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AN ORGANIZATIONAL BEHAVIOR VIEW OF DEPARTMENT OF THE ARMY (DA) --ETC(U)
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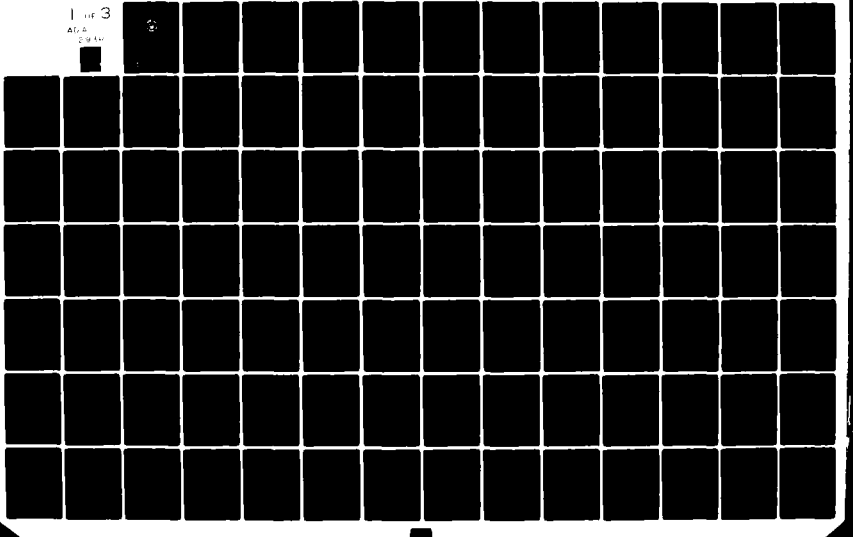

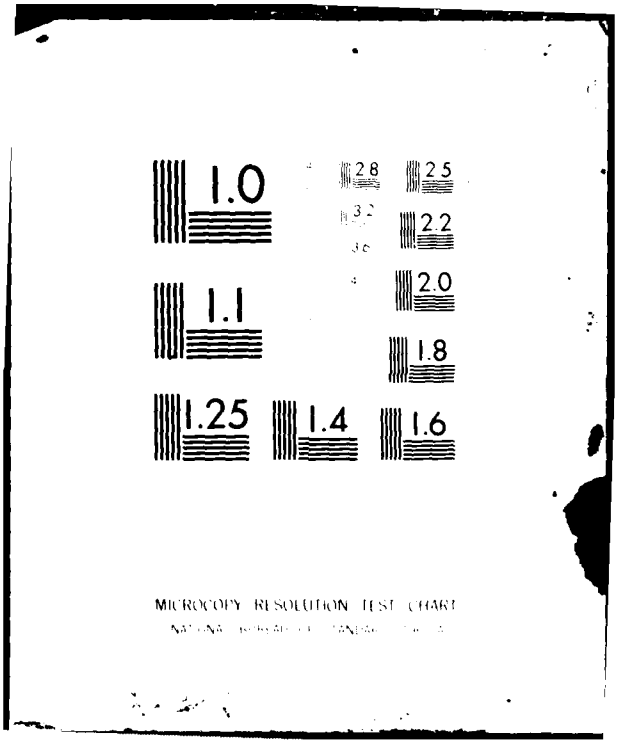
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NAVAL POSTGRADUATE SCHOOL
Monterey, California

THESIS

AN ORGANIZATIONAL BEHAVIOR VIEW OF
DEPARTMENT OF THE ARMY (DA) COMPTROLLERSHIP

by

Myron J. Griswold

and

Kevin J. Kehoe

December 1981

Co-Advisors: K. Euske
R. Bobulinski

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The purpose of the thesis is twofold: First, identify and rank in order of importance the specific organizational behavior deficiencies of junior level Department of the Army (DA) comptrollers and develop an addendum to a proposed practical comptrollership course (PCC) in order to alleviate the deficiencies. Second, test the validity of the Pledger (1980) comptrollership model for use within the DA. The Pledger comptrollership model is designed to aid comptrollers in analyzing their organizations

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in terms of technology and structure, leadership, and decision-making. Based on the analytical results the comptrollers could then take appropriate courses of action. Data obtained from a questionnaire sent to DA comptrollers verified the existence of deficiencies in eight major organizational behavior areas and the validity of the Pledger comptrollership model. Based on the data analysis the authors recommend that the DA should adopt and institute the 24-hour proposed PCC addendum and adopt the Pledger comptrollership model for use within the comptrollership community to facilitate the job orientation process.

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An Organizational Behavior View of
Department of the Army (DA) Comptrollership

by

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Submitted in partial fulfillment of the
requirements for the degree of

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December 1981

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ABSTRACT

The purpose of the thesis is twofold: First, identify and rank in order of importance the specific organizational behavior deficiencies of junior level Department of the Army (DA) comptrollers and develop an addendum to a proposed practical comptrollership course (PCC) in order to alleviate the deficiencies. Second, test the validity of the Pledger (1980) comptrollership model for use within the DA. The Pledger comptrollership model is designed to aid comptrollers in analyzing their organizations in terms of technology and structure, leadership, and decision-making. Based on the analytical results the comptrollers could then take appropriate courses of action. Data obtained from a questionnaire sent to DA comptrollers verified the existence of deficiencies in eight major organizational behavior areas and the validity of the Pledger comptrollership model. Based on the data analysis the authors recommend that the DA should adopt and institute the 24 hour proposed PCC addendum and adopt the Pledger comptrollership model for use within the comptrollership community to facilitate the job orientation process.

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ACKNOWLEDGMENTS

First, the authors wish to acknowledge, with sincere appreciation, the cooperation and assistance of the 136 Department of the Army (DA) comptrollers who took the time to complete and return the authors' questionnaire.

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Finally, we owe a debt of gratitude to Assistant Professors Robert A. Bobulinski and K.J. Euske who advised us in this research effort.

I. INTRODUCTION

A. BACKGROUND/PROBLEM DEFINITION

Lynn (1974) and Pledger (1980) contend that military comptrollers have to develop both the necessary technical and human skills required of managers. The human skills fall into such areas as leadership, personnel relations and communication. The technical skills fall into such traditional areas as budgeting, accounting and payroll.

The Department of the Army (DA) places emphasis on comptrollership personnel developing their technical skills in these traditional areas. This is evident upon examination of the makeup of the primary practical comptrollership course (PCC) taught to DA fiscal students. The Military Comptrollership Course (MCC), taught at the DA's Institute for Administration (USAIA) at Fort Benjamin Harrison, Indiana, devotes the entire 180 hours of instruction to technical subject areas [USAIA, 1979]. The authors recognize the importance of mastering these vital traditional skill areas, but feel strongly that DA financial managers must also possess a sound understanding of the human or organizational behavior aspects of comptrollership in order to perform their jobs effectively.

A thesis by DA Captains Robert B. Tully and John R. Batiste, entitled The Development of the Junior Level Army Financial Manager, contends there is a need for improving the technical skills of the junior level DA comptroller to better meet the

requirements of their initial financial management assignments. Junior level DA financial managers are those military officers serving their first tour in the comptrollership specialty field. Tully and Batiste devised a PCC to help eliminate the major technical shortcomings identified in their research [Tully and Batiste, 1980]. As in Tully and Batiste's (1980) research, the terms junior level DA financial manager and junior level DA comptroller will be used interchangeably in this thesis.

It is evident from examination of Tully and Batiste's empirical data that, in addition to technical shortcomings, serious organizational behavior deficiencies also exist. Specifically, the comptrollers responding to Tully and Batiste's questionnaire indicated that leadership, personnel relations, staff procedures, and the ability to speak and write effectively are areas in which a significant number of junior level comptrollers experience difficulty.

The presence of the non-technical deficiencies identified by Tully and Batiste within DA comptroller organizations indicated to the authors of this thesis that a need exists for improving the human skills of the junior level DA financial manager. Therefore, the authors focused one part of their research effort on verifying and correcting the identified organizational behavior deficiencies manifested by junior level DA comptrollers.

If a sound understanding of the organizational behavior aspects of comptrollership is important for the junior level

Army financial managers, it is even more important for DA comptrollers since they have greater managerial responsibilities. A thesis by Departent of the Navy (USN) Lieutenant James E. Pledger, entitled An Organizational Analysis Model For Navy Field-Level Comptrollership, presents a model that incorporates some of the important organizational behavior aspects of comptrollership and provides a basis for the second part of the authors' research. Pledger's model is designed to be used by United States Department of Navy comptrollers during their initial months on the job to help ease the transition process. The Pledger comptrollership model is designed to aid comptrollers as they analyze their organizations in terms of technology and structure, leadership, and decision making. Based on the analytical results the comptrollers could then take appropriate courses of action.

The need for a DA related "comptrollership model" such as the one discussed above is particularly great for DA comptrollers because of the DA's Officer Personnel Management System (OPMS) and assignment policies. Many DA officers rotate into two or three year comptroller tours after serving a previous assignment in a totally unrelated primary specialty such as Armor or Infantry [HQ, DA, 1977]. If the Pledger comptrollership model could be validated within the DA, it could be used to facilitate the transition process for comptrollers during their initial months in the new assignment. Therefore, the authors focused the second part of their research effort on validating the Pledger comptrollership model for use within the DA.

B. OBJECTIVE

The first objective of this thesis is to identify and rank in order of importance the specific organizational behavior deficiencies of junior level DA financial managers and develop an addendum to Tully and Batiste's proposed PCC. The purpose of the addendum is to alleviate the main organizational behavior deficiencies exhibited by junior level DA comptrollers.

The second major objective is to test the validity of the Pledger comptrollership model for use within the DA. It is the authors' contention that the model, if validated and then used by the DA, will facilitate the crucial transition period of the "first one hundred days" [Bobulinski, 1979] in a new comptroller's assignment.

C. METHOD AND SCOPE

A questionnaire was developed and sent to comptrollers from a large representative sample of DA commands in the continential United States (CONUS) and United States Army Europe (USAREUR).

The first part of the questionnaire was designed to gather data for testing the validity of the Pledger comptrollership model. The authors expanded on and refined Pledger's research by analyzing subsamples of the data such as military officer comptrollers, civilian comptrollers, military officer comptrollers with a finance or comptroller primary specialty, and military officer comptrollers with a non-finance or non-comptroller primary specialty. Other subsamples included

comptrollers from different DA MACOMs such as USAREUR, Material Development and Readiness Command (DARCOM), Forces Command (FORSCOM), Training and Doctrine Command (TRADOC) and the National Guard Bureau (NGB).

The analysis was conducted using the Statistical Package for the Social Sciences (SPSS). Bivariate correlations were performed between the technological and structural variables existing in comptroller organizations. The authors also adhered to Pledger's recommendation to perform partial correlation analysis in order to identify separate effects of all technology variables on the structure variables.

The comptrollers' general comments concerning problem areas encountered and advice to the new comptroller were reviewed through content analysis.

The leadership segment of the questionnaire was structured to indicate what types of leadership styels comptrollers employ. The responses to the leadership questions were structured to provide a self-report of the degree to which DA comptrollers perform both the socio-emotional and task-related leadership functions.

The questions relating to decision-making provided the data for a table that summarizes the relationship between a particular decision-making method and its predicted and actual utilization.

The last part of the questionnaire was designed to obtain the comptroller's comments on and recommendations for minimizing any organizational behavior deficiencies that junior level DA

financial managers exhibit during their first tour in the comptrollership specialty field. The authors categorized and evaluated the responses from all the comptrollers and developed an addendum to Tully and Batiste's proposed PCC. The addendum contains relevant organizational behavior information and material that will better prepare the new officer for duties within the DA comptrollership field.

D. THESIS CHAPTER SUMMARY

Chapter II presents a brief overview of the DA comptroller community. It also includes a summary of Tully and Batiste's and Pledger's research and findings. The summary of Pledger's research includes a review of the literature associated with the components of the Pledger comptrollership model. The chapter provides a critique of their findings and states how this study attempts to augment the theory, method and analysis of the two previous theses.

Chapter III discusses the research methods used in identifying the specific organizational behavior deficiencies of the junior level DA comptroller and testing the Pledger comptrollership model. This includes a detailed description of the questionnaire, data analysis plan and data preparation process. The chapter also includes three tables that summarize the responses to the questionnaires relating to background information, the Pledger comptrollership model and the job preparation of junior level comptrollers.

Chapter IV presents the results of the data analysis.

Chapter V presents a discussion of the results pertaining to the Pledger comptrollership model and the job preparation of junior level comptrollers. The chapter presents the conclusions and recommendations of this thesis. The chapter also includes a discussion of the limitations of this research and a presentation of recommendations for future study.

The addendum to Tully and Batiste's proposed PCC is presented as a separate appendix.

II. THE JOB PREPARATION OF JUNIOR LEVEL COMPTROLLERS AND THE PLEDGER COMPTROLLERSHIP MODEL

A. INTRODUCTION

In this chapter a brief overview of the Department of the Army (DA) comptroller community is presented. The overview includes a description of the origin, responsibilities, functions and organization of the DA comptroller community. Next, Tully and Batiste's and Pledter's research and findings are summarized. The summary of Pledger's research includes a review of the relevant literature associated with the various components of his "comptrollership model." Tully and Batiste's and Pledger's findings are critiqued and how this study attemptes to augment the theory, method and analysis of the two previous theses is discussed.

B. OVERVIEW OF DA COMPTROLLER COMMUNITY

Title IV of the National Security Act of 1947 directed the Comptroller of the Department of Defense (DOD) to establish those policies and procedures relating to budgeting, accounting, reporting auditing, expenditure and collection of funds [USAIPRM, 1980]. In response to this law, the Office of the Army Comptroller was established by DA Circular Number 2, dated 2 January 1948. The purpose was to improve the utilization of modern management techniques in the administration of the DA and to employ accounting procedures more effectively in controlling both operations and costs. Congressional approval

of Public Law 216 in August 1949 gave a firm statutory basis for the responsibilities of comptrollers in DOD and in each of the three uniformed services [HQ, DA, 1976].

Among the lessons learned from World War II was the need for modern management techniques to promote the efficient and effective use of resources. It was recognized that military expenditures would continue to consume a large proportion of the national income.

As a result, the financial management community was to become a functional organization, ultimately impacting upon every command, installation and activity within the DA [Tully and Batiste, 1980]. Under the present organization the Comptroller of the Army (COA) is responsible concurrently to the Assistant Secretary of the Army (Installations, Logistics and Financial Management) and the Army Chief of Staff. The COA has general staff responsibility for independent review and analysis of DA programs, and analysis of major DA commands. Other general staff responsibilities include accounting, fiscal auditing, the budgetary process, statistical reporting, development of the DA Resource Management System (RMS), and independent analysis of DA organization, functions and procedures [USAIA, 1978]. As of April 1976, the COA had ten goals for the effective functioning of the DA Comptroller community. A listing of the COA's goals is presented in Figure II-1. A summary of integrated comptroller functions, appropriate for all Army comptroller organizations, is outlined in Figure II-2. The performance of these integrated comptroller functions

Goal 1. Improvement in the Development, Defense and Execution of the Budget.

Goal 2. Improvement of the Financial Management of the Army Customer Order Program.

Goal 3. Development and Maintenance of an Effective and Efficient Independent Cost Analysis Program.

Goal 4. Development and Maintenance of Pay and Disbursing Systems that are Efficient and Responsive to the Needs of the Individual and the Army.

Goal 5. Maintenance of the Finance and Accounting Center as the Focal Point for all Accounting and Financial Operations.

Goal 6. Improvement of the Effectiveness of Automated Financial Management Information Systems.

Goal 7. Monitor Effective Career Management Programs for Civilian and Military Personnel at All Levels.

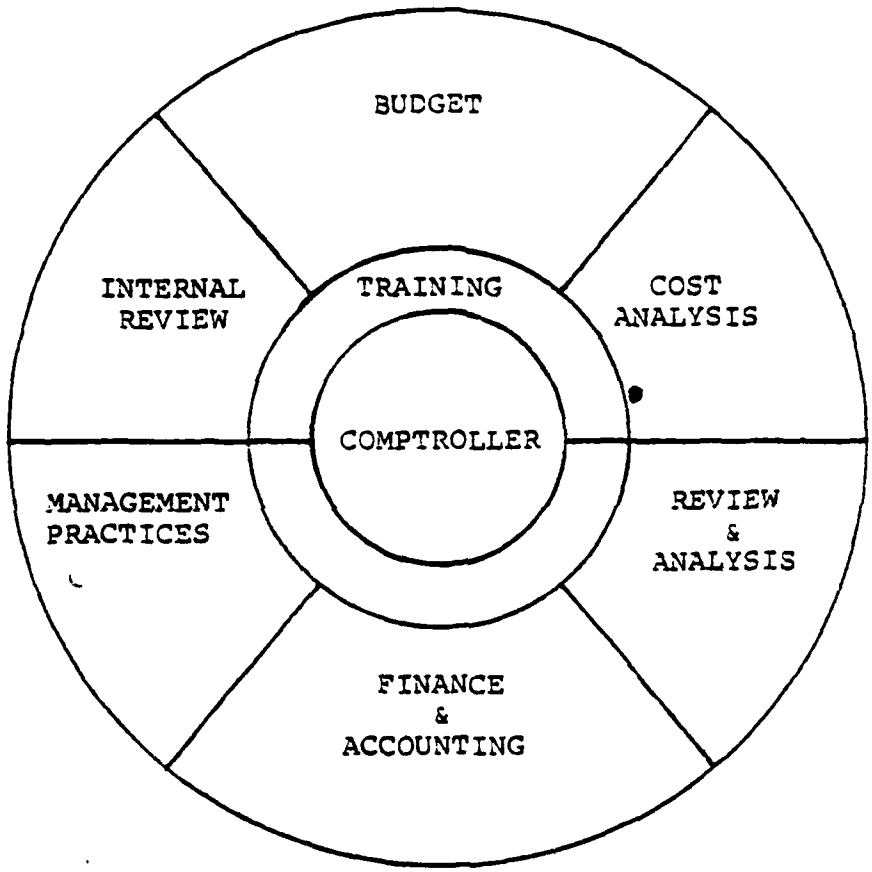
Goal 8. Encourage the Maintenance of a Balanced Training Program.

Goal 9. Emphasize the Use of Practical Management Procedures.

Goal 10. Foster the Integration and Understanding of Comptroller Functions Throughout the Army.

Source: HQ, Department of the Army, DA PAM 37-4, Army Comptroller Handbook; p. V-XIV, April 1976.

Figure II-1. COA Goals



Source: HQ, Department of the Army, DA PAM 37-4, Army Comptroller Handbook; p. xv, April 1976.

Figure II-2. Comptroller Functions

occurs at three principal levels within the DA: division, installation, and major command (MACOM) (Figure II-3). The division, installation and MACOM comptrollers serve as their commanders' primary financial advisors. Their responsibilities extend throughout the management cycle, encompassing the point where resources are consumed and used to produce outputs toward the accomplishment of missions. Specifically, comptrollers at the division, installation and major command levels are assigned primary staff responsibility for obtaining, administratively controlling, and accounting for the funds needed to secure resources for their commands. These comptrollers also have overall staff responsibility for conducting management improvement of men, money and material resources of their commands [HQ, DA, 1976]. Division, installation, and MACOM comptroller organizations are configured as depicted in Figure II-4. While the responsibilities of the division, installation and MACOM comptrollers are in many ways similar, the scope becomes much broader as one progresses up the hierarchy [Tully and Batiste, 1980]. Therefore, an understanding of the specific comptroller responsibilities at each of the three levels is helpful in gaining a better understanding of the DA comptroller community.

The division comptroller concentrates on budget execution, simple management analysis activities, internal review, and follow-up action on external installation, Army Audit Agency (AAA), and General Accounting Office (GAO) report findings [USAIS, 1978]. The installation comptroller concentrates on

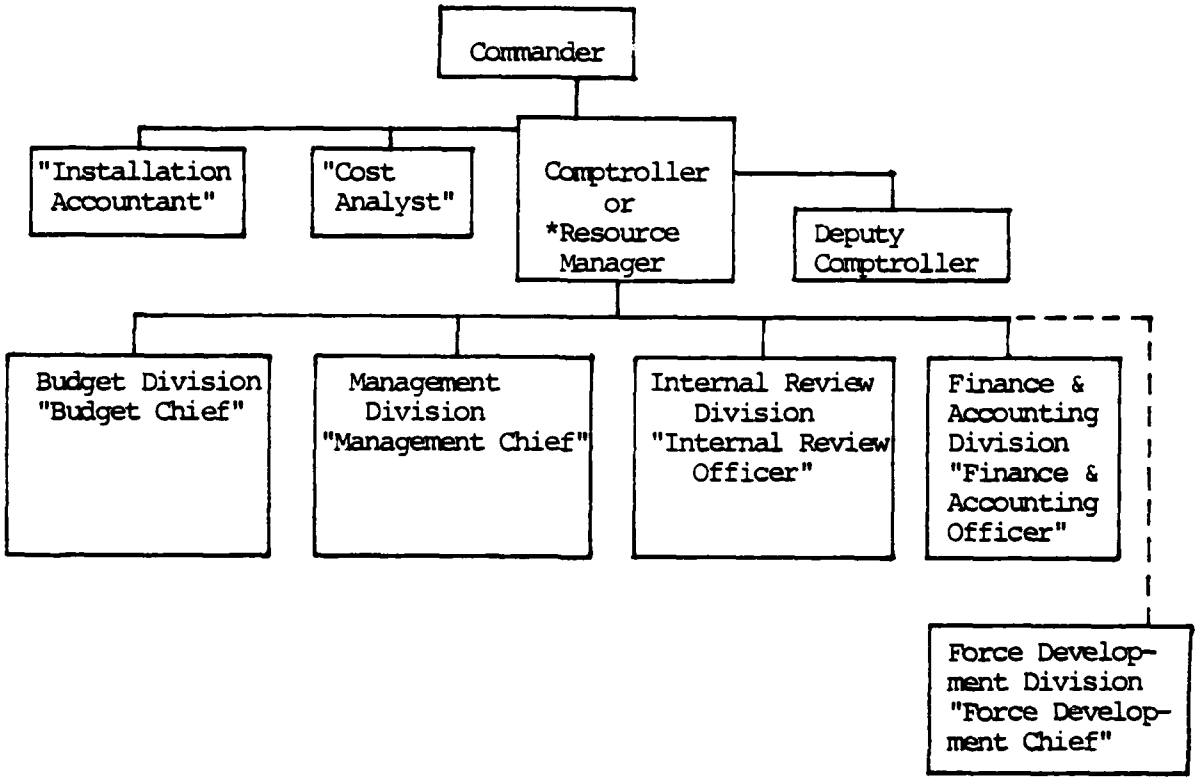
Organization	Example
Major Command[1]	U.S. Army Forces Command
Installation[2]	Fort Carson, Colorado
Major Activity[3]	4th Infantry Division*
Activity[4]	Division Battalions

1. Major Commands are those commands that report directly to and are funded by the Department of the Army.
2. An Installation is a group of facilities located in the same vicinity which support particular functions, reporting to a specific Major Command.
3. A Major Activity is one of the principle functions at an Installation; a composite of activities.
4. An Activity is a military unit or organization performing an assigned mission or function.

* An Army division, consisting of nine line battalions and three or more support battalions, dependent upon mission and/or classification, could be considered a Major Activity or Activity depending upon the circumstances and staffing at a particular Installation.

Source: U.S. Army War College, Army Command and Management, pp. 17-1--17-2, September 1978.

Figure II-3. Flow of Comptroller Functions



*DA commands have either a comptroller or a resource manager. Both individuals have the same fundamental responsibilities, although a resource manager organization will have a force development division. The force development division has primary responsibility for all force/manpower management issues. For purposes of this thesis the authors will use the term comptroller to refer to both DA comptrollers and DA resource managers.

The above configuration is based on the hierarchical form of organization. An organization that has a hierarchical form consists of a vertical dimension of differentiated levels of authority and responsibility and a horizontal dimension of differentiated units such as departments or divisions [Ullrich and Wieland, 1980]. The above configuration was derived from information contained in DA PAM 37-4, Army Comptroller Handbook dated April 1976, and from the work of Tully and Batiste (1980).

Figure II-4. Configuration of a DA Comptroller Organization

budgeting, accounting, management analysis, internal review and statistical reporting. Additionally, the installation comptroller's office prepares and issues directives and procedures essential for the preparation of budget estimates and studies [USAIA, 1978]. The MACOM comptroller concentrates on the same basic duties and responsibilities that are found at the installation level. Additionally, the MACOM comptroller must be concerned with the establishment and maintenance of favorable informal relationships between the MACOM office, DA, and subordinate installation comptroller offices. A more detailed discussion of these comptroller responsibilities are outlined in Appendix A.

C. REVIEW OF TULLY AND BATISTE'S RESEARCH

This section of Chapter II is a review of Tully and Batiste's thesis research and findings. The section provides a critique of the findings and states how this study attempts to augment their methodology and analysis.

1. Purpose, Scope, Methodology, Analysis and Findings

Informal conversations with past and present DA financial managers indicated to Tully and Batiste that many junior officers entering their first comptrollership assignment are unprepared for their duties because they are unfamiliar with the DA financial management system and its workings. Tully and Batiste then conducted a research effort within the DA comptroller community to determine whether the apparent need for improving the skills of the junior DA comptroller existed.

Their research effort revealed the existence of such a need. They then attempted to identify and rank in order of importance the specific shortcomings of the junior level DA comptroller. Tully and Batiste's final step was to determine a course of action for correcting the identified shortcomings [Tully and Batiste, 1980].

Tully and Batiste began their research effort by describing the DA financial management system. The description highlights and analyzes the specific military accounting, programming and budgeting functions performed by junion level DA comptrollers.

Tully and Batiste then attempted to determine if any shortcomings in financial management skills existed among junior level DA comptrollers. This was accomplished by conducting a survey of comptroller personnel and a study of Army Audit Agency (AAA) reports on comptroller activities [Tully and Batiste, 1980]. Tully and Batiste's survey of a sample of DA junior level financial managers was conducted via a mailed questionnaire. The questionnaire was designed to gather data from DA junior level financial managers concerning their degree of job preparation. One of the questionnaire's eight questions was directed to the junior level financial manager's comptroller. The comptrollers were asked to comment on the areas their subordinates could have been better prepared to handle, and what subject material should be emphasized in a course preparing DA financial managers for initial assignments in comptrollership [Tully and Batiste, 1980].

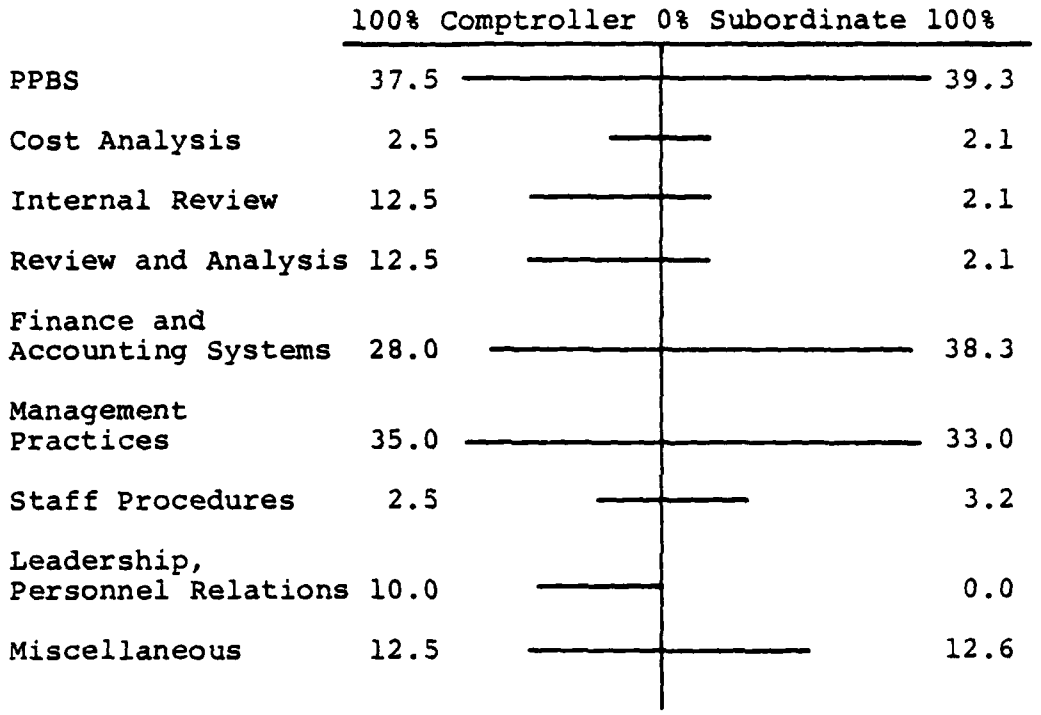
Two hundred fifteen questionnaires were sent to 49 DA commands in CONUS and USAREUR, identified by Tully and Batiste as being likely to have junior level comptroller positions. One hundred sixty six and 49 questionnaires were sent to junior level financial managers and comptrollers respectively. Replies were received from 43 commands, 99 junior level financial managers, and 44 comptrollers [Tully and Batiste, 1980].

The analysis of raw data gathered from the questionnaire revealed that 76.5% of all respondents felt junior level financial managers could have been better prepared to assume their duties. Further analysis revealed that lack of preparedness fell into eight major subject areas. The major areas and their respective frequencies of mention by both the comptrollers and junior level financial managers are shown in Figure II-5 [Tully and Batiste, 1980].

As is shown in Figure II-5 a significant number of comptrollers and junior level financial managers made comments about deficiencies in such organizational behavior areas as staff procedures, leadership and personnel relations. Inability to speak and write effectively and lack of common sense were some of the deficiencies categorized within the miscellaneous area [Tully and Batiste, 1980].

Tully and Batiste's efforts directed at determining the degree of need for improvement in the job preparation of junior level comptrollers were concentrated in their survey questionnaire. The results of the questionnaire indicated

Frequency of Mention by Comptrollers and
Junior Level DA Comptrollers



Source: Robert B. Tully and John P. Batiste, The Development of the Junior Level Army Financial Manager, p. 79, Thesis for Naval Postgraduate School, September 1980.

Figure II-5. Deficiencies of Junior Level Comptrollers

that such a need exists. AAA report findings were reviewed to either substantiate or refute this need for job preparation improvement [Tully and Batiste, 1980]. The audit reports contained findings that Tully and Batiste associated with each of the six major comptroller functions outlined in Figure II-2. Tully and Batiste could not use the AAA report findings to quantitatively support data from their survey questionnaires relating to the degree of need for job preparation improvement. However, the fact that the AAA reports contained findings of technical deficiencies within comptroller organizations formed part of the basis for their belif that a need for improvement existed [Tully and Batiste, 1980].

