306 6 2 118 34 191<br/>S 405U 306 6 2 108 44 191<br/>S 405U 306 6 2 108 44 191<br/>S 405U 306 6 2 108 34 191<br/>S 405U 306 6 10 100 100 100 100 100 100 100 100</td><td>Number of respondents who felt the standard decreased<br/>crease (Negative D): Number of respondents who felt the standard decreased<br/>uniformity or consistency<br/>crease (Positive D): Number of respondents who felt the standard increased<br/>becrease, <math>\beta</math> No change, <math>\beta</math> Increase: Percentage of N in each case<br/><math>RIABLE</math> N DECREASE <math>\beta</math> No change, <math>\beta</math> Increase: Percentage of N in each case<br/><math>\beta</math> and <math>\beta</math> a</td><td>Number of respondents who felt the standard decreased<br/>crease (Negative D): Number of respondents who felt the standard decreased<br/>uniformity or consistency<br/>crease (Positive D): Number of respondents who felt the standard resulted<br/>in no change in uniformity or consistency<br/>crease, % No Change, % Increase: Percentage of N in each case<br/>Muniformity or consistency<br/>becrease, % No Change, % Increase: Percentage of N in each case<br/>s 401U 309 8 3 83 27 218<br/>5 402U 309 8 3 100 322 200<br/>5 404U 307 5 2 113 36 113<br/>5 405C 315 8 3 117 32 200<br/>5 405C 315 8 3 117 32 200<br/>5 405C 314 30<br/>5 405C 315 8 3 117 32 200<br/>5 405C 314 30<br/>5 405C 315 8 3 117 36<br/>5 405C 314 30<br/>5 405C 314 40<br/>5 405C 315 40<br/>5 405C 314 40<br/>5</td><td>Number of respondents who felt the standard decreased<br/>crease (Negative D): Number of respondents who felt the standard decreased<br/>uniformity or consistency<br/>crease (Positive D): Number of respondents who felt the standard decreased<br/>crease (Positive D): Number of respondents who felt the standard increased<br/>min no change in uniformity or consistency<br/>becrease, % No Change, % Increase: Percentage of N in each case<br/>No Change, % Increase: Percentage of N in each case<br/>s 401U 309 8 3 83 27 218<br/>S 401U 309 8 3 117 32 215<br/>S 401U 309 9 3 117 32<br/>S 405C 317 8 3 117 32<br/>S 405C 317 8 3 117 32<br/>S 405C 316 7 2 118 38 120<br/>S 405C 316 7 2 118 38 120<br/>S 405C 316 7 2 118 38 120<br/>S 405C 203 8 3 117<br/>S 405C 203 8 3 117<br/>S 405C 204 8 3 117<br/>S 405C 203 8 3 117<br/>S 405C 204 8 3 117<br/>S 405C 203 8 3 117<br/>S 405C 204 8 3 117<br/>S 405C 204 8 3 117<br/>S 405C 204 8 3 117<br/>S 405C 205<br/>S 405C 206 6<br/>S 405C 206 6<br/>S 407C 203 8 3 117<br/>S 405C 206 6<br/>S 405C 206 6<br/>S 407C 203 8 3 117<br/>S 405C 206 6<br/>S 407C 203 8 3 117<br/>S 405C 206 6<br/>S 405C 206 6<br/>S 407C 203 8 3 117<br/>S 405C 206 6<br/>S 405C 206 6<br/>S 407C 206 6<br/>S 407C 206 6<br/>S 407C 206 6<br/>S 407C 207 8 8 3 100<br/>S 407C 207 8 8 3 100<br/>S 407C 208 8 7 107<br/>S 405C 316 8 3 100<br/>S 405C 316 6<br/>S 405C 316 7 2 128<br/>S 405C 316 8 3 117<br/>S 405C 316 7 7 2 128<br/>S 405C 316 7 7 128<br/>S 405C</td><td>Number of respondents who felt the standard decreasedChange (Zero D):Number of respondents who felt the standard decreasedChange (Zero D):Number of respondents who felt the standard resultedin no change in uniformity or consistencyin no change in uniformity or consistencycrease (Positive D):Number of respondents who felt the standard fresulteduniformity or consistencyin no change in uniformity or consistencybecrease. % No Change. % Increase:Percentage of N in each caseRIABLENDECREASES 401U3098S 401U3098S 401U3098S 402C3159S 403C31627S 403C31627S 403C31627S 405C31629S 405C31627S 405C31638S 405C31638S 405C31637S 405C31637S 405C31637S 405C31637S 405C31637S 405C31637S 405C30541S 405C30637S 405C30637S 405C30637S 405C30637S 405C30637S 405C30637S 405C30637S 405C30637S 405C306S 405C306S 405C306</td><td>Number of respondents who answered the standard decreased<br/>crease (Negative D). 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NO CHANGE &amp; INCREASE<br/>S 401U 309 8 3 91 227 218<br/>S 401U 309 9 3 117 32 200<br/>S 403U 307 5 2 97 326 192<br/>S 405U 304 7 2 118 38 191<br/>S 405U 305 8 103<br/>S 405U 305 8 103<br/>S 405U 306 6 2 118 38 191<br/>S 405U 306 6 2 118 34 191<br/>S 405U 306 6 2 108 44 191<br/>S 405U 306 6 2 108 44 191<br/>S 405U 306 6 2 108 34 191<br/>S 405U 306 6 10 100 100 100 100 100 100 100 100</td> <td>Number of respondents who felt the standard decreased<br/>crease (Negative D): Number of respondents who felt the standard decreased<br/>uniformity or consistency<br/>crease (Positive D): Number of respondents who felt the standard increased<br/>becrease, <math>\beta</math> No change, <math>\beta</math> Increase: Percentage of N in each case<br/><math>RIABLE</math> N DECREASE <math>\beta</math> No change, <math>\beta</math> Increase: Percentage of N in each case<br/><math>\beta</math> and <math>\beta</math> a</td> <td>Number of respondents who felt the standard decreased<br/>crease (Negative D): Number of respondents who felt the standard decreased<br/>uniformity or consistency<br/>crease (Positive D): Number of respondents who felt the standard resulted<br/>in no change in uniformity or consistency<br/>crease, % No Change, % Increase: Percentage of N in each case<br/>Muniformity or consistency<br/>becrease, % No Change, % Increase: Percentage of N in each case<br/>s 401U 309 8 3 83 27 218<br/>5 402U 309 8 3 100 322 200<br/>5 404U 307 5 2 113 36 113<br/>5 405C 315 8 3 117 32 200<br/>5 405C 315 8 3 117 32 200<br/>5 405C 314 30<br/>5 405C 315 8 3 117 32 200<br/>5 405C 314 30<br/>5 405C 315 8 3 117 36<br/>5 405C 314 30<br/>5 405C 314 40<br/>5 405C 315 40<br/>5 405C 314 40<br/>5</td> <td>Number of respondents who felt the standard decreased<br/>crease (Negative D): Number of respondents who felt the standard decreased<br/>uniformity or consistency<br/>crease (Positive D): Number of respondents who felt the standard decreased<br/>crease (Positive D): Number of respondents who felt the standard increased<br/>min no change in uniformity or consistency<br/>becrease, % No Change, % Increase: Percentage of N in each case<br/>No Change, % Increase: Percentage of N in each case<br/>s 401U 309 8 3 83 27 218<br/>S 401U 309 8 3 117 32 215<br/>S 401U 309 9 3 117 32<br/>S 405C 317 8 3 117 32<br/>S 405C 317 8 3 117 32<br/>S 405C 316 7 2 118 38 120<br/>S 405C 316 7 2 118 38 120<br/>S 405C 316 7 2 118 38 120<br/>S 405C 203 8 3 117<br/>S 405C 203 8 3 117<br/>S 405C 204 8 3 117<br/>S 405C 203 8 3 117<br/>S 405C 204 8 3 117<br/>S 405C 203 8 3 117<br/>S 405C 204 8 3 117<br/>S 405C 204 8 3 117<br/>S 405C 204 8 3 117<br/>S 405C 205<br/>S 405C 206 6<br/>S 405C 206 6<br/>S 407C 203 8 3 117<br/>S 405C 206 6<br/>S 405C 206 6<br/>S 407C 203 8 3 117<br/>S 405C 206 6<br/>S 407C 203 8 3 117<br/>S 405C 206 6<br/>S 405C 206 6<br/>S 407C 203 8 3 117<br/>S 405C 206 6<br/>S 405C 206 6<br/>S 407C 206 6<br/>S 407C 206 6<br/>S 407C 206 6<br/>S 407C 207 8 8 3 100<br/>S 407C 207 8 8 3 100<br/>S 407C 208 8 7 107<br/>S 405C 316 8 3 100<br/>S 405C 316 6<br/>S 405C 316 7 2 128<br/>S 405C 316 8 3 117<br/>S 405C 316 7 7 2 128<br/>S 405C 316 7 7 128<br/>S 405C</td> <td>Number of respondents who felt the standard decreasedChange (Zero D):Number of respondents who felt the standard decreasedChange (Zero D):Number of respondents who felt the standard resultedin no change in uniformity or consistencyin no change in uniformity or consistencycrease (Positive D):Number of respondents who felt the standard fresulteduniformity or consistencyin no change in uniformity or consistencybecrease. % No Change. % Increase:Percentage of N in each caseRIABLENDECREASES 401U3098S 401U3098S 401U3098S 402C3159S 403C31627S 403C31627S 403C31627S 405C31629S 405C31627S 405C31638S 405C31638S 405C31637S 405C31637S 405C31637S 405C31637S 405C31637S 405C31637S 405C30541S 405C30637S 405C30637S 405C30637S 405C30637S 405C30637S 405C30637S 405C30637S 405C30637S 405C306S 405C306S 405C306</td> <td>Number of respondents who answered the standard decreased<br/>crease (Negative D). 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117 32<br>S 405C 317 8 3 117 32<br>S 405C 316 7 2 118 38 120<br>S 405C 316 7 2 118 38 120<br>S 405C 316 7 2 118 38 120<br>S 405C 203 8 3 117<br>S 405C 203 8 3 117<br>S 405C 204 8 3 117<br>S 405C 203 8 3 117<br>S 405C 204 8 3 117<br>S 405C 203 8 3 117<br>S 405C 204 8 3 117<br>S 405C 204 8 3 117<br>S 405C 204 8 3 117<br>S 405C 205<br>S 405C 206 6<br>S 405C 206 6<br>S 407C 203 8 3 117<br>S 405C 206 6<br>S 405C 206 6<br>S 407C 203 8 3 117<br>S 405C 206 6<br>S 407C 203 8 3 117<br>S 405C 206 6<br>S 405C 206 6<br>S 407C 203 8 3 117<br>S 405C 206 6<br>S 405C 206 6<br>S 407C 206 6<br>S 407C 206 6<br>S 407C 206 6<br>S 407C 207 8 8 3 100<br>S 407C 207 8 8 3 100<br>S 407C 208 8 7 107<br>S 405C 316 8 3 100<br>S 405C 316 6<br>S 405C 316 7 2 128<br>S 405C 316 8 3 117<br>S 405C 316 7 7 2 128<br>S 405C 316 7 7 128<br>S 405C | Number of respondents who felt the standard decreasedChange (Zero D):Number of respondents who felt the standard decreasedChange (Zero D):Number of respondents who felt the 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TABLE III

