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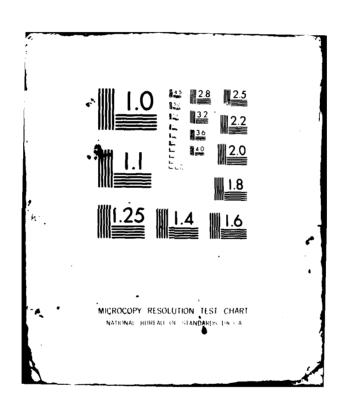
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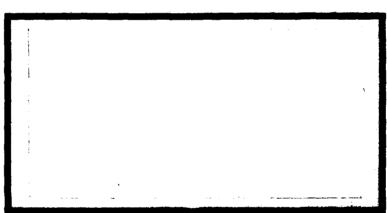
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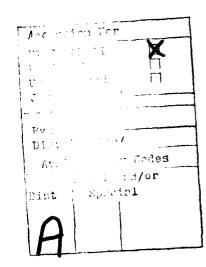
PROCURING CONTRACTING OFFICERS'
PERCEPTIONS OF THE CONTRIBUTIONS
MADE TO DEFENSE COST ACCOUNTING
PRACTICES BY CAS 401-416

Captain Bruce E. Simpson, USA

LSSR 70-81

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The Cost Accounting Standards Board was created in 1970 to promulgate Cost Accounting Standards designed to improve the uniformity and consistency of defense contractors' cost accounting practices. The Board promulgated 19 Standards before it was terminated, 1 October 1980. This study was conducted to examine the effects Cost Accounting Standards 401-416 had on the cost accounting practices of defense contractors. A questionnaire was used to gather Procuring Contracting Officers' perceptions concerning these effects and a statistical analysis performed on the gathered data to determine if any statistically significant changes occurred in defense contractors' cost accounting practices. The Procuring Contracting Officers perceived that each of the 16 Cost Accounting Standards did improve the uniformity and consistency of cost accounting practices. The study also included several other accounting issues. Comparability of proposed and actual contract costs, control of cost reporting, government-contractor disagreements and contract negotiation and administration were included in the statistical analysis.

PROCURING CONTRACTING OFFICERS'

PERCEPTIONS OF THE CONTRIBUTIONS

MADE TO DEFENSE COST ACCOUNTING

PRACTICES BY CAS 401-416

A Thesis

Presented to the Faculty of the School of Systems and Logistics of the Air Force Institute of Technology

Air University

In partial fulfillment of the requirement for the Degree of Master of Science in Systems Management

Ву

Bruce E. Simpson, B.S. Captain, USA

September 1981

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This thesis, written by

Capt Bruce E. Simpson

has been accepted by the undersigned on behalf of the faculty of the School of Systems and Logistics in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE IN SYSTEMS MANAGEMENT

DATE: 30 September 1981

COMMITTEE CHAIRMAN

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Chapter 1

INTRODUCTION

Background

As early as 1934 the government has been concerned with the application of cost accounting standards to defense related contractors. The Vinson-Trammel Act of 1934 (Howell,1977) limited the profits on aircraft and naval contracts. The Vinson-Trammel Act was followed in the WWII time frame by Treasury Decision 5000, which was used for cost determination in Army contracts (Howell,1977). In 1947, the National Security Act, which established the Department of Defense, included a document called the Armed Services Procurement Regulation (ASPR) which contained a set of cost principles in section XV (Howell,1977). ASPR has been revised and updated over the years and in 1980 had its name changed to the Defense Acquisition Regulation (DAR).

During the 1960's, Vice Admiral Hymen G. Rickover, then director of the Naval Propulsion and Reactor programs for the Navy and the Atomic Energy Commission, repeatedly testified before Congress that uniform cost accounting standards were needed in defense contracting. In his testimony before the House Banking and Currency Committee, Admiral Rickover said, "the lack of uniform accounting is the most serious difficulty in government procurement today

(Lynn,1973). Admiral Rickover asserted that because of the lack of consistency in defense contractor accounting practices, the government was unable to make meaningful comparisions between cost data submitted by two or more contractors for the same effort. Admiral Rickover suggested that Congress provide uniform accounting standards for defense contractors.

In July 1968, the House Committee amended the Defense Production Act of 1950 calling for the establishment of accounting standards. This amendment met with considerable opposition in the Senate. The opposition to the amendment led to an eventual compromise and the passage of PL 90-370 requiring a feasibility study be conducted (Staats, 1969). The study was conducted under the auspicious of the GAO and headed by the Comptroller General, Elmer Staats. His report to Congress at the completion of the study concluded that there was a need for cost accounting standards (CAS) and that such standards were feasible.

On August 15, 1970, President Richard M. Nixon signed into law an amendment to the Defense Production Act of 1950 (PL 91-379) creating the Cost Accounting Standards Board (CASB). The Board was authorized to promulgate CAS designed to achieve uniformity and consistency in defense contractor accounting practices. These standards were to be used in negotiated contracts in excess of \$100,000 (Neuman, 1971).

Since its inception in August 1970, the Board has

issued 19 CAS. Each of these standards, although addressing separate issues, had the primary objective of improving uniformity and consistency in defense contracting accounting practices. The United States Government has the obligation to carefully analyze the real cost differences reflected in the submissions received from each prospective source (Federal Government Accountants Association, 1969). possible only if the government can be assured that differences in cost are not the result of differing accounting practices. These arguments were heard from advocates of CAS while those opposed expressed the view that Generally Accepted Accounting Principles (GAAP) already provided the cost accounting practices required. GAAP are primarily oriented towards financial statements and did not provide the lateral consistency needed in the defense procurement process (Federal Government Accountants Association, 1969).

Statement of the Issue

Perceiving the need for more uniform cost accounting standards in defense contracting, the U.S. Congress passed PL 91-379 on August 15, 1970, creating a five man Cost Accounting Standards Board (CASB) authorized to promulgate CAS designed to achieve uniformity and consistency in the cost principles to be used in conjunction with negotiated defense contracts. The Congress did not fund the Board for FY 1981, effectively dismantling their organization (Cost Accounting Standards Guide, 1981). There have been discussions within

Congress as to the disposition of the Board's activities. The former Comptroller General, Elmer Staats, recommended the Executive Branch assume some of the Board's authority to grant exceptions to their promulgations and the Comptroller feels that these types of decisions will be required in the future (Cost Accounting Standards Guide, 1981).

During the Board's 10 year existence, they issued 19 CAS in an attempt to improve uniformity and consistency in defense contracting. Each of the CAS were developed to address different areas within the realm of cost accounting. Such areas as estimating and reporting costs (CAS 401), allocation of costs (CAS 402), depreciation of tangible assets (CAS 409), and deferred compensation (CAS 415) are among the 19 cost accounting standards that have been issued. What impact have these CAS actually had on defense contracting? The attainment of the answer to this question is the primary interest of this research.

Objectives of the Research

Has the Board fulfilled its charter? The political answer to this question was provided by Congress and articulated through their lack of funding for the Board in FY 81. The factual answer to this question has not totally been revealed. Two studies conducted in 1977 provided partial answers to this question (Banks,1977;Association of Government Accountants,1979). Bank's study indicated that the majority of Administrative Contracting Officers (ACO's) sur-

veyed felt that CAS 401-408 had improved uniformity and consistency in defense contracting. In the same year, the Association of Government Accountants (AGA) undertook a similar study involving 1,626 members of their association. The results of this study indicate 75% of the respondents felt CAS 401-414 had in general improved uniformity and consistency in contractor cost accounting practices.

With the Board's functions terminated by Congress on 1 October 1980, a complete evaluation of the impacts of the Board's actions can now be undertaken. Specifically, the research objective is concerned with the impact CAS 401-416 have had on defense contractor cost accounting practices. This impact will be evaluated by researching the following areas: (1) uniformity and consistency, (2) comparability between proposed and actual contract costs, (3) control of cost reporting during contract performance, (4) frequency of disagreements between the government and its contractors as to cost accounting issues, (5) effect on contract negotiation, (6) effect on contract administration, and (7) clarity of the CAS.