Tully and Batiste developed a PCC to help alleviate the major technical shortcomings identified in their research. This 95 hour course was designed to prepare junior level DA financial managers for comptrollership duties in the three major functional areas of budgeting, military accounting, and management practices. The subject areas and related instructional hours for the proposed PCC are presented in Appendix I [Tully and Batiste, 1980].

Additionally, Tully and Batiste devised a comptroller intern program through which newly assigned junior level financial managers would be cycled at the earliest possible opportunity. This intern program would allow junior level comptrollers to work for 30 to 60 days in each of the various divisions (e.g., budget, internal review, management analysis

and finance/accounting divisions) within the comptroller organization. This would allow the new financial managers to gain valuable job experience in performing the most important technical comptroller functions [Tully and Batiste, 1980].

2. Critique of Findings

Tully and Batiste's analysis of both questionnaires and AAA reports provided a means of determining the need for the job preparation improvement of junior level comptrollers. This need for improvement was evident in the two major areas of technical and organizational behavior skills. Tully and Batiste then focused their efforts on alleviating the specific technical shortcomings identified in the questionnaires and AAA reports. However, they chose not to address the organizational behavior deficiencies identified in the questionnaires and outlined in Figure II-5.

The author's research attempts to augment the work of Tully and Batiste by verifying and proposing a means to correct the identified organizational behavior deficiencies manifested by junior level DA financial managers. This was done by sending a questionnaire to all levels of DA comptrollers in order to obtain their comments on and recommendations for improving these identified organizational behavior deficiencies. The questionnaire is structured in a manner that permits comptrollers to also comment on organizational behavior deficiencies not previously identified by Tully and Batiste.

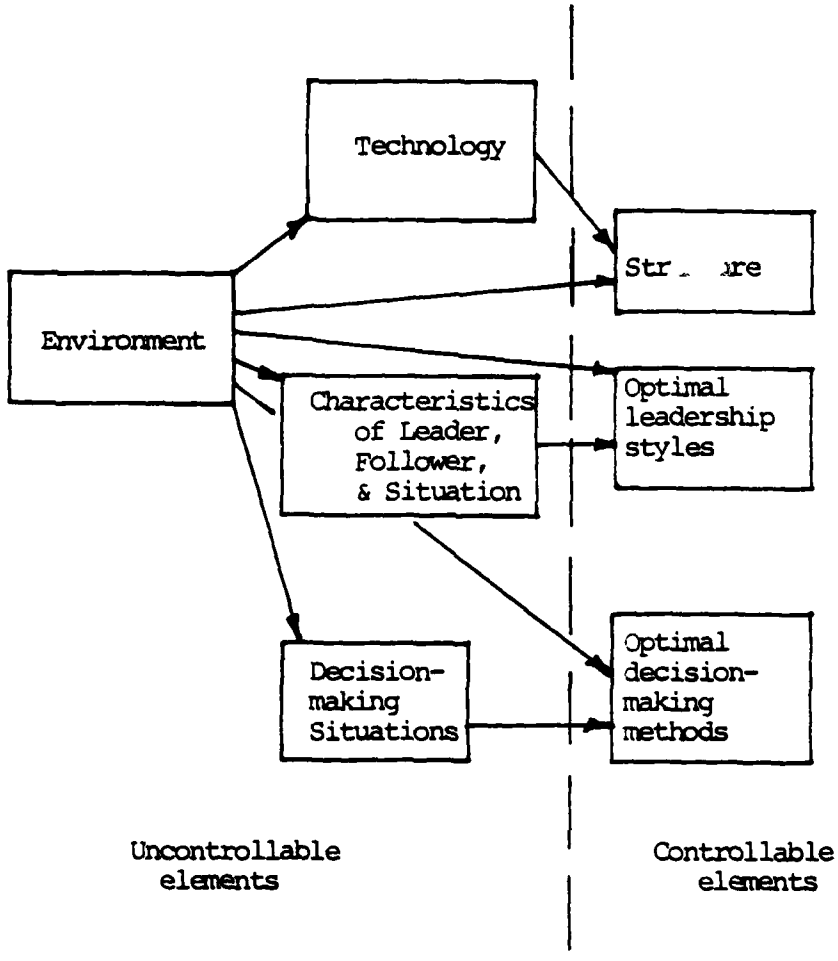
D. REVIEW OF PLEDGER'S RESEARCH

1. The Pledger Comptrollership Model

a. General

As stated in the Introduction, one objective of this thesis is to test the validity of the Pledger comptrollership model for use within the DA. The model, if validated within and then used by the DA, would facilitate the critical transition period of the "first one hundred days" [Bobulinski, 1979] in a new comptroller's assignment. Having presented an overview of the DA comptroller community and a review of Tully and Batiste's research, it is appropriate now to briefly review Pledger's comptrollership model. The model is not intended to be all encompassing, rather it brings together several organizational/structural aspects of military comptrollership into a framework to be used by comptrollers in facilitating the transition period of their new assignments. Pledger derived the model from a combination of organizational behavior theories which will be individually reviewed [Pledger, 1980].

Technology/structure, leadership, decision-making and the environment are the primary components of the comptrollership model. Figure II-6 illustrates the Pledger comptrollership model. Pledger states that optimal structural characteristics of the organization (such as a span of control or coordination) can be determined with the model from a study of the organization's technological and environmental characteristics. Optimal leadership styles can be selected by



Source: James Pledger, An Organizational Analysis Model for Navy Field-Level Comptrollership, p. 38, Thesis for Naval Postgraduate School, September 1980.

Figure II-6. The Pledger Comptrollership Model

examining the individual characteristics of the leader, the followers, and the situations. Appropriate decision-making methods are associated with different decision-making situations. The overall operating environment is considered to have both direct and indirect effects on the other components of the model [Pledger, 1980].

What follows is a more detailed description of the components of the model. The effects of the operating environment are considered simultaneously with each of the other three components of the Pledger comptrollership model. In the short term the elements to the left of the vertical dotted line in Figure II-6 are considered to be uncontrollable. The elements to the right of the vertical dotted line are considered in the model to be controllable by the comptroller in the short-term in most situations [Pledger, 1980].

b. Technology/Structure Characteristics

The purpose of this section is to first define the technology and structure of comptrollership to provide a foundation for the analysis of the technology/structure relationship. Next the work of several organization theorists will be briefly reviewed to identify the technological and environmental factors of organizations which contribute to optimum structural design and to introduce several propositions for testing during the analysis phase of this thesis.

(1) Definition of Technology and Structure. Technology is generally defined as the application of knowledge

to perform work. Perrow (1966) defines technology as "...the actions that an individual performs upon an object, with or without the aid of tools or mechanical devices, in order to make some change in that object." Rousseau (1979) states that technology has three major phases: input, conversion, and output. Inputs to comptrollership include people, equipment, modern management techniques and the basic theories of budgeting and accounting. Buffers exist to control flow and qualify on the input side [Pledger, 1980]. The trained military officers and civilians working in DA comptroller organizations are an example of an input buffer. Conversion is a process that adds value to the inputs in some desired way for some purpose [Rousseau, 1979]. This process is evidenced within the DA comptroller community by the practices of budgeting, accounting, internal review, cost analysis, and reporting for purposes of providing the command with the best possible financial management advice. Providing a service to management in the form of financial management information is the output of comptrollership [Pledger, 1980]. The financial management information can be budget information, accounting services, internal reviews or cost analysis reports. Output buffers control the flow and quality of the outputs. Output buffering is evident in stockpiling of materials and contingency funding within comptroller organizations [Pledger, 1980].

Organizational structure may be defined as the network of relationships that exist among various positions and position holders. Formal structure is a pattern

of relationships that has been consciously planned and implemented. Formal structure is defined to include the formal hierarchy of authority, as well as rules, formal procedures, and other planned attempts to regulate behavior. Key executives typically decide on basic patterns of structure that, in their opinion, will be most appropriate in achieving company goals [Dessler, 1980]. The DA operates under a formalized structure where relationships among various positions are carefully contrived and deliberately planned. However, unprescribed or informal structures usually develop as a means of circumventing the formal structure in order to expediate work-related actions [Pledger, 1980].

J. Thompson, J. Woodward and C. Perrow are organizational theorists who contend that the technology of an organization determines its optimum structure. D. Rousseau contends that some specific correlations are useful in predicting the appropriate structure for an organization. Other theorists such as T. Burns and G.M. Stalker argue that an organization's structure is a function of its overall operating environment. The findings of the above named individuals will be briefly mentioned in the following two sections in order to identify the technological and environmental factors within organizations which contribute to optimum structural design.

(2) Thompson, Woodward, Perrow, and Rousseau. Thompson contends that both strategy and structure are affected by the kind of technology employed [Ullrich and Wieland, 1980]. Thompson distinguishes three major classes of technological

processes: the long-linked technology, the mediating technology, and the intensive technology [Ullrich and Wieland, 1980]. Each of these technologies require a certain type of interdependence among the parts of the organization. The class of technology and its associated type of interdependence determines the optimum way of achieving coordination and control within the organization. Figure II-7 summarizes the relationships between the class of technology, type of interdependence, and optimum method of achieving coordination and control.

Woodward's studies in the 1950's of 100 British business firms identified the existence of specific relationships between technology and certain aspects of organizational structure such as span of control and line-staff arrangements. The firms were categorized into three major groups according to the complexity of their technology as follows: a) unit and small batch production, such as custom built cars; b) large-batch and mass production, such as mass produced cars, and c) long run process production of the same product, such as chemicals [Dessler, 1980; Ullrich and Wieland, 1980].

As outlined in Figure II-8, these three technologies are associated with certain aspects of organizational structure. The large batch/mass production firms are formally organized, have wide spans of control and exhibit line-staff separation. The other two types of firms are informally

Class of Technology	Examples	Type of Interdependence	Method of Coordination & Control
Long-linked Converts raw materials into finished output by performing a series of operations in a fixed sequence.	Assembly line	Serial Interdependence The successful performance of step B is dependent on the successful performance of step A, but not vice versa	Plans
Mediating Links together clients who wish to engage in specific transactions, but who otherwise prefer to remain uninvolved with one another.	Banks Postal Service Telephone Utilities Insurance Industry	Pooled Interdependence Each part renders a discrete contribution to the whole and each is supported by the whole	Standardized procedures and rules
Intensive The use of an intensive technology is determined by the nature of the problem and the variety of problems encountered, which can't be predicted accurately.	Hospitals Research Labs Certain Engineering Firms	Reciprocal Interdependence The output of each part become inputs for the other parts	Mutual Adjustment or feedback

This summary of the relationships between technology and structure was derived from the research of Ullrich and Wieland (1980) and Thompson (1967).

Figure II-7. Summary of Thompson's Research Findings on the Relationships Between Technology and Structure

Technological Characteristics	Unit and Small-Batch Production	Large-Batch and Mass Production	Process Production
Lower Levels	Informally organized narrow spans of control	Organized by formal process; wide spans	Organzied by technological task demands & narrow spans of control
Higher Levles	Informally organized; no distinction between line and staff	Organized by administrative processes with line-staff separation	Informally organized; no distinction between line and staff
General characteristics	Few levels; narrow spans of control; low "organizational consciousness"; no clear chain of command; low ratio of administrative to nonadministrative personnel	More "organizational consciousness"; more clearly defined positions; clear chain of command	Many levels; less "organizational consciousness"; high ratio of admin to nonadmin personnel

Source: Gary Dessler, Organizational Theory: Integrating Structure and Behavior, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1980), p. 72.

Figure II-8. Summary of Woodward's Research Findings on the Organizational Structure of Successful Firms

organized, have narrow spans of control and exhibit no distinction between line and staff.

The authors adopted Pledger's contention that comptrollership exhibits technological similarities (i.e., fairly standardized products, fairly predictable production steps, some unpredictability and product variations) to Woodward's "large batch/mass production" type firms and will therefore exhibit correspondingly similar structural relationships (i.e., formalized structure, administratively organized with line-staff separation, clearly defined positions, clear chain of command) [Dessler, 1980; Pledger, 1980].

C. Perrow extends the analysis of technology/structure further by categorizing the technologies of organizations along two dimensions as follows: "1) the extent to which logical, analyzable search procedures can be used in problem solving (along a dimension running from well-defined to ill-defined pr-blems), and 2) task variability (along a dimension ranging from variety in the task to routineness)" [Ullrich and Wieland, 1980, p. 90].

Perrow's use of the two dimensions makes it possible to distinguish four different types of technology, as shown in Figure II-9. Perrow contends that the type of technology of the organization will determine the most appropriate organizational structure, as shown in Figure II-10.

The authors adopted Pledger's hypothesis that the technology of comptrollership in the DA is of Perrow's

Problem definition	Problem variability	
	Low variability and few exceptions	High variability and many exceptions
Ill-structured (unanalyzable search)	I. Craft industries (specialty glass)	III. Nonroutine (aerospace)
Well-structured (analyzable search)	II. Routine (steel mills)	IV. Engineering (heavy machinery)

Source: Robert A. Ullrich and George F. Wieland, Organization Theory and Design (Homewood, Illinois: Richard D. Irwin, Inc., 1980), p. 91.

Figure II-9. Perrow's Classification of Types of Technologies

Type of Technology	*Most Effective Organizational Structure
I. Craft Industries	Decentralized structure (Reliance on low level decision making, power and feedback)
II. Routine	Formal, centralized structure (Reliance on coordination through plans, high interdependence among functions, power wielded by top management, little discretion exercised by either high or low-level staff).
III. Nonroutine	Flexible, polycentralized structure (Reliance on feedback)
IV. Engineering	Flexible, centralized structure (Reliance on plans)

*The aspects of structure determined by technology are as follows:
1) The amount of discretion exercised by high and low-level staff
2) The amount of power held by high and low-level staff
3) The extent of interdependence between high and low-level staff
4) The extent to which these two groups coordinate their work using feedback or planning.

This summary of Perrow's research findings on the relationships between technology and structure was derived from the work of Ullrich and Wieland (1980).

Figure II-10. Summary of Perrow's Research Findings on the Relationships Between Technology and Structure

Routine type (well structured/low variability and few exceptions) and displays corresponding structural characteristics (centralized with power held by comptroller, high interdependence and high coordination required among functions within the organization) [Ullrich and Wieland, 1980; Pledger, 1980].

Figure II-11 is Rousseau's matrix which is her summary of the research literature dealing with the technology/structure relationships that exist within organizations. The matrix indicates first order correlations (or lack or correlations) between the technological and structural characteristics among private organizations studied. The horizontally listed technological characteristics are considered to be independent variables fixed by the state of technology under consideration. The vertically listed structural characteristics are dependent variables which are unique to particular organizations [Rousseau, 1980; Pledger, 1980]. The terms technology and structure characteristics and technology and structure variables will be used interchangeably in this thesis. The definitions of Rousseau's technology and structure variables are listed in Figures II-12 and II-13 respectively.

The authors adopted Pledger's hypothesis that systematic relationships (i.e., correlations) between the technological and structural variables of comptrollership can be detected [Pledger, 1980].

(3) Burns and Stalker. Burns and Stalker contend that an organization's structure is a function of its overall

STRUCTURE	TECHNOLOGY							
	INPUT: Standardization	Predictability	CONVERSION: Routineness	Complexity	Automation	Use of discretion	OUTPUT: Quality Control	Performance evaluation
Span of Control			+	-	+	-		
Levels in Hierarchy	0	0		?	?	0	0	0
Centralization	+	+	+	-	+	-		
Formalization	+	+	+	?	+	-	+	+
Vertical Communication	-	-	-	?	-	+		
Interdependence			?	+	?	+	?	?
Coordination	-	-	-	+	-	0		
Specialization	+	+	+	?	+	-	+	+

Key: + = Positive relationship
- = Negative relationship
0 = No relationship
? = Inconsistent results
Blank = No research (unknown)

Source: James Pledger, An Organizational Analysis Model For Many Field-Level Comptrollership, p. 49, Thesis for Naval Postgraduate School, September 1980.

Figure II-11. Rousseau's Matrix of Technology/Structure Relationships

1. Standardization pertains to materials, funds or information which flow into the organization.

2. Predictability pertains to materials, funds or information which flow into the organization.

3. Routineness deals with the degree to which events are repeated.

4. Complexity deals with the degree of sophistication of the actual steps necessary to complete the operation.

5. Automation is determined by the degree to which the conversion process is manual or machine operated (e.g., computerized).

6. Use of discretion is a measure of how much the lower members of the organization are allowed to make decisions with regard to the day to day operation of the conversion process.

7. Quality control refers to the degree to which the output or product of the organization is checked for accuracy or correctness.

8. Performance evaluation is a form of feedback to supervisory management concerning the performance of supervised personnel output.

The variables above are descriptive of various characteristics of the three phases of technology previously discussed: input, conversion process, and output.

The definitions of the technology variables were derived from the research of Pledger (1980).

Figure II-12. Definitions of Rousseau's Technology Variables

1. Span of Control is the number of personnel supervised by a single supervisor at a particular level in the organization.

2. Levels in the hierarchy is a measure of the number of managerial levels, illustrative of the length of the chain of command.

3. Centralization is a measure of where decisions are made. Organizations in which decisions are made (and control held) at the top are considered to be highly centralized. Organizations in which decisions are made at the lower levels are considered to be more decentralized.

4. Formalization is indicative of how much importance the organization places on rules, regulations, and standardized procedures.

5. Vertical communication refers to freedom of information flow up and down the chain of command.

6. Interdependence is the degree to which different functions within the organization are dependent upon one another.

7. Coordination is a measure of how much coordination is required among different functions within the organization in order for the conversion process to function smoothly.

8. Specialization refers to the degree of specialization which is required or exists among the organizational functions.

The definitions of the structure variables were derived from the research of Pledger (1980).

Figure II-13. Definitions or Rousseau's Structure Variables

operating environment (i.e., the technology and market structure of the particular organization). They found that firms operating in a stable environment (i.e., little or no change in technology and market structure) exhibit a mechanistic system of management. A mechanistic system is characterized by a reliance on formal rules and regulations, knowledge located and decisions made at the top of the organization, narrow spans of control, vertical communications and loyalty to superiors. Firms that operate in a dynamic environment (i.e., changing technology and market structure) will tend to adopt an organic system of management, characterized by less reliance on formal rules and regulations, knowledge located at all levels within the organization, wider spans of control, lateral communications and loyalty to tasks rather than superiors [Dessler, 1980; Dalton, Lawrence and Lorsch, 1970].

The authors adopted Pledger's hypothesis that comptroller organizations operate in basically stable environments and exhibit mechanistic systems of management [Pledger, 1980].

(4) Summary. This section first defined the technology and structure of comptrollership. Next, the section provided a review of various theories relating how technology and the environment affect organizational structure. Thompson, Woodward and Perrow revealed how structure can be determined by technology, while Burns and Stalker examined the environmental effects on structure within organizations. Four hypotheses derived by Pledger from the various theories were

presented and will be tested during the analysis phase of this thesis.

c. Leadership Component

In this next section of the chapter the authors review the Pledger comptrollership model's leadership component. Within the model optimal leadership styels can be selected from an examination of the individual characteristics of the leader, the followers, and the situation. The authors augment Pledger's research by examining in more detail the individual characteristics of the leader. The examination focuses on the distinction between task oriented and socio-emotional oriented leaders. Two hypotheses are introduced that deal with these types of leaders. The section is broken down into two segments as follows: (a) choosing a leadership style and (b) leadership styles available.

(1) Choosing a Leadership Style. Robert Tannenbaum and Warren H. Schmidt identify three factors of particular importance to a manager or leader in selecting an optimal leadership style. These factors are the individual characteristics of the leader, the followers, and the situation.

The individual characteristics of the leader that Tannenbaum and Schmidt deem important are as follows:

- Manager's value system. (This relates to the manager's beliefs concerning how much influence subordinates should have in decisions affecting them.)
- Manager's confidence in subordinates.
- Manager's feelings of security in an uncertain situation. (Some managers have a greater need than others for predictability and stability in their environment.)

- Manager's leadership inclinations. (Regardless of the situation, many managers feel more comfortable as either a task oriented or socio-emotional oriented leader.) [Tannenbaum and Schmidt, 1973]

The literature reveals that this last characteristic has been the subject of a great deal of research over the past 30 years [Barrow, 1977]. Kaplan (1979) states that during this period of time, a number of leadership studies identified two critical dimensions of leader behavior. The first dimension is composed of democratic, permissive, follower oriented, participative, and considerate patterns of behavior which appear to relate to the leader's socio-emotional orientation. The second dimension consists of autocratic, restrictive, socially distant, directive, and structured patterns of behavior which appear to relate to the leader's task orientation [Kaplan, 1979]. J.D. Senger suggests that these task and socio-emotional orientations are related to two important personality variables: the need for achievement and the need for affiliation [Senger, 1971]. Although early researchers believed that task and socio-emotional patterns of behavior were mutually exclusive, more contemporary research has shown that the leader can be high or low in both dimensions [Hersey and Blanchard, 1972].

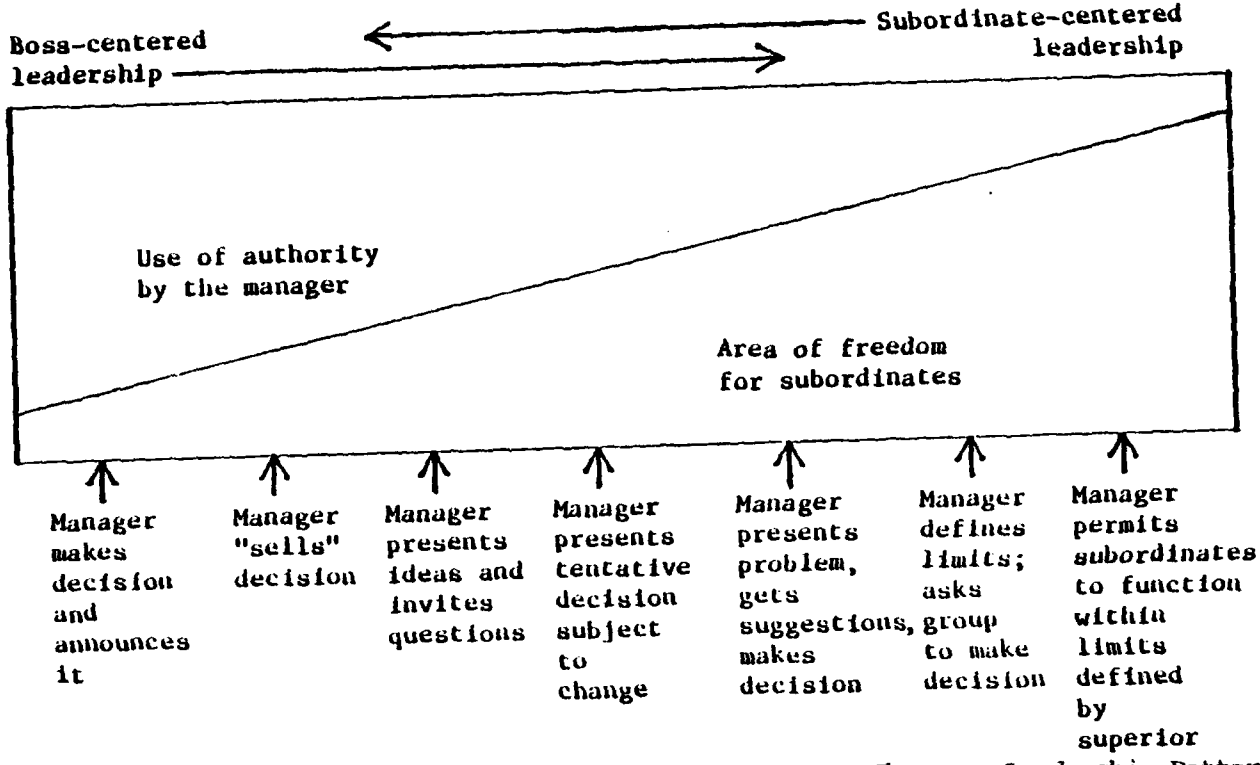
Based upon the findings of the literature reviewed it is hypothesized that DA comptrollers 1) perform both the socio-emotional and task related leadership functions within their organizations and 2) will be higher in the socio-emotional dimension than the task related dimension.

The second factor to consider when choosing a leadership style is the individual characteristics of subordinates. These characteristics include the subordinates expectations, values and abilities. "Effective managers will be able to detect these characteristics and in turn determine what type of behavior on their part will draw out the optimal subordinate behavior" [Pledger, 1980, p. 59].

In addition to the forces existing in managers and subordinates, certain situational characteristics will also affect the manager's leadership style. These situational characteristics include the type of organization, the group's effectiveness, and the problem itself [Tannenbaum and Schmidt, 1973].

(2) Leadership Styles Available. The continuum of leadership behavior by Tannenbaum and Schmidt is presented in Figure II-14. Each of the seven leadership styles depicted is a measure of the degree of authority used by the manager versus the amount of freedom given to subordinates in the decision-making process. Managers who utilize the styles on the extreme left of the continuum retain maximum authority. Conversely, managers who utilize the styles on the extreme right of the continuum are permitting their subordinates to exercise maximum possible freedom in decision-making [Tannenbaum and Schmidt, 1973]. A description of the leadership styles is presented in Appendix B.

Goodhartt (1979) suggests that a comptroller must be a manager, both internally and externally, but he



Source: Robert Tannenbaum and Warren H. Schmidt, "How to Choose a Leadership Pattern," Harvard Business Review (May-June 1973). Copyright 1973 by the President and Fellows of Harvard College.

Fig. II-14. Continuum of Leadership Behavior

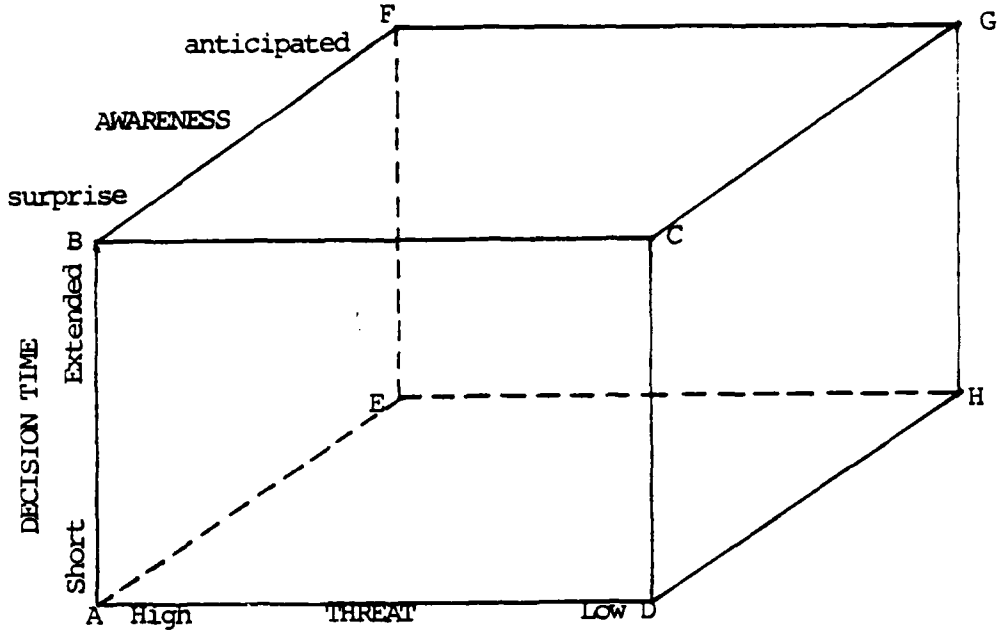
must also be a servant to his superiors, peers and subordinates. In order to accomplish both these requirements a comptroller must not overact in either role and become a dictator or a slave. Instead, he must function on a continuum between these two extremes. However, the comptroller's position on this continuum is not static but is constantly shifting as the situation and pressures change [Goodhartt, 1979, p. 9].

Based on the research of Goodhartt (1979) the authors hypothesize that, on the continuum of leadership behavior depicted in Figure II-14, DA comptrollers will utilize a wide range (i.e., 5 to 7 styles) of leadership styles in carrying out their responsibilities and will strike a relative balance between managerial authority and subordinate freedom by utilizing over 50% of the time the middle three leadership styles depicted along the continuum.

d. Decision-Making Situations/Methods

This section reviews the decision-making component of the Pledger comptrollership model. The model reveals that appropriate decision-making methods are associated with different decision-making situations.

Charles F. Hermann (1972) has designed a cube, Figure II-15, which depicts eight possible decision-making situations. These decision-making situations are characterized along three dimensions: the levels of threat to the organization or the comptroller, the extent of the time fuze in which to react, and the amount of prior awareness that the



A situational cube representing the three dimensions of the decision-making environment. (The decision-making methods listed are hypothesized by the comptrollership model.)

KEY:

TYPE OF SITUATION	THREAT	TIME FUSE	AWARENESS	METHOD
A. Crisis	Hi	Short	Surprise	Org. process or Bureaucratic
B. Innovative	Hi	Extended	Surprise	Rational or Org. process
C. Inertia	Low	Extended	Surprise	Rational
D. Circumstantial	Low	Short	Surprise	Org. process
E. Reflexive	Hi	Short	Anticipated	Org. process or Bureaucratic
F. Deliberative	Hi	Extended	Anticipated	Rational or Org. process
G. Routine	Low	Extended	Anticipated	Org. process
H. Administrative	Low	Short	Anticipated	Org. process

Source: Charles F. Hermann, International Crises: Insights from Behavioral Research, The Free Press, New York, 1972, p. 14.

Figure II-15. Hermann's Decision-Making Situations Cube

decision must be made [Hermann, 1972]. The Pledger comptrollership model depicts these different decision-making situations as requiring comptrollers to adopt different decision-making methods [Pledger, 1980].

Allison (1971) has described three decision-making methods that Pledger (1980) contends can be used for the different decision situations depicted by Hermann in his cube. The decision methods are the rational method, the organizational processes method and the bureaucratic politics method [Allison, 1971].

The rational decision-making method is characterized by a unitary decision-maker, the establishment of objectives, the development and ranking of alternatives and the selection of the best available alternative [Fincke, 1981].

The organizational processes method is characterized by problem factoring, satisficing, uncertainty avoidance, and standard operating procedures (SOPs). Problem factoring refers to dividing the problem up into manageable parts which are acted upon by different groups in an independent manner. Satisficing occurs when decision-makers adopt the first acceptable alternative, rather than searching for and choosing the best alternative. Organizations avoid uncertainty by developing both procedures that provide short-run feedback and implementing change in an incremental manner. The purpose of SOPs is to avoid mistakes by relying on certain repetitive actions which have proved successful in the past [Allison, 1971; Pledger, 1980].