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Crosstabulation Results

N: Number of respo $1/1$ , $2/2$ : Res $3/3$ , $4/4$ , $5/5$ : Res $6/6$ , $7/7$ : Res $\%$ : Percentage of N	respon Resp Resp Resp Resp	pondents who an espondents who a espondents who espondents who n in each case	answered the 10 answered tl 10 answered tl 10 answered tl 18	the applicable paired d the paired question d the paired question d the paired question		stions th these th these th these	responses responses responses
VARIABLE	ZI	1/1, 2/2	ଜ୍ୟ	3/3. 4/4. 5/5	ષ્ટ્ય	6/6, 7/7	ષ્ટા
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# V. Summary and Implications

The purpose of this chapter is to summarize the entire research effort and to interpret the analytical results in order to answer the research questions. The main thrust of this research has been to determine what effect Administrative Contracting Officers perceive that each of the first eight cost accounting standards has had on the cost accounting practices utilized by defense contractors. Have these cost accounting standards achieved an increased degree of uniformity and consistency in cost accounting practices?

To explore these research questions a literature survey was conducted in order to review the history of cost accounting standards and to describe how the standards are administered within the federal procurement process. The establishment of cost accounting standards and the Cost Accounting Standards Board were the culmination of several years of Congressional work involving hearings and a feasibility study. The primary witness in favor of cost accounting standards at these hearings was Admiral Hymen G. Rickover. Admiral Rickover decried the inability of the government to properly identify contractor costs to specific government negotiated contracts. He charged that without such standards it was impossible for the government to learn what it costs to make an article or to determine if contractors were making excessive profits. Impressed by his testimony, Congress enacted

legislation requiring a study of the feasibility of applying such standards to defense contracts. The findings of this study were very favorable, and as a result Congress enacted legislation (Public Law 91-379) creating the Cost Accounting Standards Board in 1970. The Board was charged with promulgating cost accounting standards designed to achieve uniformity and consistency in defense contractor cost accounting practices.

These standards are administered within the federal procurement process by two organizations. These are the Defense Contract Administration Services Agency and the Military Flant Cognizance Program. Within these organizations the contracting officer responsible for administering the standards and rules issued by the Board is the Administrative Contracting Officer (ACO). He is the decision maker who must determine whether or not a contractor is in compliance with the promulgations of the Board. This responsibility makes him the focal point for cost accounting standards in defense contract administration.

Due to their unique position, ACOs were chosen as the sample population to query regarding the primary goals cost accounting standards were meant to achieve. These goals, as stated by the Board, are to achieve an increased degree of uniformity and consistency in the cost accounting practices used by defense contractors. A mailed questionnaire was used to elicit ACO perceptions regarding the uniformity and consistency of defense contractor cost accounting practices before.
and then after the first eight cost accounting standards were issued. This study focused on these eight standards because they have been in effect for at least two years. It was presumed that this is an adequate time period to permit an evaluation of the effectiveness of these standards.

## Summary of Findings

This section summarizes the results of the statistical analyses performed on the questionnaire data. As stated previously, ACOs were asked to give their perceptions regarding uniformity and consistency of cost accounting practices before and after the issuance of each of the first eight standards. The result of this was a perceived mean of uniformity and consistency prior to each standard and then a perceived mean of uniformity and consistency at the time of the study. A t test was then used to determine if the perceived mean of uniformity and consistency at the time of the study was significantly greater than the perceived mean of uniformity and consistency prior to the issuance of each standard. The t values obtained were quite large (from 13.10 to 18.52) resulting in one-tailed probabilities significant at the .000 level in each case. Thus, the t test detected a highly significant positive shift in the means of both uniformity and consistency achieved by each standard.