These areas were chosen because they represent the overall objectives the Board was created to deal with. The Board's overriding objective was to increase the uniformity and consistency of the cost accounting practices of defense contractors. Admiral Rickover repeatedly testified before Congress that the lack of uniformity in reporting costs made

it impossible to determine what the costs, especially of military procurement, were to the Federal Government (U.S. Congress, 1970). Elmer Staats testified that in addition to various contractors having radically different accounting practices, individual contractors often applied different practices to different contracts (U.S. Congress, 1979). ferences between proposed and acutal contract costs were often the result of these various accounting practices. When this type of discrepancy occurred, the contractor and the government often entered into litigation to resolve the differences. The Board established a disclosure statement to require defense contractors to disclose in writing their cost accounting practices and to consistently follow these practices in pricing contract proposals, and reporting the performance cost data (U.S. Congress, 1979). This statement was designed to ease the disagreements between contractors and government and to serve as the groundwork for contract negotiation. The existence of a body of CAS would facilitate the negotiation, administration and audit of defense contracts (Cost Accounting Standards Guide, 1981).

Although each standard deals with a specific area of cost accounting, the research objectives listed above represent the overall objectives the Board was created to deal with and represent the specific interests of this study.

Scope and Limitations

Data gathering will be limited to Procuring Contracting Officers (PCO), price analysts and Division Chiefs within Aeronautical Systems Division (ASD) located at Wright Patterson Air Force Base. PCOs are the contracting officers who are ultimately responsible for a government contract from inception to termination. Price analysts collect, consolidate and evaluate audit and technical input concerning the contractor's proposal and compile a comprehensive pricing report for the ACO (Banks,1977). The Division Chiefs within the Directorate of Contracting for ASD are experienced in various aspects of contracting including CAS. Although they are not presently directly involved with CAS, their past experience qualifies them to answer this questionnaire.

Often, there is a considerable time lag between the effective date of a CAS and the application of that standard to a particular contract. Only CAS with an effective date on or before July 1979 will be considered in this research. This limitation, it is assumed, will provide the respondents sufficient time to evaluate the effects of these CAS. A further limitation of this study is the respondents ability to accurately recall the conditions of the cost accounting areas prior to the issuance of the CAS. Some of the CAS have effective dates in 1972, making accurate recollection a potential problem.

Chapter 2

LITERATURE SURVEY

Introduction

During the 1960's, Congress debated and considered the need for uniform cost accounting practices in the defense contracting community. The culmination of their efforts was the passage of Public Law 91-379. This chapter briefly reviews the historical developments leading to Public Law 91-379, discusses the Cost Accounting Standards Board's formation and structure and reviews certain elements within the Federal Procurement Process.

Historical Developments

Vice Admiral Hymen G. Rickover was one of the most influential and dominant figures among the advocates of uniform cost accounting standards. Throughout the sixties he repeatedly testified before Congress that the Government was unable to accurately identify contractor costs to specific negotiated defense contracts (Lamm, 1976). Admiral Rickover was concerned that, "it is virtually impossible,...to discover what defense equipment really costs to manufacture or how much profit contractors actually make in producing it (U.S. Congress, Senate, 1970)." He also felt that the contractors had far too much flexibility in their accounting

methods as allowed by Generally Accepted Accounting Principles. This flexibility permitted contractors to submit proposals that made it difficult for the government to accurately determine the costs that should be reimburseable (U.S. Congress, House, 1970). In his testimony before the House Committee on Banking and Currency, Admiral Rickover stated:

Profit is only a part of the real income to a company...large additional profits on defense work can be hidden as coscs just by the way overhead is charged...how component parts are priced, or how intracompany profits are handled.... Thus, profit statistics are meaningless unless measured in accordance with a uniform standard...2he Renegotiation Act and the Truth in Negotlations Act...are based on the presumption that the Government can readily determine supplier costs. The Government can't...the Government encounters such a wide variety of complex accounting systems that it is virtually impossible to know how much profit a supplier makes in producing it...[Congressional Record, 1968].

Admiral Rickover's remedy for these problems was for Congress to establish an agency which would formulate and issue uniform cost accounting standards. He expressed his opinion before the House Committee on Banking and Currency:

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 the 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 standards are ever to be established the initiative will have to come from Congress [U.S. Congress, 1968].

The House Committee voted to amend the Defense Production Act of 1950 requiring the Comptroller General to develop and recommend within one year uniform cost accounting standards that would be applied to defense contracts of \$100,000 or more (Congressional Record,1968: 15883). The House passed the amended extension of the Act and sent it to the Senate Committee on Banking and Currency. During the hearings before the Committee, the overwhelming majority of the testimony opposed the establishment of uniform standards (U.S. Congress, Senate, 1968). Senator William Proxmire offered the following compromise to the full Senate in an attempt to salvage the House's amendment:

The Comptroller General, in cooperation with the Secretary of Defense and 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 more.... The results of the study shall be reported...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].

Senator Proxmire's amendment replaced the House's version and passed in both the House and the Senate. It was signed into law by President Johnson, July 1, 1968 as Public Law 90-370 (Comptroller General, 1970).

As directed by PL 90-370, the GAO conducted an extensive study to determine the feasibility of applying uniform cost accounting standards to defense contracts of \$100,000 or more. The study was conducted with the cooperation of the Secretary of Defense and the Director of the Bureau of the

Budget (now known as the Office of Management and Budget). As directed by section 718 of the Defense Production Act of 1950, the Government Accounting Office (GAO) also consulted with representatives of industry and the accounting profession (Comptroller General, 1970). The study's principle objective was to determine the "feasibility of applying uniform cost accounting standards as a means of enhancing the comparability, reliability and consistency of cost data used for negotiated procurement contract purposes (Staats, 1969)." The GAO approached the study with a four step plan (Staats, 1969):

- determine the nature of the relationship between cost accounting standards and Generally Accepted Accounting Principles.
- 2. solicitation of opinions and attitudes from industry concerning the adoption of uniform cost accounting standards.
- 3. accumulate reliable information on various cost accounting methods and practices of industry relating to the more controversial or more difficult areas to the achieving of uniformity.
- 4. evaluation of section XV of ASPR as to its possible suitability as a starting point for the development of uniform cost accounting standards.

The study determined that section XV of ASPR relied heavily on Generally Accepted Accounting Principles and that these principles were being called upon to serve a function that they were not intended to serve. Generally Accepted Accounting Principles are concerned primarily with financial conditions and are not adequate for contract costing purposes. The study also concluded that the regulations of the Internal Revenue Service, Securities and Exchange Commission

(SEC) and the Renegotiation Board did not meet the need for contract costing purposes (Comptroller General, 1970).

The study identified the following potential benefits to be derived from the adoption of uniform cost accounting standards:

- 1. CAS could supply the guidance, support, and coordination required for better understood cost estimates and subsequent reports of actual costs by providing a common framework for the buildup of the prospective or actual cost of a product or service.
- 2. CAS would facilitate the preparation, reporting, and auditing of cost information.
- 3. CAS would provide guidance to ensure that items of cost are reported on a consistent basis and proposed and reported costs are comparable.
- 4. CAS would require that the basis upon which forecasts of costs are predicted be disclosed and that final costs are supported by accounting records.
- 5. CAS would improve the communication among the Government, Congress, industry and the public.
- CAS would identify for contractors the type of authoritative support required for the support of costs.
- 7. CAS would establish criteria for the use of alternative methods of cost accounting or narrow the choice when criteria cannot be established.
- 8. CAS would promote a common understanding of methods of cost determination to be used consistently and minimize controversy in the administration and settlement of contracts.
- 9. CAS would eliminate, to a considerable extent, differences within the Government as to interpretations of acceptable cost accounting practices (Comptroller General, 1970).

The following limitations of uniform cost accounting standards were also identified by the study:

- CAS could not, by themselves, ensure contracts are effectively negotiated, administered and settled or that costs will be determined in accordance with such standards.
- 2. CAS could not nor should not eliminate the diversity in the way contractors do business or require them to keep uniform accounts.
- 3. CAS cannot be stated in sufficient detail to cover all cost accounting problems (Comptroller General, 1970).

Considering both the benefits and the limitations of applying uniform cost accounting standards to defense procurements, the GAO made the following recommendations:

- 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 negotiations and administering procurement contracts.
- Cost accounting standards should not be limited to Defense cost-type contracts and should include negotiated procurement contracts and subcontracts, both cost type and fixed price. They should also be 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 with the objectives of adopting at an early date the standards of disclosure and consistency and 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 standards and any approved disclosure practices or be required to maintain the data from which such information could be readily provided (Comptroller General, 1970).