Bureaucratic politics is best described by bargaining along regularized channels among players positioned hierarchically within an organization. Responsible players use their power to fight for what they feel is right. Final decisions are the result of compromise. The bureaucratic politics method is based on the decision-maker's power and personal ambitions. These ambitions sometimes affect the solutions to a particular problem. "For example, rather than arriving at a rational solution to a problem and letting the analysis sell itself, the decision-maker might attempt to sell a solution which is designed to benefit his or her career rather than the good of the organization" [Pledger, 1980, p. 73].

Pledger then discussed which decision-making methods would most likely be utilized in each of the decision-making situations depicted in Figure II-15. These methods and situations are summarized as follows:

APPROPRIATE METHOD	DECISION-MAKING SITUATION
1. Rational	Innovative, Inertia, Deliberative
2. Organizational Processes	Circumstantial, Routine, Crisis, Reflexive, Administrative (Possibly Innovative, Deliverative)
3. Bureaucratic Politics	Possibly Crisis, Reflexive

Pledger based the associations on 16 propositions which indicate actions resulting from the three dimensions of threat, time fuze and awareness [Pledger, 1980]. These propositions are listed in Appendix C.

The authors adopted and tested Pledger's hypothesis that comptrollers used mixed decision-making methods as decision-making situations change.

2. Method, Analysis and Findings

This section provides a review of Pledger's research methodology, analysis and findings.

Pledger used a questionnaire to obtain data pertaining to the technology/structure and decision-making components of his "comptrollership model." The questions were not pretested or validated. Questionnaires were sent to a random sample of 68 USN field comptrollers located in the continental United States. Replies were received from 59 comptrollers [Pledger, 1980].

In the analysis of the raw data gathered from the questionnaire, Pledger examined three aspects of the comptrollership model:

1. Data were analyzed to find correlations between technological and structural variables. The variables used in the comptroller questionnaire were those derived by Rousseau.

2. Data were analyzed to determine relationship between decision-making situations encountered by comptrollers and what types of decision-making methods are most often utilized.

3. Content analysis was conducted of the comptrollers' general comments concerning problems encountered during the initial stages of an assignment and advice to the new comptroller. [Pledger, 1980]

Pledger's analysis revealed that correlations do exist between the technological and structural variables of USN field comptrollership. The data from the questionnaires also

supported Pledger's two other hypotheses relating to technology/structure. These hypotheses were outlined previously in this chapter and are based on the research of Woodward and Perrow.

Analysis of the data also supported the hypothesis that USN field comptrollers used mixed decision-making methods as decision-making situations change.

"A content analysis of the comptroller's general comments revealed the concern of Navy field comptrollers for the organizational behavior aspects of their jobs; especially technology/structure and leadership aspects" [Pledger, 1980, p. 120]. The comments also substantiated the hypothesis that USN field comptroller organizations operate in basically stable environments and exhibit mechanistic systems of management. Pledger also concluded from these comments that comptroller training in the USN is inadequate with respect to the development of necessary organizational behavior skills.

3. Critique of Findings

This section of the chapter presents a critique of Pledger's findings and a statement on how this thesis attempts to augment his methodology and analysis.

Pledger's successful testing of his "comptrollership model" was an important first step in attempting to improve the organizational behavior awareness of comptrollers during their initial months on the job. As a result comptrollers can shorten their start up process within the organization

through use of the Pledger comptrollership model. Pledger's work represents a starting point for further research and offers a framework which can be refined and expanded [Pledger, 1980]. Refinements are possible in certain aspects of the data collection and analysis techniques utilized by Pledger. Additionally, there was no testing of the model's leadership component.

This thesis augments the work of Pledger by attempting to improve the questionnaire so that the potential for bias is reduced in the resulting data. The authors also analyzed subsamples of the data such as military officer and civilian comptrollers. Partial correlation analysis was performed in order to identify separate effects of all technological variables on the structural variables.

The authors also gathered information on the type of leadership styles employed by DA comptrollers. This represents an initial testing of certain elements within the Pledger comptrollership model's leadership component.

E. SUMMARY

This chapter described the origin, responsibilities, functions and organization of the DA comptroller community. In order to understand the organizational behavior aspects of the comptroller community, familiarity with the comptroller responsibilities at different command levels within the DA is essential. Therefore, the specific responsibilities of the DA division, installation and MACOM comptrollers are outlined in the chapter and presented in detail in Appendix A.

The chapter included a summary of Tully and Batiste's and Pledger's research and findings. Tully and Batiste identified a definite need for the job preparation improvement of junior level comptrollers in the two areas of technical and organizational behavior skills. They made recommendations to alleviate the technical shortcomings, but did not address the organizational behavior deficiencies manifested by junior level comptrollers. The summary of Pledger's research included a review of the literature associated with the various components of the comptrollership model. Pledger states that optimal structural characteristics of the organization can be determined with the model from a study of the organization's technological and environmental characteristics. Optimal leadership styles can be selected with the model from an examination of individual characteristics of the leader, the followers, and the situation. Appropriate decision-making methods are associated with different decision-making situations. Pledger derived the model from a combination of organizational behavior theories developed by Thompson, Woodward, Perrow, Rousseau, Burns and Stalker, Tannenbaum and Schmidt, Hermann and Allison. The model is illustrated in Figure II-6.

This chapter presented several hypotheses which are tested and results presented in Chapter IV. Four of these hypotheses relate directly to technology/structure within DA comptroller organizations, and are based on the research of

Rousseau, Woodward, Perrow, Burns and Stalker. The next four hypotheses deal with the leadership functions and styles of USA comptrollers. Finally, the authors adopted Pledger's hypothesis that comptrollers use mixed decision-making methods as decision-making situations change. The hypotheses are:

1. Systematic relationships (i.e., correlations) between the technological and structural variables of DA comptrollership can be detected.

2. DA comptrollership exhibits technological similarities (i.e., fairly standardized products, fairly predictable production steps, some unpredictability and product variations) to Woodward's "large batch/mass production" type firms and will therefore exhibit correspondingly similar structural relationships (i.e., formalized structure, administratively organized with line-staff separation, clearly defined positions, clear chain of command).

3. The technology of comptrollership in the DA is of Perrow's Routine type (well structured/low variability and few exceptions) and displays corresponding structural characteristics (centralized power held by comptroller, high interdependence and high coordination required among functions within the organization).

4. DA comptroller organizations operate in basically stable environments and exhibit mechanistic systems of management.

5. DA comptrollers perform both the socio-emotional and task related leadership functions within their organizations.

6. DA comptrollers will be higher in the socio-emotional dimension than the task related dimension.

7. On Tannenbaum and Schmidt's continuum of leadership behavior, DA comptrollers will utilize a wide range (i.e., 5-7 styles) of leadership styles in carrying out their responsibilities.

8. DA comptrollers will strike a relative balance between managerial authority and subordinate freedom by utilizing over 50% of the time the middle three leadership styles depicted along Tannenbaum and Schmidt's continuum of leadership behavior.

9. DA comptrollers used mixed decision-making methods as decision-making situations change.

III. RESEARCH METHOD

A. INTRODUCTION

In this chapter the authors present the research methods used in identifying and ranking in order of importance the specific organizational behavior deficiencies of junior level Department of the Army (DA) comptrollers and testing the Pledger comptrollership model. The chapter begins with a detailed description of the questionnaire sent to DA comptrollers to gather needed data identified in Chapter II. This description focuses on the purpose, design and pretesting of the comptroller questionnaire. The chapter continues with a detailed description of the data analysis plan. This description concentrates on how the data relating to the Pledger comptrollership model were analyzed to test hypotheses 1 through 9. The description also concentrates on how the comptrollers' comments on the organizational behavior deficiencies exhibited by junior level DA comptrollers were categorized and ranked in order of importance. Next, the authors identify the sample selected to receive the questionnaire. Also those comptrollers who responded to the questionnaire are identified. The chapter concludes with a presentation of three tables that summarize the responses to the questions relating to background information, the Pledger comptrollership model and the job preparation of junior level comptrollers.

B. THE QUESTIONNAIRE

1. Purpose

A questionnaire was developed by the authors and sent to comptrollers from a large representative sample of 246 DA commands in the Continental United States (CONUS) and United States Army Europe (USAREUR) [Appendix D]. The questionnaire was pre-tested at Fort Ord, California and the Defense Language Institute (DLI), Presidio of Monterey, California. The pre-test respondents were the comptrollers of these two commands. As a result of the pre-testing, modifications were made to certain questions measuring the technology and structure characteristics existing within DA comptroller organizations. These modifications are discussed in the next section of this chapter. In addition to background data on the command and the comptroller, the first part of the questionnaire is designed to gather data for testing the validity of the Pledger comptrollership model. The last part of the questionnaire is designed to obtain the comptroller's comments on and recommendations for minimizing any organizational behavior deficiencies that junior level DA financial managers exhibit during their first tour in the comptrollership specialty field.

2. Design

Table III-1 summarizes the characteristic or attribute of the comptroller organization, comptroller or junior level financial manager being measured by each question of the questionnaire.

TABLE III-1

KEY TO COMPTROLLER QUESTIONNAIRE

Characteristic/Attribute	Question Number
*Military or civilian comptroller, rank or GS rating	1
*Primary and secondary job specialties of military comptrollers	2
*Job specialty code of civilian comptrollers (number and nomenclature)	3
*Comptroller experience level	4
*Number of previous tours of duty for military officer comptrollers within the comptrollership specialty area	5
*Last tour of duty for military officer comptrollers within the comptrollership specialty area	6
*Length of comptroller's current assignment	7
*Comptroller education (degree, major, institution)	8
*Size of the command	9
*Size of the comptroller organization	10
*Comptroller span of control (structure)	11
*Hierarchical levels within comptroller organization (structure)	12
*Level of command centralization	13 & 14
*Level of centralization within comptroller organization (structure)	15
*Formalization of comptroller organization (structure)	16
*Level of vertical (upward) communication in comptroller organization (structure)	17
*Interdependence of functions within the comptroller organization (structure)	18
*Coordination within the comptroller organization (structure)	19
*Specialization of functions within the comptroller organization (structure)	20
*Routineness of conversion process (technology)	21
*Standardization of inputs (technology)	22
*Predictability of inputs (technology)	23
*Complexity of conversion process (technology)	24
*Automation of conversion process (technology)	25
*Discretion within conversion process (technology)	26
*Output quality control (technology)	27

TABLE III-1 (Continued)

*Performance evaluation (technology) ---------- 28

*Socio-emotional leadership function (leadership) ---------- 29-31

*Task related leadership function (leadership) ---------- 32-34

*Tannenbaum and Schmidt's seven different leadership styles (leadership) ---------- 35

*Decision-making situations (decision-making) ---------- 36

*Decision-making methods (decision-making) ---------- 37

*Comptroller problem areas (subjective) ---------- 38

*Comptrollers' advice (subjective) ---------- 39

*Number of military officers serving their first tour in the comptrollership specialty (Job preparation of DA junior level comptrollers) ---------- 40

*Duty position of military officers serving their first tour in the comptrollership specialty (Job preparation of junior level DA comptrollers) ---------- 41

*Identification of specific organizational behavior deficiencies of junior level DA comptrollers. (Job preparation of junior level DA comptrollers) ---------- 42

In utilizing the above information, refer to Appendix D

Questions 11,12,15-28 relate to the technology/structure component of the Pledger comptrollership model

Questions 29-35 relate to the leadership component of the Pledger comptrollership model

Questions 36 and 37 relate to the decision-making component of the Pledger comptrollership model

Questions 38 and 39 are subjective in nature but relate to all components of the Pledger comptrollership model (i.e., environment, technology/structure, leadership, decision-making)

Questions 40-42 relate to the job preparation of junior level DA comptrollers.

a. Background Questions

Questions 1-10 of the questionnaire which measure background information on the command and the comptroller are based on a nominal level of measurement. With this level of measurement each of the values being assigned to the various background data is a distinct category, and the value itself serves merely as a label or name for the category [Nie, et al., 1975]. No ordering among categories is implicit with this level of measurement [Pledger, 1980]. The purpose of the background questions was to permit the breakdown of data by subsamples such as military comptrollers, civilian comptrollers, military officer comptrollers with a finance or comptroller primary specialty, and military officer comptrollers with a non-finance or non-comptroller primary specialty. Other subsamples included comptrollers from different DA Major Commands (MACOMS) such as USAREUR, Material Development and Readiness Command (DARCOM), Forces Command (FORSCOM), Training and Doctrine Command (TRADOC), and the National Guard Bureau (NGB).

The authors have no reason to believe that responses to the background questions would be biased since the information obtained is public and available from other sources.

b. The Pledger Comptrollership Model Questions

(1) Technology and Structure Questions. Questions 11-13 which measure structural characteristics of the comptroller organizations are based on a nominal level of measurement. The purpose of questions 11 and 12 was to determine the span of control and levels in the hierarchy for DA comptroller

organizations. The purpose of question 13 was to determine the comptroller's immediate supervisor within the command (e.g., commander, executive officer (XO), chief of staff). The authors have no reason to believe that responses to questions 11-13 would be biased since the information obtained is public and available from other sources.

Questions 14-28 which measure technological and structural characteristics of the comptroller organizations are based on an interval level of measurement (5 point Likert scale). With this level of measurement, categories are not only rank-ordered with respect to some measured characteristic, but the distances between the categories are defined relative to an arbitrary zero point in terms of fixed and equal units [Nie et al., 1975]. Questions 14-28 were taken from the questionnaire Pledger sent to United States Navy (USN) field level comptroller organizations for the initial testing of his comptrollership model. Pledger based the content of the questions on the Rousseau (1980) matrix which summarizes the relationships between technology and structure characteristics that exist within organizations (refer to Figure II-11). The authors made modifications to these technology and structure questions after pre-testing the questionnaire. Questions 14-28 were modified in order to increase the validity of information obtained from the responses. These questions were modified by eliminating the interval scale midpoint labels used in the questionnaire Pledger sent

to USN field level comptroller organizations. The purpose of labeling only the two interval scale end points for each question was to reduce the possibility of response bias. Response bias is possible if the midpoint label does not match the midpoint line since the authors would not know whether the comptrollers were responding in terms of the label or line [Weitzman, 1981]. Another modification consisted of grouping together all the questions dealing with functions (i.e., Q18-Q21), inputs (i.e., Q22-Q23) and operations (i.e., Q24-Q25). The purpose of grouping these similarly worded questions together was to improve the readability of the questionnaire.

The purpose of the technology and structure questions was to determine the relationships between technology and structure characteristics existing within DA comptroller organizations. It is possible that bias could result in the responses to these questions for the following reasons: (a) Social desirability response bias. Social desirability is a response bias defined as individuals answering according to the norms they belive society condones [DA Research Institute for the Behavioral and Social Sciences, 1976]. Social desirability could encourage some of the DA comptrollers to answer certain questions in a manner which they think the questions should be answered, e.g., "rules strictly followed always," in order to show themselves in a better light [Pledger, 1980]. Social desirability response bias is likely with questions 15-17 and 26-28, since these questions tend to provide the

opportunity for comptrollers to show themselves as effective managers. Social desirability response bias is less likely with questions 14, 18-24 since these questions tend not to provide the opportunity for comptrollers to show themselves in a better light as effective managers. An attempt was made to reduce this type of bias by informing the comptrollers via a questionnaire cover letter that their responses would, with the exception of the authors, remain anonymous. (b) Interpretation of word definitions response bias. Interpretation of word definitions is a response bias defined as individuals interpreting the same word within a question differently. For example, two DA comptrollers could interpret the word "specialized" differently in question #20. This type of bias is likely with questions 15 and 18-26, since these questions tend to contain at least one word that comptrollers could interpret differently such as important, dependent and specialized. This type of bias is less likely with questions 14, 16, 27-28 since these questions tend not to contain words that at face value are as likely to be given different interpretations by comptrollers.

(2) Leadership Questions. Questions 29-34 which measure the socio-emotional and task related dimensions of leadership behavior for DA comptrollers are based on an interval level of measurement (5 point Likert scale). The questions were taken from Fleishman's (1957) Leadership Opinion Questionnaire (LOQ), a 40 question, self administering leadership inventory. Twenty of the LOQ's questions are consolidated

into a scoring key called "consideration" which measures the respondent's degree of socio-emotional leadership orientation, while the remaining 20 questions are consolidated into a scoring key called "initiating structure" which measures the respondent's degree of task related leadership orientation.

Questions 29-31 were taken from the "consideration" key. The authors selected these three questions because they have a high correlation with respect to the consideration key and a low correlation with respect to the "initiating structure" key (refer to Table III-2).

Questions 32-34 were taken from the "initiating structure" key. The authors selected these three questions because they have a high correlation with respect to the "initiating structure" key and a low correlation with respect to the "consideration" key (refer to Table III-2).

The purpose of these leadership questions was to determine the degree to which DA comptrollers perform both the socio-emotional and task related leadership functions within their organizations. Social desirability response bias is possible with these questions since they tend to provide the opportunity for comptrollers to show themselves in the best light possible as effective and emphathic managers. Question 35 which measures the types of leadership styles that DA comptrollers utilize is based on an ordinal level of measurement. With this level of measurement, it is possible to rank-order all of the categories according to some criterion [Nie, and others, 1975]. Question 35 was derived from Tannenbaum and

TABLE III-2

SUMMARY OF QUESTIONS SELECTED FROM FLEISHMAN'S LEADERSHIP OPINION QUESTIONNAIRE (LOQ)

Question Number	Question	Correlation: Consideration	Correlation: Initiating Structure
	*CONSIDERATION KEY		
29	Are you willing to make changes?	.78	.09
30	Do you put suggestions that are made by people in your work group into operation?	.87	.11
31	Do you treat all people in your work group as your equal?	.66	.28
	**INITIATING STRUCTURE KEY		
32	Do you see to it that people in your work group are working up to their capabilities?	-.17	.87
33	Do you ask that your subordinates follow to the letter standard routines handed down to you?	.25	.72
34	Do you emphasize to your subordinates the meeting of deadlines?	.10	.68

*"Consideration" key measures the respondent's degree of socio-emotional leadership orientation.

**"Initiating structure" key measures the respondent's degree of task related leadership orientation.

This summary of questions selected from the LOQ was derived from the search of Fleishman (1957).

Schmidt's (1973) continuum of leadership behavior which depicts seven leadership styles that managers can utilize. The question measures the seven leadership styles from the least utilized to the most utilized by the comptroller. The purpose of the question was twofold: (a) To determine the range of leadership styles that DA comptrollers utilize in carrying out their responsibilities. (b) To determine the leadership styles most frequently utilized by DA comptrollers. Social desirability response bias is possible with question 35. Bias could also result from some comptrollers having difficulty with remembering accurately the percentage of time they utilized each of the seven leadership styles.

(3) Decision-making Questions. Question 36 which measures the types of decision-making situations encountered by DA comptrollers is based on an ordinal level of measurement. Question 36 was taken from the questionnaire Pledger sent to USN field level comptroller organizations. Pledger derived the question from Hermann's (1972) cube which depicts eight possible decision-making situations. The question measures the eight decision-making situations from the least experienced to the most experienced by the comptroller. The purpose of the question was twofold: (1) To determine the percentage of time comptrollers make decisions in each of the eight decision-making situations. (2) To determine by means of an adjustment process the relationship between a particular decision-making method and its predicted and actual utilization. The adjustment process is discussed in the data

analysis plan section of this chapter. Bias could result from comptrollers interpreting a particular situation differently. For example, two comptrollers could interprete a reflexive decision-making situation differently depending on their familiarity with and understanding of this particular type of situation. Bias could aslo result from some comptrollers having difficulty with remembering accurately the percentage of time they encountered each of the eight decision-making situations.

Question 37 which measures the types of decision-making methods utilized by DA comptrollers is based on a nominal level of measurement. Question 37 was taken from the questionnaire Pledger sent to USN field level comptroller organizations. Pledger derived the question from Allison's (1971) three types of decision-making methods (i.e., rational, organizational processes, and bureaucratic politics). The comptrollers were asked to select six or more choices from the list of 13 words/phrases (i.e., decision-making techniques) which pertain to the method(s) they use in making decisions. Five of the techniques pertain to the rational decision-making method. Five of the techniques pertain to the organizational process decision-making method. Three of the techniques pertain to the bureaucratic politics decision-making method. Refer to Table III-3. The purpose of question 37 was to determine by means of an adjustment process the percentage of time comptrollers utilize each of the three decision-making methods in carrying out their responsibilities. The adjustment

TABLE III-3

SUMMARY OF RELATIONSHIPS BETWEEN DECISION-MAKING TECHNIQUES AND ASSOCIATED DECISION-MAKING METHODS

Decision-Making Techniques	Associated Decision-Making Method
1. Unitary decision maker	Rational
2. Follow SOP/regulations	Organizational Process
3. Personal interests	Bureaucratic Politics
4. Prefer incremental change to current policy rather than radical change if possible	Organizational Process
5. State the objective	Rational
6. Develop alternatives	Rational
7. Sell the decision to the comptroller	Bureaucratic Politics
8. Divide problem into factors to be divided among sub-units in the organization	Organization Process
9. Analyze each alterantive (e.g., economic analysis, cost/benefit, etc.)	Rational
10. Effect of decision on my own career	Bureaucratic Politics
11. Usually pick first acceptable alternative	Organizational Process
12. List assumptions concerning alteratives	Rational
13. Pick alternative which provides feedback	Organizational Process

The above decision-making techniques are listed in question 37. As indicated 5 techniques pertain to the rational decision-making method. Five techniques pertain to the organizational process method. Three techniques pertain to the bureaucratic politics method.

This summary of relationships between decision-making techniques and associated decision-making methods was derived from the research of Pledger (1980).

process is discussed in the data analysis plan section of this chapter. Social desirability response bias is possible with this question due to the choices listed. For example, it is possible that comptrollers would not admit to considering their careers or selecting the first acceptable alternative above all else in making a decision.

(4) Comptroller Problems and Advice Questions. Question 38 is an open-ended question which documents the problem areas being encountered by DA comptrollers during their "first one hundred days" in a new assignment. Question 39 is an open-ended question which documents the advice DA comptrollers have for the new or future comptroller during the "first one hundred days" in a new assignment. Both questions were from the questionnaire Pledger sent to USN field level comptroller organizations. The purpose of the questions was twofold: (a) To provide data that could be used to provide advice to the new or future comptroller pertaining to their "first one hundred days" in a new assignment. (b) To provide data so that hypothesis 4 which relates to the technology and structure within comptroller organizations, could be tested. Response bias is unlikely with questions 38 and 39 due to their open-ended structure. The open-ended structure of the questions permits comptrollers to respond in their own words without restrictions. Additionally, the inclusion of the words "if any" and "any" within questions 38 and 39 respectively permits comptrollers to respond negatively if they had no problems or advice.

c. Job Preparation of Junior Level Comptroller Questions

Questions 40 and 41 which measure background information on the junior level comptrollers are based on a nominal level of measurement. The purpose of question 40 was to determine the percentage of junior level comptrollers from the different DA MACOMs such as USAREUR, DARCOM, FORSCOM, TRADOC and the NGB. The purpose of question 41 was twofold: (1) To identify the duty positions of junior level comptrollers. (2) To identify if junior level comptrollers are in supervisory and non-supervisory duty positions. The authors have no reason to believe that responses to these two background questions will be biased since the information obtained is public and available from other sources.

Question 42 is a combination open-ended and check-list question which documents the organizational behavior deficiencies of junior level comptrollers. The purpose of the question was twofold: (1) To identify in rank order of importance the specific organizational behavior deficiencies of junior level DA comptrollers. (2) To document the comptrollers' recommendations regarding improvement of the training and/or performance of junior level comptrollers. This documentation provided the authors with information useful in developing the addendum to Tully and Batiste's proposed PCC. The purpose of the addendum is to alleviate the main organizational behavior deficiencies exhibited by junior level DA comptrollers. Response bias is unlikely with question 42 due to its open-ended check list type structure.

The check list of organizational behavior areas referenced in question 42 serves merely as a guide and/or reminder to the comptroller respondents. The check list items are those organizational behavior deficiencies that Tully and Batiste identified in their thesis. Item 7 on the check list allows comptrollers to comment on other areas of concern relating to the job preparation of junior level financial managers. Many of the comptrollers used this item to mention technical training as a serious deficiency in the job preparation of junior level comptrollers. The technical training deficiency is discussed in the data analysis plan section of this chapter, and again in Chapters IV and V. Additionally the inclusion of the word "any" within question 42 permits comptrollers to respond negatively if junior level comptrollers within their organizations do not exhibit job preparation deficiencies.

3. Summary

To summarize, this section first defined the purpose of the questionnaire which was to gather data for testing the validity of the Pledger comptrollership model and to obtain information from DA comptrollers concerning their comments on and recommendations for minimizing any organizational behavior deficiencies exhibited by junior level financial managers. Next, the authors discussed questionnaire design by identifying the level of measurement, purpose, and response bias associated with each set of questions. The authors also discussed the modifications that were made to the technology and

structure questions (i.e., Q11-A28) as a result of pre-testing the questionnaire.

C. DATA ANALYSIS PLAN

1. The Pledger Comptrollership Model

a. Analysis of Technology/Structure Data

(1) Hypothesis 1.

Hypothesis 1: Systematic relationships (i.e., correlations) between the technological and structural variables of DA comptrollership can be detected.

This hypothesis was tested by performing bivariate and partial correlation analysis between the technology and structure variables existing in the DA comptroller organization. The variables used are based on the Rousseau (1980) matrix and are listed in Figures II-12 and II-13 respectively. Bivariate correlation is a form of analysis of two variables from which a single number results which is descriptive of the relationship between the variables. This single number is referred to as the Pearson product moment correlation coefficient, symbolized by "r". The magnitude of the absolute value of Pearson's "r" is indicative of the amount of change in one variable which is indicated by change in the other variable [Nie et al., 1975]. The graph of data points based on two variables, where one variable defines the horizontal axis is known as a scattergram [Nie et al., 1975]. Pearson's "r" is a measure of the goodness of a fit of a straight line to the data points of a scattergram. A value for "r" of +1 or -1 indicates a perfect fit of a straight line to the data points of a scattergram. The sign indicates

whether the relationship is direct (+) or inverse (-). For example a positive "r" indicates that variable X and variable Y tend to increase or decrease together. A negative "r" indicates that as variable X becomes larger, variable Y tends to become smaller. A value for "r" of 0 indicates no linear relationship between the two variables. The value of Pearson's "r" therefore indicates the strength and direction of the linear relationship between two variables and is completely devoid of any cause or effect implication [Nie et al., 1975].

Partial correlation is a form of analysis that provides a single measure of association describing the relationship between two variables while adjusting for the effects of one or more additional variables. Partial correlation can be used to locate spurious correlations. A spurious correlation is defined as a relationship between two variables, X_1 and Y, in which X_1's correlation with Y is solely the result of Y varying along with some other variable, X_2, which is the true predictor of Y. In this case, when the effects of X_2 are controlled (i.e., held constant), Y no longer varies with X_1.

Partial correlation can also be used to locate relationships between variables where none appear to exist. Situations sometimes exist where theory or intuitive judgment suggests that there should be a relationship between two variables, but the data do not indicate any relationship. A possible reason for this type of situation occurring is that some other variable or variables are hiding or suppressing the

relationship. For example, a variable X_1, exhibits no positive relationship to Y because X_1 has a strong negative relationship to X_2 which in turn is positively related to Y. Therefore, X_1 is positively related to Y when the effects of X_2 are held constant [Nie et al., 1975].

In performing bivariate and partial correlation analysis of the technology/structure data the authors followed the steps outlined below.

1. Performed bivariate correlation between the technology and structure variables. This resulted in a Pearson "r" and significance level "p" for each pair of technology and structure variables.

2. Performed 7th order partial correlation between the technology and structure variables in order to identify separate effects of all technology variables on the structure variables. This resulted in a Pearson "r" and significance level "p" for each pair of technology and structure variables.

3. Identified those pairs of technology and structure variables that tend to support hypothesis 1.

The technology/structure relationships were analyzed on an overall basis and by subsamples. The 10 subsamples and their abbreviated designations are outlined in Table III-4.

(2) Hypotheses 2, 3, and 4.

Hypothesis 2: DA comptrollership exhibits technological similarities (i.e., fairly standardized products, fairly predictable production steps, some unpredictability and product variations) to Woodward's "large batch/mass production" type firms and will therefore exhibit correspondingly similar structural relationships (i.e., formalized structure, administratively organized with line-staff separation, clearly defined positions, clear chain of command).

TABLE III-4

SUMMARY OF SUBSAMPLES AND THEIR ABBREVIATED DESIGNATIONS

In testing hypotheses 1 and 5 through 9 the authors analyzed the data on an *overall basis and also by 10 subsamples. The subsamples are as follows:

Name of Subsample	Abbreviated Designation
1. Military Officer Comptrollers	Military Comptrollers
2. Civilian Comptrollers	Civilian Comptrollers
3. Military Officer Comptrollers With a Finance or Comptroller Primary Specialty	Finance Officers
4. Military Officer Comptrollers with a Non-Finance or Non-Comptroller Primary Specialty	Non-Finance Officers
5. Comptrollers from USAREUR MACOM	USAREUR
6. Comptrollers from FORSCOM MACOM	FORSCOM
7. Comptrollers from DARCOM MACOM	DARCOM
8. Comptrollers from TRADOC MACOM	TRADOC
9. Comptrollers from NGB MACOM	NGB
10. Comptrollers from **OTHER MACOMs	OTHER
*Comptrollers from the overall sample	OVERALL

**OTHER includes comptrollers from the following MACOMs:
Health Services Command
Corps of Engineers
Readiness Command
Recruiting Command
Combat Development Command
Communications Command
Military Traffic Management Command
U.S.M.A., West Point

Hypothesis 3: The technology of comptrollership in the DA is of Perrow's Routine type (well structured/low variability and few exceptions) and displays corresponding structural characteristics (centralized power held by comptroller, high interdependence and high coordination required among functions within the organization).

Hypothesis 4: DA comptroller organizations operate in basically stable environments and exhibit mechanistic systems of management.

In testing hypothesis 2 the authors followed the steps outlined below.

1. Based on the research of Pledger (1980) the authors selected certain variables which measure the technological and structural similarities of DA comptroller organizations to Woodward's "large batch/mass production" type firms. These variables are outlined in Table III-5.

2. The means of the selected technology variables were examined to determine whether they support the hypothesis. Based on the research of Pledger (1980) a midrange (i.e., 2.5-3.5) value for the means of these technology variables would tend to support the hypothesis. Based on the research of Pledger (1980) a low (i.e., less than 2.5) or high (i.e., greater than 3.5) value for the means of these technology variables would tend not to support the hypothesis. For example, based on Pledger's (1980) research the authors selected routineness of conversion to measure whether DA comptroller organizations employ fairly predictable production steps. A mean of 2.5-3.5 for this variable would tend to indicate that DA comptroller organizations do employ fairly predictable production steps. Conversely, a mean of 1.0-2.0 or 4.0-5.0 for routineness of conversion would tend to indicate that DA comptrollers organizations do not employ fairly predictable production steps. Conducted a comparison of the sample mean with the hypothesized population mean (i.e., 2.5-3.5) using a t-test at the 95% confidence interval.