Further analysis was then performed to insure a complete answer to the research question. The paired t test compared means in order to detect an overall shift in perceptions. The writer feels that these results, while quite valid, should

be viewed in conjunction with the total range of responses. Obviously not all ACOs think that the standards have increased uniformity or consistency, and these perceptions were reported in the interest of fairness to the respondents.

A computer program was used to determine the number and percentage of respondents who indicated that the standards had resulted in (1) decreased uniformity and consistency, (2) no change, or (3) increased uniformity and consistency. The respondents who felt that the standards had actually decreased uniformity and consistency was very small, ranging from only 1% to 3% of the sample size, depending on the standard. The respondents who felt that the standards had resulted in no change, however, ranged from 27% to 50%, depending on the standard. These percentages, although seemingly large in some cases, do not alter the overall significant shift detected by the paired t test. This is because the respondents who felt that the standards had increased uniformity and consistency (ranging from 50% to 71%) perceived such a large shift had taken place that the overall results were highly significant.

Next, the responses of ACOs who indicated these standards had not changed the uniformity or consistency of cost accounting practices (27% to 50% of the ACOs, depending on the standard in question) were studied. This was accomplished in order to try to understand why ACOs responded this way. A computer program enabled the writer to determine how many respondents marked a pair of questions (before and after the

standard) with the same response (indicating no change). Assumptions were then made as to the meaning of the paired responses depending on where they were on the answer scale. These responses indicated that only a small percentage of ACOs who perceived that a standard had no effect on cost accounting practices felt this way because they thought the standard had failed. In each case (for every standard) a larger percentage of ACOs perceived that a standard which had no effect thought so because they believed the standard was not necessary in the first place, rather than that the standard had failed. This latter result was especially evident for two standards, CAS 402 and CAS 406.

The final analysis was done on the last four questions on the questionnaire. Questions 42 and 43 asked the ACOs to indicate how strongly they agreed or disagreed with statements that as a whole the first eight standards had achieved increased uniformity (Q42) and consistency (Q43). The means of the responses (4.394 for Q42 and 4.703 for Q43) indicate more agreement than disagreement and imply that ACOs perceive the standards are achieving, as a whole, the two primary goals of the Cost Accounting Standards Board.

The last two questions on the mailed questionnaire asked ACOs to respond to statements that they had sufficient experience with the first eight standards to answer the questions concerning uniformity (Q44) and consistency (Q45). The mean for Q44 was 4.332 and for Q45 was 4.885. This indicates that ACOs feel they are more qualified to answer questions on the

standards concerning consistency than questions concerning uniformity. This is probably due to the fact that the concept of uniformity is more difficult for an ACO to observe because it by necessity involves working with more than one contractor and then comparing the cost accounting practices used by the contractors.

#### Research Implications

This research has attempted to answer the question: have the first eight cost accounting standards achieved increased uniformity and consistency in defense contractor cost accounting practices? In order to do this the primary research question was asked: what effect do Administrative Contracting Officers perceive that each of the first eight cost accounting standards has had on the uniformity and consistency of cost accounting practices employed by defense contractors? Implications drawn from the research enable the writer to answer these questions.

The t test results show conclusively that ACOs perceive that each of the first eight cost accounting standards has significantly increased both uniformity and consistency in the cost accounting practices used by defense contractors. In the opinion of ACOs, then, these standards have achieved the stated objectives of the Cost Accounting Standards Board.

An interesting finding of the research was that sizeable percentages of ACOs perceive that certain standards have not achieved the goals of increased uniformity and consistency, even though the results of the paired t test indicate that

each of the standards has achieved significant results. The responses imply that a number of these ACOs feel that standards perceived to have had no effect were unnecessary in the beginning rather than that these standards have failed.

This may be due to the fact that in some instances the cost accounting practices addressed by the standards were already covered in the Armed Services Procurement Regulations. Another explanation may be that many government contractors were already highly uniform and consistent in these areas of accounting practices, and, therefore, the standards have only noticeably affected a few.

In conclusion, Administrative Contracting Officers perceive that the Cost Accounting Standards Board has been successful in achieving increased uniformity and consistency in the cost accounting practices of defense contractors with its initial eight cost accounting standards.

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# Appendix A

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# Major Rules, Regulations and Cost Accounting Standards Promulgated by the Cost Accounting Standards Board As of July 30, 1976

	Description	Effective Date
1.	Contract Clause	July 1, 1972
2.	Disclosure Statement	July 1, 1972
3.	Disclosure Statement-Lowering floor for filing to net awards of \$10 million	r April 1, 1974
4.	Minimum amount for covered contracts increased from \$100,000 to \$500,000	January 1, 1975
5.	Standard 401-Consistency in Estimating Accumulating and Reporting Costs	July 1, 1972
6.	Standard 402-Consistency in Allocating Costs Incurred for the Same Purpose	July 1, 1972
7.	Interpretation No. 1 to Standard 402	July 1, 1972
8.	Standard 403-Allocation of Home Office Expenses to Segments	July 1, 1973
9.	Standard 404-Capitalization of Tangible Assets	July 1, 1973
10.	Standard 405-Accounting for Unal- lowable Costs	April 1, 1974
11.	Standard 406-Cost Accounting Period	July 1, 1974
12.	Standard 407-Use of Standard Costs for Direct Material and Direct Labor	October 1, 1974
13.	Standard 408-Accounting for Costs of Compensated Personal Absence	July 1, 1975
14.	Standard 409-Depreciation of Tangible Capital Assets	July 1, 1975

# Description

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# Effective Date

15.	Standard 410-Allocation of Business Unit General and Administrative Ex- penses to Final Cost Objectives	October	1,	1976
16.	Standard 411-Accounting for Acquisition Costs of Material	January	1,	1976
17.	Standard 412-Composition and Measurement of Pension Cost	January	1,	1976
18.	Standard 414-Cost of Money as an Element of the Cost of Facilities Capital	October	1,	1976
19.	Standard 415-Accounting for the Cost of Deferred Compensation	January	1,	1977

# Appendix B

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Sample Questionnaire In Mail Survey DEPARTMENT OF THE AIR FORCE AIR FORCE INSTITUTE OF TECHNOLOGY (AU) WRIGHT-PATTERSON AIR FORCE BASE. OHIO 45433



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SUBJECT: Cost Accounting Standards Survey Instructions

ro: Chief, Contract Administration Division

1. This survey of the impact of Cost Accounting Standards upon the accounting practices of defense contractors has been authorized by the Department of Defense under the control number RCS: DDM(OT)7737. Your headquarters has provided the number of ACOs and CACOs(if applicable) in your organization to which this survey is directed. As the Chief of the Contract Administration Division it is requested that you complete one questionnaire and distribute the others to your ACOs and CACOs. Please return the completed questionnaires in the preaddressed envelope provided.

2. If for any reason an ACO or CACO is unavailable to answer the survey please return the uncompleted questionnaire(s).

3. If the number of ACOs and CACOs in your organization is not ( ), please indicate the correct number here( and return this letter in the envelope with the completed questionnaires.

4. If you have any questions or need additional questionnaires, please contact me at Autovon 785-2549 or at 513-255-3362. Thank you for your time and cooperation in this study.