Following submission of the report to Congress, hearings were held in both Houses to examine the GAO's recommendations and to hear testimony from Federal agencies and various representatives of industry

(U.S. Congress, House, 1970). Opponents of cost accounting standards voiced several objections to the need for such standards. Most opponents felt that the existing rules and regulations in ASPR XV and the Renegotiation Board provided the necessary "protection" needed by the Government. Costs versus benefits was another frequently voiced objection among cost accounting standards opponents. Their contention was that the benefits of cost accounting standards would not outweigh the costs to both industry and Government (U.S. Congress, House, 1970).

Despite these objections, Congress was convinced there was a need for cost accounting standards and proposed a fiveman independent Cost Accounting Standards 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 in excess of \$100,000 (Public Law 91-379,1970). On August 15, 1970, President Nixon signed into law section 719 of the Defense Production Act of 1950 (PL 91-379) creating the Cost Accounting Standards Board.

Cost Accounting Standards Board

The CAS Board was authorized to promulgate cost accounting standards designed to achieve uniformity in the cost accounting practices of defense contractors. The Board also issued rules and regulations for the implementation of the standards. An additional task for the Board was to develop a method by which contractors could disclose their cost accounting practices. Their efforts to accomplish this task resulted in Part 351 of the Code of Federal Regulations (CFR), disclosure statements. All defense contractors who enter into negotiated defense contracts with the U.S. Government in excess of \$100,000, with some exceptions, are required to submit a disclosure statement.

The board was comprised of five members with the Comptroller General as the Chairman. He had the responsibility of appointing the other four members, two of whom came from the accounting profession and one each from the Federal Government and industry. The original five members were:

- Elmer B. Staats then Comptroller General of the United States.
- Herman W. Bevis retired Senior Partner, Price Waterhouse and Co.
- 3. Robert K. Mautz partner Ernst and Ernst, Certified Public Accountants.
- 4. Charles A. Dana Director of Government Accounting Controls, Raytheon Company.
- 5. Robert C. Moot Vice President for Finance, AMTRAK.

 The following is a list of men who also served on the Board

during the years indicated: Terrence E. McClary (1975-76), John M. Walker (1975-80), Fred P. Wacker (1977-80), and Gordon Shillinglaw (1978-80) (Cost Accounting Saturdards Guide, 1981).

During the Board's ten year existence, they issued 19 standards, a disclosure statement, contract clause and the rules and regulations required for the implementation of the standards. Each of the 19 Standards are described in Appendix B.

Prior to a standard being promulgated, it was subjected to a great deal of research and its development followed a prescribed process. The process began with identification of a problem area. Once a problem area had been identified, the Board engaged in extensive research to determine the severity of the problem and to inquire into the usefulness of a cost accounting standard. The research included reviews of the applicable literature, cases decided by appeals boards and courts, and consultations with contractors, Government, industry, and professional organizations. The Board emphasized the involvement of outside participation in this process. If, after a review of the research, the Board felt that the problem would best be resolved by the issuance of a cost accounting standard, it submitted a draft to the Federal Register for publication. Such publication served as a formal public solicitation by the Board for comments on the proposal. After careful consideration of the comments and

further discussions with interested parties, the Board made any necessary revisions to the proposed standard and once again submitted it to the Federal Register for publication. The standard became effective unless the Congress, within 60 days, passed a concurrent resolution stating that it did not favor the standard. Unless disapproved, the Board's promulgations had the full force and effect of law (McClenon, 1973). The House Appropriations Committee included in the Legislative Branch Appropriation bill a recommendation that no appropriations be made for the Cost Accounting Standards Board In making this recommendation, the committee believed the Board had fulfilled its original purpose and that compliance, monitoring and regulatory clarifications be carried on by the Executive Branch (Cost Accounting Standards Elmer Staats, in a letter to industry and Guide, 1981: 19066). trade associations, expressed his concern with the termination of the Cost Accounting Standards Board:

It is essential that some agency be authorized to modify and simplify existing standards, resolve questions that have occured and will occur in the future, grant waivers on individual contracts, approve alternative disclosure statements which have to be developed to deal with special needs, and report to Congress on the status of actions taken [Cost Accounting Standards Guide, 1981:19075]

Without an agency to handle these problems, Staats felt that the Board's promulgations would become inflexible. The Senate Committee on Banking, Housing and Urban Affairs held hearings to consider the proposed transfer of Cost Accounting Standards authority to the Office of Management and Budget

(OMB). However, the Senate failed to take action on the proposed transfer before the expiration of the Board, 1 October 1980. As of this time, the only agency authorized to grant waivers of Cost Accounting Standards rules and regulations is Congress. Some action to effect the transfer to the Office of Federal Procurement Authority (OFPP) is expected in the future (Cost Accounting Standards Guide, 1981:19077)

The GAO has begun the first phase of a planned three phased review of Cost Accounting Standards. The first phase will determine whether procuring agencies are properly implementing Cost Accounting Standards' legislation. During phase two, the GAO will audit selected contractors to determine the extent of their compliance with the Cost Accounting Standards. The final phase will consist of a comprehensive look at the Standards promulgated by the Board. The results of each phase will be reported to Congress (Cost Accounting Standards Guide, 1981: 19093).

Chapter 3

METHODOLOGY

This chapter describes the methods and techniques utilized to collect and analyze the data obtained in this research effort. Included in this discussion are the sample population, the data gathering plan and the statistical techniques employed in this study.

Sample Population

The Procuring Contracting Officer (PCO) is the contracting officer who has the ultimate responsibility for a contract. Although he is assisted by other contracting officers, primarily the Administrative Contracting Officers (ACO) in CAS matters, he retains the final authority and ultimate responsibility for the entire contract, including the administration of applicable CAS (Defense Acquisition Regulation, 1976). For this reason, PCO's were chosen as the sample population for this study.

The Directorate of Contracting for Aeronautical Systems Division (ASD), located at Wright Patterson Air Force Base, was selected as the organization from which the respondents were chosen. The Directorate of Contracting provides contract support to the various System Program Offices (SPOs) in ASD and as such is the focal point of contracting in ASD.

Data Gathering Plan

A questionnaire was used as the means of data collection in this study. It was chosen over other methods primarily because of its simplicity and the timeliness in which it could collect the necessary data. Although other methods were an option, such as interviews, a questionnaire met the needs of this research effort.

Questionnaire Development. The questionnaire was developed from two existing sources: a questionnaire developed by Adrian M. Harrell, former Assistant Professor of Accounting at the Air Force Institute of Technology (AFIT) (Banks,1977), and a questionnaire used by the Association of Government Accountants (AGA) ad hoc committee in a study conducted in 1977 (Association of Government Accountants,1977). Selected questions from these surveys were combined with original questions developed for this study and incorporated into the final questionnaire. The survey instrument was pretested by five members of AFIT's Contract Administration Branch. Their suggestions and recommendations were included in the final questionnaire.

The questionnaire, located in Appendix C, is comprised of 36 questions of which the first 10 solicit demographic information. The next 16 questions solicit the respondents perceptions of the effects CAS 401-416 have had on the uniformity and consistency of defense contractors' cost accounting practices. In this section of the questionnaire, each of the 16 questions are subdivided into two pairs. The first pair of questions solicits responses to the uniformity issue by requiring the respondent to indicate his/her feelings about uniformity of contractors' cost accounting practices both before and after the issuance of the CAS. The second pair of questions asks similar before and after questions in regard to consistency. Questions 27 thru 31 address the remaining research questions in a similar before and after format. The respondents perceptions of the overall effect of CAS 401-416 on the uniformity and consistency of defense contractors' cost accounting practices is provided by questions 33 and 34. The remaining two questions deal with the written clarity of the CAS and the respondent's perceptions of a continued need for the Cost Accounting Standards Board.

Data Collection. The questionnaire was distributed to PCOs employed by the Directorate of Contracting in ASD. The local addresses of these individuals were obtained from the office of the Director of Policy and Review within the office of the Deputy for Contracting and Manufacturing. A total of 127 questionnaires were distributed to the Directors of each of the subdivisions within the Directorate of Contracting. Each Director then distributed the questionnaires to the PCOs within his/her division. The Directors were asked to return the completed questionnsires to the office of the Director of Policy and Review. Of the 127 questionnaires

distributed, 85 were returned for a response rate of 67%.