3. The means of the selected structure variables were examined to determine whether they support the hypothesis. Based on Pledger's (1980) research a low (i.e., less than 2.5) value for the means of these structure variables would tend to support the hypothesis. Based on Pledger's (1980) research a midrange (i.e., 2.5-3.5) or high (i.e., greater than 3.5) value for the means of these structure variables would tend not to support the hypothesis. Conducted a comparison of the sample mean with the hypothesized population mean (i.e., less than 2.5) using a t-test at the 95% confidence interval.

TABLE III-5

SUMMARY OF VARIABLES AND BACKGROUND COMPTROLLER INFORMATION USED IN TESTING HYPOTHESES 2 THROUGH 4

Hypothesis 2:

Technological Similarities	Appropriate Variable or Background Information Used in Measurement and Support Respectively
1. Fairly Standardized Products	Standardization of Inputs *(TV); Figure II-2, Comptroller Functions
2. Fairly Predictable Production Steps	Routineness of Conversion (TV) and Automation of Conversion (TV)
3. Some Unpredictability	Input Predictability (TV) and Routineness of Conversion (TV)
4. Product Variations	Appendix A*(BI)
Structural Similarities	
1. Formalized Structure	Formalization of Comptroller Organization *(SV) and **Subordinates Follow Standard Routines
2. Administratively Organized	Figure II-4, Configuration of a DA Comptroller Organization (BI)
3. Clearly Defined Positions	Specialization of Functions (SV)
4. Clear Chain of Command	Figure II-4

Hypothesis 3:

Technology	
1. Well Structured	***Summation of the Means for 6 Technology Variables
2. Low Variability and Few Exceptions	Routineness of Conversion and Input Predictability (TV)
Structure	
1. Centralized Power Held by Comptroller	Centralization of Comptroller Organization (SV)
2. High Interdependence Among Functions	Interdependence Among Functions (SV)

TABLE III-5 (CONTINUED)

	Appropriate Variables or Background Information Used in Measurement and Support Respectively
3. High Coordination Among Functions	Coordination Among Functions (SV)
Hypothesis 4:	
Stable Environment	
1. Little or no Change in Technology	Standardization of Inputs (TV); Input Predictability (TV); Routineness of Conversion (TV)
2. Little or no Change in Market Structure	Figure II-3, Flow of Comptroller Functions (BI)
Mechanistic System of Management	
1. Reliance on Formal Rules and Regulations	Formalization of Comptroller Organization (SV)
2. Decisions Made at the Top of the Organization	Centralization of Comptroller Organization (SV)
3. Narrow Spans of Control	Span of Control (SV)
4. Vertical Communications	Vertical Communications (SV)

*(TV)--Technology Variable
(BI)--Comptroller Background Information
(SV)--Structure Variable

**The authors used one question from the leadership section of the questionnaire to provide support for hypothesis 2.

***The 6 technology variables are routineness of conversion, standardization of inputs, predictability of inputs, automation of conversion, output quality control, and performance evaluation.

4. The authors also used background information from Chapter II pertaining to the integrated DA comptroller functions and the configuration of DA comptroller organizations to provide support for this hypothesis. This background comptroller information is outlined in Table III-5.

In testing hypothesis 3 the authors followed the steps outlined below.

1. Based on the research of Pledger (1980) the authors selected certain variables to measure whether the technology in the DA is of Perrow's Routine type and is associated with a formal centralized type of structure. These technology and structure variables are outlined in Figure III-5.

2. The means of the selected technology variables were examined to determine whether they support hypothesis 3. Based on Pledger's (1980) research a low (i.e., less than 2.5) value for the means of these variables would tend to support the hypothesis. A midrange (i.e., 2.5-5.0) or high value for the means of these variables would tend not to support the hypothesis. Conducted a comparison of the sample mean with the hypothesized population mean (i.e., less than 2.5) using a t-test at the 95% confidence interval.

In testing hypothesis 4 the authors followed the steps outlined below.

1. Based on the research of Pledger (1980) the authors selected certain variables to measure whether DA comptroller organizations operate in stable environments and exhibit mechanistic systems of management. These technology and structure variables are outlined in Figure III-5.

2. The means of the selected technology variables were examined to determine whether they support hypothesis 4. Based on Pledger's (1980) research a low (i.e., less than 2.5) or mid-range (i.e., 2.5-3.5) value for the means of the technology variables would tend to support the hypothesis. A high (i.e., greater than 3.5) value for the means of the technology variables would tend not to support the hypothesis. Conducted a comparison of the sample mean with the hypothesized population mean (i.e., 1.0-3.5) using a t-test at the 95% confidence interval.

3. The means of the selected structure variables were examined to determine whether they support hypothesis 4. Based on Pledger's (1980) research a low (i.e., less than 2.5) value for the means of the structure variables would tend to support the hypothesis. A midrange (i.e., 2.5-3.5) or high (i.e., greater than 3.5) would tend not to support the hypothesis. Conducted a comparison of the sample mean with the hypothesized population mean (i.e., less than 2.5) using a t-test at the 95% confidence interval.

4. The authors also used background information from Chapter II pertaining to the performance of comptroller functions at the division, installation, and MACOM levels of command to provide support for this hypothesis. This background information is outlined in Table III-5.

5. Content analysis was conducted of the comptrollers' general comments concerning problems experienced and advice to the new comptroller in order to provide further support for hypothesis 4. The authors identified and documented the most frequently mentioned problems and statements of advice.

The technology/structure data relating to hypotheses 2, 3, and 4 were analyzed on an overall sample basis only (i.e., the data relating to these 3 hypotheses were not anlayzed by subsamples).

b. Analysis of Leadership Data

(1) Hypotheses 5 and 6

Hypothesis 5: DA comptrollers perform both the socio-emotional and task related leadership functions within their organizations.

Hypothesis 6: DA comptrollers will be higher in the socio-emotional dimension than the task related dimension.

Hypothesis 5 was tested by combining the means of the responses to questions 29-31 and 32-34 which measure the degree to which DA comptrollers perform the socio-emotional and task related leadership functions respectively. The means for the two sets of questions (i.e., Q29-31 and Q32-34) can vary between 0 and 12. A mean of 0 for each set of questions would indicate the highest degree of socio-emotional and task related leadership orientation. A mean of 12 for each set of questions would indicate the lowest degree of socio-emotional and task related leadership orientation. Based on this information the means for the two sets of

questions were examined to determine whether they support the hypothesis. A low (i.e., less than 4) or midrange (i.e., 4.0-8.0) value for these two means would tend to support the hypothesis. A high (i.e., greater than 8.0) value for either one of these two means would tend not to support the hypothesis. The authors conducted a comparison of each sample mean with the hypothesized population mean (i.e., $0 \leq \bar{x} \leq 8.0$) using a t-test at the 95% confidence interval.

Hypothesis 6 was tested by conducting a comparison of the sample means using a t-test. The purpose of conducting the t-test was to compare the socio-emotional and task related leadership function means at the 95% confidence interval in order to determine whether the two means are significantly different.

(2) Hypotheses 7 and 8

Hypothesis 7: On Tannenbaum and Schmidt's continuum of leadership behavior, DA comptrollers will utilize a wide range (i.e., 5-7 styles) of leadership styles in carrying out their responsibilities.

Hypothesis 8: DA comptrollers will strike a relative balance between managerial authority and subordinate freedom by utilizing over 50% of time the middle three leadership styles depicted along Tannenbaum and Schmidt's continuum of leadership behavior.

In testing hypothesis 7 the authors followed the steps outlined below.

1. Determined mean for the number of leadership styles comptrollers utilize in carrying out their responsibilities.

2. Conducted a comparison of the sample mean with the hypothesized population mean (i.e., greater than or equal to 5) using the t-test at the 95% confidence interval.

In testing hypothesis 8 the authors followed the steps outlined below.

1. Combined the percentage of utilization means for the middle three leadership styles depicted along Tannenbaum and Schmidt's continuum of leadership behavior.

2. Conducted a comparison of the combined sample mean with the hypothesized population mean (i.e., greater than or equal to 50%) using the t-test at the 95% confidence interval.

The leadership data were anlayzed on an overall basis and by subsamples.

c. Analysis of Decision-Making Data--Hypothesis 9

Hypothesis 9: DA comptrollers use mixed decision-making methods as decision-making situations change.

This hypothesis was tested by determining the relationship between a particular decision-making method (i.e., rational, organizational processes, and bureaucratic politics) and its predicted and actual utilization. In determining these three relationships the authors followed the steps outlined in Table III-6. A summary of these steps is as follows:

PREDICTED UTILIZATION

1. Calculated the means for the percentage of time comptrollers make decisions in each of the eight decision-making situations.

2. Combined the means for the first group of situations (i.e., innovative, inertia, deliberative) since they are associated with the rational method. Combined the means for the second group of situations (i.e., circumstantial, routine, crisis, reflexive, administrative, possible innovative, possibly deliberative) since they are associated with the organizational processes method. Combined the means for the third group of situations (i.e., possibly crisis, possibly reflexive) since they are associated with the bureaucratic politics method. The combined means represent the raw percentage of predicted utilization for the three decision-making methods.

TABLE III-6

PROCEDURAL STEPS FOR DETERMINING RELATIONSHIP BETWEEN A PARTICULAR DECISION-MAKING METHOD AND ITS PREDICTED AND ACTUAL UTILIZATION

A. Predicted Utilization

1. As discussed in Section D.1.b of Chapter II, Pledger (1980) hypothesized that certain decision-making methods would most likely be utilized in each of the eight decision-making situations. These methods and situations are summarized as follows:

APPROPRIATE METHOD	DECISION-MAKING SITUATION
a. Rational	Innovative, Inertia, Deliberative
b. Organizational Processes	Circumstantial, Routine, Crisis, Reflexive, Administrative (Possible Innovative, Deliberative)
c. Bureaucratic Politics	Possibly Crisis, Reflexive

Pledger based the associations on 16 propositions which indicate actions resulting from three dimensions of threat, time fuze and awareness. These propositions are listed in Appendix C.

2. Calculated the means for the percentage of time comptrollers make decisions in each of the eight decision-making situations.

3. Combined the means for the first group of situations (i.e., innovative, inertia, deliberative) since they are associated with the rational method. Combined the means for the second and third group of situations in the same manner since they are associated with the organizational processes and bureaucratic politics method respectively. The combined means represent the raw percentages of predicted utilization for the three decision-making methods.

4. Used adjustment process to compensate for some of the decision-making situations being associated with more than one decision-making method. Adjustment process had two steps. First, the raw percentages of predicted utilization were added in order to calculate a total raw percentage. Second, each of the three raw percentages were divided by the total raw percentage in order to calculate the adjusted percentage of predicted utilization. The following is an example of the authors' implementation of steps 1 through 4 listed above. The data is for example purposes only.

TABLE III-6 (CONTINUED)

SITUATION	PERCENT OF PREDICTED UTILIZATION Raw	Adjusted
A. Innovative, Inertia, Deliberative*	40%	25%
B. Circumstantial, Routine, Crisis, Reflexive, Administrative (Possibly Innovative, Deliberative)**	90%	56%
C. (Possibly Crisis, Reflexive)***	30%	19%

*Associated with rational method
**Associated with organizational process method
***Associated with bureaucratic politics method

5. Combined the means for the three groups of situations excluding those situations that are possibly associated with the organizational processes and bureaucratic politics method. Those situations that are possibly associated with the organizational processes method are innovative and deliverative. Those situations that are possibly associated with the bureaucratic politics method are crisis and reflexive. No adjustment process is necessary. The following is an example of the authors' implementation of this step.

SITUATION	PERCENT OF PREDICTED UTILIZATION
A. Innovative, Inertia, Deliberative	40%
B. Circumstantial, Routine, Crisis, Reflexive, Administrative	60%
C. None	0%

6. The end result of steps 1 through 5 is the establishment of an interval for the mean percentage of predicted utilization. (Refer to example below)

DECISION-MAKING METHOD	PREDICTED UTILIZATION
a. Rational	25-40%
b. Organizational Processes	60-90%
c. Bureaucratic Politics	0-19%

TABLE III-6 (CONTINUED)

B. Actual Utilization

1. As discussed in Section B.2.b.(3) and Table III-3 of this chapter the different decision-making techniques listed in question 37 are associated with certain decision-making methods. Techniques 1, 5, 6, 9, and 12 are associated with the rational method. Techniques 2, 4, 8, 11, and 13 are associated with the organizational processes method. Techniques 3, 7, and 10 are associated with the bureaucratic politics method.

2. Determined the percentage of selection for the techniques associated with the rational method; for the techniques associated with the organizational processes method; for the techniques associated with the bureaucratic politics method. This conversion of question 37 responses from a binary (i.e., yes/no) basis to a percentage of selection basis takes into account, the unequal number of techniques associated with each of the three methods. These selection percentages represent the raw percentage of actual utilization for the three methods.

3. Used adjustment process to calculate the percentage of actual utilization for the three methods. Adjustment process was twofold: First, the raw percentages of actual utilization were added in order to calculate a total raw percentage. Next, each of the three raw percentages were divided by the total raw percentage in order to calculate the adjusted percentage of actual utilization. The following is an example of the authors' implementation of steps 1 through 3 listed above. The data is for example purposes only.

TECHNIQUES (Refer to Table III-3)		PERCENT OF ACTUAL UTILIZATION	
		Raw****	Adjusted
a.	1,5,6,9,12	78%	60%
b.	2,4,8,11,13	42%	32%
c.	3,7,10	10%	8%

****Comptrollers selected 78% of all the available decision-making techniques associated with the rational decision-making method, 42% of all available techniques associated with the organizational processes method, and 10% of all the available techniques associated with the bureaucratic politics method.

C. T-Test

Conducted a comparison of the mean percentage of actual utilization with the mean percentage of predicted utilization using the t-test at the 95% confidence interval. These

TABLE III-6 (CONTINUED)

comparisons were conducted for each of the three decision-making methods. The purpose of conducting the t-test was to determine whether a significant difference existed between the actual utilization mean and the predicted utilization mean (i.e., that comptrollers use mixed decision-making methods as decision-making situations change). For a significant difference to exist, the actual utilization mean cannot fall within the interval established for the predicted utilization mean.

3. Adjusted the raw percentage of predicted utilization into a final percentage of predicted utilization. This adjustment process was necessary to compensate for some of the decision-making situations being associated with more than one decision-making method.

4. Combined the means for the three groups of situations excluding those situations that are possibly associated with the organizational processes and bureaucratic politics method. Calculated a percentage of predicted utilization. In this case no adjustment process was necessary.

5. The end result of steps 1 through 4 above is the establistment of an interval for the mean percentage of predicted utilization (e.g., rational decision-making method--its predicted utilization is 25-40%).

ACTUAL UTILIZATION

1. Determined the percentage of selection for decision-making techniques associated with the rational method; for the techniques associated with the organizational process method; for the techniques associated with the bureaucratic politics method. This conversion of question 37 responses from a binary (i.e., yes/no) basis to a percentage of selection basis takes into account, the unequal number of techniques associated with each of the three methods. These selection percentages represent the raw percentage of actual utilization for the three decision-making methods.

2. Used adjustment process to convert the raw percentage of actual utilization into a final percentage of actual utilization. This was done for each of the three decision-making methods.

T-TEST

1. Conducted a comparison of the mean percentage of actual utilization with the mean percentage of predicted utilization using the t-test at the 95% confidence interval. These comparisons were conducted for each of the three decision-making methods.

2. The purpose of conducting the t-test was to determine whether a statistically significant difference existed between the actual utilization mean and the predicted utilization mean (i.e., that comptrollers utilize mixed decision-making methods as decision-making situations change). For a significant difference to exist, the actual utilization mean cannot fall within the interval established for the prediction utilization mean.

2. Job Preparation of Junior Level Comptrollers

The comptrollers' comments on the organizational behavior deficiencies exhibited by junior level comptrollers were categorized and ranked in order of importance. The ranking process consisted of documenting the frequency with which comptrollers mentioned the various deficiencies. Specifically, the authors determined the number of comptrollers mentioning a particular deficiency. Additionally, the authors determined the number of comptrollers mentioning a particular deficiency as both a percentage of those who replied to the question and as a percentage of those who returned questionnaires.

The comptrollers' recommendations regarding improvement of the training and/or performance of junior level comptrollers were documented and evaluated in order to provide the authors with information useful in developing the addendum to Tully and Batiste's proposed PCC. Specifically, the recommendations listed are the comptrollers' verbatim responses to the second part of question 42. The second part of question 42 reads as follows: "What are your recommendations for improving the training and/or performance of junior comptrollers?"

3. Summary

This section contained a detailed description of the data analysis plan. The first part of the description focused on how the data relating to the Pledger comptrollership model were analyzed to test hypotheses 1 through 9. The second

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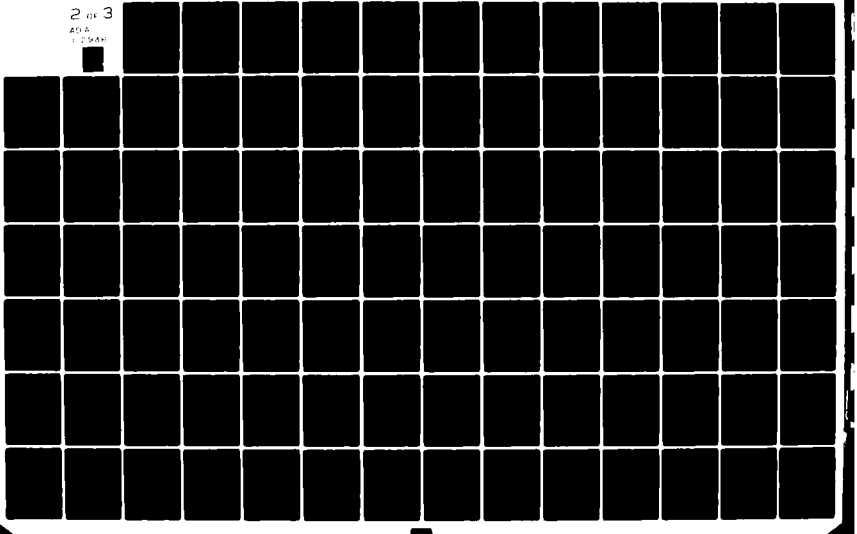

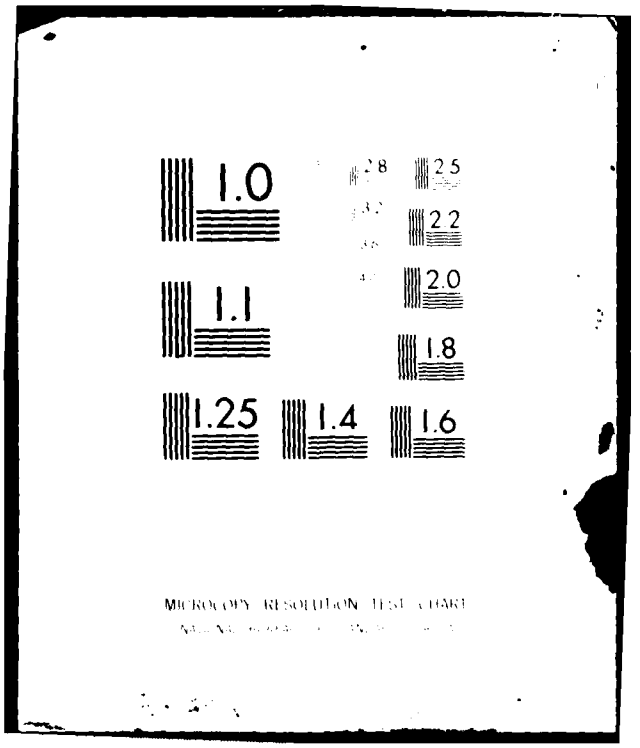
1.0
1.1
1.25
1.4
1.6
2.0
1.8
2.2
2.5
MICROCOPY RESOLUTION TEST CHART

part of the description focused on how the comptrollers' comments on the organizational behavior deficiencies exhibited by junior level comptrollers were ranked in order of importance. A summary of how the nine hypotheses were tested and how the ranking process was conducted is outlined in Table III-7.

D. DATA PREPARATION

1. General

The purpose of this section is to first identify the sample selected to receive the questionnaire. Next, those comptrollers responding to the questionnaire are identified. Finally, three tables are presented that summarize the responses to the questions relating to background information, the Pledger comptrollership model and the job preparation of junior level comptrollers. The descriptive statistics presented in the three tables are based on data from the overall sample (i.e., the 136 comptrollers who returned questionnaires).

2. The Sample

The primary criterion selection was ensuring that comptrollers from a large representative sample of DA commands in CONUS and USAREUR received the questionnaire. This criterion was used since the great majority of DA soldiers and comptroller organizations are located in CONUS and USAREUR. The "Autovon Directory for DA Financial Management Personnel" published in the January 1981 edition of the DA All Points Bulletin was used to identify the 246 CONUS and USAREUR

TABLE III-7

SUMMARY OF DATA ANALAYSIS PLAN

The following is a summary of how hypotheses 1 through 9 were tested and how the comptrollers' comments on the organizational behavior deficiencies exhibited by junior level comptrollers were ranked in order of importance.

A. The Pledger Comptrollership Model

	Hypothesis	Data Analysis Plan
1.	1	Performed bivariate and partial correlation analysis between the technology and structure variables existing in DA comptroller organizations.
2.	2,3, and 4	Based on the research of Pledger (1980) the authors selected certain variables to measure the technology and structure characteristics of DA comptroller organizations. The means of these selected technology and structure variables were examined to determine whether they support the hypotheses. The examination consisted of comparing the sample means with the hypothesized population means using a t-test at the 95% confidence interval. Also used certain DA background comptroller information from Chapter II to provide support for these hypotheses. The variables and background information are outlined in Table III-5. Finally, content analysis was conducted of the comptrollers' general comments concerning problems experienced and advice to the new comptroller in order to provide further support for hypothesis 4.
3.	5	Combined and then examined the means of the responses to questions 29-31 and 32-34 which measure the degree to which DA comptrollers perform the socio-emotional and task related leadership functions respectively. Conducted a comparison of each sample mean with the hypothesized population mean (i.e., 0-8.0) using a t-test at the 95% confidence interval.
4.	6	Conducted a comparison of the sample means using a t-test at the 95% confidence interval.

TABLE III-7 (CONTINUED)

Hypothesis		Data Analysis Plan
5.	7	Determined mean for the number of leadership styles comptrollers utilize in carrying out their responsibilities. Conducted a comparison of the sample mean with the hypothesized population mean using a t-test at the 95% confidence interval.
6.	8	Combined the percentage of utilization means for the middle three leadership styles depicted along Tannenbaum and Schmidt's continuum of leadership behavior. Conducted a comparison of the combined sample mean with the hypothesized population mean using a t-test at the 95% confidence interval.
7.	9	Determined the relationship between a particular decision-making method (i.e., rational, organizational processes, and bureaucratic politics) and its predicted and actual utilization. (Refer to Table III-6.)

B. Job Preparation of Junior Level Comptrollers

Comptroller Comments and Recommendations	Data Analysis Plan
1. Comptroller comments on the organizational behavior deficiencies exhibited by junior level comptrollers.	Comments categorized ranking in order of importance. The ranking process consisted of documenting the frequency with which comptrollers mentioned the various deficiencies.
2. Comptroller recommendations for minimizing the organizational behavior deficiencies exhibited by junior level comptrollers.	Comptrollers' recommendations regarding improvement of the training and/or performance of junior level comptrollers were documented and evaluated in order to provide the authors with information useful in developing the addendum to Tully and Batiste's proposed PCC.

comptroller organizations that were mailed questionnaires. All CONUS and USAREUR comptroller organizations listed in the "Autovon Directory for DA Financial Management Personnel" were sent questionnaires. According to [Becker, 1981] this list represents at least 90-95% of the entire population of CONUS and USAREUR comptroller organizations. Comptrollers were informed via a questionnaire cover letter that only the authors would review the questionnaire and guarantee the anonymity of all respondents. A total of 136 questionnaires were received and compiled. The number and percentage of comptroller respondents from the different DA MACOMS is outlined in Table III-8. Of the comptrollers returning questionnaires, 60.3% were military and 39.7% civilian (question 1). First tour comptrollers comprised 64% of the respondents, with the remaining 35.3% serving in follow-on comptroller tours (question 4). One comptroller (0.7%) did not answer question 4). The average experience on the job was 28.8 months (question 7). The average comptroller organization consisted of 109 personnel with a standard deviation of 127 personnel (question 10). The large standard deviation indicates a lack of homogeneity of size.

3. Summary of Descriptive Statistics

The descriptive statistics for the background questions are outlined in Table III-9.

The descriptive statistics for the Pledger comtrollership model questions are outlined in Table III-10. Comptrollers utilized the middle leadership style (i.e., style D)

TABLE III-8

NUMBER AND PERCENTAGE OF COMPTROLLER RESPONDENTS
FROM THE DIFFERNET DA MACOMs

MACOM of Respondents	Number	Percent
1. USAEUR	9	6.6%
2. FORSCOM	28	20.6%
3. DARCOM	29	21.3%
4. TRADOC	19	14.0%
5. Health Services Command	7	5.1%
6. Corps of Engineers	6	4.4%
7. NGB	18	13.2%
8. Others*	20	14.7%

*Readiness Command
Recruiting Command
Combat Developments Command
Communications Command
Military Traffic Management Command
U.S.M.A., West Point

TABLE III-9

SUMMARY OF DESCRIPTIVE STATISTICS FOR THE BACKGROUND QUESTIONS (Q1-Q10)

Major Commands of Respondents

	Number	Percent of Respondents
USAREUR	9	6.6%
FORSCOM	28	20.6%
DARCOM	29	21.3%
TRADOC	19	14.0%
HEALTH SERVICES COMMAND	7	5.1%
CORPS OF ENGINEERS	6	4.4%
NATIONAL GUARD	18	13.2%
OTHERS	20	14.7%

1A. Category of Respondents

	Number	Percent
Military	82	60.3%
Civilian	54	39.7%
	136	100.0%

1B. Military Rank or Civilian Grade of Respondents

	Number	Percent
Captain	2	1.5%
Major	6	4.4%
Lt. Colonel	35	25.7%
Colonel	35	25.7%
Brig. General	4	2.9%
GS 12	19	14.0%
GS 13	11	8.1%
GS 14	15	11.0%
GS 15	8	5.9%

2A. Primary Specialty of Military Officer Comptrollers

	Number	Percent
Finance/Comptroller	30	36.6%
Non-Finance/Comptroller	52	63.4%

2B. Secondary Specialty of Military Officer Comptrollers

	Number	Percent
Comptroller (45)	61	77.2%
Non-Comptroller	18	22.8%

TABLE III-9 (CONTINUED)

3. Specialty of Civilian Comptrollers

		Number	Percent
55	Financial Manager	1	1.9%
341	Administrative Officer	1	1.9%
345	Program Analyst	1	1.9%
501	Resource Management/ Financial Officer	3	5.7%
505	Financial Manager	40	75.5%
510	Accounting Officer	2	3.8%
610	Financial Manager	5	9.4%

4. Respondents Serving First Tour as Comptrollers

	Number	Percent
First Tour	87	64.0%
Not First Tour	48	35.3%
Missing	1	0.7%

5. Previous Tours in Comptroller Field For Military Officers

	Number	Percent
None	15	18.5%
One Tour	25	30.9%
Two Tours	16	19.8%
Three Tours	11	8.1%
Four or More Tours	14	17.2%

6. Military Officers Who Served As Comptroller in Last Tour

	Number	Percent
Affirmative	41	50%
Negative	41	50%

7. Length In Current Assignment In Months

Mean	STD DEV	Range
29.8	31.04	1-180

8A. Level of Education

	Number	Percent
Doctorate	2	1.5%
Masters	81	59.6%
Bachelors	40	29.4%
Other	10	7.4%
Missing	3	2.2%

TABLE III-9 (CONTINUED)

8B. Degree Area

	Number	Percent
Financial	89	65.4%
Non-Financial	42	30.9%
Missing	5	3.7%

8C. Comptrollers Receiving Advanced Degree From Syracuse

	Number	Percent
Syracuse Graduate	24	17.6%
Other	109	80.1%
Missing	3	2.2%

9. Size of Command

	Number	Percent
0 to 5000	64	47.1%
5000 to 10000	24	17.6%
10000 to 15000	15	11.0%
15000 to 20000	9	6.6%
Greater than 20000	20	14.7%
Missing	4	2.9%

10. Number of Personnel in Comptroller Organization

Mean	STD DEV	Range
109.47	127.30	5-740

TABLE III-10

SUMMARY OF DESCRIPTIVE STATISTICS FOR THE PLEDGER COMPTROLLERSHIP MODEL QUESTIONS (Q11-Q37)

Summary of Technology and Structure Questions (Q11-Q28)

13. Level to Which the Comptroller Reports

	Number	Percent
Commander	57	41.9%
Chief of Staff	49	36.0%
Executive Officer	25	18.4%
Other	5	3.7%

		Mean	STD DEV	Range# of Actual Responses
11.	Span of Control	5.86	2.60	1-15
12.	Levels of Hierarchy In Comp Org*	3.02	1.24	1-8
14.	Levels of Command Centralization	3.46	.96	1-5
15.	Level of Comp Org Centralization	3.57	1.09	1-5
16.	Formalization of Comp Org	2.03	0.56	1-4
17.	Level of Vertical Communications	1.53	0.63	1-3
18.	Interdependence Within Comp Org	2.42	1.02	1-5
19.	Coordination Within Comp Org	1.52	0.80	1-4
20.	Specialization Within Comp Org	1.87	0.71	1-4
21.	Routineness of Conversion Process	3.07	0.79	1-5
22.	Standardization of Inputs	2.71	0.83	1-5
23.	Predictability of Inputs	2.60	0.78	1-4
24.	Complexity of Conversion Process	1.93	0.74	1-4
25.	Automation of Conversion Process	3.10	1.02	1-5
26.	Discretion in Conversion Process	2.46	1.05	1-5
27.	Output Quality Control	1.61	0.75	1-4
28.	Performance Evaluation	1.81	0.81	1-4

* Comp Org is an abbreviation for comptroller organization.

The numbers in this column represent the range of actual responses from the comptrollers. For questions 14-28 the range of possible responses was 1-5. For questions 29-34 the range of possible responses was 0-4. For question 35 the range of possible responses was 0-100 for each leadership style. For question 36 the range of possible responses was 0-100 for each decision-making situation.