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Adrian M. Harrell, Lt Col, USAF Asst. Prof. of Accounting Dept. of Systems Management School of Engineering

Strength Through Knowledge

DEPARTMENT OF THE AIR FORCE AIR FORCE INSTITUTE OF TECHNOLOGY (AU) WRIGHT-PATTERSON AIR FORCE BASE. OHIO 45433



ATTH OF: AFIT/ENS (Lt Col Harrell/(513)255-3362, AUTOVON 785-3362)

suaject: Cost Accounting Standards Questionnaire

To: All DOD Administrative Contracting Officers and Cost Accounting Standards Specialists

1. The attached questionnaire asks for your views about how Cost Accounting Standards 401-408 have affected certain defense contractor accounting practices. It takes only about 15 minutes to complete, and is part of an Air Force Institute of Technology (AFIT) research project into the impact of Cost Accounting Standards upon the defense procurement process. The questions presented can be answered best only by someone such as yourself whose work is affected by these Standards.

2. This survey is authorized by the DOD under the control number RCS: DDM(OT)7737. Your participation is voluntary. The data that are collected will be aggregated for analysis and your personal anonymity is guaranteed, so please answer frankly. The report that results from this research will be available through the Defense Documentation Center next year.

3. The success of this research effort is totally dependent upon your cooperation. We need the views of as many individuals such as yourself as possible in order to be sure we avoid misleading conclusions. Please take 15 minutes from your schedule to share your knowledge with us.

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ADRIAN M. HARRELL (PhD), Lt Col, USAF Asst Prof of Accounting Department of Systems Management School of Engineering

Strength Through Knowledge

The purpose of this questionnaire is to obtain your views about Cost Accounting Standards 401 through 408. Permission to perform this survey has been obtained from the appropriate authorities. Please respond frankly. The information gathered will be summarized in an Air Force Institute of Technology research report. You will not be identified in the final report, and your participation in this study will be kept confidential.

PLEASE CIRCLE OR WRITE IN THE APPROPRIATE RESPONSE.

1. Are you an administrative contracting officer (ACO)?

a. Yes (If answer is Yes, skip Question 2.)b. No (If answer if No, please answer Question 2.)

- If you are not an ACO, please specify your position (job) title. (Examples: Cost Accounting Standards Monitor, Cost Accounting Standards Specialist, Business Manager, Corporate ACO-CACO, etc.)
- 3. How long have you held your present position (job) in your organization?
  - a. Less than 1 year
  - b. 1 year to less than 3 years
  - c. 3 years to less than 5 years
  - d. 5 years to less than 7 years
  - e. 7 years to less than 9 years
  - f. over 9 years
- 4. How long have you been involved with government contract administration?
  - a. 1 to less than 5 years
  - b. 5 to less than 10 years
  - c. 10 to less than 15 years
  - d. 15 to less than 20 years
  - e. 20 to less than 25 years
  - f. more than 25 years

5.		many different contra h in administering Cos				
	a.	1	d.	4		
	ъ.	2	e.	5		
	с.	3	f.	More than 5		
6.	wit	many different contr h in administering Co ing the past 5 years?	st A			
	a.	1	d.	4		
	ъ.	2	e.	5		
	с.	3	f.	More than 5		
7.	Ple	ase indicate your gra	de.			
	a.	GS-9	f.	GS-14	k.	0-4
	ъ.	GS-10	g.	GS-15	1.	0-5
	с.	GS-11	h.	0-1	m.	0-6
	d.	GS-12	i.	0-2	n.	
	e.	GS-13	j.	0-3		specify)
8.	Wha	t is your highest lev	el o	f education?		
	a.	Less than a Bachelor	's d	egree		
	ь.	Bachelor's degree				
		Graduate work beyond	a b	achelor degree		
		Master's degree				
	e.	Postgraduate work be	yond	a Master's degree		
	f.	Doctorate degree				
				/		
9.		icate the approximate accounting you have c			1 ed	ucation
	a.	0-6				
		7-12				
		13-18				
		19-24				
	e.	25 or more				

## COST ACCOUNTING STANDARDS

Cost Accounting Standards seek to achieve two primary accounting goals, UNIFORMITY and CONSISTENCY.

UNIFORMITY is achieved when <u>different</u> defense contractors employ the same cost accounting practices under the same circumstances.

CONSISTENCY is achieved when an <u>individual</u> defense contractor employs the same cost accounting practices over time.

With these two definitions in mind, please complete the following questions, which address Cost Accounting Standards 401 through 408. Indicate the extent to which you disagree or agree with each of the statements presented below by marking the appropriate response.

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Cost Accounting Standard 401 (effective July 1, 1972) seeks to insure that the practices defense contractors use to estimate costs during the proposal stage are consistent with the practices used to accumulate costs during the execution stage.

Cost accounting practices in this area:

	(UNIFORMITY)	Strong Disagr	ly ee					ongly ree
10.	Were highly uniform <u>before</u> this CAS became effective.	1	2	3	4	5	6	7
11.	Are highly uniform at the <u>present</u> time.	l	2	3	4	5	6	7
12.	(CONSISTENCY) Were highly consistent <u>before</u> this CAS became effective.	l	2	3	4	5	6	7
13.	Are highly consistent at the <u>present</u> time.	1	2	3	4	5	6	7

Cost Accounting Standard 402 (effective July 1, 1972) seeks to assure that each type of cost is allocated only once to any contract or cost objective.

Cost accounting practices in this area:

	(UNIFORMITY)	Strong Disagr	ly ee					ongly ree
14.	Were highly uniform <u>before</u> this CAS became effective.	l	2	3	4	5	6	7
15.	Are highly uniform at the present time.	1	2	3	4	5	6	7
16.	(CONSISTENCY) Were highly consistent <u>before</u> this CAS became effective.	ı	2	3	4	5	6	7
17.	Are highly consistent at the present time.	l	2	3	4	5	6	7

Cost Accounting Standard 403 (effective July 1, 1973) establishes criteria for allocating home office expenses to the segments of an organization.

Cost accounting practices in this area:

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	(UNIFORMITY)	Strong Disagr	ly ee					ongly
18.	Were highly uniform <u>before</u> this CAS became effective.	1	2	3	4	5	6	7
19.	Are highly uniform at the present time.	l	2	3	4	5	6	7
20.	(CONSISTENCY) Were highly consistent <u>before</u> this CAS became effective.	1	2	3	4	5	6	7
21.	Are highly consistent at the <u>present</u> time.	l	2	3	4	5	6	7

Cost Accounting Standard 404 (effective July 1, 1973) establishes criteria for the capitalization of tangible assets.

Cost accounting practices in this area:

	(UNIFORMITY)	Strong Disagr	ly ee					ongly	
22.	Were highly uniform <u>before</u> this CAS became effective.	1	2	3	4	5	6	7	
23.	Are highly uniform at the present time.	1	2	3	4	5	6	7	
24.	(CONSISTENCY) Were highly consistent <u>before</u> this CAS became effective.	1	2	3	4	5	6	7	
25.	Are highly consistent at the present time.	l	2	3	4	5	6	7	

Cost Accounting Standard 405 (effective April 1, 1974) establishes guidelines for the accounting treatment of unallowable costs.

Cost accounting practices in this area:

	(UNIFORMITY)	Strong Disagr	ly ee					ongly ree	
26.	Were highly uniform <u>before</u> this CAS became effective.	l	2	3	4	5	6	7	
27.	Are highly uniform at the present time.	l	2	3	4	5	6	7	
28.	(CONSISTENCY) Were highly consistent <u>before</u> this CAS became effective.	1	2	3	4	5	6	7	
29.	Are highly consistent at the <u>present</u> time.	l	2	3	4	5	6	7	

Cost Accounting Standard 406 (effective July 1, 1974) establishes criteria for selecting the time period (e.g., 12 months, 15 months, etc.) to be used for contract cost estimating, accumulating and reporting.