Statistical Analysis

The analysis of the data collected from the questionnaire made use of three analytical tools: frequencies, matched paired t-tests and D-frequencies. The computer package
SPSS was used for this analysis because it provided the
necessary programs and was available at AFIT. This section
of the report will discuss each of the three analytical
methods and the reasons they were used.

Frequencies. The first step in the analysis was to obtain frequency distributions of the responses to all questions on the survey. Those frequencies allowed a visual inspection of the entire range of responses contained on the questionnaires. This was done by computing and presenting one way frequency distributions for each question (Nie,1975). The results are presented in table form and graphically thru the printing of histograms.

There were three reasons why frequency distributions were obtained. First, they provided a verification that the data was accurately transferred from the questionnaires to the key punch cards. The second purpose of the frequencies was to provide the demographics of the sample. The demographics are presented in the next chapter. The final purpose of this procedure was to allow a visual confirmation that the sampling distribution of the mean could be approx-

imated by a normal distribution. Normality was required to perform the t-test which is described next.

Matched t-tests. The questions on the survey are presented in pairs. The first question in each pair asks about the condition of that particular cost accounting area before the issuance of the CAS. The second question of the pair asks about the condition of that same cost accounting area after the issuance of the CAS. The responses were recorded using a Likert scale ranging from strongly disagree (1) to strongly agree (7). The sample mean for each question in the pair was calculated and compared to identify any changes that might have occurred in that particular area as a result of the CAS. The matched paired t-test was used in this analysis to identify the existence of any statistically significant changes.

In this research the question is: what has been the impact of CAS 401-416 on defense contractors' cost accounting practices. To answer this question the null hypothesis was formed H_0 : $m_2 - m_1 = 0$ and was tested against the alternative hypothesis H_1 : $m_2 - m_1 \neq 0$, with m_2 and m_1 representing the means of the questions in the pair. The t-test provides the following t-statistic for each pair of questions:

$$t_{(n-1)} = \frac{\overline{X} - m_0}{s / \sqrt{n}}$$

The value of t is compared to the critical value of t, obtained from a t distribution table, to determine if it is statistically significant. If the t statistic is larger than the critical value of t, selected for this analysis at the .05 significance level, the null hypothesis can be rejected (Harnett, 1975). Rejection of the null hypothesis is evidence that a statistically significant change has occurred in that cost accounting area as a result of the CAS. Because this is a two-tailed probability, rejection of the null hypothesis only indicates that a significant change has occurred. change could be positive, the CAS improved practices in the area, or negative, the CAS hindered practices in the area. This determination is made by examining the difference between the means of each pair of questions (m_2-m_1) . positive difference indicates the CAS has had a positive effect while a negative difference indicates the CAS has hindered cost accounting practices. The t-test was performed on each of the 37 pairs. The results are contained in Chapter 4.

D-Frequencies. While the t-test determines if a statistically significant change has occurred as a result of the CAS, the next portion of the analysis was done to determine the frequency of the amount of change PCOs perceived had taken place since the issuance of the CAS. The variable, D = $X_2 - X_1$, was formed and calculated for each pair of questions. The value of D could range from +6 to -6. For

example, if the PCO had answered question 11a 2 and question 11b 7, D would equal +5. The frequency table would then indicate how many PCOs had a D = +5 for these two questions. It was anticipated that some respondents would perceive the CAS had (1) a negative effect, (2) no change, or (3) a positive effect. The D frequencies allow a determination of the percentages of those respondents in each of the three categories listed above. The results of this procedure are contained in the following chapter.

Summary

This chapter presented the methodology that this research followed. The sample population, questionnaire development and sampling plan were discussed followed by a description of the techniques used in the statistical analysis of the data. The following chapter discusses and presents the results of the analysis.

Chapter 4

ANALYSIS AND RESULTS

The purpose of this chapter is to present the results of the analysis which was done in this study. The demographics of the sample will be presented first, followed by the statistical results and a discussion of their implications.

Demographics

A brief description of the demographics is presented in this section. The detailed results are contained in Appendix D.

The response rate to the questionnaire was 67% with 80% of those being PCOs. However, 35 of the 85 respondents did not complete the questionnaire in sufficient detail to warrant their inclusion in the analysis. Of the 10 Division Chiefs who responded, eight of them hold PCO warrants. Of the PCOs who responded, 78% have been in their present job for less than five years with 80% of them being involved with government contracts for more than 10 years. During the last five years, 64% of the respondents have been involved with five or more CAS covered contracts. The majority of the respondents (86%) are civil servants in the grade of GS 11, 12, 13, 14, 15. The respondents were generally familiar with

the content of the CAS (74%) with 92% possessing a Bachelor's degree or higher. The detailed results of the demographic questions are presented in Appendix D.

The second purpose of the frequencies program was to verify that the data conformed to a normal distribution. Inspection of the histograms provided visual verification of a normal distribution. In most instances there was a large enough N to invoke the central limit theorem. Where the N was not large enough, the second confirmation was provided by ensuring 96% of the responses were within 002 standard deviations.

The next portion of this chapter will present the results of the statistical tests that were performed in this study.

Matched t-tests

As mentioned in Chapter 3, t-tests were performed on each pair of questions to determine if any statistically significant changes had occurred in the various cost accounting practices of defense contractors as a result of the CAS. The results of these tests are presented for each pair of questions in Table 1. This portion of the chapter will use one pair as an example to explain the data presented in the table. This will be followed by a generalized description of the overall t-test results.

Table 1 provides the mean, standard deviation (SD), t statistic and the significance level for each of the pairs of

questions. Questions 11a and 11b address the effect CAS 402 had on the uniformity of cost accounting practices. Before the issuance of the CAS the respondents perceived there was a lack of uniformity in the cost accounting practices as evidenced by a mean response of 2.5778. After the issuance of the CAS, they indicated an improvement in uniformity, 4.1556. The t-statistic, 6.66 with its significance of .000, indicates that a statistically significant improvement in the uniformity of the cost accounting practices occurred as a result of CAS 402.

The t-test statistics were all large enough to indicate significant positive changes in all 16 CAS areas. Thirteen of the changes were significant at the .000 level with three at the .001 level. These results imply that the PCOs perceived a significant improvement in the uniformity and consistency of defense contractors' cost accounting practices as a result of CAS 401-416.

the remaining research objectives. As with uniformity and consistency, PCOs perceived improvements in these areas, with the exception of contractor - government disagreements. The t-statistic (1.40) and the significance level (.168) for the pair of questions concerning contractor - government contract disagreements were not significant enough to be interpreted as either an improvement or a decline in the cost accounting practices of defense contractors.

TABLE 1

Paired t-Test Results for CAS 401-416

f the standard. the standard.	2-tailed PROB	000.	000-	000.	000.	000	000.	000.	000.
nce of the	الد	6.50	4.70	99.9	6.92	6.34	4.88	5.72	5.78
re the issuance of the issuance of the	Zl	4	45	45	45	38	39	34	31
practices before t standard after the	SD	1.313	1.657	1.323	1.411	1.374	1.507	1.647	1.492
accounting p accounting s	MEAN	2.6364 4.1818	3.4000 4.5556	2.5778 4.1556	2.8111 4.4889	2.7105 4.2368	3.6923 4.7949	3.1176	3.6774
contractor cost	A/B	മ≪	BA	B &	æ «	8 &	æ ∢	B &	∞ ∢
e cont	QUES	011a 011b	011c 011d	012a 012b	012c 012d	013a 013b	Q13c Q13d	014a 014b	014c 014d
B: Defense A: Defense	CAS	4010	401C	402U	402C	4030	403C	4040	404C

TABLE 1 (Continued)

							2-tailed
CAS	OUES	A/B	MEAN	SD	2	إبد	PROB
4050	Q15a Q15b	BB	2.6905 4.2857	1.600	42	5.23	000.
405C	015c 015d	o ∢	3.1220 4.4878	1.269	41	5.66	000.
4060	016a 016b	a ∢	3.6889 4.6444	1.929 1.554	45	5.24	000.
406C	016c 016d	æ∢	4.2955 5.1818	1.636 1.386	44	3.93	000.
407U	017a 017b	æ∢	3.1087 4.4565	1.650 1.456	46	6.52	000.
407C	017c 017d	8 8	3.6667 4.8222	1.567	45	5.75	000.
4080	018a 018b	o ∢	2.9048 4.2381	1.221	21	4.09	.001
408C	018c 018d	a «	3.2857 4.5238	1.146	21	4.13	.001
4090	019a 019b	B &	2.7500 4.3333	1.592	36	6.18	000.
409C	019c 019d	B Q	3.6944 4.8056	1.687	36	5.03	000