TABLE III-10 (CONTINUED)

Summary of Leadership Questions (Q29-Q35)

Socio-Emotional Leadership Functions

		Mean	STD DEV	Range# of Actual Responses
29.	Willingness to Change	0.82	0.71	0-4
30.	Willingness to Use Suggestions	1.08	0.46	0-4
31.	Equality of Treatment	1.08	0.95	0-4

Task Related Leadership Functions

32.	Personnel Working to Capacity	0.98	0.67	0-4
33.	Subordinates Follow Standard Routines	1.64	0.99	0-4
34.	Subordinates Meet Deadlines	0.40	0.67	0-4
35.	Leadership Styles			
A.	Manager Makes Decision	7.62	8.32	0-50
B.	Manager Sells Decision	6.65	8.46	0-80
C.	Manager Presents Ideas/ Gets Questions	12.36	10.61	0-80
D.	Manager Presents Tentative Decision Subject to Change	6.08	6.00	0-40
E.	Manager Presents Problem/ Gets Suggestions Makes Decision	29.36	22.45	0-99
F.	Group Makes Decision	8.05	9.83	0-80
G.	Subordinates Function Within Prescribed Limits	30.13	23.57	0-90

Summary of Decision Making Questions (Q36 & Q37)

36.	Decision Making Situations			
A.	Crisis Situation	15.36	15.78	0-95
B.	Innovative Situation	12.15	9.29	0-50
C.	Inertial Situation	5.43	5.50	0-40
D.	Circumstantial Situation	7.23	6.02	0-40
E.	Reflexive Situation	11.09	7.48	0-40
F.	Deliberative Situation	18.98	15.67	0-93
G.	Routine Situation	18.54	16.45	0-80
H.	Administrative Situation	11.43	8.11	0-40

TABLE III-10 (Continued)

37. Decision Making Methods

		Number of Comptrollers Utilizing	Percent of Sample
A.	Unitary Decision Maker	26	19.1%
B.	Follow SOP/Regulations	101	74.3%
C.	Personal Interests	17	12.5%
D.	Incremental Change vs. Radical Change	81	59.6%
E.	State the Objective	123	90.4%
F.	Develop Alternatives	131	96.3%
G.	Sell Decision to Commander	25	18.4%
H.	Factoring of the Problem	47	34.6%
I.	Analysis of the Alternatives	129	94.6%
J.	Effect of Decision on Career	5	3.7%
K.	Pick First Acceptable Alternative	5	3.7%
L.	Assumptions Concerning Alternatives	96	70.6%
M.	Pick an Alternative With Feedback	67	49.3%

depicted along Tannenbaum and Schmidt's continuum of leadership behavior only 6% of the time (question 35). This small percentage of utilization was not expected by the authors but could have resulted from the word "tentative" causing a certain amount of social desirability response bias. Specifically, comptrollers might have assigned a low utilization percentage to leadership style D because the word tentative invokes certain negative connotations such as lack of decisiveness.

The descriptive statistics for the job preparation of junior level comptroller questions are outlined in Table III-11. The duty areas and supervisory status of 133 junior level DA comptrollers are listed under question 41. The 133 represents a short fall of 43 from the total of 176 junior level comptrollers (question 40). The reason for this short fall was a data collection limitation associated with the design of question 41. Specifically, design of question 41 allowed comptrollers to list the duty positions and supervisory status of only six junior level comptrollers within their organizations. This limited the data collection effort with respect to the question, since 4 of the comptroller respondents had seven or more junior level comptrollers within their organizations. Despite this limitation the resulting data is appropriate for the identification of general trends with respect to the duty positions and supervisory status of junior level comptrollers.

TABLE III-11

SUMMARY OF DESCRIPTIVE STATISTICS FOR THE JOB PREPARATION OF JUNIOR LEVEL COMPTROLLER QUESTIONS (Q40-Q42)

40. Officers Serving First Tour in Comptrollership Specialty (i.e., Junior Level DA Comptrollers)

	Total Number	Percent
Overall	176	100%
USAREUR	23	13%
FORSCOM	56	32%
DARCOM	16	9%
TRADOC	34	19%
NGB	17	10%
Others	30	30%

41. Duty Areas and Supervisory Responsibilities of Junior Level DA Comptrollers

	Number	Percent	Super-visory	Percent
Comptroller/Deputy	22	16.4%	16	72.8%
Program/Budget	52	39.1%	23	44.2%
Internal Review	12	9.0%	8	66.6%
Management Analysis	19	14.3%	12	63.2%
Finance and Accounting	25	18.8%	17	68%
Force Development	3	2.3%	3	100%

42. Organizational Behavior Deficiencies of Junior Level DA Comptrollers

	Frequency of Mention		
	Affirmative	*Percent	Percent
A. Staff Procedures	32	40.5%	23.5%
B. Leadership	14	17.7%	10.3%
C. Personnel Relations	28	35.4%	20.6%
D. Management Practices	16	20.3%	11.8%
E. Oral and Written Communication	34	43.0%	25.0%
F. Common Sense	22	27.8%	16.2%
G. Civilian Personnel Management	18	22.8%	13.2%
H. Human Behavior and OE**	5	6.3%	3.7%
I. Technical Training	17	21.5%	12.5%
J. No Additional Training Required	1	1.3%	0.7%

*Indicates Percent of Individuals Who Replied to Question
**Organizational Effectiveness

E. SUMMARY

This chapter began with a detailed description of the questionnaire sent to DA comptrollers. The questionnaire was designed to gather data for testing the validity of the Pledger comptrollership model and for obtaining comptrollers' comments on and recommendations for minimizing any organizational behavior deficiencies exhibited by junior level financial managers. The level of measurement, purpose, and response bias associated with each set of questions was discussed.

The chapter continued with a detailed description of the data analysis plan. The first part of the description focused on how the data relating to the Pledger comptrollership model were analyzed to test hypotheses 1 through 9. The second part of the description focused on how the comptrollers' comments on the organizational behavior deficiencies exhibited by junior level comptrollers were ranked in order of importance. A summary of how the nine hypotheses were tested and how the ranking process was conducted is outlined in Table III-7. The preparation of the raw data obtained from the questionnaire was conducted using the SPSS.

Next, the sample selection of 246 CONUS, and USAREUR comptroller organizations to receive the questionnaire was described. A total of 246 questionnaires were mailed, and 136 questionnaires (55% of the sample) were received and compiled.

The chapter concluded with the presentation of Tables III-9, III-10, and III-11 which summarize responses to the

questions relating to background information, the Pledger comptrollership model and the job preparation of junior level comptrollers respectively.

IV. RESULTS OF DATA ANALYSIS

A. INTRODUCTION

This chapter presents the results of the data analysis. First, the results of the data analysis pertaining to the testing of the Pledter comptrollership model are presented. Next, the results of the data analysis pertaining to the identification and the ranking in order of importance the specific organizational behavior deficiencies of junior level Department of the Army (DA) comptrollers are presented. Finally, the DA comptrollers' recommendations for minimizing these organizational behavior deficiencies are presented.

B. THE PLEDGER COMPTROLLERSHIP MODEL

1. Results of Technology/Structure Data Analysis

a. Hypothesis 1

Hypothesis 1: Systematic relationships (i.e., correlations) between the technological and structural variables of DA comptrollership can be detected.

Appendix E contains a complete listing of all correlations between the technology and structure variables that exist in DA comptroller organizations. The variables that exhibited relatively high correlations are summarized in Table IV-1.

The number of correlations depicted in Table IV-1 range from 8 for the overall sample to 0 for the NGB and USAREUR subsample. The table indicates whether the correlation

TABLE IV-1

SUMMARY OF SYSTEMATIC RELATIONSHIPS
BETWEEN TECHNOLOGY AND STRUCTURE VARIABLES

A. OVERALL

Technology	Structure	Correlation
Routineness of Conversion	Hierarchical Levels	DIR
Automation of Conversion	Interdependence	DIR
Output Quality Control	Formalization	DIR
	Coordination	DIR
	Specialization	DIR
Performance Evaluation	Formalization	DIR
	Vertical Communications	DIR
Discretion in Conversion	Centralization	INV

B. MILITARY COMPTROLLERS

Technology	Structure	Correlation
Automation of Conversion	Interdependence	DIR
Output Quality Control	Specialization	DIR
	Formalization	DIR
Input Predictability	Specialization	DIR

C. CIVILIAN COMPTROLLERS

Technology	Structure	Correlation
Routineness of Conversion	Hierarchical Levels	DIR
Automation of Conversion	Span of Control	DIR
Output Quality Control	Interdependence	DIR
	Coordination	DIR
Performance Evaluation	Vertical Communications	DIR
	Formalization	DIR

TABLE IV-1 (CONTINUED)

D. FINANCE OFFICERS

Technology	Structure	Correlation
Automation of Conversion	Interdependence	DIR
Performance Evaluation	Formalization	DIR

E. NON-FINANCE OFFICERS

Technology	Structure	Correlation
Input Predictability	Specialization	DIR

F. USAREUR

Unable to Perform Partial Correlations

G. FORSCOM

Technology	Structure	Correlation
Automation of Conversion	Interdependence	DIR
Discretion in Conversion	Centralization	INV
	Specialization	DIR

H. DARCOM

Technology	Structure	Correlation
Automation of Conversion	Span of Control	DIR
Output Quality Control	Coordination	DIR
Performance Evaluation	Span of Control	DIR

I. TRADOC

Technology	Structure	Correlation
Output Quality Control	Hierarchical Levels	DIR
Performance Evaluation	Hierarchical Levels	INV

J. NGB

No Strong Correlations

TABLE IV-1 (CONTINUED)

K. OTHERS

Technology	Structure	Correlation
Complexity of Conversion	Formalization	DIR
Automation of Conversion	Hierarchical Levels	INV
Performance Evaluation	Vertical Communications	DIR

between each pair of variables is direct or inverse. For example, Table IV-1 indicates that for the non-finance subsample there is a direct correlation between input predictability and specialization (i.e., as predictability of inputs increased, the specialization of functions also increased). The correlations depicted in Table IV-1 provide support for Hypothesis 1, since the data exhibit systematic relationships between the technology and structure variables existing within DA comptroller organizations.

b. Hypotheses 2, 3, and 4

Hypothesis 2: DA comptrollership exhibits technological similarities (i.e., fairly standardized products, fairly predictable production steps, some unpredictability and product variations) to Woodward's "large batch/mass production" type firms and will therefore exhibit correspondingly similar structural relationships (i.e., formalized structure, administratively organized, clearly defined positions, clear chain of command).

Table IV-2 contains a listing of the means for the variables which measure the technological and structural similarities of DA comptroller organizations to Woodward's "large batch/mass production" type firms. Confidence intervals developed for the means of standardization of inputs (2.713), routineness of conversion (3.074), automation of conversion (3.096) and predictability of inputs (2.596) using a t-test conducted at the 95% confidence level contained the hypothesized mean (i.e., 2.5-3.5). Confidence intervals developed for the means of formalization of comptroller organization (2.029), subordinates follow standard routines (1.640) and specialization of functions (1.868) using a t-test conducted

TABLE IV-2

SUMMARY OF VARIABLE MEANS AND BACKGROUND COMPTROLLER INFORMATION USED IN TESTING HYPOTHESES 2 THROUGH 4

Hypothesis 2:

Technological Similarities	Variable Means and Background Comptroller Information Used In Measurement and Support Respectively
1. Fairly Standardized Products	Standardization of Inputs M = 2.713 SD = .834 Figure II-2
2. Fairly Predictable Production Processes	Routineness of Conversion M = 3.074 SD = .785 Automation of Conversion M = 3.096 SD = 1.017
3. Some Unpredictability	Input Predictability M = 2.596 SD = .783 Routineness of Conversion M = 3.074 SD = .785
4. Product Variations	Appendix A
Structural Similarities	
1. Formalized Structure	Formalization of Comp Org M = 2.029 SD = .557 Subordinates Follow Standard Routines M = 1.640 SD = .986
2. Administratively Organized with Line-Staff Separation	Figure II-4
3. Clearly Defined Positions	Specialization of Functions M = 1.868 SD = .708
4. Clear Chain of Command	Figure II-4

M = Mean
SD = Standard Deviation

TABLE IV-2 (CONTINUED)

Hypothesis 3:

Technology	Variable Means and Background Comptroller Information Used In Measurement and Support Respectively
1. Well Structured	Summation of the Means for 6 Technology Variables M = 2.480 SD = .830
2. Low Variability and Few Exceptions	Routineness of Conversion *M = 3.074 SD = .785 Input Predictability M = 2.596 SD = .783
Structure	
1. Centralized Power Held By Comptroller	Centralization of Comp Org **M = 3.574 SD = 1.086
2. High Interdependence Among Functions	Interdependence Among Functions M = 2.419 SD = 1.015
3. High Coordination Among Functions	Coordination Among Functions M = 1.522 SD = .798

Hypothesis 4:

Stable Environment	
1. Little or no Change in Technology	Standardization of Inputs M = 2.713 SD = .834 Input Predictability M = 3.596 SD = .783 Routineness of Conversion M = 3.074 SD = .785
2. Little or no Change in Market Structure	Figure II-3

*Confidence intervals developed for these means did not contain the hypothesized population mean (i.e., 1.0-3.5)

**Confidence intervals developed for these means did not contain the hypothesized population mean (i.e., less than 2.5)

TABLE IV-2 (CONTINUED)

Mechanistic System of Management

1.	Reliance on Formal Rules and Regulations	Formalization of Comp Org M = 2.029 SD = .557
2.	Decision Made at the Top of the Organization	Centralization of Comp Org **M = 3.574 SD = 1.086
3.	Narrow Spans of Control	Span of Control **M = 5.859 SD = 2.601
4.	Vertical Communications	Vertical Communications M = 1.530 SD = 0.630

**Confidence intervals developed for these means did not contain the hypothesized population mean (i.e., less than 2.5)

at the 95% confidence level contained the hypothesized mean (i.e., less than 2.5). Therefore, the data do not provide evidence that support the rejection of Hypthesis 2.

The background information listed in Table IV-2 pertaining to the integrated DA comptroller functions (i.e., Figure II-2), DA comptroller responsibilities (i.e., Appendix A), and configuration of DA comptroller organizations (i.e., Figure II-4) provides a further indication that DA comptroller organizations exhibit technological and structural similarities to Woodward's "large batch/mass production" type firms. Specifically, comptroller organizations generate fairly standardized products in the form of budgeting, interval review, cost analysis, review and analysis, finance and accounting, and management practices (refer to Figure II-2). Additionally, comptroller organizations at the division and installation levels of command exhibit some product variations.

For example, both division and installation comptroller organizations concentrate on budget execution, management analysis activities, internal review, and follow-up action on external installation, Army Audit Agency (AAA), and General Accounting (GAO) report finding [USAIS, 1978]. However, installation comptroller organizations perform two other important functions as follows: 1) The finance and accounting function and 2) the force development/manpower management function (refer to Appendix A). Finally, as evidenced by its hierarchical structure depicted in Figure II-3, DA comptroller organizations are administratively organized (i.e., organized

by divisions that perform a specialized function such as budgeting or internal review) and have a clear chain of command (i.e., division chiefs, who report directly to the comptroller).

Hypothesis 3: The technology of comptrollership in the DA is of Perrow's Routine type (well structured/low variability and few exceptions) and displays corresponding structural characteristics (centralized power held by comptroller, high interdependence and high coordination required among functions within the organization).

Table IV-2 contains a listing of the means for the variables which measure whether the technology in the DA is of Perrow's Routine type and is associated with a formal centralized type of structure. Confidence intervals developed for the combined mean of the six technology variables (2.480) and for the mean of predictability of inputs (2.596) using a t-test conducted at the 95% confidence level contained the hypothesized mean (i.e., less than 2.5). A confidence interval developed for the mean of routineness of conversion (3.074) using a t-test conducted at the 95% confidence level did not contain the hypothesized mean (i.e., less than 2.5). Confidence intervals developed for the means of interdependence among functions (2.419) and coordination among functions (1.522) using a t-test conducted at the 95% confidence level contained the hypothesized mean (i.e., less than 2.5). A confidence interval developed for the centralization (3.574) did not contain the hypothesized mean (i.e., less than 2.5). Therefore, with the exception of routineness of conversion and centralization, the data do not provide evidence that support the rejection of Hypothesis 3.

Hypothesis 4: DA comptroller organizations operate in basically stable environments and exhibit mechanistic systems of management.

Table IV-2 contains a listing of the means for the variables which measure whether DA comptroller organizations operate in stable environments and exhibit mechanistic systems of management. Confidence intervals developed for the means of standardization of inputs (2.713), input predictability (2.596), and routineness of conversion (3.074) using a t-test conducted at the 95% confidence level contained the hypothesized mean (i.e., 1.0-3.5). Confidence intervals developed for the means of formalization of comptroller organization (2.029) and vertical communications (1.530) using a t-test conducted at the 95% confidence level contained the hypothesized mean (i.e., less than 2.5). Confidence intervals developed for the means of centralization (3.574) and span of control (5.859) using a t-test conducted at the 95% confidence level did not contain the hypothesized mean (i.e., less than 2.5). Therefore, with the exception of centralization and span of control, the data dc not provide evidence that support the rejection of Hypothesis 4.

The background information listed in Table IV-2 pertaining to the flow of comptroller functions (i.e., Figure II-3) provide further indication that DA comptroller organizations operate in stable environments. Specifically, there is little or no change in the market structure for DA comptroller organizations. For example, as shown in Figure II-3, comptrollers functions are performed primarily at the MACOM,

installation and division levels of commands. This hierarchical structure fosters a high degree of stability within the DA comptroller community, since each comptroller organization recognizes the individuals and other organizations it must interact with in order to accomplish the mission (e.g., an installation comptroller organization will interact with a MACOM and possibly division comptroller organization and will also interact with certain external agencies such as the Army Audit Agency and General Accounting Office).

Table IV-3 contains two lists as follows: (1) A list of frequently mentioned problems experienced by DA comptrollers during their first hundred days on the job. (2) A list of the most frequently mentioned statements of advice by DA comptrollers regarding the first hundred days on the job. The authors' developed these two lists after conducting a content analysis of the comptrollers' responses to questions 38 and 39 respectively. The criteria for listing a particular problem or statement of advice was to have it mentioned by at least 10% of the comptroller respondents. The only exceptions to this criteria were problem 14 and statements of advice 12 and 13. Problem 14 was mentioned by five of the nine comptrollers responding from USAREUR. Statement 13 was mentioned by two comptrollers from FORSCOM. Statement 14 was mentioned by the Deputy Chief of Staff for Resource Management (DCSRM) Headquarters TRADOC, Fort Monroe, Virginia.

The following problems (i.e., problems 1, 2, 4 and 6) and statements of advice (i.e., statements 1-5) mentioned

TABLE IV-3

COMPTROLLER PROBLEMS AND ADVICE TO NEW COMPTROLLERS

A. PROBLEMS--The following is a list of the most frequently mentioned problems experienced by DA comptrollers during their first one hundred days on the job. The authors conducted a content analysis of the comptrollers responses to question 38 in order to identify the problems listed below. The problems are not listed in any particular order. With the exception of number 14 the problems listed were mentioned by at least 10% of the respondents.

1. Comptroller terminology.
2. Determining relationship with other major staff organizations and activities within command. Determining the strengths and weaknesses of these major staff officers and activity directors with regard to their knowledge of financial management matters.
3. Determining to what extent the various division chiefs (i.e., Chief, Budget Division; Chief, Management Division) are able to perform their jobs.
4. Determining exactly what was expected of me (i.e., What are the commander's goals and objectives for the comptroller).
5. Determining exactly what the next higher headquarters expected of me.
6. Comptroller personnel lacked the attitude of providing quality service to the command.
7. Time management. Identifying those matters most critical to successfully accomplishing the mission.
8. Oral and written communication with superiors.
9. Civilian personnel management.
10. Personnel shortages/turbulence.
11. Leadership and personnel relations.
12. Knowledge of staff procedures within the command and with the next higher headquarters. Familiarization with pertinent financial management regulations.
13. Lack of expertise in technical subject areas. Areas most frequently mentioned were budget, accounting, and manpower management.
14. Familiarization with European environment and the USAREUR unique aspects of comptrollership (e.g., USAREUR peculiar resource management policies, procedures and activities).

TABLE IV-3 (CONTINUED)

B. ADVICE--The following is a list of the most frequently mentioned statements of advice by DA comptrollers regarding the first one hundred days on the job. The authors conducted a content analysis of the comptrollers' responses to question 39 in order to identify the statements of advice listed below. The statements are not listed in any particular order. With the exception of numbers 12 and 13 the problems listed were mentioned by at least 10% of the respondents.

1. Learn comptroller terminology ASAP.
2. Get to know the functions of the other major staff organizations and activities. Get to know the other major staff officers and activity directors.
3. Learn functions of the division chiefs within the comptroller organization. Determine as quickly as possible whether these division chiefs are performing their functions in a satisfactory manner.
4. Learn what the commander and next higher headquarters expect of me. Be on the bosses calendar at least once a week.
5. Insist that comptroller personnel develop an attitude of providing quality service to the command.
6. Learn important aspects of civilian personnel management. Schedule meeting with Civilian Personnel Officer (CPO) ASAP after assignment.
7. Develop requisite degree of expertise in the technical areas especially budget, accounting, and manpower management.
8. Listen, ask questions and move slowly to make changes.
9. Size up the organization. If the organization is old, rigid, and goes strictly by the book, encourage innovation and new methods. If the organization is new, fluid and operating erratically, introduce standard operating procedures and strive for a more formal structure.
10. Develop skills as an honest broker.
11. Establish and maintain credibility with commander and next higher headquarters.
12. Use booklet entitled "The Installation Comptroller" and article entitled "The First One Hundred Days" by Brigidier General Gudinas.
13. Use checklist entitled "Advice to New Comptroller/ DCSRM In First 100 Days of Assignment."*

*This checklist was developed by the Deputy Chief of Staff for Resource Management (DCSRM), Headquarters TRADOC, Fort

TABLE IV-3 (CONTINUED)

Monroe, Virginia. The checklist is presented in Appendix F. The authors' decision to present the checklist was based on two factors. First, the checklist is a comprehensive document that contains the managerial and technical information that comptrollers must be familiar with in carrying out their responsibilities. Second, the checklist is well organized and straightforward which makes it a useful tool that comptrollers can utilize to facilitate the crucial transition period of the "first one hundred days" in their new assignment.

in the two lists of Table IV-3 provide further indication that DA comptroller organizations operate in basically stable environments (i.e., there is little or no change in the market structure for DA comptroller organizations). For example these problems and statement of advice reveal that DA comptrollers can expect to interact on a regular basis with certain major staff organizations within their commands', the comptroller organization from the next higher headquarters, and the division chiefs within their own organizations. The following problems (i.e., problems 5 and 7) mentioned in the first list of Table IV-3 provide further indication that DA comptroller organizations exhibit a mechanistic system of management (i.e., a system of management characterized by vertical communication and reliance on formal rules and regulations). For example, these problems reveal that DA comptrollers must conduct oral and weitten communication with their superiors and be familiar with pertinent financial management regulations.

PROBLEMS

1. Determining relationship with other major staff organizations and activities within the command. Determining the strengths and weaknesses of these major staff officers and activity directors with regard to their knowledge of financial management matters.
2. Determining to what extent the various division chiefs are able to perform their jobs.
3. Determining exactly what the commander expected of me.
4. Determining exactly what the next higher headquarters expected of me.
5. Oral and written communication with superiors.

6. Knowledge of staff procedures within the command and with the next higher headquarters.

7. Familiarization with pertinent financial management regulations.

ADVICE

1. Get to know the functions of the other major staff organizations and activities. Get to know the other major staff officers and activity directors.

2. Learn functions of the division chiefs within the comptroller organization.

3. Learn what the commander and next higher headquarters expect of me.

4. Listen, ask questions and move slowly to make changes.

5. Establish and maintain credibility with commander and next higher headquarters.

2. Results of Leadership Data Analysis

a. Hypotheses 5 and 6

Hypothesis 5: DA comptrollers perform both the socio-emotional and task related leadership functions within their organizations.

Hypothesis 6: DA comptrollers will be higher in the socio-emotional dimension than the task related dimension.

Table IV-4 contains results of the leadership data analysis pertaining to hypotheses 5 and 6. The means for the socio-emotional leadership function range from 2.552 for the DARCOM subsample to 3.424 for the OTHERS subsample. The means for the task related leadership function range from 1.443 for the NGB subsample to 3.947 for the TRADOC subsample. Confidence intervals developed for all the socio-emotional and task related subsample means using a t-test conducted at the 95% confidence level contained the hypothesized population

TABLE IV-4

SUMMARY OF LEADERSHIP DATA PERTAINING TO HYPOTHESES 5 AND 6

	*MEAN	STD DEV
A. OVERALL		
Socio-Emotional	2.985	1.599
Task Related	3.015	1.642
B. MILITARY COMPTROLLERS		
Socio-Emotional	3.037	1.725
Task Related	3.329	1.595
C. CIVILIAN COMPTROLLERS		
Socio-Emotional	2.907	1.278
Task Related	2.537	1.610
D. FINANCE OFFICERS		
Socio-Emotional	2.601	1.303
Task Related	2.667	1.422
E. NON-FINANCE OFFICERS		
Socio-Emotional	3.314	1.903
Task Related	3.706	1.591
F. USAREUR		
Socio-Emotional	2.778	0.833
Task Related	3.222	0.667
G. FORSCOM		
Socio-Emotional	2.893	1.397
Task Related	3.036	1.374
H. DARCOM		
Socio-Emotional	2.552	1.088
Task Related	2.793	1.320
I. TRADOC		
Socio-Emotional	3.316	1.493
Task Related	3.347	1.779
J. NGB		
Socio-Emotional	**2.778	1.592
Task Related	1.443	1.247
K. OTHERS		
Socio-Emotional	3.424	2.077
Task Related	3.455	1.839

TABLE IV-4 (CONTINUED)

*Means for the Socio-Emotional and Task Related leadership dimensions cay vary between 0 and 12 with 0 showing the highest orientation.

**Indicates those means which are significantly different as determined by the students "t" test at the 95% level.

mean (i.e., $0 \leq \bar{x} \leq 8.0$). Therefore, the data do not provide evidence that support the rejection of Hypothesis 5.

A comparison of the socio-emotional and task related sample means using a t-test at the 95% confidence interval indicates that, with the exception of the NGB subsample, the two means are not significantly different. Therefore, with the exception of the NGB subsample, it cannot be said that the DA comptrollers exhibit statistically different degrees of socio-emotional and task related leadership behavior. The NGB comptrollers are higher in the task related dimension than the socio-emotional dimension.

b. Hypothesis 7

Hypothesis 7: On Tannenbaum and Schmidt's continuum of leadership behavior, DA comptrollers will utilize a wide range (i.e., 5-7 styles) of leadership styles in carrying out their responsibilities.

Table IV-5 contains results of the leadership data analysis pertaining to Hypothesis 7. The means for the number of leadership styles comptrollers utilize in carrying out their responsibilities range from 5.611 for the NGB subsample to 6.667 for the USAREUR subsample. Confidence intervals developed for all the subsample means using a t-test conducted at the 95% confidence level contained the hypothesized population mean (i.e., greater than or equal to 5). Therefore, the data do not provide evidence that support the rejection of Hypothesis 7.

c. Hypothesis 8

Hypothesis 8: DA comptrollers will strike a relative balance between managerial authority and subordinate freedom by utilizing over 50% of time the middle three

TABLE IV-5

SUMMARY OF LEADERSHIP DATA PERTAINING TO HYPOTHESIS 7

		NUMBER OF LEADERSHIP STYLES UTILIZED	
		* MEAN	STD DEV
A.	OVERALL	5.897	1.551
B.	MILITARY COMPTROLLERS	5.854	1.533
C.	CIVILIAN COMPTROLLERS	5.963	1.590
D.	FINANCE OFFICERS	5.633	1.810
E.	NON-FINANCE OFFICERS	6.000	1.356
F.	USAREUR	6.667	0.500
G.	FORSCOM	5.786	1.500
H.	DARCOM	5.793	1.740
I.	TRADOC	5.895	1.629
J.	NGB	5.611	1.819
K.	OTHERS	6.030	1.425

* A confidence interval was developed for the means using the Students "t" test conducted at the 95% confidence level. All intervals contained the hypothesized population mean.

leadership styles depicted along Tannenbaum and Schmidt's continuum of leadership behavior.

Table IV-6 contains results of the leadership data analysis pertaining to Hypothesis 8. The percentage of utilization means for the middle three leadership styles depicted along Tannenbaum and Schmidt's continuum of leadership behavior range from 38.5% for the TRADOC subsample to 52.7% for the USAREUR subsample. Confidence intervals developed for all the subsample means using a t-test conducted at the 95% confidence level contained the hypothesized mean (i.e., greater than or equal to 50%). Therefore, the data do not provide evidence that support the rejection of Hypothesis 8.

3. Results of Decision-Making Data Analysis--Hypothesis 9

Hypothesis 9: DA comptrollers use mixed decision-making methods as decision-making situations change.