Cost accounting practices in this area:

	(UNIFORMITY)	Strong Disagr						ongly ree	
30.	Were highly uniform <u>before</u> this CAS became effective.	l	2	3	4	5	6	7	
31.	Are highly uniform at the present time.	1	2	3	4	5	6	7	
32.	(CONSISTENCY) Were highly consistent <u>before</u> this CAS became effective.	1	2	3	4	5	6	7	
33.	Are highly consistent at the present time.	l	2	3	4	5	6	7	

Cost Accounting Standard 407 (effective October 1, 1974) establishes criteria for the use of standard costs for direct materials and direct labor and for the accounting treatment of standard cost variances.

Cost accounting practices in this area:

	(UNIFORMITY)	Strong Disagr	ly ee					ongly
34.	Were highly uniform <u>before</u> this CAS became effective.	1	2	3	4	5	6	7
35.	Are highly uniform at the present time.	l	2	3	4	5	6	7
36.	(CONSISTENCY) Were highly consistent <u>before</u> this CAS became effective.	1	2	3	4	5	6	7
37.	Are highly consistent at the present time.	1	2	3	4	5	6	7

Cost Accounting Standard 408 (effective July 1, 1975) seeks to insure that compensated personal absence costs (vacation, sick leave, etc.) are measured and allocated to the proper cost objectives.

Cost accounting practices in this area:

	(UNIFORMITY)	Strong Disagr					Str Ag	ongly
38.	Were highly uniform <u>before</u> this CAS became effective.	l	2	3	4	5	6	7
39.	Are highly uniform at the present time.	1	2	3	4	5	6	7
40.	(CONSISTENCY) Were highly consistent <u>before</u> this CAS became effective.	1	2	3	4	5	6	7
41.	Are highly consistent at the <u>present</u> time.	l	2	3	4	5	6	7

42. Cost Accounting Standards 401 through 408 have achieved increased UNIFORMITY in the cost accounting practices followed by the defense contractors to which they apply.

Strongly Disagree					2	Strongly Agree
1	2	3	4	5	6	7

43. Cost Accounting Standards 401 through 408 have achieved increased CONSISTENCY in the cost accounting practices followed by the individual defense contractors to which they apply.

Strongly Disagree					5	Strongly Agree
1	2	3	4	5	6	7

44. I feel that my experience with Cost Accounting Standards 401 through 408 is sufficient to answer the questions which address UNIFORMITY.

Strongly Disagree					S	Strongly Agree
1	2	3	4	5	6	7

45. I feel that my experience with Cost Accounting Standards 401 through 408 is sufficient to answer the questions which address CONSISTENCY.

Strongly Disagree					S	Strongly Agree
1	2	3	4	5	6	7

#### PRIVACY STATEMENT

In accordance with paragraph 30, AFR 12-35, the following information is provided as required by the Privacy Act of 1974:

a. Authority:

(1) 10 U.S.C., 80-12, <u>Secretary of the Air Force</u>, <u>Powers, Duties, Delegation by Compensation</u>; and/or

(2) EO 93-97, 22 Nov 43, <u>Numbering System for Federal</u> <u>Accounts Relating to Individual Persons</u>; and/or

(3) DOD Instruction 1100.13, 17 Apr 68, <u>Surveys of</u> <u>Department of Defense Personnel</u>; and/or

b. Principal purposes. The survey is being conducted to collect information to be used in research aimed at illuminating and providing inputs to the solution of problems of interest to the Air Force and/or DOD.

c. Routine Uses. The survey data will be converted to information for use in research of management related problems. Results of the research based on the data provided, will be included in written master's theses and may also be included in published articles, reports, or texts. Distribution of the results of the research, based on the survey data, whether in written form or presented orally, will be unlimited.

d. Participation in this survey is entirely voluntary.

e. No adverse action of any kind may be taken against any individual who elects not to participate in any or all of this survey.

# Appendix C

#### Current Studies of the

#### Cost Accounting Standards Board

Selection of specific areas for research and possible development of Cost Accounting Standards is based primarily on (1) relationship to the objectives of Public Law 91-379, (2) significance of observed cost accounting problems, and (3) relationship to other work of the Board. The research projects pursued in the past year are as follows:

1. Accounting for Direct Materials Not Incorporated in Contract End Items - This subject encompasses the accounting for the cost of materials which are allocable directly to contracts and other final cost objectives but which are not incorporated in end items. Research on this subject has indicated it can be appropriately covered by an Interpretation to Standard 401. The Interpretation was published in the Federal Register for comment in June 1976.

2. Allocation of Manufacturing, Engineering and Comparable Overhead - This project covers the allocation of pools of manufacturing, engineering and comparable overhead. A preliminary draft Standard on manufacturing overhead was distributed for comment in March 1976, and responses are being analyzed.

3. Adjustment and Allocation of Pension Cost - This project deals with the criteria used for measuring and assigning to cost accounting periods the value of actuarial gains and losses. Criteria will be developed for both regularly recurring and abnormal gains and losses. The project also deals with criteria for allocating pension costs from a home office to segments. A preliminary draft Standard was distributed for comment in June 1976.

4. Distinguishing Between Direct and Indirect Costs -This study covers the accounting concepts and principles governing consistent classification of costs as direct or indirect, and the bases for making distinctions. An issues paper was distributed for comment in November 1975. The responses have been analyzed, and a preliminary draft Standard is in preparation.

5. Accounting for Costs of Service Centers - Research on this subject involves the development of concepts for use in accounting for the costs of service centers. An issues paper was distributed for comment in January 1976 and responses are being analyzed.

6. Accounting for Insurance Costs - This project deals with criteria for the measurement of insurance costs, including self-insurance, the appropriate treatment of premium adjustments, and the allocation of insurance costs to cost objectives. An issues paper was distributed in February 1976. Responses are being analyzed.

7. Allocation of Material-Related Costs - This subject deals with criteria for cost-pool creation and allocationbase selection pertaining to material-related costs. The scope includes the costs incurred for the activities associated with acquiring, handling, and controlling materials. An issues paper was mailed in April 1976 and responses are being analyzed.

8. Independent Research and Development and Bid and Proposal Costs - This subject covers the accounting for costs of performing independent research and development and costs of preparing bids and proposals by contractors engaged in Government contracts. Information on existing accounting practices concerning these costs has been obtained and is being analyzed.

9. Indirect Costs of Colleges and Universities - This study involves an inquiry into the nature and composition of indirect cost rates of colleges and universities which have defense contracts. An issues paper was distributed in July 1976.

10. Accounting for Contract Terminations - Research continues on this study, which concerns the inquiry into cost accounting practices applicable to contracts which are terminated for the convenience to the Government. Research is continuing after analysis of the responses to a March 1975 questionnaire.

11. Accounting for Intracompany Transfers - This project is in the preliminary research stage. It covers inquiry into the accounting problems involved in the pricing of intracompany sales or transfers of goods and services.

12. Cost of Money as an Element of the Cost of Operating Capital - This project was part of the broader topic dealing with cost of capital. The topic was split into two distinct subjects prior to the promulgation of the Cost Accounting Standard on Cost of Money as an Element of the Cost of Facilities Capital. The coverage of that Standard is limited to cost of money as related to facilities capital. Research is continuing on cost of money as related to operating capital.