TABLE 1 (Continued)

	1	(2	ć	2	4	2-tailed
CAS	OUES	A/B	MEAN	an l	z l	إد	ON L
4100	020a 020b	BR	2.8636 4.4545	1.503	44	6.64	000.
4100	Q20c Q20d	es «c	3.6364 4.8864	1.496	44	5.43	000.
4110	021a 021b	æ∢	3.2128 4.5319	1.531	47	6.01	000.
4110	Q21c Q21d	8 4	3.8478 5.0000	1,534	46	5.35	000.
412U	Q22a Q22b	eo ≪	2.8889	1.528	32	4.86	000.
412C	Q22c Q22d	89 « C	3.5714	1.200	34	4.25	000.
4130	Q23a Q23b	@ ⋖	2.6538 3.9231	1.325	33	4.53	000.
4130	Q23c Q23d	മ ∢	3.4444 4.3333	1.188	31	3.79	.001
4140	024a 024b	ΩÆ	2.2727 4.8409	1.515 1.293	44	9.41	000.
414C	024c 024d	æ∡	2.8409 5.2727	1.478	44	9.32	000.

TABLE 1 (Continued)

2-tailed PROB	•	•	-				m	10	_
2-tai PROB	000.	.000	000.	000.	000.	.001	.168	.035	.003
		_			_		_		
14	4.11	4.80	6.55	5.42	4.49	3.45	1.40	2.16	3.11
Zļ	22	22	34	34	20	20	20	50	48
[]									
SD	1.054	1.279	1.374	1.190	1.423	1.329	.990	1.250	1.323
	d d	7 .6	- 2	80.03	00	00	00	00	<u>ي</u> ھ
MEAN	2.409] 3.909]	3.2727	3.147	3.9118 5.0882	4.8800	5.3000	5.8600 5.5600	5.2200	5.3125 4.5208
A/B	8 4	a 4	മ ∢	∞ ∢	8 1	6 4	BA	e «	8 ₹
QUES	025a 025b	Q25c Q25d	<u>0</u> 26a 026b	026c 026d	027a 027b	028a 028b	029a 029b	030a 030b	031a 031b
CAS	4150	415C	4160	416C					

D-Frequencies

Some respondents perceived (1) an increase, (2) no change, or (3) a decrease in the cost accounting practices of defense contractors as a result of CAS 401-416. Table 2 contains the results of the D-Frequencies procedure. Each CAS is listed both for uniformity and consistency followed by the frequency and percentage of those responding in each of the three categories above. Continuing with CAS 402, 36 or 72% of the respondents felt that the uniformity of cost accounting practices had increased. Eleven or 22% perceived no change while 3 or 6% perceived a decrease in uniformity. The remaining CAS are presented in an identical manner. These frequencies are presented to give the full range of respondents' perceptions to each question.

Question 32 asked the respondents to indicate the extent to which they felt each CAS was written clearly. The results are presented in Table 3. Each CAS is followed by the average response. The respondents felt CAS 402 was of marginal clarity (3.57). Questions 33 and 34 address the overall effect CAS 401-416 had on the uniformity and consistency of cost accounting practices, respectively. Sixtyfour percent of the respondents felt that the CAS had improved uniformity while 66% perceived an improvement in consistency. Only 24% of those responding felt there was a continued need for the Cost Accounting Standards Board.

TABLE 2

D-frequencies

- INC Number and percentage of respondents who perceived an increase in the uniformity/consistency of the cost accounting area as a result of the CAS.
- NO CHG Number and percentage of respondents who perceived no change in the uniformity/consistency of the cost accounting area as a result of the CAS.
- DEC Number and percentage of respondents who perceived a decrease in the uniformity/consistency of the cost accounting area as a result of the CAS.

C - consistency

	INC	NO CHG	DEC
CAS	N/8	N/8	N/%
			
401U	33/66%	14/28%	3/6%
401C	30/60%	17/34%	3/6%
402U	36/72%	11/22%	3/6%
1	_ *		•
402C	33/66%	14/28%	3/6%
403U	28/56%	20/40%	2/4%
403C	25/50%	23/46%	2/4%
1.000	20, 000	20, 100	-, -0
404U	24/49%	25/50%	1/2%
404C	24/48%	24/48%	2/4%
\$	·	•	·
405U	28/46%	19/38%	3/6%
405C	28/46%	19/38%	3/6%
l			
406U	25/50%	24/48%	1/2%
406C	21/42%	20/52%	3/6%
	_		
407U	30/60%	19/38%	1/2%
407C	26/52%	22/44%	2/4%
408U	12/24%	37/74%	1/2%
408C	14/28%	35/70%	1/2%

U - uniformity

409U

409C

24/48%

21/42%

2/48

26/52%

27/54%

TABLE 2 (Continued)

CAS	INC N/%	NO CHG	DEC N/%
410U	30/60%	19/38%	1/2%
410C	26/52%	22/44%	2/4%
411U	26/52%	21/42%	3/6%
411C	24/48%	23/46%	3/6%
412U	18/36%	30/60%	2/4%
412C	17/34%	32/64%	1/2%
413U	18/36%	29/58%	3/6%
413C	16/32%	32/64%	2/4%
414U	37/74%	12/24%	1/2%
414C	40/80%		0
415U	15/30%	34/68%	1/2%
415C	18/36%	31/62%	1/2%
416U	22/44%	28/56%	0
416C	20/40%	30/60%	0

TABLE 3

CAS CLARITY

USE THE FOLLOWING CODE TO ANSWER QUESTION 32:

- 1- very unclear
- 2- unclear
- 3- of marginal clarity
- 4- clear
- 5- very clear
- 32. Indicate for each CAS below the extent to which you feel the CAS is written clearly. (Average Response)

CAS		CAS		CAS		CAS		
401	<u>3.48</u>	406	<u>3.69</u>	411	3.42	416	3.42	
402	<u>3.57</u>	407	3.45	412	3.29			
403	<u>3.36</u>	408	3.32	413	3.32			
404	3.44	409	3.42	414	3.48			
405	3.36	410	<u>3.30</u>	415	3.35			

Summary

This chapter presented the results of the statistical analysis that was performed. The demographics, t-test results and D-Frequencies were presented and explained. The next chapter summarizes the entire study and offers recommendations for further study.

Chapter 5

SUMMARY AND CONCLUSIONS

Summary

The purpose of this chapter is to summarize the contents of this report and to interpret the results of the analysis. Following this discussion some thoughts for further research in this area will be offered.

The Cost Accounting Standards Board was created by Congress in 1970, mainly through the efforts of Adm Rickover. He repeatedly testified before Congress that without some type of cost accounting standard the government was unable to identify contractor costs to specific government contracts. This inability, according to Adm Rickover, made it impossible for the government to know what a contract was actually costing them.

Congress amended the Defense Production Act of 1950 requiring the Comptroller General to study the feasibility of applying uniform cost accounting standards to defense contracts. Shortly after the Comptroller General presented his recommendations to the Congress, PL 91~379 was passed creating the Cost Accounting Standards Board. It was the Board's job to promulgate standards designed to achieve uniformity and consistency in the cost accounting practices of defense contractors. The Board issued 19 Standards

dealing with various aspects of cost accounting. The Board was not funded for FY81 and talks are currently underway in Congress to decide where and how much of the Board's functions should be transferred and maintained.

Procuring Contracting Officers have the ultimate responsibility for a government contract and as such, they must be familiar with the CAS. For this reason, they were chosen as the sample population. Their perceptions concerning the research objectives were solicited thru the use of a questionnaire. Questions designed to gather data on each of the research questions were contained in the questionnaire.

The Board's primary concern was the issuance of CAS designed to improve the uniformity and consistency of defense contractors' cost accounting practices. The majority of the questionnaire was devoted to gathering PCOs' perceptions of the effect CAS 401-416 had on the uniformity and consistency of cost accounting practices. The questions were presented in pairs to get opinions of cost accounting practices both before and after the CAS were put into effect. The statistic used to evaluate the data was the matched paired t-test. By comparing the means of the two questions in each pair, the t-test determines if a statistically significant improvement has taken place as a result of the treatment (CAS). The PCOs surveyed in this study perceived that each of the 16 CAS had improved the uniformity and consistency of defense contractors' cost accounting practices. The t-test statistics were

large (3.79 - 9.41) with significance levels of .000 and .001. The complete results are provided in Table 1.