Table IV-7 contains results of the decision-making data analysis pertaining to Hypothesis 9. The predicted utilization intervals for the rational decision-making method range from 15.4%-24.2% for the NGB subsample to 26.4%-43.6% for the USAREUR subsample. The predicted utilization intervals for the organizational processes decision-making method range from 56.4%-60.2% for the USAREUR subsample to 64.4%-67.4% for the TRADOC subsample. The predicted utilization intervals for the bureaucratic politics decision-making method range from 0.0%-15.2% for the TRADOC subsample to 0.0%-24.3% for the NGB subsample. The actual utilization of the rational decision-making method ranges from 51.0% for the USAREUR subsample to 59.9% for the DARCOM subsample. The actual

TABLE IV-6

SUMMARY OF LEADERSHIP DATA PERTAINING TO HYPOTHESIS 8

	mean	std dev
A. OVERALL		
LDR A	7.618%	8.316%
LDR B	6.647%	8.460%
LDR C	12.360%	10.661%
LDR D	6.081%	5.995%
LDR E	29.360%	22.447%
LDR F	8.015%	9.832%
LDR G	30.132%	23.566%

*Summation of LDR C,D&E = 47.801%

B. MILITARY COMPTROLLERS		
LDR A	7.488%	8.838%
LDR B	7.195%	9.981%
LDR C	12.720%	12.140%
LDR D	6.073%	6.251%
LDR E	27.890%	23.236%
LDR F	6.512%	7.397%
LDR G	32.305%	26.172%

*Summation of LDR C,D&E = 46.68%

C. CIVILIAN COMPTROLLERS		
LDR A	7.815%	7.531%
LDR B	5.815%	5.377%
LDR C	11.815%	7.812%
LDR D	6.093%	5.641%
LDR E	31.593%	21.209%
LDR F	10.296%	12.401%
LDR G	26.833%	28.693%

*Summation of LDR C,D&E = 49.501%

TABLE IV-6 (Continued)

	mean	std dev
D. FINANCE OFFICERS		
LDR A	4.767%	4.939%
LDR B	5.333%	4.744%
LDR C	13.433%	15.850%
LDR D	5.333%	4.672%
LDR E	30.833%	24.410%
LDR F	5.367%	6.088%
LDR G	35.100%	27.648%

*Summation of LDR C,D&E = 49.599%

E. NON-FINANCE OFFICERS		
LDR A	9.137%	10.249%
LDR B	8.137%	12.005%
LDR C	12.157%	9.559%
LDR D	6.627%	7.017%
LDR E	26.118%	22.815%
LDR F	7.314%	8.054%
LDR G	30.706%	25.668%

*Summation of LDR C,D&E = 44.902%

f. USAREUR		
LDR A	5.000%	4.796%
LDR B	5.333%	4.664%
LDR C	15.111%	7.253%
LDR D	8.111%	5.159%
LDR E	29.444%	21.715%
LDR F	9.000%	9.165%
LDR G	29.111%	23.299%

*Summation of LDR C,D&E = 52.666%

TABLE IV-6 (Continued)

	mean	std dev
G. FORSCOM		
LDR A	5.357%	5.300%
LDR B	8.964%	15.230%
LDR C	11.571%	9.195%
LDR D	5.821%	4.952%
LDR E	29.286%	22.337%
LDR F	7.571%	7.867%
LDR G	31.071%	24.677%
*Summation of LDR C,D&E = 46.678%		
H. DARCOM		
LDR A	6.034%	5.011%
LDR B	6.000%	5.392%
LDR C	11.724%	10.660%
LDR D	6.483%	8.814%
LDR E	29.241%	23.487%
LDR F	10.345%	15.846%
LDR G	30.517%	23.917%
*Summation of LDR C,D&E = 47.448%		
I. TRADOC		
LDR A	7.368%	7.236%
LDR B	6.421%	6.577%
LDR C	9.526%	8.255%
LDR D	5.033%	6.346%
LDR E	23.895%	24.299%
LDR F	6.789%	7.338%
LDR G	41.474%	27.557%
*Summation of LDR C,D&E = 38.474%		

TABLE IV-6 (Continued)

	mean	std dev
J. NGB		
LDR A	10.833%	9.942%
LDR B	5.000%	5.190%
LDR C	11.833%	7.430%
LDR D	5.389%	4.889%
LDR E	34.167%	19.945%
LDR F	8.056%	7.503%
LDR G	25.278%	23.669%

*Summation of LDR C,D&E = 51.389%

K. OTHERS		
LDR A	10.030%	11.741%
LDR B	6.636%	5.442%
LDR C	14.758%	14.474%
LDR D	6.364%	5.290%
LDR E	30.030%	23.009%
LDR F	6.758%	6.482%
LDR G	25.394%	18.820%

*Summation of LDR C,D&E = 51.152%

* In all subsamples, the confidence interval developed for the combined LDR C,D&E utilization mean using Students t-test at the 95% confidence level contained the hypothesized population mean.

TABLE IV-7

SUMMARY OF DECISION-MAKING DATA PERTAINING TO HYPOTHESIS 9

DECISION-MAKING METHOD	UTILIZATION *PREDICTED	*ACTUAL
A. OVERALL		
Rational	22.7%--36.5%	57.9%
Organizational Processes	61.1%--63.5%	34.2%
Bureaucratic Politics	0.0%--16.3%	7.9%
B. MILITARY COMPTROLLERS		
Rational	23.2%--37.2%	58.5%
Organizational Processes	61.3%--62.8%	33.6%
Bureaucratic Politics	0.0%--15.6%	7.9%
C. CIVILIAN COMPTROLLERS		
Rational	21.9%--35.3%	56.9%
Organizational Processes	60.8%--64.7%	35.1%
Bureaucratic Politics	0.0%--17.3%	8.0%
D. FINANCE OFFICERS		
Rational	23.1%--36.8%	58.8%
Organizational Processes	61.6%--63.2%	35.0%
Bureaucratic Politics	0.0%--15.4%	6.2%
E. NON-FINANCE OFFICERS		
Rational	23.0%--37.2%	58.2%
Organizational Processes	61.2%--62.8%	32.8%
Bureaucratic Politics	0.0%--15.8%	9.0%

* Relationships were determined by following the procedural steps outlined in Table III-6

TABLE IV-7 (CONTINUED)

		*PREDICTED	*ACTUAL
F.	USAREUR		
	Rational	26.4%--43.6%	51.0%
	Organizational Processes	56.4%--60.2%	36.0%
	Bureaucratic Politics	0.0%--16.3%	13.0%
G.	FORSCOM		
	Rational	24.4%--39.9%	58.8%
	Organizational Processes	59.3%--60.6%	34.4%
	Bureaucratic Politics	0.0%--16.3%	6.8%
H.	DARCOM		
	Rational	24.0%--39.4%	59.9%
	Organizationl Processes	60.0%--60.1%	33.9%
	Bureaucratic Politics	0.0%--16.0%	6.2%
I.	TRADOC		
	Rational	20.4%--32.6%	55.0%
	Organizational Processes	64.4%--67.4%	32.3%
	Bureaucratic Politics	0.0%--15.2%	12.7%
J.	NGB		
	Rational	15.4%--24.2%	56.3%
	Organizational Processes	60.3%--75.3%	36.2%
	Bureaucratic Politics	0.0%--24.3%	7.5%
K.	OTHERS		
	Rational	24.2%--37.8%	59.6%
	Organizational Processes	62.3%--62.8%	33.8%
	Bureaucratic Politics	0.0%--15.5%	6.6%

* Relationships were determined by following the procedural steps outlined in Table III-6

utilization of the organizational processes decision-making method ranges from 32.3% for the TRADOC subsample to 36.0% for the USAREUR subsample. The actual utilization of the bureaucratic politics methods ranges from 6.2% for the DARCOM subsample to 13.0% for the USAREUR subsample.

For all subsamples the actual utilization of the rational method exceeded its predicted utlization. For all subsamples the actual utilization of the organizational processes method was lower than its predicted utilization. For all subsamples the actual utilization of the bureaucratic politics method was within its predicted utilization interval.

The relationships described above remained after conducting a comparison of the mean percentage of actual utilization with the interval established for the mean percentage of predicted utilization using a t-test at the 95% confidence interval. Therefore, with the exception of the bureaucratic politics method, the data do not provide evidence that support the rejection of Hypothesis 9.

C. JOB PREPARATION OF JUNIOR LEVEL COMPTROLLERS

1. Organizational Behavior Deficiencies

Data obtained from question 42 verified the existence of deficiencies in eight major organizational behavior areas. Table IV-8 contains the list of these eight organizational behavior deficiencies exhibited by junior level DA comptrollers. The frequency of mention percentages for the deficiencies range from 43.0% for oral and written communication to 6.3%

TABLE IV-8

ORGANIZATIONAL BEHAVIOR DEFICIENCIES OF JUNIOR LEVEL COMPTROLLERS

		FREQUENCY OF MENTION	
		AFFIRMATIVE	*PERCENT
A.	STAFF PROCEDURES	32	40.5%
B.	LEADERSHIP	14	17.7%
C.	PERSONNEL RELATIONS	28	35.4%
D.	MANAGEMENT PRACTICES	16	20.3%
E.	ORAL AND WRITTEN COMMUNICATION	34	43.0%
F.	COMMON SENSE	22	27.8%
G.	CIVILIAN PERSONNEL MANAGEMENT/RELATIONS	18	22.8%
H.	HUMAN BEHAVIOR AND OE **	5	6.3%
I.	TECHNICAL TRAINING	17	21.5%
J.	NO ADDITIONAL TRAINING	1	1.3%

* Percent based on number of individuals who replied to question 42.

** Organizational effectiveness.

for human behavior and organizational effectiveness (OE). The most frequently mentioned organizational behavior deficiencies include oral and written communication (43.0%), staff procedures (40.5%), personal relations (35.4%), common sense(27.8%), and civilian personnel management/relations (22.8%). The technical training of junior level comptrollers was identified as a deficiency by 21.5% of the comptrollers who replied to the question. One (1.3%) comptroller who replied to the question stated that junior level comptrollers required no additional training.

2. Recommendations

Table IV-9 contains a comprehensive list of 29 recommendations of DA comptrollers regarding improvement of the training and/or performance of junior level DA comptrollers. The recommendations represent the verbatim responses and are not listed in any particular order. The subject areas for the proposed course mentioned in recommendation number 16 for USAREUR personnel are presented in Appendix G.

D. SUMMARY

This chapter began with the presentation of data analysis results pertaining to the Pledger comptrollership model. Specifically, the data analysis results pertaining to the testing of Hypotheses 1 through 9 were presented (refer to Tables IV-1 through IV-7 and Appendix E).

The chapter continued with the presentation of the data analysis results pertaining to the identification and ranking

TABLE IV-9

RECOMMENDATIONS OF DA COMPTROLLERS REGARDING IMPROVEMENT OF THE TRAINING AND/OR PERFORMANCE OF JUNIOR LEVEL DA COMPTROLLERS

The following are verbatim responses to the following question from DA comptrollers: "What are your recommendations for improving the training and/or performance of junior comptrollers?" This question formed the second part of question 42. The first part of question 42 asked DA comptrollers to identify any non-technical areas involving Army comptrollership that their junior level financial managers could have been better prepared to handle. The recommendations are not listed in any particular order.

1. Military Comptrollership Course (MCC) is a must prior to the junior level comptrollers' first assignment.
2. Complete troop duty prior to initial assignment so they can go on in the comptrollership field after completion of the initial assignment.
3. Briefing techniques-organization of briefings, use of training aids should be an integral part of all advanced courses.
4. Junior level comptrollers should take advantage of every available opportunity to build their job knowledge through exchange of ideas, learning from the experience of others, and from available formal documents and training courses.
5. Junior level comptrollers should be finance officers.
6. It is very important that junior level comptrollers be trained to understand that the Comptroller is to provide service to the staff and as such he must carry out the desires of the commander with effective guidance, coordination, and follow-up. This applies to the Command Operating Program, budgets and funding programs, expenditure targets, feedback reporting to program managers, and the acceptance of methods and standards studies, and internal reviews.
7. Cost/benefit analysis training.
8. Computer training and knowledge of data processing. Junior level comptrollers must understand basics of automation as a tool of management.
9. Training in military writing.
10. Should have served on a Battalion staff.
11. Training in PPBS.
12. Training in DOD/OMB/Congressional Decision Processes
13. Training in Civilian Personnel Management.

TABLE IV-9 (CONTINUED)

14. Finance officers need detail tours in combat arms in order to further their understanding of leadership and the real purpose of comptrollers and the Army.

15. Time Management Training--learn shortcuts of effective meetings, staff visits, personnel counseling.

16. Although you didn't ask, I believe the most positive action possible for improvement of performance of USAREUR junior level comptrollers during their first 100 days would be to initiate a USAREUR peculiar course for prospective comptrollers.*

17. Training in the personnel management of minorities.

18. Teach union cooperation techniques.

19. Two year intern training program for junior level comptrollers. They are employed in every functional area and receive on-the-job training (OJT), correspondence, or resident) in each area. I have just "graduated" one, an engineer officer (21/45), and he is probably the only engineer who ever worked as a finance officer, auditor, and travel clerk. Upon "graduation" he became a Comptroller in his own right. The feedback is that he is doing a super job. Suggest all junior level comptrollers participate in this type of program.

20. Junior level comptrollers should serve their first 45 (comptrollership) assignment as a Division Financial Management Officer (DFMO) in a combat division.

21. Learn logistics operating systems and their interface with Financial Systems (i.e., Standard Army Intermediate Logistical Subsystem (SAILS), Division Logistics System (DLOGS), Tactical Unit Financial Management Information Systems (TUFMIS), Standard Finance Systems (STANFINS), Stock Fund). Learn how a transaction impacts on all systems. Learn interrelationships between the various systems.

22. Set up training program for junior level comptrollers. Six months in Budget, Management, and Force Development each.

23. Basic 45 MOS Training as follows: (a) There should be an introductory course conducted for United States Army Reserve (USAR) officers newly assigned to 45 MOS positions. (b) The course must be two weeks in duration (so the officer can attend during an annual training status).

24. There should be a course that prepares a junior level comptroller to operate in a tactical unit environment. We need to teach Division comptrollers about TUFMIS, etc., before he takes over the job.

TABLE IV-9 (CONTINUED)

25. Civilian education/interests should complement comptrollership.

26. Teach manpower management. Areas of study should include policy, requirements setting process, authorizations or allocations and how to obtain, documentation, relationship between spaces, forces, and Officer Distribution Plan (ODP).

27. On the Job Training (OJT) is the key. The 5 week MCC or MBA will only help a little--its getting in and preparing a budget, doing a TDA, defending an economic analysis that counts.

28. Junior level comptrollers should have a broad general background. There are few officers who can hope to be proficient in all the areas of comptrollership listed AR5-2. Management expertise is more important than financial management expertise.

29. Officers who are going to be comptrollers should start as LTs and CPTs and receive considerable technical as well as staff training.

*The DA comptroller from USAREUR who made this recommendation also provided the authors with an outline of the subject areas for this proposed course. The subject areas for the proposed USAREUR peculiar course are presented in Appendix G. The authors' decision to present the course was based on three factors. First, 5 of the 9 comptrollers responding from USAREUR mentioned problems associated with the uniqueness of this Overseas command (refer to Section A, problem #14, Table IV-3). Second, the authors' belief that this particular course might be an effective and expeditious means of familiarizing the USAREUR junior level comptrollers with the peculiar resource management policies, procedures and activities of their command. Finally, the broad general scope of the course subject areas appears to be a positive aspect, since the responses to the authors' question 40 indicate that 83% of the junior level comptrollers from USAREUR occupy supervisory positions (e.g., Chief, Program/Budget Division; Chief, Management Division; Chief, Internal Review Division; Chief, Manpower Management Division). The authors contend that this broad general scope of course subject areas would be of great benefit to these junior level comptroller supervisors who must quickly become familiar with the USAREUR unique aspects of comptrollership, in order to provide their commands with sound nd timely resource management decisions.

in order of importance the specific organizational behavior deficiencies of junior level DA comptrollers (refer to Table IV-8).

The chapter concluded with the presentation of the DA comptrollers' recommendations for minimizing the organizational behavior deficiencies exhibited by junior level comptrollers (refer to Table IV-9).

V. RESULTS, DISCUSSION AND CONCLUSIONS

A. INTRODUCTION

In this chapter both the objectives of this thesis and the Pledger comptrollership model are reviewed. Next, the results of the data analysis pertaining to the Pledger compotrollership model and the job preparation of junior level DA comptrollers are discussed. Then the conclusions and recommendations of the thesis are presented. Finally, the limitations of the research are discussed and recommendations for future study are presented.

B. THESIS OBJECTIVES

The purpose of this thesis was twofold: First, test the validity of the Pledger comptrollership model for use within Department of the Army (DA). Second, identify and rank in order of importance the specific organizational behavior deficiencies of junior level DA financial managers and develop an addendum to Tully and Batiste's proposed practical comptrollership course (PCC) that could be used to alleviate the deficiencies.

C. REVIEW OF THE PLEDGER COMPTROLLERSHIP MODEL

The Pledger comptrollership model was derived by Pledger (1980) from several organizational behavior theories. The model and these theories were reviewed in Chapter II. The Pledger comptrollership model was designed to aid comptrollers

in analyzing their organizations in terms of technology and structure, leadership, and decision-making (refer to Figure II-6). The analytical results of the Pledger comptrollership model would guide the comptrollers to take an appropriate course of action.

D. DISCUSSION OF DATA ANALYSIS RESULTS

1. The Pledger Comptrollership Model

a. Technology and Structure Data

The correlations depicted in Table IV-1 (Hypothesis 1) reflect the presence of relationships between technology and structure variables that exist within DA comptroller organizations. A familiarity with and understanding of these relationships could assist the comptroller during the first one hundred days of a new assignment. For example, if the organization is transitioning from a manual to machine operated (i.e., increase in automation) conversion process the comptroller should expect an increase to occur in the degree of interdependence among different functions within the organization and should take steps to facilitate such a change. This course of action by the comptroller would also be appropriate if the organization was changing from one particular computer software program to another. This type of change process occurs in the DA as new and better financial management systems become operational.

The variable means and background information listed in Table IV-2 (Hypotheses 2, 3 and 4) reflect the

presence of characteristics within DA comptroller organizations pertaining to the overall operating environment. For example, the overall operating environment within the DA comptroller community is basically stable (i.e., the environment is characterized by little or no change in the market structure for DO comptroller organizations). A familiarity with and understanding of this characteristic could assist the comptroller during the initial stages of a new assignment. For example, if there is a clear lack of coordination between the comptroller organization and other major staff organizations within the command, the comptroller should immediately ascertain why and then take appropriate action.

The variable means and background information listed in Table IV-2 (Hypotheses 2, 3, and 4) reflect the presence of characteristics within DA comptroller organizations pertaining to technology. For example, the technology of DA comptrollership is characterized by fairly standardized inputs and products, fairly predictable production steps, partially automated conversion process, and relatively high degrees of emphasis on output quality control and performance evaluation. A familiarity with and understanding of these characteristics could assist the comptroller during the initial stages of a new assignment. For example, if there is a clear lack of emphasis on output quality control and performance evaluation within the organization, the comptroller should immediately ascertain why and then take appropriate action.

The variable means and background information listed in Table IV-2 (Hypotheses 2, 3, and 4) reflect the presence of characteristics within DA comptroller organizations pertaining to structure. For example, the structure of DA comptrollership is characterized by a relatively high degree of formalization (i.e., reliance on formal rules and regulations), vertical communications, interdependence among functions, coordination among functions, and specialization of functions. Additionally, DA comptroller organizations tend to have clear chains of command and tend to be decentralized with routine decisions being made by division chiefs. Finally, DA comptroller organizations tend to have relatively wide spans of control (i.e., 5-6 individuals reporting directly to the comptroller). A familiarity with and understanding of these characteristics could assist the comptroller during the initial stages of a new assignment. For example, if there is a clear lack of vertical communications within the organization, the comptroller should immediately ascertain why and then take appropriate action.

In summary, the correlations, variable means, and background information discussed above provide support for the environment and technology/structure components of the Pledger comptrollership model.

b. Leadership Data

The authors' analysis of data pertaining to the individual characteristics of the leader is one of the three

factors of particular importance that a manager must consider in selecting an optimal leadership style. The other two factors discussed in Chapter II are the followers and the situation. These two factors were not included in the design of this thesis, but stand on the merits of the Tannenbaum and Schmidt (1973) work.

The data results depicted in Table IV-4 (Hypotheses 5 and 6) indicate the high degree of concern of DA comptrollers with both mission accomplishment (i.e., task related orientation) and subordinate well-being (i.e., socio-emotional orientation). The data results depicted in Table IV-5 (Hypothesis 7) indicate that DA comptrollers utilize a numger of different leadership styles as the situations and pressures change. The data results depicted in Table IV-6 (Hypothesis 8) indicate that DA comptrollers maintain a relative balance between managerial authority and subordinate freedom. These results pertaining to Hypothesis 8 are not unexpected in view of DA comptrollers' high degree of socio-emotional and task related leadership behavior. The large utilization percentage for leadership style G (refer to Table IV-6) is not unexpected in view of the relatively high amount of discretion (refer to Table III-10, question 26) which is held by lower levels within DA comptroller organizations and the tendency of these organizations to be decentralized with routine decisions being made by division chiefs.

In summary, both the data analysis results pertaining to the individual characteristics of the leader and

the discussion in Chapter II pertaining to the followers and situations provide support for the leadership component of the Pledger comptrollership model.

c. Decision-Making Data

The relationships depicted in Table IV-7 (Hypothesis 9) between particular decision-making methods and their predicted and actual utilization indicate that, with the exception of bureaucratic politics, there is little correspondence between decision-making situations encountered by DA comptrollers and their choice of a particular decision-making method (i.e., that is DA comptrollers use mixed decision-making methods as decision-making situations change). For example, for all subsamples the actual utilization of the rational method exceeded its predicted utilization and the actual utilization of the organizational processes method was lower than its predicted utilization. Nevertheless, when a decision-making situation arises in which a DA comptroller does not know what method to employ, the Pledger comptrollership model can be utilized to assist in selecting an appropriate decision-making method (refer to Section A, Table III-6). For example, if the situation is a crisis (i.e., high threat, short time fuze, and no warning), there will be no time to successfully employ the rational decision-making method. The most likely response would be to follow SOPs, satisfice, or try a solution which has worked in the past which are examples of the organizational processes method [Pledger, 1980].

2. Job Preparation of Junior Level Comptrollers

After identifying and ranking in order of importance the organizational behavior deficiencies of junior level DA comptrollers (Table IV-8), evaluating the comptrollers' recommendations regarding improvement of the training and/or performance of junior level DA comptrollers (Table IV-9), and evaluating the comments of Commander (CDR) Edwin Fincke, USN and Colonel (COL) William Graham, USA (Appendix H), the authors developed an addendum to Tully and Batiste's (1980) proposed PCC. The purpose of the addendum is to alleviate the main organizational behavior deficiencies exhibited by junior level comptrollers. The subject areas and related instructional hours for the proposed PCC addendum contains relevant organizational behavior information and material that will better prepare the new junior level financial manager for duties within the DA comptrollership field. The course material listed in the addendum is designed to alleviate some of the most common organizational behavior deficiencies exhibited by junior level DA comptrollers. Specifically, these organizational behavior deficiencies are oral and written communication, staff procedures, and civilian personnel management/relations. The course material also includes a two hour block of instruction on the Pledger comptrollership model. The course material does not include any instruction on common sense, even though 27.1% of the comptrollers responding to question 42 identified it as a deficiency exhibited by junior level comptrollers. This decision was based on the authors' belief and comments from some

of the comptroller respondents that common sense is not something individuals can learn in a classroom, rather it is a trait that individuals develop as a result of experience.

The technical training of junior level comptrollers was identified as a deficiency by a substantial number of the comptrollers who replied to the question. This finding provides further support for the research of Tully and Batiste which identified a specific need for improving the technical skills of junior level comptrollers. Tully and Batiste, and Graham (1981) suggest that implementation of a comptroller intern program within each of the DA commands is one course of action that can be taken to improve the technical skills of junior level financial managers. Support for this suggestion also came from one comptroller respondent who implemented a successful two year intern training program for junior level comptrollers (refer to Table IV-9, recommendation 19).

Five comptrollers responding from USAREUR mentioned problems associated with the USAREUR unique aspects of comptrollership (e.g., USAREUR peculiar resource management policies, procedures and activities) (refer to Table IV-3). The comptroller from the DA's 3rd Infantry Division, LTC Quinn, mentioned that the most positive action possible for improvement of performance of USAREUR junior level comptrollers during their first 100 days would be to initiate a special course (refer to Table IV-9). LTC Quinn's budget officer, Major Plowden, provided the authors with an outline of the subject areas for this proposed course. The subject areas for this

proposed USAREUR peculiar course are presented in Appendix G. The authors' decision to present the course as an appendix was based on three factors. First, as previously discussed, five of the nine comptrollers responding from USAREUR mentioned problems associated with the uniqueness of this overseas command. Second, this particular course may be an effective and expeditious means of familiarizing the USAREUR junior level comptrollers with the special resource management policies, procedures and activities of their command. Finally, the broad general scope of the course appears well suited for USAREUR junior level comptrollers who in most instances are serving in supervisory positions (e.g., Chief of Program/ Budget Division, Chief of Management Division, Chief of Internal Review Division, Chief of Manpower Management Division).

E. CONCLUSIONS AND RECOMMENDATIONS

1. The Pledger Comptrollership Model

Based upon results of the data analysis the Pledger comptrollership model is appropriate for use by DA comptrollers in facilitating the crucial transition period of the "first one hundred days" in a new assignment. The authors recommend that the DA adopt the Pledger comptrollership model for job orientation use within the comptroller community. The DA should begin teaching the Pledter comptrollership model to students attending the Military Comptrollership Course (MCC) at Fort Benjamin Harrison, Indiana. The Pledger comptrollership

model should be incorporated into the MCC program of instruction (POI) as a permanent block of instruction.

2. Job Preparation of Junior Level DA Comptrollers

Junior level DA comptrollers exhibit deficiencies in eight organizational behavior areas (refer to Table IV-8). Oral and written communications, staff procedures, personnel relations, common sense and civilian personnel management/ relations were the most frequently mentioned areas in need of improvement. In order to alleviate these deficiencies, the authors recommend that the DA adopt and institute the addendum to Tully and Batiste's proposed PCC. This 24 hour proposed PCC addendum is presented as Appendix J.

Junior level DA comptrollers exhibit deficiencies in the technical skill areas of comptrollership. In order to alleviate these deficiencies, the authors recommend the following two courses of action. First, the DA should adopt and institute Tully and Batiste's proposed PCC. This 95 hour proposed PCC is presented as Appendix I. Second, commands within the DA should implement their own comptroller intern training programs. These programs should be tailored to the needs of both the command and the junior level DA comptrollers.

F. LIMITATIONS OF AUTHORS' RESEARCH AND RECOMMENDATIONS FOR FUTURE STUDY

1. The Pledger Comptrollership Model

The data pertaining to the Pledger comptrollership model was analyzed as a total sample and by the 10 subsamples listed in Table III-4. This analysis could be expanded to

include additional subsamples such as educational level of the comptroller, experience level of the comptroller, and size of the command. This type of analysis would provide additional information about the effects of the particular characteristics of the comptroller or the command on the comptroller organization itself.

The leadership questions were structured to provide a self-report of the degree to which DA comptrollers perform both the socio-emotional and task-related leadership functions. As discussed in Chapter III, social desirability response bias is possible with these questions, since they tend to provide the opportunity for comptrollers to show themselves as completely effective and empathic managers. Division chiefs (i.e., budget chief, management chief, internal review chief, finance and accounting chief, and force development chief) could be asked to assess the degree to which DA comptrollers perform both the socio-emotional and task related leadership functions. This information might provide a more unbiased assessment of the degree to which DA comptrollers perform both the socio-emotional and task related leadership functions.

The questionnaire sent to the various DA commands contained a separate question for both the decision-making situations encountered and the decision-making methods used by DA comptrollers in carrying out their responsibilities. These two questions provided the data to conclude, with the exception of the bureaucratic politics method, that DA comptrollers

use mixed decision-making methods as decision-making situations change. However, the data did not permit the authors to directly link the various decision-making methods with the various decision-making situations. A direct linking is possible if the list of situations and list of methods are consolidated into one question. For example, for each situation the respondents would indicate those methods used in making decisions concerning their organization and command. This method would provide more detailed decision-making information. For example, for those situations associated with the rational method (e.g., innovative, inertia and deliberative decision-making situations) there would be a breakout of how often the comptroller used the rational, organizational processes, and bureaucratic politics decision-making methods. For those situations associated with the organizational processes method (e.g., circumstantial, routine, crisis, reflexive, administrative, possibly innovative, and possibly deliberative decision-making situations) there would be a breakout of how often the comptroller used each of the three decision-making methods. For those situations associated with the bureaucratic politics method (e.g., possibly crisis and possibly reflexive) there would be a breakout of how often the comptrollers used each of the three decision-making methods.

The authors recommend testing the Pledger comptrollership model in other uniformed services such as the United States Marine Corps (USMC), the United States Coast Guard (USCG), and the United States Air Force (USAF). The purpose

of such testing is twofold: One, determine the applicability of the model for use within the USMC, USCG and USAF. Two, conduct a comparison of the organizational behavior aspects associated with each of the uniformed services (i.e., Department of the Navy (USN), DA, USMC, USCG and USAF).

2. Job Preparation of Junior Level Comptrollers

A detailed investigation of the unique problems encountered by junior level DA comptrollers in USAREUR was not part of the original design of this thesis. However, based on the information provided by the USAREUR comptroller respondents, it is apparent that junior level comptrollers in USAREUR face the additional challenge of quickly grasping the unique resource management policies and procedures of this overseas major command (MACOM).

The authors recommend that the DA conduct a more detailed research effort to determine those specific resource management policies and procedures that must be understood by USAREUR junior level comptrollers if they are to effectively carry out their responsibilities. Following identification of these specific resource management policies and procedures the DA should devise a course similar to the one presented as Appendix G. The purpose of such a course would be to improve the performance of USAREUR junior level comptrollers during the first one hundred days of their new assignment. Finally, the authors recommend that one or two DA financial management graduate students develop the civilian personnel relations case study that is part of the 24 hour proposed PCC addendum (refer to Appendix J).

G. SUMMARY

This thesis began with an overview of the DA comptroller community and a review of the literature associated with the components of the Pledger comptrollership model. The thesis continued with a discussion of the research methods used in identifying the specific organizational behavior deficiencies of junior level DA comptrollers and testing the Pledger comptrollership model. This included a detailed description of the questionnaire, data analysis plan and data preparation process. The thesis concluded with the presentation and discussion of the results of the data analysis pertaining to the Pledger comptrollership model and the job preparation of junior level comptrollers. The results indicated that the Pledger comptrollership model is appropriate for use by DA comptrollers in facilitating the crucial transition period of the "first one hundred days" in a new assignment, and that junior level DA comptrollers exhibit deficiencies in eight organizational behavior areas. Based on these results the authors' recommended that the DA follow two courses of action. First, the DA should adopt the Pledter comptrollership model for job orientation use within the comptroller community. Second, the DA should adopt and institute the 24 hour proposed PCC addendum presented as Appendix J.

APPENDIX A

COMPTROLLER RESPONSIBILITIES

The following is a description of the Department of Army (DA) comptroller responsibilities at the division, installation and Major Command (MACOM) levels of command.

Division Comptroller. This individual focuses upon budget execution, simple management analysis activities, internal review, and follow-up action on external installation, Army Audit Agency (AAA), and General Accounting Office (GAO) report findings [USAIS, 1978]. The division comptroller uses the internal review capability to monitor the Finance Accounting Orfice (FAO). Unliquidated balances, accounts receivable, cash controls, timing of travel claims, and the processing of vendor's invoices for payments are some areas within FAO that receive close attention and undergo periodic reviews [USAIA, 1978]. Division comptrollers have found themselves working more frequently with Brigade and Battalion commanders in order to better support and justify operating budget requests [USAIA, 1978]. This interaction with lower level commanders is particularly prevalent in armored and mechanized units. These units require a great deal of advance financial planning because they are costly to operate in terms of fuel and repair parts.