13. Joint Product Costing - This study involves special cost accounting problems related to manufacturing processes in which multiple products are produced in a joint operation. Such processes are usually used in, although not necessarily limited to, the chemical and petroleum refining industries. Research on this project is in its early stages.

14. Terminology Project - The Board has a continuing effort to develop definitions for those terms which may be used in Cost Accounting Standards. Many individuals in Government, industry, and the public accounting profession, and the academic community participate in this effort by commenting on draft definitions. Definitions used in Standards promulgated by the Board appear in Part 400 of the Board's regulations.

### Appendix D

#### Purpose and Fundamental

## Requirements of CAS 401 - 408

CAS 401 - Consistency in Estimating, Accumulating and Reporting Costs.

#### Purpose

The purpose of this Cost Accounting Standard is to insure that each contractor's practices used in estimating costs for a proposal are consistent with cost accounting practices used by him in accumulating and reporting costs. Consistency in the application of cost accounting practices is necessary to enhance the likelihood that comparable transactions are treated alike. With respect to individual contracts, the consistent application of cost accounting practices will facilitate the preparation of reliable cost estimates used in pricing a proposal and their comparison with the costs of performance of the resulting contract. Such comparisons provide one important basis for financial control over costs during contract performance and aid in establishing accountability for costs in the manner agreed to by both parties at the time of contracting. The comparisons also provide an improved basis for evaluating estimating capabilities.

#### Fundamental Requirement

(a) A contractor's practices used in estimating costs in pricing a proposal shall be consistent with his cost accounting practices used in accumulating and reporting costs.

(b) A contractor's cost accounting practices used in accumulating and reporting actual costs for a contract shall be consistent with his practices used in estimating costs in pricing the related proposal.
(c) The grouping of homogeneous costs in estimates

(c) The grouping of homogeneous costs in estimates prepared for proposal purposes shall not per se be deemed an inconsistent application of cost accounting practices under paragraphs (a) and (b) of this section when such costs are accumulated and reported in greater detail on an actual cost basis during contract performance.

CAS 402 - Consistency in Allocating Costs Incurred for the Same Purpose.

#### Purpose

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The purpose of this standard is to require that each





type of cost is allocated only once and on only one basis to any contract or other cost objective. The criteria for determining the allocation of costs to a product, contract, or other cost objective should be the same for all similar objectives. Adherence to these cost accounting concepts is necessary to guard against the overcharging of some cost objectives and to prevent double counting. Double counting occurs most commonly when cost items are allocated directly to a cost objective without eliminating like cost items from indirect cost pools which are allocated to that cost objective.

#### Fundamental Requirement

All costs incurred for the same purpose, in like circumstances, are either direct costs only or indirect costs only with respect to final cost objectives. No final cost objective shall have allocated to it as an indirect cost any cost, if other costs incurred for the same purpose, in like circumstances, have been included as a direct cost of that or any other final cost objective. Further, no final cost objective shall have allocated to it as a direct cost any cost, if other costs incurred for the same purpose, in like circumstances, have been included in any indirect cost pool to be allocated to that or any other final cost objective.

CAS 403 - Allocation of Home Office Expenses to Segments.

Purpose

(a) The purpose of this Cost Accounting Standard is to establish criteria for allocation of the expenses of a home office to the segments of the organization based on the beneficial or causal relationship between such expenses and the receiving segments. It provides for (1) identification of expenses for direct allocation to segments to the maximum extent practical; (2) accumulation of significant nondirectly allocated expenses into logical and relatively homogeneous pools to be allocated on bases reflecting the relationship of the expenses to the segments concerned; and (3) allocation of any remaining or residual home office expenses to all segments. Appropriate implementation of this Standard will limit the amount of home office expenses classified as residual to the expenses of managing the organization as a whole.

(b) This Standard does not cover the reallocation of a segment's share of home office expenses to contracts and other cost objectives.

#### Fundamental Requirement

(a)(1) Home office expenses shall be allocated on the basis of the beneficial or causal relationship between supporting and receiving activities. Such expenses shall

be allocated directly to segments to the maximum extent practical. Expenses not directly allocated, if significant in amount and in relation to total home office expenses, shall be grouped in logical and homogeneous expense pools and allocated pursuant to paragraph (b) of this section. Such allocations shall minimize to the extent practical the amount of expenses which may be catagorized as residual (those of managing the organization as a whole). These residual expenses shall be allocated pursuant to paragraph (c) of this section.

(2) No segment shall have allocated to it as an indirect cost, either through a homogeneous expense pool, or the residual expense pool, any cost, if other costs incurred for the same purpose have been allocated directly to that or any other segment.

(b) The following subparagraphs provide criteria for allocation of groups of home office expenses.

(1) Centralized service functions. Expenses of centralized service functions performed by a home office for its segments shall be allocated to segments on the basis of the service furnished to or received by each segment. Centralized service functions performed by a home office for its segments are considered to consist of specific functions which, but for the existence of a home office, would be performed or acquired by some or all of the segments individually. Examples include centrally performed personnel administration and centralized data processing.

(2) Staff management of certain specific activities of segments. The expenses incurred by a home office for staff management or policy guidance functions which are significant in amount and in relation to total home office expenses shall be allocated to segments receiving more than a minimal benefit over a base, or bases, representative of the total specific activity being managed. Staff management or policy guidance to segments is commonly provided in the overall direction or support of the performance of discrete segment activities such as manufacturing, accounting, and engineering (but see subparagraph (6) of this paragraph).

(3) Line management of particular segments or groups of segments. The expense of line management shall be allocated only to the particular segment or group of segments which are being managed or supervised. If more than one segment is managed or supervised, the expense shall be allocated using a base or bases representative of the total activity of such segments. Line management is considered to consist of management or supervision of a segment or group of segments as a whole.

(4) Central payments or accruals. Central payments or accruals which are made by a home office on behalf of its segments shall be allocated directly to segments to the extent that all such payments or accruals of a given type or class can be identified specifically with individual segments. Central payments or accruals are those which but for the existence of a number of segments would be accrued or paid by the individual segments. Common examples include centrally paid or accrued pension costs, group insurance costs, State and local income taxes and franchise taxes, and payrolls paid by a home office on behalf of its segments. Any such types of payments or accruals which cannot be identified specifically with individual segments shall be allocated to benefited segments using an allocation base representative of the factors on which the total payment is based.

(5) Independent research and development and bidding and proposal costs. Notwithstanding any other provisions herein, the costs of independent research and development and bidding and proposal efforts allocated by a home office shall continue to be allocated pursuant to provisions of existing laws, regulations, and other controlling factors.

(6) Staff management not identifiable with any certain specific activities of segments. The expenses incurred by a home office for staff management, supervisory, or policy functions, which are not identifiable to specific activities of segments shall be allocated in accordance with paragraph (c) of this section as residual expenses.

(c) Residual expenses.

(1) All home office expenses which are not allocable in accordance with paragraph (a) of this section and subparagraphs (1) through (5) of paragraph (b) of this section shall be deemed residual expenses. Typical residual expenses are those for the chief executive, the chief financial officer, and any staff which are not identifiable with specific activities of segments. Residual expenses shall be allocated to all segments under a home office by means of a base representative of the total activity of such segments, except where subparagraph (2) or (3) of this paragraph applies. (2) Residual expenses shall be allocated pursuant

(2) Residual expenses shall be allocated pursuant to subparagraph (1) of 403.50(c) if the total amount of such expenses for the contractor's previous fiscal year (excluding any unallowable costs and before eliminating any amounts to be allocated in accordance with subparagraph (3) of this paragraph) exceeds the amount obtained by applying the following percentage(s) to the aggregate operating revenue of all segments for such previous year:

3.35 percent of the first \$100 million; 0.95 percent of the next \$200 million; 0.30 percent of the next \$2.7 billion; 0.20 percent of all amounts over \$3 billion.