The PCOs also perceived an improvement in the control of cost reporting during contract performance. Another problem that the Board hoped to deal with was the difference between proposed and actual contract costs that often resulted in defense contracts. Here again, the PCOs felt that the CAS had helped to solve this problem. They perceived that this problem had diminished since the issuance of the CAS. Contract negotiation and contract administration were also made easier as a result of the CAS. The one area that PCOs felt had not been improved was contractor – government disagreements over cost accounting issues. There was no statistical evidence to indicate either an improvement or a decline in this area.

finally, D-Frequencies were obtained to provide the full spectrum of the perceptions held by the respondents. These frequencies listed the number and percentages of those who felt that CAS had increased, had no effect, or decreased the uniformity and consistency of the cost accounting practices of defense contractors. The frequencies allow an inspection of all responses, not just those who perceived an improvement.

Conclusions

The primary research objective of this study was to obtain PCOs' perceptions of the effects CAS 401-416 had on

defense contractors' cost accounting practices. The results clearly indicate they perceive the CAS have had a positive effect on cost accounting practices. Statistically significant improvements occurred as a result of each of the 16 CAS. The only area where no significant results were obtained was the occurrance of contractor - government cost accounting disagreements.

Even though the statistics indicated improvements in the cost accounting practices of defense contractors, not all PCOs perceived such an improvement. Table 2 is presented to present the full spectrum of responses and to make clear that not all PCOs perceived an improvement.

Recommendations for Further Research

This research effort concentrated on the Procuring Contracting Officer's perceptions, while previous studies looked at Administrative Contracting Officers perceptions (Banks, 1977). Both of these studies present the government's perspective concerning CAS. A future study should examine the perspective of defense contractors. During the hearings leading to the establishment of the CASB, industry lead the opposition to uniform cost accounting standards. It would be interesting to get their perspective ten years later.

APPENDIX A
DEFINITIONS

A cost accounting standard 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 employed, 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 (Cost Accounting Satndards Board, 1977).

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 (Cost Accounting Standards Board, 1976).

A defense subcontractor is any person other than the United States who contracts, at any tier, to perform any part of a defense contractor's contract (Cost Accounting Standards Board, 1976).

A cost accounting practice is any accounting method or technique which is used for measurement of cost, assignment of cost to cost accounting periods, or allocation of cost to cost objectives (Cost Accounting Standards Board, 1976).

Uniformity relates to comparison of two or more accounting entities and the Board's objective in this respect is to achieve comparability or results of entities operating under like circumstances (Cost Accounting Standards Board, 1976).

Consistency pertains to the use by one accounting entity of compatible cost accounting practices which permit comparability of contract results under similar circumstances. 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 (Cost Accounting Standards Board, 1976).

Contracting Officers are the exclusive agents of thier respective Departments to enter into and administer contracts on behalf of the Government in accordance with DAR. Each contracting officer is responsible for performing or having performed all administrative actions necessary for effective contracting (Defense Acquisition Regulation, 1976).

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

The Administrative Contracting (ACO) is responsible for the contractual duties assigned him by the PCO (Defense Acquisi-

tion Regulation, 1976).

Accumulating costs is the collecting of cost data in an organized manner, such as through a system of accounts (Cost Accounting Standards Board, 1976).

Estimating costs is the process of forecasting a future result in terms of cost, based upon information available at the time (Cost Accounting Standards Board, 1976).

The <u>Disclosure</u> <u>Statement</u> is the detailed explanation of the cost <u>accounting</u> practices to be used on a government contract by a defense contractor (Truger, 1971).

APPENDIX B

CAS 401 - 416

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.

Effective date: July 1, 1972

CAS 402 - consistency in allocating costs incurred for the same purpose.

<u>Purpose</u>: 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.

Effective date: July 1, 1972

CAS 403 - allocation of home office expenses to segments.

<u>Purpose</u>: the purpose of this standard is to establish <u>criteria</u> for allocation of the expenses of a home office to the segments of the organization based on the beneficial or casual relationship between such expenses and the receiving segments.

Effective date: July 1, 1973

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 in this standard.

Effective date: July 1, 1973

CAS 405 - accounting for unallowable costs.

Purpose: the purpose of this standard is to facilitate the negotiation, audit, administration and settlement of contracts by establishing guidelines covering the cost accounting treatment to be accorded identified unallowable costs.

Effective date: April 1, 1974

CAS 406 - cost accounting period.

<u>Purpose</u>: the purpose of this 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.

Effective date: July 1, 1974

 $\frac{CAS}{mate}$ $\frac{407}{rial}$ - use of standard costs for direct labor and direct

<u>Purpose</u>: the purpose of this 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.

Effective date: October 1, 1974

<u>CAS</u> 408 - accounting for costs of compensated personal absence.

<u>Purpose</u>: 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.

Effective date: July 1, 1975

<u>CAS 409</u> - depreciation of tangible capital assets.

Purpose: the purpose of this standard is to provide criteria and guidance for assigning costs of tangible capital assets to cost accounting periods and for allocating such costs to cost objectives within such periods in an objective and consistent manner.

Effective date: July 1, 1975

CAS 410 - allocation of business unit general and administrative expenses to final cost objectives.

Purpose: the purpose of this standard is to provide criteria for the allocation of business unit general and administrative expenses to business unit final cost objectives based on their beneficial or casual relationships.

Effective date: October 1, 1976

CAS 411 - accounting for acquisition costs of material.

Purpose: the purpose of this standard is to provide criteria for the accounting for acquisition costs of material and includes provisions on the use of inventory costing methods.

Effective date: January 1, 1976

CAS 412 - composition and measurement of pension cost.

<u>Purpose</u>: this standard establishes the basis on which pension costs shall be assigned to cost accounting periods and provides guidance for determining and measuring the components of pension cost.

Effective date: January 1, 1976

CAS 413 - adjustment and allocation of pension costs.

Purpose: the purpose of this standard is to provide guidance for adjusting pension cost by measuring actuarial gains and losses and assigning such gains and losses to cost accounting periods.

Effective date: March 10, 1978

CAS 414 - cost of money as an element of the cost of facilities capital.

<u>Purpose</u>: the purpose of this standard is to establish <u>criteria</u> for the measurement and allocation of the cost of capital committed to facilities as an element of contract cost.

Effective date: October 1, 1976

CAS 415 - accounting for the cost of deferred compensation.

Purpose: the purpose of this standard is to provide criteria for the measurement of the cost of deferred compensation and

the assignment of such cost to cost accounting periods.

Effective date: July 10, 1977

CAS 416 - accounting for insurance costs.

Purpose: the purpose of this standard is to provide criteria for the measurement of insurance costs, the assignment of such costs to cost accounting periods, and their allocation to cost objectives.

Effective date: July 10, 1979

APPENDIX C
QUESTIONNAIRE



DEPARTMENT OF THE AIR FORCE AIR FORCE INSTITUTE OF TECHNOLOGY (ATC) WRIGHT-PATTERSON AIR FORCE BASE, OH 45433

REPLY TO AFIT/LSYA/Major R. Rasch/AUTOVON 785-4707/CIV(513)255-4707

SUBJECT Cost Accounting Standards Questionnaire

- TO Contract Administration Personnel
 - 1. The attached questionnaire is part of an Air Force Institute of Technology (AFIT) research project concerning the impact of cost accounting standards on the defense procurement process. It takes about 15 minutes to complete and can be answered best by someone such as yourself whose work is affected by these standards.
 - 2. This survey is authorized by USAF survey control number SCN 81-71. Your participation is voluntary. The data that are collected will be aggregated for analysis and your anonymity is guaranteed, so please answer frankly. The report that results from this research will be available through the Defense Technical information Center.
 - 3. The success of this research effort is totally dependent upon your cooperation. We need your views in order to be sure to avoid misleading conclusions. Please take a few minutes from your schedule to share your knowledge with us.