Installation Comptroller. This individual also concentrates on budgeting, accounting, management analysis, internal review

and statistical reporting. Additionally, the installation comptroller's office prepares and issues directives and procedures essential for the preparation of budget estimates and studies. The comptroller provides the authority for the utilization of financial resources and conducts budget analysis for the interpretation of resource utilization and obligation rate trends. The comptroller's office also accumulates, records, and presents statistical data which identifies management deficiencies; and it maintains surveillance over the administrative control and utilization of funds. Finally, the office insures the collection of necessary data to facilitate budget execution, reviews the major activity budget execution reports and insures the continuous compatibility between consumers fund budgets for stock fund items and the Army Stock Fund Budget [USAIA, 1978]. In summary, the installation comptroller's most important and time intensive role involves the management of the budget development and execution process [USAIA, 1978].

MACOM Comptroller. This individual has basically the same duties and responsibilities as are found at the installation level. Additionally, the MACOM comptroller must be concerned with the establishment and maintenance of favorable informal relationships between the MACOM office, DA, and subordinate installation comptroller offices. Providing assistance to the installations and monitoring their compliance to command directives is an important task of the MACOM comptroller

office. Maintaining close contact with the installation comptrollers should be a priority for a MACOM comptroller. This contact facilitates accomplishment of the year-round budget preparation and execution process [USAIA, 1978].

APPENDIX B

LEADERSHIP STYLES AVAILABLE

The following is a description of the seven leadership styles depicted along Tannenbaum and Schmidt's continuum of leadership behavior (refer to Figure II-14), as quoted from "How to Choose a Leadership Pattern," Harvard Business Review (May-June 1973) by Robert Tannenbaum and Warren H. Schmidt.

1. The Manager Makes the Decisions and Announces It. In this case the boss identifies a problem, considers alternative solutions, chooses one of them, and then reports this decision to his subordinates for implementation. He may or may not give consideration to what he believes his subordinates will think or feel about his decision; in any case, he provides no opportunity for them to participate directly in the decision-making process. Coercion may or may not be used or implied.

2. The Manager "Sells" His Decision. Here the manager, as before, takes responsibility for identifying the problem and arriving at a decision. However, rather than simply announcing it, he takes the additional step of persuading his subordinates to accept it. In doing so, he recognizes the possibility of some resistance among those who will be faced with the decision, and seeks to reduce this resistance by indicating, for example, what the employees have to gain from his decision.

3. The Manager Presents His Ideas, Invites Questions. Here the boss who has arrived at a decision and who seeks acceptance of his ideas provides an opportunity for his subordinates to get a fuller explanation of his thinking and his intentions. After presenting the ideas, he invites questions so that his associates can better understand what he is trying to accomplish.

4. The Manager Presents A Tentative Decision Subject To Change. This kind of behavior permits the subordinates to exert some influence on the decision. The initiative for identifying and diagnosing the problem remains with the boss. Before meeting with his staff, he has thought the problem through and arrived at a decision--but only a tentative one. Before finalizing it, he presents his proposed solution for the reaction of those who will be affected by it.

5. The Manager Presents The Problem, Gets Suggestions, and Then Makes His Decision. Up to this point the boss has come before the group with a solution of his own. Not so in this case. The subordinates now get the first chance to suggest solutions. The manager's initial role involves identifying the problem.

6. The Manager Defines The Limits and Requests The Group to Make a Decision. At this point the manager passes to the group (possibly including himself as a member) the right to make decisions. Before doing so, however, he defines the problem to be solved and the boundaries within which the decision must be made.

7. The Manager Permits the Group to Make Decisions Within Prescribed Limits. This represents an extreme degree of group freedom only occasionally encountered in formal organizations, as, for instance, in many research groups. Here the team of managers or engineers undertakes the identification and diagnosis of the problem, develops alternative procedures for solving it, and decides on one or more of these alternative solutions. The only limits directly imposed on the group by the organization are those specified by the superior of the team's boss. If the boss participates in the decision-making process, he attempts to do so with no more authority than any other member of the group. He commits himself in advance to assist in implementing whatever decision the group makes.

APPENDIX C

DECISION-MAKING PROPOSITIONS

The following is a list of propositions that Pledger presented to indicate actions which result from the three situational dimensions of threat, time fuze, and awareness. Propositions 1-10 have been verified and supported by Charles F. Hermann [Hermann, 1971]. Propositions 11-16 are assumptions made by Pledger (1980) and based on characteristics of the rational, organizational processes and bureaucratic politics decision-making methods.

1. Crisis decisions (i.e., high threat, short time, surprise) engage more individuals than non-crisis decisions.
2. In crises the number of alternative solutions to the situation that will be identified by the decision makers will be reduced.
3. As threat increases, decision time becomes steadily more important in determining how many alternatives will be considered.
4. The longer the decision time, the more alternative courses of action are considered.
5. In a crisis as opposed to a non-crisis situation, decision makers tend not to make distinctions between the involvement of a personal and organizational threat.
6. Under conditions of high threat and limited time, decision makers become too pressured to discriminate between alternatives.
7. When threat remains minimal, the amount of available time makes little difference in the number of alternatives discussed.
8. When considerable decision time exists, decision makers tend to enumerate more alternative proposals in situations that occur as a surprise than in situations that emerge after a warning.
9. The greater the extent to which an event is anticipated, the stronger the emotional reaction when the event occurs (especially when reaction time is minimal).

10. The greater the crisis, the greater the propensity to supplement information about the objective state of affairs with information drawn from past experience.

11. The rational process, due to its nature of alternative generation and analysis, will take more time than the two non-rational methods.

12. The rational process will tend to be utilized more in situations which lend themselves to alternative generation and analysis.

13. Non-rational decision-making methods will dominate situations with short time fuzes for the following reasons. These situations tend to create stress within the decision-maker which results in (1) repetition of prior responses regarded as successful, (2) perception of fewer alternatives available, (3) zero sum (black/white) thinking.

14. The practices of satisficing and development of SOPs are useful in situations where decisions must be made with a short time fuze.

15. SOPs and uncertainty avoidance might be used when there exists a high threat to the decision maker or the organization.

16. If a decision maker is prone to making decisions based on personal emotions or ambitions, he/she will most likely do so in situations of a high threat nature with a short time fuze. The high threat to the decision maker will involve a self-protective reaction. The short time fuze allows the decision to be made without outside input or approval.

APPENDIX D

QUESTIONNAIRE

Please list your organization and its specific location _____

_____

To what Major Command is your organization assigned (e.g., FORSCOM, TRADOC, USAREUR, Health Services Command?) _____

_____

Please record your autovon telephone number _____

Please answer the following questions.

1. Designate whether you are military or civilian. _____
   What is your rank or GS rating? _____

2. If military, what is your primary specialty? _____
   and secondary specialty? _____

3. If civilian, what is your specialty code? Number and complete nomenclature please _____

4. Is this your first tour of duty as the comptroller of an organization? _____

5. If military, how many tours of duty have you had within the 45 specialty area prior to this current assignment?

   _____

6. If military, was your last tour of duty (i.e., your tour of duty immediately prior to this current assignment) within the 45 specialty area? _____

7. How long have you been in your current assignment? (Mo) _____

8. What is your highest educational degree and major? (Ex. MS in financial management, BS in engineering, etc.)

   _____

   From what college, university or institution did you receive you highest educational degree? _____

9. Approximately how many personnel are assigned to your particular command? (i.e., if you are the comptroller for the 2nd Armored Division, please record the total number of personnel in the Division.) _____

10. Approximately how many personnel are assigned and attached to your comptroller organization? _____

11. How many personnel report directly to you? _____

12. How many hierarchical levels (e.g., levels of supervisors and/or managers) are there in your comptroller organization?

_____

13. To whom in the command do you have reporting responsibility?

_____

Please circle the most appropriate answer to each of the following questions. Questions 14-28 relate to structure and technology within your comptroller organization.

14. At what organizational level are command financial decisions made within your organization?

1	2	3	4	5
At the C.O. level only with little advice from the comptroller.				At the comptroller level (C.O. rubber stamps).

15. At what level are routine decisions made internal to the comptroller organization?

1	2	3	4	5
At the comptroller level only.				At the lowest level in the organization.

16. To what extent are written procedural rules and regulations followed within the comptroller organization (concerning functional procedures such as budgeting, internal review, cost analysis)?

1	2	3	4	5
Rules strictly followed always.				Rules seldom if ever followed.

17. How do you perceive the freedom and amount of upward communication within the comptroller organization?

1	2	3	4	5
High				Very little, if any.

18. How dependent upon one another are the different functions (e.g., budgeting, internal review, cost analysis) within the comptroller organization?

1	2	3	4	5
Very dependent.				Not at all.

19. How important is coordination among the different functions within your comptroller organization?

1	2	3	4	5
Very important.				Not at all.

20. How specialized are the various functions (e.g., budgeting, internal review, cost analysis) within the comptroller organization?

1	2	3	4	5
Highly specialized.				Not at all.

21. How routine would you say the various functions are within the comptroller organization?

1	2	3	4	5
Very routine.				Not at all.

22. How standardized would you say the inputs (e.g., information, materials, knowledge) to the individual job functions are within the comptroller organization?

1	2	3	4	5
Highly standardized.				Not at all.

23. How predictable would you say the inputs are to the various job functions within the comptroller organization?

1	2	3	4	5
Very predictable.				Not at all.

24. How complex are the operations of the comptroller organization taken as a system?

1	2	3	4	5
Highly complex.				Not at all.

25. How much automation exists regarding the operations of the comptroller organization?

1	2	3	4	5
Almost totally automated.				Very little if any automation.

26. How much discretion do the people within your comptroller organization have regarding the conduct of their jobs (e.g., hours, methods, output)?

1	2	3	4	5
High discretion.				Little, if any.

27. Is there much emphasis within your comptroller organization concerning quality control of individual output?

1	2	3	4	5
Much emphasis.				Little, if any.

28. Is employee/subordinate performance feedback emphasized within your comptroller organization?

1	2	3	4	5
Always.				Never.

Questions 29-34 relate to leadership. Please circle the most appropriate answer to each of these six questions.

29. Are you willing to make changes?

0	1	2	3	4
Always	Often	Occasionally	Seldom	Never

30. Do you put suggestions that are made by people in your work group into operation?

0	1	2	3	4
Always	Often	Occasionally	Seldom	Never

31. Do you treat all people in your work group as your equal?

0	1	2	3	4
Always	Often	Occasionally	Seldom	Never

32. Do you see to it that people in your work group are working up to their capacities?

0	1	2	3	4
Always	Often	Occasionally	Seldom	Never

33. Do you ask that your subordinates follow to the letter standard routines handed down to you?

0	1	2	3	4
Always	Often	Occasionally	Seldom	Never

34. Do you emphasize to your subordinates the meeting of deadlines?

0	1	2	3	4
A great deal	Fairly much	To some degree	Comparatively little	Not at all

35. The following is a list of seven different leadership styles. In the blanks to the right try to list the approximate percentage of time you utilize each of the seven leadership styles. (Try to make the %'s equal 100%.)

Leadership style	%
a. Manager makes decision and announces it.	_____
b. Manager "sells" decision.	_____
c. Manager presents ideas and invites questions.	_____

35. (Continued)

Leadership style	%
d. Manager presents tentative decision subject to change.	_____
e. Manager presents problem, gets ges-tions, makes decision.	_____
f. Manager defines limits; asks group to make decision.	_____
g. Manager permits subordinates to function within limits defined by superior.	_____

Questions 36 and 37 relate to decision making. Please read the questions carefully before answering.

36. The following is a list of situations in which decisions sometimes must be made. In the blanks to the right, try to list the approximate percentage of the time you make decisions in each type of situation. (Try to make the %'s equal 100%.)

Type of situation	Threat to your per-formance as comptroller	Time fuze	Your aware-ness ahead of time	%
a. Crisis	High	Short	Surprise	_____
b. Innovative	High	Extended	Surprise	_____
c. Inertia	Low	Extended	Surprise	_____
d. Circum-stantial	Low	Short	Surprise	_____
e. Reflexive	High	Short	Anticipated	_____
f. Delibera-tive	High	Extended	Anticipated	_____
g. Routine	Low	Extended	Anticipated	_____
h. Adminis-trative	Low	Short	Anticipated	_____

37. From the following list, check at least six words/phrases which pertain to the process you use as the Comptroller in making decisions concerning your organization and the command.

_____ unitary decision maker

_____ follow SOP/regulations

_____ personal interests

_____ prefer incremental change to current policy rather than radical change if possible

37. (Continued)

_____ state the objective

_____ develop alternatives

_____ sell the decision to the commander

_____ divide problem into factors to be divided among sub-units in the organization

_____ analyze each alternative (e.g., economic analysis, cost/benefit, etc.)

_____ effect of decision on my own career

_____ usually pick first acceptable alternative

_____ list assumptions concerning alternatives

_____ pick alternative which provides feedback

38. Briefly list those areas which gave you the most problems during your first hundred days in your present assignment as a comptroller. Please expound upon what you feel caused the problems. These problems can be of a technical (e.g., PPBS, cost analysis) or non technical (e.g., personnel relations, staff procedures) nature.

39. Do you have any advice for the new comptroller with regard to the first hundred days of the assignment? (This is the first area where you can help me the most. Use back of this page if necessary.)

Please answer the following questions which pertain to military officers in your comptroller organization serving their first tour in the comptrollership (45) specialty.

40. How many military officers in your comptroller organization are serving their first tour in the comptrollership specialty (i.e., the 45 specialty area)? _____

41. For all officers indicated in Question #40 above, please list the actual duty position they currently occupy and whether it is a supervisory position or not.

1st Officer _____

2nd Officer _____

3rd Officer _____

Additional Officers _____

_____

_____

42. Are there any non-technical areas involving Army comptrollership that you feel your military subordinates, serving their first tour within the 45 specialty area, could have been better prepared to handle? If so what are they and what are your recommendations for improving the training and/or performance of these junior comptrollers. (This is the other area where you can help me the most.) (Use the back of this page if necessary.) A "non exhaustive" list of organizational behavior areas is given below for reference.

1. Staff procedures
2. Leadership
3. Personnel relations
4. Management practices
5. Oral and written communication
6. Common sense
7. Other

APPENDIX E

TECHNOLOGY VS. STRUCTURE RELATIONSHIPS

TABLE 1

TECHNOLOGY VS STRUCTURE FOR OVERALL

	SPAN OF CONTROL	HIERARCHICAL LEVELS	CENTRAL-IZATION	FORMAL-IZATION
ROUTINENESS OF CONVERSION	-0.0058 P=0.473	0.2802 P=0.000	0.0805 P=0.176	0.1305 P=0.065
INPUT STANDARDIZATION	-0.0257 P=0.384	0.1356 P=0.058	0.1503 P=0.040	0.1778 P=0.019
INPUT PREDICTABILITY	-0.0754 P=0.192	0.0475 P=0.292	0.0744 P=0.195	0.0614 P=0.239
COMPLEXITY OF CONVERSION	-0.1180 P=0.086	-0.1208 P=0.081	0.0253 P=0.385	0.1497 P=0.041
AUTOMATION OF CONVERSION	0.0898 P=0.150	-0.1683 P=0.026	0.0774 P=0.185	0.0865 P=0.158
DISCRETION IN CONVERSION	-0.0302 P=0.364	-0.1215 P=0.080	-0.1951 P=0.011	0.0019 P=0.491
OUTPUT QUALITY CONTROL	-0.1140 P=0.094	0.0331 P=0.351	-0.0599 P=0.244	0.4343 P=0.000
PERFORMANCE EVALUATION	0.0114 P=0.448	0.0115 P=0.447	-0.0679 P=0.216	0.3892 P=0.000

	VERTICAL COMMUNICATIONS	INTER-DEPENDENCE	COORDI-NATION	SPECIAL-IZATION
ROUTINENESS OF CONVERSION	-0.049 P=0.285	0.0073 P=0.465	0.0322 P=0.352	-0.0351 P=0.340
INPUT STANDARDIZATION	0.1638 P=0.028	0.1343 P=0.059	0.1042 P=0.114	0.0859 P=0.160
INPUT PREDICTABILITY	0.0317 P=0.357	-0.0368 P=0.335	-0.0390 P=0.326	0.1299 P=0.066
COMPLEXITY OF CONVERSION	0.0683 P=0.215	0.1901 P=0.013	0.1414 P=0.050	0.1943 P=0.012
AUTOMATION OF CONVERSION	0.0244 P=0.389	0.2621 P=0.001	0.1114 P=0.098	0.2029 P=0.009
DISCRETION OF CONVERSION	0.0295 P=0.367	-0.0374 P=0.333	0.0539 P=0.267	0.0431 P=0.309
OUTPUT QUALITY CONTROL	0.2504 P=0.002	0.1961 P=0.011	0.3293 P=0.000	0.2642 P=0.001
PERFORMANCE EVALUATION	0.2998 P=0.000	0.1968 P=0.011	0.2924 P=0.000	0.0974 P=0.130

TABLE 1A

PARTIAL CORRELATION OF TECHNOLOGY VS STRUCTURE FOR OVERALL

	SPAN OF CONTROL	HIERARCHICAL LEVELS	CENTRAL-IZATION	FORMAL-IZATION
ROUTINENESS OF CONVERSION	0.0159 P=0.430	* 0.2495 P=0.002	0.3831 P=0.335	0.1207 P=0.088
INPUT STANDARDIZATION	-0.0120 P=0.447	0.1091 P=0.111	0.1514 P=0.045	0.0414 P=0.322
INPUT PREDICTABILITY	-0.0845 P=0.172	-0.0991 P=0.134	0.0196 P=0.414	-0.0410 P=0.324
COMPLEXITY OF CONVERSION	-0.1496 P=0.047	-0.0365 P=0.342	0.1012 P=0.129	0.0881 P=0.162
AUTOMATION OF CONVERSION	0.1236 P=0.083	-0.1778 P=0.023	0.0453 P=0.305	-0.0354 P=0.346
DISCRETION IN CONVERSION	-0.0185 P=0.418	-0.0912 P=0.154	* -0.2061 P=0.010	-0.0192 P=0.415
OUTPUT QUALITY CONTROL	-0.1228 P=0.085	-0.0073 P=0.468	-0.0863 P=0.167	* 0.2817 P=0.001
PERFORMANCE EVALUATION	0.0884 P=0.161	0.0441 P=0.311	-0.0752 P=0.200	* 0.2110 P=0.009

	VERTICAL COMMUNICATIONS	INTER-DEPENDENCE	COORD-NATION	SPECIAL-IZATION
ROUTINENESS OF CONVERSION	-0.0855 P=0.170	0.0241 P=0.394	0.0470 P=0.300	-0.0728 P=0.208
INPUT STANDARDIZATION	0.1120 P=0.105	0.0985 P=0.135	0.0407 P=0.325	-0.0217 P=0.404
INPUT PREDICTABILITY	-0.0565 P=0.264	-0.0998 P=0.132	-0.1106 P=0.138	0.1646 P=0.032
COMPLEXITY OF CONVERSION	-0.0022 P=0.490	0.1304 P=0.072	0.0556 P=0.267	0.1712 P=0.027
AUTOMATION OF CONVERSION	-0.0383 P=0.335	* 0.2188 P=0.007	0.0411 P=0.323	0.4177 P=0.049
DISCRETION OF CONVERSION	0.0106 P=0.453	-0.0806 P=0.184	0.0377 P=0.337	0.0168 P=0.426
OUTPUT QUALITY CONTROL	0.1374 P=0.062	0.1121 P=0.105	* 0.2253 P=0.005	* 0.2310 P=0.004
PERFORMANCE EVALUATION	* 0.1974 P=0.013	0.0524 P=0.279	0.1345 P=0.066	-0.1117 P=0.106

* INDICATES THOSE RELATIONSHIPS LISTED IN TABLE IV-1 AND DISCUSSED IN PREVIOUS CHAPTERS.

TABLE 2

TECHNOLOGY VS. STRUCTURE FOR MILITARY COMPTROLLERS

	SPAN OF CONTROL	HIERARCHICAL LEVELS	CENTRAL-IZATION	FORMAL-IZATION
ROUTINENESS OF CONVERSION	0.0722 P=0.261	0.1580 P=0.080	0.1141 P=0.154	0.0602 P=0.295
INPUT STANDARDIZATION	-0.0382 P=0.367	0.0956 P=0.198	0.1948 P=0.040	0.2692 P=0.007
INPUT PREDICTABILITY	-0.0216 P=0.424	-0.0504 P=0.328	0.0153 P=0.446	0.0804 P=0.236
COMPLEXITY OF CONVERSION	-0.1368 P=0.112	-0.0808 P=0.237	0.1554 P=0.082	0.1257 P=0.130
AUTOMATION OF CONVERSION	-0.0923 P=0.206	-0.1703 P=0.064	0.1738 P=0.059	0.0595 P=0.298
DISCRETION IN CONVERSION	0.1253 P=0.133	-0.1577 P=0.080	-0.1319 P=0.119	0.1059 P=0.172
OUTPUT QUALITY CONTROL	-0.2102 P=0.030	-0.0093 P=0.467	-0.0393 P=0.363	0.4182 P=0.000
PERFORMANCE EVALUATION	-0.0006 P=0.498	0.0758 P=0.251	0.0685 P=0.270	0.3595 P=0.000

	VERTICAL COMMUNICATIONS	INTER-DEPENDENCE	COORDI-NATION	SPECIAL-IZATION
ROUTINENESS OF CONVERSION	0.0656 P=0.279	0.0053 P=0.481	0.0264 P=0.407	-0.0963 P=0.195
INPUT STANDARDIZATION	0.2281 P=0.020	0.2137 P=0.027	0.1279 P=0.126	0.1232 P=0.135
INPUT PREDICTABILITY	-0.0019 P=0.493	0.1095 P=0.164	0.0155 P=0.445	0.2491 P=0.012
COMPLEXITY OF CONVERSION	-0.0478 P=0.335	0.1421 P=0.101	0.1315 P=0.119	0.0880 P=0.216
AUTOMATION OF CONVERSION	-0.0715 P=0.262	0.3238 P=0.001	0.0875 P=0.217	0.2220 P=0.022
DISCRETION IN CONVERSION	0.1221 P=0.137	0.0210 P=0.426	-0.0339 P=0.381	0.1992 P=0.036
OUTPUT QUALITY CONTROL	0.1735 P=0.060	0.0739 P=0.255	0.2290 P=0.019	0.2933 P=0.004
PERFORMANCE EVALUATION	0.1994 P=0.036	0.1649 P=0.069	0.2271 P=0.020	0.0978 P=0.191

TABLE 2A

PARTIAL CORRELATION OF TECHNOLOGY VS STRUCTURE FOR MILITARY COMPTROLLERS

	SPAN OF CONTROL	HIERARCHICAL LEVELS	CENTRAL-IZATION	FORMAL-IZATION
ROUTINENESS OF CONVERSION	0.0523 P=0.330	0.1304 P=0.136	0.1235 P=0.149	0.0617 P=0.302
INPUT STANDARDIZATION	0.0075 P=0.475	0.1445 P=0.111	0.2282 P=0.026	0.1605 P=0.087
INPUT PREDICTABILITY	-0.0425 P=0.361	-0.1469 P=0.108	-0.0881 P=0.229	-0.0775 P=0.257
COMPLEXITY OF CONVERSION	-0.1632 P=0.084	-0.0250 P=0.417	0.2118 P=0.036	0.0762 P=0.261
AUTOMATION OF CONVERSION	-0.0951 P=0.212	-0.1737 P=0.071	0.0975 P=0.206	-0.0569 P=0.316
DISCRETION IN CONVERSION	0.1865 P=0.057	-0.1138 P=0.169	-0.1931 P=0.051	0.1128 P=0.171
OUTPUT QUALITY CONTROL	-0.2413 P=0.020	-0.0768 P=0.259	-0.1259 P=0.144	* 0.2612 P=0.013
PERFORMANCE EVALUATION	0.1416 P=0.116	0.1108 P=0.175	0.0127 P=0.458	0.1545 P=0.096

	VERTICAL COMMUNICATIONS	INTER-DEPENDENCE	COORD-NATION	SPECIAL-IZATION
ROUTINENESS OF CONVERSION	0.0477 P=0.344	0.0226 P=0.425	0.0481 P=0.343	-0.1238 P=0.148
INPUT STANDARDIZATION	0.2193 P=0.031	0.1152 P=0.166	0.0505 P=0.336	-0.0778 P=0.256
INPUT PREDICTABILITY	-0.1874 P=0.056	-0.0031 P=0.490	-0.0634 P=0.297	* 0.2799 P=0.008
COMPLEXITY OF CONVERSION	-0.0834 P=0.241	0.1303 P=0.136	0.1110 P=0.175	0.0413 P=0.364
AUTOMATION OF CONVERSION	-0.1077 P=0.182	* 0.3106 P=0.004	0.0696 P=0.279	0.1533 P=0.096
DISCRETION IN CONVERSION	0.1688 P=0.077	-0.0588 P=0.311	-0.0698 P=0.279	0.1765 P=0.068
OUTPUT QUALITY CONTROL	0.0739 P=0.267	-0.0033 P=0.489	0.1377 P=0.123	* 0.2765 P=0.009
PERFORMANCE EVALUATION	0.1417 P=0.116	0.0532 P=0.327	0.0956 P=0.210	-0.1185 P=0.159

* INDICATES THOSE RELATIONSHIPS LISTED IN TABLE IV-1 AND DISCUSSED IN PREVIOUS CHAPTERS.

TABLE 3

TECHNOLOGY VS. STRUCTURE FOR CIVILIAN COMPTROLLERS

	SPAN OF CONTROL	HIERARCHICAL LEVELS	CENTRAL-IZATION	FORMAL-IZATION
ROUTINENESS OF CONVERSION	-0.0758 P=0.293	0.4272 P=0.001	0.0 P=0.500	0.2521 P=0.033
INPUT STANDARDIZATION	0.0051 P=0.486	0.2226 P=0.053	0.0153 P=0.456	0.0566 P=0.342
INPUT PREDICTABILITY	-0.1167 P=0.200	0.2104 P=0.063	0.0632 P=0.325	0.1561 P=0.130
COMPLEXITY OF CONVERSION	-0.1083 P=0.218	-0.1884 P=0.086	-0.1863 P=0.089	0.1626 P=0.120
AUTOMATION OF CONVERSION	0.3390 P=0.006	-0.1973 P=0.076	-0.0048 P=0.486	0.0472 P=0.367
DISCRETION IN CONVERSION	-0.2067 P=0.067	-0.0713 P=0.304	-0.3380 P=0.006	-0.1146 P=0.205
OUTPUT QUALITY CONTROL	-0.0075 P=0.478	0.0858 P=0.269	-0.0645 P=0.322	0.4446 P=0.000
PERFORMANCE EVALUATION	-0.0022 P=0.494	-0.1109 P=0.212	-0.2485 P=0.035	0.3928 P=0.002

	VERTICAL COMMUNICATIONS	INTER-DEPENDENCE	COORDI-NATION	SPECIAL-IZATION
ROUTINENESS OF CONVERSION	-0.1831 P=0.093	0.0973 P=0.242	0.0935 P=0.251	0.0338 P=0.404
INPUT STANDARDIZATION	0.0562 P=0.343	0.0472 P=0.367	0.0919 P=0.254	0.0210 P=0.440
INPUT PREDICTABILITY	0.1372 P=0.161	-0.0548 P=0.347	-0.0169 P=0.452	-0.0312 P=0.411
COMPLEXITY OF CONVERSION	0.2535 P=0.032	0.2444 P=0.037	0.1311 P=0.172	0.3646 P=0.003
AUTOMATION OF CONVERSION	0.1640 P=0.118	-0.0692 P=0.309	0.0593 P=0.335	0.1929 P=0.081
DISCRETION IN CONVERSION	-0.0949 P=0.247	-0.0876 P=0.264	0.2783 P=0.021	-0.1655 P=0.116
OUTPUT QUALITY CONTROL	0.3594 P=0.004	0.3976 P=0.001	0.5386 P=0.000	0.2271 P=0.049
PERFORMANCE EVALUATION	0.4759 P=0.000	0.0615 P=0.329	0.3739 P=0.003	0.1096 P=0.215

TABLE 3A

PARTIAL CORRELATIONS OF TECHNOLOGY VS STRUCTURE FOR CIVILIAN COMPTROLLERS

	SPAN OF CONTROL	HIERARCHICAL LEVELS	CENTRAL-IZATION	FORMAL-IZATION
ROUTINENESS OF CONVERSION	-0.1167 P=0.217	* 0.3489 P=0.008	-0.0694 P=0.322	0.2748 P=0.031
INPUT STANDARDIZATION	0.0992 P=0.254	0.0431 P=0.387	0.0220 P=0.442	-0.2052 P=0.083
INPUT PREDICTABILITY	-0.1762 P=0.118	-0.0041 P=0.489	0.0337 P=0.411	0.0742 P=0.310
COMPLEXITY OF CONVERSION	-0.2632 P=0.037	-0.0612 P=0.341	-0.1379 P=0.178	0.1692 P=0.128
AUTOMATION OF CONVERSION	* 0.3975 P=0.003	-0.2079 P=0.080	0.0755 P=0.307	-0.1803 P=0.113
DISCRETION IN CONVERSION	-0.1817 P=0.111	-0.0257 P=0.432	-0.2689 P=0.034	-0.2349 P=0.056
OUTPUT QUALITY CONTROL	0.0077 P=0.479	0.0809 P=0.294	0.0430 P=0.387	0.2216 P=0.067
PERFORMANCE EVALUATION	-0.0142 P=0.462	-0.0890 P=0.276	-0.1786 P=0.115	* 0.3355 P=0.011

	VERTICAL COMMUNICATIONS	INTER-DEPENDENCE	COORD-NATION	SPECIAL-IZATION
ROUTINENESS OF CONVERSION	-0.3067 P=0.018	0.0710 P=0.318	0.0068 P=0.482	0.0465 P=0.378
INPUT STANDARDIZATION	-0.0084 P=0.478	0.0450 P=0.382	0.0828 P=0.290	-0.0149 P=0.460
INPUT PREDICTABILITY	0.2125 P=0.076	-0.1350 P=0.183	-0.1649 P=0.134	-0.0094 P=0.475
COMPLEXITY OF CONVERSION	0.1817 P=0.111	0.2441 P=0.049	-0.0403 P=0.394	0.3303 P=0.012
AUTOMATION OF CONVERSION	-0.0175 P=0.454	-0.2281 P=0.062	-0.0725 P=0.314	0.0469 P=0.377
DISCRETION IN CONVERSION	-0.2296 P=0.060	-0.0996 P=0.253	0.3090 P=0.017	-0.2054 P=0.083
OUTPUT QUALITY CONTROL	0.1710 P=0.125	* 0.4055 P=0.002	* 0.4973 P=0.000	0.1245 P=0.202
PERFORMANCE EVALUATION	* 0.3707 P=0.005	-0.1235 P=0.204	0.0784 P=0.300	-0.0015 P=0.496

* INDICATES THOSE RELATIONSHIPS LISTED IN TABLE IV-1 AND DISCUSSED IN PREVIOUS CHAPTERS.