The determination required by this subparagraph for the lst year the contractor is subject to this Standard shall be based on the pro forma application of this Standard to the home office expenses and aggregate operating revenue for the contractor's previous fiscal year. (3) Where a particular segment receives significantly more or less benefit from residual expenses than would be reflected by the allocation of such expenses pursuant to subparagraph (1) or (2) of this paragraph (see 403.50 (d)), the Government and the contractor may agree to a special allocation of residual expenses to such segment commensurate with the benefits received. The amount of a special allocation to any segment made pursuant to such an agreement shall be excluded from the pool of residual expenses to be allocated pursuant to subparagraph (1) or (2) of this paragraph, and such segment's data shall be excluded from the base used to allocate this pool.

# CAS 404 - Capitalization of Tangible Assets.

Purpose

This Standard requires that, for purposes of cost measurement, contractors establish and adhere to policies with respect to capitalization of tangible assets which satisfy criteria set forth herein. Normally, cost measurements are based on the concept of enterprise continuity; this concept implies that major asset acquisitions will be capitalized, so that the cost applicable to current and future accounting periods can be allocated to cost objectives of those periods. A capitalization policy in accordance with this Standard will facilitate measurement of costs consistently over time.

#### Fundamental Requirement

(a) The acquisition cost of tangible capital assets shall be capitalized. Capitalization shall be based upon a written policy that is reasonable and consistently applied.

(b) The contractor's policy shall designate economic and physical characteristics for capitalization of tangible assets.

(1) The contractor's policy shall designate a minimum service life criterion, which shall not exceed 2 years, but which may be a shorter period. The policy shall also designate a minimum acquisition cost criterion which shall not exceed \$500, but which may be a smaller amount.

(2) The contractor's policy may designate other specific characteristics which are pertinent to his capitalization policy decisions (e.g., class of asset, physical size, identifiability and controllability, the extent of integration or independence of constituent units).

(3) The contractor's policy shall provide for identification of asset accountability units to the maximum extent practical.

(4) The contractor's policy may designate higher minimum dollar limitations for original complement of low cost equipment and for betterments and improvements than the limitation established in accordance with paragraph (b)(1) of this section, provided such higher limitations are reasonable in the contractor's circumstances.

(c) Tangible assets shall be capitalized when both of the criteria in the contractor's policy as required in paragraph (b)(1) of this section are met, except that assets described in paragraph (b)(4) of this section shall be capitalized in accordance with the criteria established in accordance with that paragraph.

(d) Costs incurred subsequest to the acquisition of a tangible capital asset which result in extending the life or increasing the productivity of that asset (e.g., betterments and improvements) and which meet the contractor's established criteria for capitalization shall be capitalized with appropriate accounting for replaced asset accountability units. However, costs incurred for repairs and maintenance to a tangible capital asset which either restore the asset to, or maintain it at, its normal or expected service life or production capacity shall be treated as costs of the current period.

CAS 405 - Accounting for Unallowable Costs.

#### Purpose

(a) The purpose of this Cost Accounting Standard is to facilitate the negotiation, audit, administration and settlement of contracts by establishing guidelines covering: (1) Identification of costs specifically described as unallowable, at the time such costs first become defined or authoritatively designated as unallowable; and (2) the cost accounting treatment to be accorded such identified unallowable costs in order to promote the consistent application of sound cost accounting principles covering all incurred costs. The Standard is predicated on the proposition that costs incurred in carrying on the activities of an enterprise-regardless of the allowability of such costs under Government contracts-are allocable to the cost objectives with which they are identified on the basis of their beneficial or causal relationships.

(b) This Standard does not govern the allowability of costs. This is a function of the appropriate procurement or reviewing authority.

#### Fundamental Requirement

(a) Costs expressly unallowable or mutually agreed to be unallowable, including costs mutually agreed to be unallowable directly associated costs, shall be identified and excluded from any billing, claim, or proposal applicable to a Government contract.

(b) Costs which specifically become designated as unallowable as a result of a written decision furnished by a contracting officer pursuant to contract disputes procedures shall be identified if included in or used in the computation of any billing, claim, or proposal applicable to a Government contract. This identification requirement applies also to any costs incurred for the same purpose under like circumstances as the costs specifically identified as unallowable under either this paragraph or paragraph (a) of this section.

(c) Costs which, in a contracting officer's written decision furnished pursuant to contract disputes procedures, are designated as unallowable directly associated costs of unallowable costs covered by either paragraph (a) or (b) of this section shall be accorded the identification required by paragraph (b) of this section.

(d) The costs of any work project not contractually authorized, whether or not related to performance of a proposed or existing contract, shall be accounted for, to the extent appropriate, in a manner which permits ready separation from the costs of authorized work projects.

(e) All unallowable costs covered by paragraphs (a) through (d) of this section shall be subject to the same cost accounting principles governing cost allocability as allowable costs. In circumstances where these unallowable costs normally would be part of a regular indirect-cost allocation base or bases, they shall remain in such base or bases. Where a directly associated cost is part of a category of costs normally included in an indirect-cost pool that will be allocated over a base containing the unallowable cost with which it is associated, such a directly associated cost shall be retained in the indirect-cost pool and be allocated through the regular allocation process.

(f) Where the total of the allocable and otherwise allowable costs exceeds a limitation-of-cost or ceilingprice provision in a contract, full direct and indirect cost allocation shall be made to the contract cost objective, in accordance with established cost accounting practices and Standards which regularly govern a given entity's allocations to Government contract cost objectives. In any determination of unallowable cost overrun, the amount thereof shall be identified in terms of the excess of allowable costs over the ceiling amount, rather than through specific identification of particular cost items or cost elements.

CAS 406 - Cost Accounting Period.

#### Purpose

The purpose of this Cost Accounting Standard is to provide criteria for the selection of the time periods to be used as cost accounting periods for contract cost estimating, accumulating, and reporting. This Standard will reduce the effects of variations in the flow of costs within each cost accounting period. It will also enhance objectivity, consistency, and verifiability, and promote uniformity and comparability in contract cost measurements.

Fundamental Requirement

(a) A contractor shall use his fiscal year as his cost accounting period, except that:

(1) Costs of an indirect function which exists for only a part of a cost accounting period may be allocated to cost objectives of that same part of the period as provided in 406.50(a).

(2) An annual period other than the fiscal year may, as provided in 406.50(d), be used as the cost accounting period if its use is an established practice of the contractor.

(3) A transitional cost accounting period other than a year shall be used whenever a change of fiscal year occurs.

(4) Where a contractor's cost accounting period is different from the reporting period required by Renegotiation Board regulations, the latter may be used for such reporting.

(b) A contractor shall follow consistent practices in his selection of the cost accounting period or periods in which any types of expense and any types of adjustment to expense (including prior-period adjustments) are accumulated and allocated.

(c) The same cost accounting period shall be used for accumulating costs in an indirect cost pool as for establishing its allocation base, except that the contracting parties may agree to use a different period for establishing an allocation base as provided in 406.50(e).

CAS 407 - Use of Standard Costs for Direct Material and Direct Labor.