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Charles R. Margenthaler, Col, USAF

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School of Systems and Logistics

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1. Questionnaire

2. Return Envelope

The purpose of this questionnaire is to obtain your views about Cost Accounting Standards 401-416. 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. Please indicate the organization in which you are presently employed.
 - a. Contract Management Division
 - b. Aeronautical Systems Division
 - c. Other, please specify
- 2. What is your current position (job) in your organization?
 - a. Administrative Contracting Officer (ACO)
 - b. Procuring Contracting Officer (PCO)
 - c. Cost Accounting Standards Specialist
 - d. Other, please specify
- 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.		tor(s) are you presently by Cost Accounting Star	
	a. 1 b. 2 c. 3 d. 4 e. 5 f. more than 5		
6.		tor(s) have you been inv Cost Accounting Standard	
	a. 1 b. 2 c. 3 d. 4 e. 5 f. more than 5		
7.	Please indicate	your present grade level	1.
	a. GS-9 b. GS-10 c. GS-11 d. GS-12 e. GS-13	f. GS-14 g. GS-15 h. 0-1 i. 0-2 j. 0-3	k. 0-4 1. 0-5 m. 0-6 n. other please specify
8.	What is your high	hest level of formal edu	ucation?
	b. Bachelor's de c. Graduate work d. Master's deg	k beyond Bachelor's degi ree work beyond a Master's	
9.		roximate hours/credits on have completed.	of formal education
	a. 0-6 b. 7-12 c. 13-18 d. 19-24 e. 25 or more		
10.	How would you che Cost Accounting	aracterize your familia: Standards?	rity with the
	b. Familiar with	knowledge of their cont n their content wledge of their content	tent
		53	

In order to answer the remaining questions, the following definitions are provided:

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

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

PLEASE ANSWER EACH QUESTION BY CIRCLING THE RESPONSE THAT BEST REFLECTS YOUR OPINION.

CAS 401 - consistency in estimating, accumulating and reporting costs.

Cost	accounting practices in this as Str. Dis	ror	ng]					rongly	Don't Know
lla.	Were highly uniform before this CAS became effective.	1	2	3	4	5	6	7	8
b.	Are highly uniform at the present time.	1	2	3	4	5	6	7	8
c.	Were highly consistent before this CAS became effective.	1	2	3	4	5	6	7	8
đ.	Are highly consistent at the present time.	1	2	3	4	5	6	7	8

CAS 402 - consistency in allocating costs incurred for the same purpose.

Cost accounting practices in this area:

	D	tro						rongly ree	Don't Know
12a.	Were highly uniform before this CAS became effective.	1	2	3	4	5	6	7	8
b.	Are highly uniform at the present time.	1	2	3	4	5	6	7	8
c.	Were highly consistent befor this CAS became effective.	<u>e</u> 1	2	3	4	5	6	7	8
đ.	Are highly consistent at the present time.		2	3	4	5	6	7	8

CAS 403 - allocation of home office expenses to segments of the organization.

Cost accounting practices in this area:

	1	Stro Disa							rongly ree	Don't Know
13a.	Were highly uniform before this CAS became effective.	1	1 :	2	3	4	5	6	7	8
b.	Are highly uniform at the present time.	1	1 :	2	3	4	5	6	7	8
c.	Were highly consistent before this CAS became effective.	re 1	1	2	3	4	5	6	7	8
đ.	Are highly consistent at the present time.		1	2	3	4	5	6	7	8

CAS 404 - capitalization of tangible assets.

Cost accounting practices in this area:

		tro isa						rongly ree	Don't Know
14a.	Were highly uniform before this CAS became effective.	1	2	3	4	5	6	7	8
b.	Are highly uniform at the present time.	1	2	3	4	5	6	7	8
c.	Were highly consistent befor this CAS became effective.	<u>e</u> 1	2	3	4	5	6	7	8
đ.	Are highly consistent at the present time.		2	3	4	5	6	7	8

CAS 405 - accounting for allowable costs.

Cost accounting practices in this area:

								rongly gree	Don't Know
15a.	Were highly uniform before this CAS became effective.	1	2	3	4	5	6	7	8
b.	Are highly uniform at the present time.	1	2	3	4	5	6	7	8

		Disagree						rongly gree	Don't Know
c.	Were highly consistent before this CAS became effective.	<u>e</u> 1	2	3	4	5	6	7	8
đ.	Are highly consistent at the present time.	1	2	3	4	5	6	7	8

CAS 406 - cost accounting period.

Cost accounting practices in this area:

									rongly ree	Don't Know
16a.	Were highly uniform before this CAS became effective.]	l	2	3	4	5	6	7	8
b.	Are highly uniform at the present time.	1	l	2	3	4	5	6	7	8
c.	Were highly consistent befo this CAS became effective.	<u>re</u> j	l :	2	3	4	5	6	7	8
ď.	Are highly consistent at th present time.		ı	2	3	4	5	6	7	8

CAS 407 - use of standard costs for direct material and direct labor.

Cost accounting practices in this area:

	Di	roi						rongly gree	Don't Know
17a.	Were highly uniform before this CAS became effective.	1	2	3	4	5	6	7	8
b.	Are highly uniform at the present time.	1	2	3	4	5	6	7	8
c.	Were highly consistent before this CAS became effective.	1	2	3	4	5	6	7	8
d.	Are highly consistent at the present time.	1	2	3	4	5	6	7	8

CAS 408 - accounting for costs of compensated personal absence. Cost accounting practices in this area:

	Di	roi						rongly ree	Don't Know
18a.	Were highly uniform before this CAS became effective.	1	2	3	4	5	6	7	8
b.	Are highly uniform at the present time.	1	2	3	4	5	6	7	8
c.	Were highly consistent before this CAS became effective.	1	2	3	4	5	6	7	8
d.	Are highly consistent at the present time.	1	2	3	4	5	6	7	8

CAS 409 - depreciation of tangible capital assets.

Cost accounting practices in this area:

								rongly ree	Don't Know
19a.	Were highly uniform before this CAS became effective.	1	2	3	4	5	6	7	8
b.	Are highly uniform at the present time.	1	2	3	4	5	6	7	8
c.	Were highly consistent befor this CAS became effective.	<u>e</u> 1	2	3	4	5	6	7	8
đ.	Are highly consistent at the presen time.		2	3	4	5	6	7	8

CAS 410 - allocation of business unit general and administrative expenses to final cost objectives.

Cost accounting practices in this area:

	Di							rongly gree	Don't Know
20a.	Were highly uniform before this CAS became effective.	1	2	3	4	5	6	7	8
b.	Are highly uniform at the present time.	1	2	3	4	5	6	7	8
c.	Were highly consistent before this CAS became effective.	1	2	3	4	5	6	7	8
đ.	Are highly consistent at the present time.	1	2	3	4	5	6	7	8

CAS 411 - accounting for acquisition costs of material.

Cost accounting practices in this area:

	Di	ro!						rongly gree	Don't Know
21a.	Were highly uniform before this CAS became effective.	1	2	3	4	5	6	7	8
b.	Are highly uniform at the present time.	1	2	3	4	5	6	7	8
c.	Were highly consistent before this CAS became effective.	. 1	2	3	4	5	6	7	8
đ.	Are highly consistent at the present time.	1	2	3	4	5	6	7	8

CAS 412 - composition and measurement of pension costs.

Cost accounting practices in this area:

									rongly ree	Don't Know
22a.	Were highly uniform before this CAS became effective.	3	L	2	3	4	5	6	7	8
b.	Are highly uniform at the present time.	:	ı	2	3	4	5	6	7	8
c.	Were highly consistent before this CAS became effective.	re	l	2	3	4	5	6	7	8
d.	Are highly consistent at the present time.		ì	2	3	4	5	6	7	8

CAS 413 - adjustment and allocation of pension costs.

Cost accounting practices in this area:

		Stro Disa						rongly gree	Don't Know	
23a.	Were highly uniform before this CAS became effective.	1	2	3	4	5	6	7	8	
þ.	Are highly uniform at the present time.	1	2	3	4	5	6	7	8	

	St: Di:							rongly gree	Don't Know
c.	Were highly consistent before this CAS became effective.	1	2	3	4	5	6	7	8
d.	Are highly consistent at the present time.	1	2	3	4	5	6	7	8

CAS 414 - cost of money as an element of the cost of facilities capital.

Cost accounting practices in this area:

		roi						rongly ree	Don't Know
24a.	Were highly uniform before this CAS became effective.	1	2	3	Ą	5	6	7	8
b.	Are highly uniform at the present time.	1	2	3	4	5	6	7	8
c.	Were highly consistent before this CAS became effective.	1	2	3	4	5	6	7	8
đ.	Are highly consistent at the present time.	1	2	3	4	5	6	7	8

CAS 415 - accounting for the cost of deferred compensation.

Cost accounting practices in this area:

	St. Di:							rongly ree	Don't Know
25a.	Were highly uniform before this CAS became effective.	1	2	3	4	5	6	7	8
b.	Are highly uniform at the present time.	1	2	3	4	5	6	7	8
c.	Were highly consistent before this CAS became effective.	1	2	3	4	5	6	7	8
đ.	Are highly consistent at the present time.	1	2	3	4	5	6	7	8

CAS 416 - accounting for insurance costs.

Cost accounting practices in this area:

Cost	accounti	ing pr	actice	s in t	his	are	a:						
					I	Stro Disa					ton gre	gly e	Don't Know
26a.	Were hi this C	ighly AS bec	unifor ame ef	m before	re.	1	2	3	4	5 6	5 7		8
b.	Are hic present			at th	e	1	2	3	4	5 6	5 7		8
c.	Were hi this C	ighly AS bec	consis	fective	efor	<u>:e</u> 1	. 2	3	4	5 6	5 7		8
đ.	Are hid present	ghly <u>c</u> t time	onsist	ent at	the	1	2	3	4	5 6	5 7		8
27a.	Control was a	l of c proble	ost re	porting the	ng du e iss	ırin suan	g (or of	tr	act AS	pe 401	rform -416.	nance
		ongly agree									ron		
	:	1	2	3	4	5	;		6		7		
b.	Control is a p				ng đi	ırin	ıg (cor	itr	act	: pe	rform	ance
		ongly agree									ron		
		1	2	3	4	5	5		6		7		
28a.	Propose	ed con before	tract the i	costs issuand	difi e of	Eere E CA	d :	frc 401	om L – 4	act	ual	cont	ract
		ongly agree									ron		
		1	2	3	4	5	5		6		7		
b.	Propos costs			costs	dif	fer	fr	mc	ac	tua	al c	ontra	ict
		ongly agree									ron gree		
		1	2	3	4	9	5		6		7		

2341	and the gov	vernme	nt <u>bef</u>	ore th	e issu	ance	of CAS 4	01-416.
	Strongly Disagre						Strongly Agree	
	1	2	3	4	5	6	7	
b.	There are and the government					ments	between	contractor
	Strongly Disagre						Strongly Agree	
	1	2	3	4	5	6	7	
30a.	Contract no issues were	egotia e diff	tions	dealin before	g with	cost ssuan	account ce of CA	ing S 401-416.
	Strongly Disagre						Strongly Agree	
	1	2	3	4	5	6	7	
b.	Contract no issues are	egotia diffi	tions cult <u>p</u>	dealin	g with	cost	account	ing
	Strongly Disagre						Strongly Agree	
	1	2	3	4	5	6	7	
31a.	Contract co					liffic	ult <u>befo</u>	<u>re</u>
	Strongly Disagre						Strongly Agree	
	1	2	3	4	5	6	7	
b.	Contract co	ost ad	minist	ration	is di	fficu	lt prese	ntly.
	Strongly Disagre						Strongly Agree	
	1	2	3	4	5	6	7	

USE	THE	FOLLOWING	CODE	TO	ANSWER	QUESTION	32:
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2- ur 3- or 4- c:	ery uncleanclear f marginal lear ery clear		У					
32.	Indicate feel the					tent t	o which you	
	CAS	c	AS		CAS		CAS	
	401	4	06 _	·····	411		416	
	402	4	07 _		412			
	403	4	08		413			
	404	4	09 _		414			
	405	4	10 _		415			
33.		account gly ree	ing p		s of d	efense St	ormity in contractors. rongly ree	•
	1	2	3	4	5	6	7	
34.							istency in contractors.	•
	Strong Disagr						rongly ree	
	1	2	3	4	5	6	7	

35. The Cost Accounting Standards Board was terminated as of 1 October 1980. Please indicate, by circling the appropriate response below, your opinion concerning a continued need for the Cost Accounting Standards Board.

Not	Probably		Probably			
Needed	Not needed	Undecided	Needed	Needed		
1	2	3	4	5		

36. Use the space below to indicate any areas of cost accounting that you feel need to be addressed in future Cost Accounting Standards.

APPENDIX D
DEMOGRAPHICS

The demographics of the respondents are listed below. Following the responses for each question are the frequency and percentage of those answering each option (5 4%).

- Please indicate the organization in which you are presently employed.
 - a. Contract Management Division
 - Aeronautical Systems Division (50 100%)
 - c. Other, please specify
- 2. What is your current position (job) in your organization?
 - a. Administrative Contracting Officer (ACO)
 - b. Procuring Contracting Officer (PCO) (40 80%)
 - c. Cost Accounting Standards Specialist
 - d. Other, please specify Division Chief. (10 20%)
- 3. How long have you held your present position (job) in your organization?
 - a. less than 1 year (14 28%)
 - b. 1 year to less than 3 years (16 32%)
 - c. 3 years to less than 5 years (9 18%)
 - d. 5 years to less than 7 years (5 12%)
 - e. 7 years to less than 9 years (2 4%)
 - f. over 9 years (3 6%)
- 4. How long have you been involved with government contract administration?
 - a. 1 to less than 5 years (5 10%)
 - 0. 5 to less than 10 years (15 30%)
 - c. 10 to less than 15 years (9 18%)
 - d. 15 to less than 20 years (12 24%)
 - e. 20 to less than 25 years (5 10%)
 - f. more than 25 years (3 6%)
- 5. How many contractor(s) are you presently invloved with that are covered by Cost Accounting Standards?
 - a. 1 (9 18%)
 - b. 2 (5 10%)
 - c. 3 (6 12%)
 - d. 4 (3 6%)
 - e. 5 (3 6%)
 - f. more than 5 (22 44%)

- How many contractor(s) have you been involved with that were covered by Cost Accounting Standards in the past 5 years?
 - a. (4 88) b. 2 (4 8%) 48) c. 3 (2 đ. 4 (4 8%) e. 5 (4 8%) (32 f. more than 5 64%)
- Please indicate your present grade level.

```
f.
a.
     GS-9
                                GS-14
                                         (4
                                              ($8
                                                    k.
                                                         0 - 4
                                                                (4
                                                                   8%)
b.
     GS-10
                                GS-15
                                                    l.
                                                         0 - 5
                                         (1
                                              2%)
                           g.
     GS-11
                    26%)
                                                         0-6
c.
              (13
                           h.
                                0 - 1
                                                    m.
d.
     GS-12
              (17
                    34%)
                           i.
                                0 - 2
                                                    n.
                                                         Other, please
     GS-13
              (7
                    14%)
                                         (3
                                              681
                                                         specify
                                0 - 3
```

- What is your highest level of formal education?
 - Less than a Bachelor's degree (4 (88 a. Bachelor's degree (13 26%) b. Graduate work beyond Bachelor's degree (9 18%) C. Master's degree (19 38%) d. Postgraduate work beyond a Master's degree (3 68) f.
 - Doctorate degree
- Indicate the approximate hours/credits of formal education in accounting you have completed.

```
0-6
                  (14
                        28%)
a.
b.
    7-12
                  (16
                        32%)
c.
    13-18
                  (7
                        14%)
d.
    19-24
                  (4
                         8%)
     25 or more (8
                        16%)
```

- 10. How would you characterize your familiarity with the Cost Accounting Standards?
 - Little or no knowledge of their content (13
 - Familiar with their content (37 b. 74%)
 - c. Detailed knowledge of their content

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BIOGRAPHICAL SKETCH

Bruce E. Simpson was born 25 May 1951 at Tinker AFB, Oklahoma. He moved to New York later that year and lived in Rochester and Buffalo before settling in Rome, New York, in 1962. He was graduated from Rome Free Academy in 1969. He received a B.S. degree from the United States Military Academy in 1973 and was commissioned in the United States Army.

He attended the Field Artillery Officer Basic Course at Fort Sill, Oklahoma, and spent two years in a 155 mm Artillery Battalion. In 1975 he attended flight school at Fort Rucker, Alabama, and upon graduation was assigned to the 3d Infantry Division Aviation Battalion in Kitzingen, Germany. From May of 1978 to September of 1979 he was Commanding Officer of an artillery battery in Germany.

Upon his return from overseas, he attended the Officers Advance Course at Fort Sill, Oklahoma. He entered the Air Force Institute of Technology in the summer of 1980.

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