#### Purpose

(a) The purpose of this Cost Accounting Standard is to provide criteria under which standard costs may be used for estimating, accumulating, and reporting costs of direct material and direct labor, and to provide criteria relating to the establishment of standards, accumulation of standard costs, and accumulation and disposition of variances from standard costs. Consistent application of these criteria where standard costs are in use will improve cost measurement and cost assignment.

(b) This Cost Accounting Standard is not intended to cover the use of pre-established measures solely for estimating.

### Fundamental Requirement

Standard costs may be used for estimating, accumulating, and reporting costs of direct material and direct labor only when all of the following criteria are met: (a) Standard costs are entered into the books of account;

(b) Standard costs and related variances are appropriately accounted for at the level of the production unit; and

(c) Practices with respect to the setting and revising of standards, use of standard costs, and disposition of variances are stated in writing and are consistently followed.

CAS 408 - Accounting for Costs of Compensated Personal Absence.

# Purpose

The purpose of this Standard is to improve, and provide uniformity in, the measurement of costs of vacation, sick leave, holiday, and other compensated personal absence for a cost accounting period, and thereby increase the probability that the measured costs are allocated to the proper cost objectives.

#### Fundamental Requirement

(a) The costs of compensated personal absence shall be assigned to the cost accounting period or periods in which the entitlement was earned.

(b) The costs of compensated personal absence for an entire cost accounting period shall be allocated pro-rata on an annual basis among the final cost objectives of that period.

# Appendix E

# Demographic Questions and Frequency of Responses

The first nine questions on the questionnaire ask for demographic information about the respondents. Except for questions one and two, which are combined for brevity, these questions will be presented as they were on the questionnaire. Only the demographics for respondents who were ACOs and CACOs is presented. The absolute frequency and adjusted percentage of these respondents will be presented beside the response they chose for each question in the following manner: (24/7.2%).

# 1/2. ACO or CACO?

a.	ACO	(310/96.6%)
ъ.	CACO	(11/3.4%)

3. How long have you held your present position (job) in your organization?

a.	Less than 1 year	(29/9.1%)
ъ.	l year to less than 3 years	(54/16.9%)
с.	3 years to less than 5 years	(29/9.1%)
d.	5 years to less than 7 years	(82/25.7%)
e.	7 years to less than 9 years	(21/6.6%)
f.	over 9 years	(104/32.6%)

4. How long have you been involved with government contract administration?

a.	l to less than 5 years	(11/3.4%)
ъ.	5 to less than 10 years	(28/8.7%)
c.	10 to less than 15 years	(81/25.2%)

d.	15 to less than 20 years	(66/20.6%)
e.	20 to less than 25 years	(94/29.3%)
f.	more than 25 years	(41/12.8%)

5. How many different contractor(s) are you presently involved with in administering Cost Accounting Standards (CAS)?

a.	1			(146/45.8%)
b.	2			(34/10.7%)
c.	3			(32/10.0%)
d.	4			(18/5.6%)
e.	5			(14/4.4%)
f.	More	than	5	(75/23.5%)

6. How many different contractor(s) have you been involved with in administering Cost Accounting Standards (CAS) during the past 5 years?

a.	1	(78/24.4%)
ъ.,	2	(42/13.1%)
с.	3	(38/11.9%)
d.	4	(21/6.6%)
e.	5	(26/8.1%)
f.	More than 5	(115/35.9%)

7. Please indicate your grade.\*

GS-12	(215/67%)
GS-13	(70/21.8%)
GS-14	(31/9.7%)
0-3	(4/1.2%)
0-5	(1/.3%)
	GS-13 GS-14 0-3

\*Missing choices had no responses.

8. What is your highest level of education?

a.	Less than a Bachelor's degree	(139/43.3%)
ъ.	Bachelor's degree	(89/27.7%)
с.	Graduate work beyond a bachelor degree	(55/17.1%)
d.	Master's degree	(26/8.1%)
e.	Postgraduate work beyond a Master's degree	(6/1.9%)
f.	Doctorate degree	(6/1.9%)

9. Indicate the approximate hours/credits of formal education in accounting you have completed.

a.	0-6	(134/41.9%)
ъ.	7-12	(77/24.1%)
с.	13-18	(36/11.2%)
d.	19-24	(19/5.9%)
e.	25 or more	(54/16.9%)

Joe M. Banks was born in Ft. Worth, Texas on 10 July 1947. At the age of 11 h. moved to Panama City, Florida. He was graduated from Rutherford High School in 1965. He received an AS degree from Gulf Coast Junior College in 1967 and a BS degree in Mathematics from Florida State University in 1969. He was commissioned as a second lieutenant in the Air Force from ROTC.

His first assignment was to Undergraduate Navigator Training (UNT) at Mather AFB, California where he earned his wings in August 1970. He was then transferred to Pope AFB, North Carolina where he flew tactical airlift for two years in C-130 aircraft.

In the summer of 1972 he attended AC-130 Gunship Training at Hurlburt AFB, Florida in preparation for a one year tour at Ubon RTAFB, Thailand. In Thailand Captain Banks flew 400 hours of combat in the AC-130A and AC-130E aircraft.

In 1973 Captain Banks returned to Mather AFB as an UNT Instructor Navigator where he served until August 1976 when he entered the Air Force Institute of Technology.

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Vita

UNCLASSIFIED SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered) READ INSTRUCTIONS BEFORE COMPLETING FORM REPORT DOCUMENTATION PAGE REPORT NUMBER RECIPIENT'S CATALOG NUMBER 2 GONT ACCESSION NO. 3 AFIT/GSM/SM/77D-16 Maste thesis 2-BIOD COVERED ACO PERCEPTIONS REGARDING THE UNIFORMITY AND CONSISTENCY IN DEFENSE CONTRACTOR COST ACCOUNTING PRACTICES ACHIEVED BY COST ACCOUNTING STANDARDS 401 - 498. 6 M.S. Thesis 6. PERFORMING ORG. REPORT NUMBER CONTRA T OR GRANT NUMBER(S) Joe M./Banks IC 10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS 9. PERFORMING ORGANIZATION NAME AND ADDRESS Air Force Institute of Technology (AFIT/EN) Wright-Patterson AFB, Ohio 45433 11. CONTROLLING OFFICE NAME AND ADDRESS Dec Air Force Institute of Technology (AFIT/EN Wright-Patterson AFB, Ohio 45433 108 14. MONITORING AGENCY NAME & ADDRESS(If different from Controlling Office) 15. SECURITY CLASS. (of this report) UNCLASSIFIED 154. DECLASSIFICATION DOWNGRADING SCHEDULE 16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited 17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report) 18. SUPPLEMENTARY NOTES Approved providing release; IAW AFR 190-17 200 JINRAL F. GUESS, Capt, USAF Director of Information 19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Cost Accounting Standards Cost Accounting Standards Board Administrative Contracting Officer (ACO) 20. ABSTRACT (Continue on reverse side if necessary and identity by block number) The primary purpose of this thesis was to determine if the first eight cost accounting standards have achieved the two primary goals of increasing uniformity and consistency of defense contractor cost accounting practices. These two objectives (increased uniformity and consistency) are the primary goals of cost accounting standards according to the Cost Accounting Standards Board. In order to make this determination, a mailed questionnaire was distributed to all Department of Defense Administra DD 1 JAN 73 1473 EDITION OF I NOV 65 IS OBSOLETE UNCLASSIFIED SECURITY CLASSIFICATION OF THIS PAGE (When Date Entered)