TABLE 4

TECHNOLOGY VS. STRUCTURE FOR FINANCE OFFICERS

	SPAN OF CONTROL	HIERARCHICAL LEVELS	CENTRAL-IZATION	FORMAL-IZATION
ROUTINENESS OF CONVERSION	0.0187 P=0.461	0.0899 P=0.321	-0.2143 P=0.128	0.1603 P=0.199
INPUT STANDARDIZATION	-0.1068 P=0.287	-0.1215 P=0.265	0.0364 P=0.424	0.3695 P=0.022
INPUT PREDICTABILITY	0.0510 P=0.394	-0.0262 P=0.446	-0.2780 P=0.068	0.1569 P=0.204
COMPLEXITY OF CONVERSION	-0.4153 P=0.011	-0.3259 P=0.042	0.2472 P=0.094	0.3162 P=0.044
AUTOMATION OF CONVERSION	-0.2021 P=0.142	-0.2652 P=0.082	0.1384 P=0.233	0.1107 P=0.280
DISCRETION OF CONVERSION	-0.2879 P=0.061	-0.3805 P=0.021	-0.0565 P=0.383	0.2123 P=0.130
OUTPUT QUALITY CONTROL	-0.3983 P=0.015	0.0339 P=0.431	0.1041 P=0.292	0.4835 P=0.003
PERFORMANCE EVALUATION	-0.0444 P=0.408	-0.0228 P=0.453	-0.0309 P=0.436	0.5923 P=0.000

	VERTICAL COMMUNICATIONS	INTER-DEPENDENCE	COORDI-NATION	SPECIAL-IZATION
ROUTINENESS OF CONVERSION	0.1046 P=0.291	0.0783 P=0.340	-0.1408 P=0.229	-0.1484 P=0.217
INPUT STANDARDIZATION	0.3790 P=0.019	0.3761 P=0.020	0.1280 P=0.250	0.1816 P=0.168
INPUT PREDICTABILITY	0.1024 P=0.295	0.2493 P=0.092	-0.0454 P=0.406	0.2467 P=0.094
COMPLEXITY OF CONVERSION	0.0737 P=0.349	0.0773 P=0.342	0.3049 P=0.051	0.2312 P=0.109
AUTOMATION OF CONVERSION	0.1342 P=0.240	0.5680 P=0.001	0.3700 P=0.022	0.2104 P=0.132
DISCRETION OF CONVERSION	0.1056 P=0.289	0.1556 P=0.206	-0.0197 P=0.459	-0.0328 P=0.432
OUTPUT QUALITY CONTROL	0.3427 P=0.032	0.1654 P=0.191	0.2714 P=0.073	0.4077 P=0.013
PERFORMANCE EVALUATION	0.3038 P=0.051	0.3618 P=0.025	0.2665 P=0.077	0.3140 P=0.046

TABLE 4A

PARTIAL CORRELATIONS OF TECHNOLOGY VS STRUCTURE FOR FINANCE OFFICERS

	SPAN OF CONTROL	HIERARCHICAL LEVELS	CENTRAL-IZATION	FORMAL-IZATION
ROUTINENESS OF CONVERSION	-0.0468 P=0.418	0.0982 P=0.332	-0.1207 P=0.296	0.3919 P=0.036
INPUT STANDARDIZATION	-0.1359 P=0.273	-0.1755 P=0.217	0.2522 P=0.129	0.2917 P=0.094
INPUT PREDICTABILITY	0.1639 P=0.233	0.0255 P=0.455	-0.3827 P=0.039	-0.1701 P=0.225
COMPLEXITY OF CONVERSION	-0.1638 P=0.233	-0.3325 P=0.065	0.0777 P=0.366	0.3517 P=0.054
AUTOMATION OF CONVERSION	-0.2174 P=0.166	-0.1993 P=0.187	0.1814 P=0.210	-0.1481 P=0.255
DISCRETION OF CONVERSION	-0.1980 P=0.189	-0.3186 P=0.074	-0.1828 P=0.208	0.1019 P=0.326
OUTPUT QUALITY CONTROL	-0.3307 P=0.066	0.2875 P=0.097	0.0978 P=0.332	0.0323 P=0.443
PERFORMANCE EVALUATION	0.2194 P=0.163	-0.0363 P=0.436	-0.0521 P=0.409	* 0.5275 P=0.006

	VERTICAL COMMUNICATIONS	INTER-DEPENDENCE	COORD-NATION	SPECIAL-IZATION
ROUTINENESS OF CONVERSION	0.1496 P=0.253	0.0408 P=0.428	-0.0759 P=0.369	-0.1314 P=0.280
INPUT STANDARDIZATION	0.3299 P=0.067	0.2151 P=0.168	0.0945 P=0.338	-0.0760 P=0.368
INPUT PREDICTABILITY	-0.2357 P=0.144	-0.1657 P=0.231	-0.2737 P=0.109	0.1839 P=0.206
COMPLEXITY OF CONVERSION	-0.0093 P=0.484	0.0493 P=0.414	0.2159 P=0.167	0.0768 P=0.367
AUTOMATION OF CONVERSION	0.0990 P=0.331	* 0.5592 P=0.003	0.4570 P=0.016	0.1044 P=0.322
DISCRETION OF CONVERSION	0.0794 P=0.363	0.1253 P=0.289	-0.1431 P=0.263	-0.1218 P=0.295
OUTPUT QUALITY CONTROL	0.1857 P=0.204	-0.0817 P=0.359	0.0440 P=0.423	0.2425 P=0.138
PERFORMANCE EVALUATION	0.0622 P=0.392	0.2342 P=0.147	0.1564 P=0.243	0.0879 P=0.349

* INDICATES THOSE RELATIONSHIPS LISTED IN TABLE IV-1 AND DISCUSSED IN PREVIOUS CHAPTERS.

TABLE 5

TECHNOLOGY VS. STRUCTURE FOR NON-FINANCE OFFICERS

	SPAN OF CONTROL	HIERARCHICAL LEVELS	CENTRAL-IZATION	FORMAL-IZATION
ROUTINENESS OF CONVERSION	0.1256 P=0.192	0.2399 P=0.045	0.2963 P=0.017	0.0174 P=0.452
INPUT STANDARDIZATION	-0.0938 P=0.259	0.2241 P=0.057	0.3472 P=0.006	0.1585 P=0.133
INPUT PREDICTABILITY	-0.1325 P=0.180	-0.0915 P=0.262	0.1866 P=0.095	0.0039 P=0.489
COMPLEXITY OF CONVERSION	-0.0176 P=0.452	0.0733 P=0.305	0.0995 P=0.244	0.0079 P=0.478
AUTOMATION OF CONVERSION	0.0002 P=0.500	-0.1272 P=0.187	0.2215 P=0.059	0.0242 P=0.433
DISCRETION IN CONVERSION	0.2679 P=0.030	-0.1097 P=0.222	-0.1400 P=0.164	0.0104 P=0.471
OUTPUT QUALITY CONTROL	-0.2544 P=0.037	-0.0755 P=0.299	-0.0876 P=0.271	0.3596 P=0.005
PERFORMANCE EVALUATION	-0.0660 P=0.324	0.1116 P=0.218	0.1304 P=0.181	0.1962 P=0.084

	VERTICAL COMMUNICATIONS	INTER-DEPENDENCE	COORDI-NATION	SPECIAL-IZATION
ROUTINENESS OF CONVERSION	0.0617 P=0.334	-0.0135 P=0.462	0.1485 P=0.149	0.0471 P=0.371
INPUT STANDARDIZATION	0.0773 P=0.295	0.0452 P=0.376	0.0748 P=0.301	-0.0482 P=0.369
INPUT PREDICTABILITY	-0.1116 P=0.218	-0.0031 P=0.491	0.0112 P=0.469	0.2437 P=0.042
COMPLEXITY OF CONVERSION	-0.1389 P=0.165	0.2012 P=0.078	0.0222 P=0.439	0.0433 P=0.381
AUTOMATION OF CONVERSION	-0.1864 P=0.095	0.1454 P=0.154	-0.0706 P=0.311	0.1743 P=0.111
DISCRETION OF CONVERSION	0.0881 P=0.269	-0.1085 P=0.224	-0.0914 P=0.262	0.2051 P=0.074
OUTPUT QUALITY CONTROL	0.0263 P=0.427	-0.0087 P=0.476	0.1540 P=0.140	0.2012 P=0.078
PERFORMANCE EVALUATION	0.0870 P=0.272	0.0218 P=0.440	0.1606 P=0.130	-0.0760 P=0.298

TABLE 5A

PARTIAL CORRELATIONS OF TECHNOLOGY VS STRUCTURE

FOR NON-FINANCE OFFICERS

	SPAN OF CONTROL	HIERARCHICAL LEVELS	CENTRAL-IZATION	FORMAL-IZATION
ROUTINENESS OF CONVERSION	0.1932 P=0.107	0.1708 P=0.137	0.2393 P=0.061	-0.0527 P=0.369
INPUT STANDARDIZATION	-0.0037 P=0.491	0.2780 P=0.036	0.2132 P=0.085	0.1148 P=0.232
INPUT PREDICTABILITY	-0.1698 P=0.138	-0.2558 P=0.049	0.0850 P=0.294	-0.0508 P=0.373
COMPLEXITY OF CONVERSION	-0.1314 P=0.200	0.1287 P=0.205	0.1362 P=0.192	0.0413 P=0.396
AUTOMATION OF CONVERSION	0.0152 P=0.461	-0.1967 P=0.103	0.2150 P=0.083	-0.0857 P=0.292
DISCRETION IN CONVERSION	0.2966 P=0.027	-0.0679 P=0.333	-0.1561 P=0.159	0.0722 P=0.323
OUTPUT QUALITY CONTROL	-0.2527 P=0.051	-0.1686 P=0.140	-0.2223 P=0.076	0.2689 P=0.041
PERFORMANCE EVALUATION	0.0526 P=0.369	0.0851 P=0.294	0.0525 P=0.369	0.0313 P=0.421

	VERTICAL COMMUNICATIONS	INTER-DEPENDENCE	COORD-NATION	SPECIAL-IZATION
ROUTINENESS OF CONVERSION	-0.0176 P=0.455	0.0400 P=0.399	0.1204 P=0.221	0.1238 P=0.214
INPUT STANDARDIZATION	0.1581 P=0.156	0.0091 P=0.477	-0.0100 P=0.475	-0.2246 P=0.074
INPUT PREDICTABILITY	-0.2390 P=0.061	0.0128 P=0.467	-0.0407 P=0.398	* 0.3640 P=0.008
COMPLEXITY OF CONVERSION	-0.1974 P=0.102	0.2292 P=0.703	0.0568 P=0.359	0.1242 P=0.214
AUTOMATION OF CONVERSION	-0.1869 P=0.115	0.1460 P=0.175	-0.0703 P=0.327	0.1901 P=0.111
DISCRETION OF CONVERSION	0.1790 P=0.125	-0.1897 P=0.112	-0.0792 P=0.307	0.2024 P=0.096
OUTPUT QUALITY CONTROL	-0.0517 P=0.371	0.0549 P=0.363	0.1022 P=0.257	0.3089 P=0.022
PERFORMANCE EVALUATION	0.1834 P=0.120	-0.0737 P=0.319	0.0823 P=0.300	-0.2837 P=0.033

* INDICATES THOSE RELATIONSHIPS LISTED IN TABLE IV-1 AND DISCUSSED IN PREVIOUS CHAPTERS.

TABLE 6

TECHNOLOGY VS STRUCTURE FOR USAREUR

	SPAN OF CONTROL	HIERARCHICAL LEVELS	CENTRAL-IZATION	FORMAL-IZATION
ROUTINENESS OF CONVERSION	0.1976 P=0.305	0.2500 P=0.258	0.3750 P=0.160	-0.0287 P=0.471
INPUT STANDARDIZATION	-0.3162 P=0.204	-0.5000 P=0.085	0.0 P=0.500	0.2294 P=0.276
INPUT PREDICTABILITY	-0.3162 P=0.204	-0.2500 P=0.258	0.3750 P=0.160	-0.2294 P=0.276
COMPLEXITY OF CONVERSION	-0.4581 P=0.107	0.1525 P=0.348	0.5719 P=0.054	-0.0175 P=0.482
AUTOMATION OF CONVERSION	-0.1118 P=0.387	0.0 P=0.500	0.3536 P=0.175	-0.4867 P=0.092
DISCRETION IN CONVERSION	-0.3508 P=0.177	-0.2774 P=0.235	0.6240 P=0.036	0.1273 P=0.372
OUTPUT QUALITY CONTROL	0.4716 P=0.100	-0.1147 P=0.384	0.5162 P=0.077	0.2895 P=0.225
PERFORMANCE EVALUATION	0.1356 P=0.364	0.4287 P=0.125	0.5145 P=0.078	-0.1967 P=0.306

	VERTICAL COMMUNICATIONS	INTER-DEPENDENCE	COORDI-NATION	SPECIAL-IZATION
ROUTINENESS OF CONVERSION	0.2362 P=0.270	-0.3814 P=0.156	-0.2652 P=0.245	-0.4490 P=0.113
INPUT STANDARDIZATION	-0.1890 P=0.313	0.1387 P=0.361	0.3536 P=0.175	0.0898 P=0.409
INPUT PREDICTABILITY	-0.6614 P=0.026	0.6934 P=0.019	0.5303 P=0.071	0.0449 P=0.454
COMPLEXITY OF CONVERSION	0.1441 P=0.356	0.1480 P=0.352	0.4852 P=0.093	0.4656 P=0.103
AUTOMATION OF CONVERSION	0.0 P=0.500	0.2942 P=0.221	0.2500 P=0.258	0.1905 P=0.312
DISCRETION IN CONVERSION	-0.1048 P=0.394	0.6538 P=0.028	0.8825 P=0.001	0.4234 P=0.128
OUTPUT QUALITY CONTROL	0.3468 P=0.180	0.2704 P=0.241	0.7300 P=0.013	0.6387 P=0.032
PERFORMANCE EVALUATION	0.4537 P=0.110	-0.3686 P=0.164	-0.1819 P=0.320	-0.1694 P=0.332

TABLE 6A

PARTIAL CORRELATIONS OF TECHNOLOGY VS STRUCTURE FOR USAREUR

SEVENTH ORDER PARTIAL CORRELATIONS WERE NOT POSSIBLE DUE TO THE SMALL SAMPLE SIZE.

TABLE 7

TECHNOLOGY VS. STRUCTURE FOR FORSCOM

	SPAN OF CONTROL	HIERARCHICAL LEVELS	CENTRAL-IZATION	FORMAL-IZATION
ROUTINENESS OF CONVERSION	0.2017 P=0.156	0.4433 P=0.010	0.0326 P=0.435	0.0000 P=0.500
INPUT STANDARDIZATION	-0.0781 P=0.349	0.1781 P=0.187	0.0906 P=0.323	0.3374 P=0.040
INPUT PREDICTABILITY	0.0511 P=0.400	0.0989 P=0.312	-0.2284 P=0.121	-0.1055 P=0.297
COMPLEXITY OF CONVERSION	0.2549 P=0.100	-0.1001 P=0.310	0.1116 P=0.286	0.1039 P=0.299
AUTOMATION OF CONVERSION	-0.2812 P=0.078	-0.1306 P=0.258	0.3355 P=0.040	0.3189 P=0.049
DISCRETION IN CONVERSION	0.0719 P=0.361	-0.1590 P=0.214	-0.4547 P=0.008	0.0000 P=0.500
OUTPUT QUALITY CONTROL	-0.1444 P=0.236	-0.1298 P=0.259	-0.0058 P=0.488	0.4932 P=0.004
PERFORMANCE EVALUATION	0.0753 P=0.355	-0.0261 P=0.449	0.2108 P=0.141	0.4486 P=0.008

	VERTICAL COMMUNICATIONS	INTER-DEPENDENCE	COORDI-NATION	SPECIAL-IZATION
ROUTINENESS OF CONVERSION	-0.1244 P=0.264	-0.0218 P=0.456	0.1456 P=0.230	-0.3685 P=0.027
INPUT STANDARDIZATION	0.3151 P=0.051	0.2461 P=0.103	0.1103 P=0.288	0.1301 P=0.255
INPUT PREDICTABILITY	0.0318 P=0.436	-0.2042 P=0.149	-0.2781 P=0.076	0.3414 P=0.038
COMPLEXITY OF CONVERSION	0.0376 P=0.425	-0.0659 P=0.369	0.0240 P=0.452	0.0980 P=0.310
AUTOMATION OF CONVERSION	0.0884 P=0.327	0.4916 P=0.004	0.1338 P=0.249	0.2910 P=0.066
DISCRETION IN CONVERSION	0.1870 P=0.170	0.1312 P=0.253	-0.0896 P=0.325	0.4616 P=0.007
OUTPUT QUALITY CONTROL	0.2749 P=0.078	-0.0352 P=0.429	0.1921 P=0.164	0.2667 P=0.085
PERFORMANCE EVALUATION	0.4258 P=0.012	0.3237 P=0.046	0.3172 P=0.050	0.2186 P=0.132

TABLE 7A

PARTIAL CORRELATIONS OF TECHNOLOGY VS STRUCTURE FOR FORSCOM

	SPAN OF CONTROL	HIERARCHICAL LEVELS	CENTRAL-IZATION	FORMAL-IZATION
ROUTINENESS OF CONVERSION	0.0937 P=0.351	0.3207 P=0.090	0.1118 P=0.324	0.1892 P=0.219
INPUT STANDARDIZATION	-0.1471 P=0.274	0.1574 P=0.260	-0.3046 P=0.102	0.1002 P=0.342
INPUT PREDICTABILITY	0.0830 P=0.368	-0.0278 P=0.455	-0.1664 P=0.248	-0.2133 P=0.190
COMPLEXITY OF CONVERSION	-0.2103 P=0.194	0.0928 P=0.353	-0.1670 P=0.247	-0.0482 P=0.422
AUTOMATION OF CONVERSION	-0.2502 P=0.151	-0.0923 P=0.353	0.4414 P=0.029	0.2508 P=0.150
DISCRETION IN CONVERSION	0.0894 P=0.358	-0.0004 * P=0.499	-0.6792 P=0.001	0.0195 P=0.468
OUTPUT QUALITY CONTROL	-0.1546 P=0.264	-0.1229 P=0.308	0.1442 P=0.278	0.3651 P=0.062
PERFORMANCE EVALUATION	0.2086 P=0.122	-0.0473 P=0.424	0.4733 P=0.020	0.0730 P=0.383

	VERTICAL COMMUNICATIONS	INTER-DEPENDENCE	COORD-NATION	SPECIAL-IZATION
ROUTINENESS OF CONVERSION	-0.0605 P=0.403	0.2173 P=0.186	0.3191 P=0.092	-0.3220 P=0.089
INPUT STANDARDIZATION	0.0145 P=0.476	-0.0867 P=0.362	-0.1837 P=0.226	0.0597 P=0.404
INPUT PREDICTABILITY	-0.0652 P=0.395	-0.3180 P=0.092	-0.3001 P=0.106	0.4931 P=0.016
COMPLEXITY OF CONVERSION	-0.1124 P=0.323	-0.2191 P=0.184	-0.0990 P=0.343	0.0749 P=0.380
AUTOMATION OF CONVERSION	0.0395 P=0.436	* 0.5729 P=0.005	0.2673 P=0.134	0.1039 P=0.336
DISCRETION IN CONVERSION	0.0543 P=0.413	-0.0059 P=0.490	-0.1676 P=0.246	* 0.5191 P=0.011
OUTPUT QUALITY CONTROL	0.2208 P=0.182	0.1359 P=0.290	0.2726 P=0.129	0.0003 P=0.499
PERFORMANCE EVALUATION	0.3085 P=0.099	0.2649 P=0.137	0.2773 P=0.125	-0.0802 P=0.372

* INDICATES THOSE RELATIONSHIPS LISTED IN TABLE IV-1 AND DISCUSSED IN PREVIOUS CHAPTERS.

TABLE 8

TECHNOLOGY VS STRUCTURE FOR DARCOM

	SPAN OF CONTROL	HIERARCHICAL LEVELS	CENTRAL-IZATION	FORMAL-IZATION
ROUTINENESS OF CONVERSION	-0.2534 P=0.092	0.0865 P=0.328	-0.1143 P=0.278	0.3142 P=0.048
INPUT STANDARDIZATION	0.0057 P=0.488	-0.1307 P=0.250	-0.1538 P=0.213	0.3761 P=0.022
INPUT PREDICTABILITY	-0.1376 P=0.238	-0.0681 P=0.363	-0.2412 P=0.104	0.3306 P=0.040
COMPLEXITY OF CONVERSION	0.1638 P=0.198	-0.2593 P=0.087	-0.2592 P=0.087	0.0438 P=0.411
AUTOMATION OF CONVERSION	0.5205 P=0.002	-0.2658 P=0.082	-0.0290 P=0.441	0.2324 P=0.113
DISCRETION IN CONVERSION	0.0343 P=0.430	-0.0509 P=0.396	-0.1220 P=0.264	0.0521 P=0.394
OUTPUT QUALITY CONTROL	-0.0410 P=0.416	0.1639 P=0.198	-0.0396 P=0.419	0.5192 P=0.002
PERFORMANCE EVALUATION	0.4928 P=0.003	-0.0198 P=0.459	-0.2178 P=0.128	0.5596 P=0.001

	VERTICAL COMMUNICATIONS	INTER-DEPENDENCE	COORDI-NATION	SPECIAL-IZATION
ROUTINENESS OF CONVERSION	0.0724 P=0.355	0.2236 P=0.122	-0.0500 P=0.398	0.0735 P=0.352
INPUT STANDARDIZATION	0.3496 P=0.031	0.3140 P=0.049	0.1038 P=0.296	0.0554 P=0.388
INPUT PREDICTABILITY	0.4169 P=0.012	0.3494 P=0.032	0.2392 P=0.106	-0.0117 P=0.476
COMPLEXITY OF CONVERSION	0.0760 P=0.348	0.0540 P=0.390	-0.0581 P=0.382	0.3640 P=0.026
AUTOMATION OF CONVERSION	0.2847 P=0.067	0.1286 P=0.253	-0.0395 P=0.419	0.4786 P=0.004
DISCRETION IN CONVERSION	0.2738 P=0.075	-0.0522 P=0.394	0.1812 P=0.173	0.1165 P=0.274
OUTPUT QUALITY CONTROL	0.2900 P=0.064	0.4437 P=0.008	0.5941 P=0.000	0.3350 P=0.038
PERFORMANCE EVALUATION	0.5638 P=0.001	0.2634 P=0.079	0.3540 P=0.030	0.2267 P=0.118

TABLE 8A

PARTIAL CORRELATIONS OF TECHNOLOGY VS STRUCTURE FOR DARCOM

	SPAN OF CONTROL	HIERARCHICAL LEVELS	CENTRAL-IZATION	FORMAL-IZATION
ROUTINENESS OF CONVERSION	-0.2169 P=0.166	0.1909 P=0.197	-0.1420 P=0.264	0.2776 P=0.105
INPUT STANDARDIZATION	0.0938 P=0.339	-0.1505 P=0.252	0.1014 P=0.327	0.1736 P=0.220
INPUT PREDICTABILITY	-0.2742 P=0.108	-0.0742 P=0.371	-0.1592 P=0.240	-0.1874 P=0.202
COMPLEXITY OF CONVERSION	-0.3495 P=0.055	-0.2040 P=0.181	-0.2806 P=0.103	-0.1344 P=0.275
AUTOMATION OF * CONVERSION	0.5189 P=0.007	-0.2695 P=0.113	0.1737 P=0.220	-0.0289 P=0.449
DISCRETION IN CONVERSION	0.1206 P=0.296	0.0160 P=0.472	0.0488 P=0.415	-0.0087 P=0.485
OUTPUT QUALITY CONTROL	-0.2671 P=0.115	0.1274 P=0.286	0.1199 P=0.298	0.3654 P=0.047
PERFORMANCE * EVALUATION	0.5117 P=0.007	0.2157 P=0.168	-0.1464 P=0.258	0.4518 P=0.017

	VERTICAL COMMUNICATIONS	INTER-DEPENDENCE	COORD-NATION	SPECIAL-IZATION
ROUTINENESS OF CONVERSION	-0.1294 P=0.283	-0.0254 P=0.455	-0.2792 P=0.104	0.0441 P=0.423
INPUT STANDARDIZATION	0.0085 P=0.485	0.0871 P=0.350	-0.0711 P=0.377	0.1699 P=0.225
INPUT PREDICTABILITY	0.1693 P=0.226	0.1355 P=0.274	0.1790 P=0.213	-0.1910 P=0.196
COMPLEXITY OF CONVERSION	-0.2776 P=0.105	0.0783 P=0.365	-0.2818 P=0.102	0.2179 P=0.165
AUTOMATION OF CONVERSION	0.2005 P=0.185	0.0211 P=0.463	-0.0784 P=0.364	0.3772 P=0.042
DISCRETION IN CONVERSION	0.2282 P=0.153	-0.2074 P=0.177	0.0910 P=0.344	0.0451 P=0.421
OUTPUT QUALITY CONTROL	0.0573 P=0.400	0.3939 * P=0.035	0.5557 * P=0.004	0.3453 P=0.058
PERFORMANCE EVALUATION	0.3705 P=0.045	-0.0205 P=0.464	0.1718 P=0.222	-0.1369 P=0.272

* INDICATES THOSE RELATIONSHIPS LISTED IN TABLE IV-1 AND DISCUSSED IN PREVIOUS CHAPTERS.

TABLE 9

TECHNOLOGY VS STRUCTURE FOR TRADOC

	SPAN OF CONTROL	HIERARCHICAL LEVELS	CENTRAL-IZATION	FORMAL-IZATION
ROUTINENESS OF CONVERSION	0.1324 P=0.294	0.2370 P=0.164	0.3632 P=0.063	0.1752 P=0.237
INPUT STANDARDIZATION	-0.2386 P=0.163	0.3143 P=0.095	0.4619 P=0.023	-0.1193 P=0.313
INPUT PREDICTABILITY	-0.3258 P=0.087	0.1121 P=0.324	0.4737 P=0.020	0.1485 P=0.272
COMPLEXITY OF CONVERSION	0.1071 P=0.331	-0.2369 P=0.164	0.0 P=0.500	-0.3052 P=0.102
AUTOMATION OF CONVERSION	0.1993 P=0.207	0.0706 P=0.387	0.0456 P=0.427	-0.1040 P=0.336
DISCRETION IN CONVERSION	0.2290 P=0.173	-0.3110 P=0.097	-0.5034 P=0.014	0.0894 P=0.358
OUTPUT QUALITY CONTROL	0.1849 P=0.224	0.3811 P=0.054	0.1805 P=0.230	-0.0402 P=0.435
PERFORMANCE EVALUATION	-0.0929 P=0.353	-0.3037 P=0.103	-0.1117 P=0.324	0.1036 P=0.337

	VERTICAL COMMUNICATIONS	INTER-DEPENDENCE	COORDI-NATION	SPECIAL-IZATION
ROUTINENESS OF CONVERSION	-0.2805 P=0.122	0.0163 P=0.474	0.0089 P=0.486	0.2570 P=0.144
INPUT STANDARDIZATION	0.1767 P=0.235	-0.0175 P=0.472	0.1038 P=0.336	0.2252 P=0.177
INPUT PREDICTABILITY	0.4425 P=0.029	0.0651 P=0.396	-0.0163 P=0.474	0.4514 P=0.026
COMPLEXITY OF CONVERSION	-0.2762 P=0.126	0.2468 P=0.154	0.3022 P=0.104	-0.3425 P=0.076
AUTOMATION OF CONVERSION	0.0118 P=0.481	-0.0788 P=0.374	-0.0429 P=0.431	-0.2699 P=0.132
DISCRETION IN CONVERSION	-0.0315 P=0.449	-0.2852 P=0.118	-0.1345 P=0.292	-0.3902 P=0.049
OUTPUT QUALITY CONTROL	0.0909 P=0.356	-0.0433 P=0.430	0.1724 P=0.240	0.1277 P=0.301
PERFORMANCE EVALUATION	-0.2344 P=0.167	0.2885 P=0.115	0.4218 P=0.036	0.1615 P=0.255

TABLE 9A

PARTIAL CORRELATIONS OF TECHNOLOGY VS STRUCTURE FOR TRADOC

	SPAN OF CONTROL		HIERARCHICAL LEVELS	CENTRAL-IZATION	FORMAL-IZATION
ROUTINENESS OF CONVERSION	0.1125 P=0.364		-0.2233 P=0.243	0.4432 P=0.075	-0.0734 P=0.410
INPUT STANDARDIZATION	-0.4066 P=0.095		-0.4543 P=0.069	0.4091 P=0.093	-0.3347 P=0.144
INPUT PREDICTABILITY	-0.1196 P=0.356		0.3519 P=0.131	0.3090 P=0.164	0.3487 P=0.133
COMPLEXITY OF CONVERSION	-0.0872 P=0.394		-0.4011 P=0.098	0.4851 P=0.055	-0.4916 P=0.052
AUTOMATION OF CONVERSION	0.1819 P=0.286		0.2547 P=0.212	0.2775 P=0.191	0.0317 P=0.461
DISCRETION IN CONVERSION	0.0684 P=0.416		-0.4111 P=0.092	-0.5758 P=0.025	0.3288 P=0.148
OUTPUT QUALITY CONTROL	0.3493 P=0.133	*	0.7368 P=0.003	-0.0573 P=0.430	0.2383 P=0.228
PERFORMANCE EVALUATION	-0.3757 P=0.114	*	-0.7108 P=0.005	-0.2547 P=0.212	0.2563 P=0.211
	VERTICAL COMMUNICATIONS		INTER-DEPENDENCE	COORD-NATION	SPECIAL-IZATION
ROUTINENESS OF CONVERSION	-0.4202 P=0.087		0.2516 P=0.215	0.1428 P=0.329	-0.1591 P=0.311
INPUT STANDARDIZATION	0.1064 P=0.371		0.2922 P=0.178	0.2851 P=0.185	-0.2049 P=0.261
INPUT PREDICTABILITY	-0.5551 P=0.031		-0.1808 P=0.287	-0.0844 P=0.397	0.5424 P=0.034
COMPLEXITY OF CONVERSION	-0.3777 P=0.113		0.4486 P=0.072	0.3619 P=0.124	-0.4415 P=0.075
AUTOMATION OF CONVERSION	-0.1536 P=0.317		-0.0850 P=0.396	-0.1228 P=0.352	-0.1033 P=0.375
DISCRETION IN CONVERSION	-0.2019 P=0.265		-0.3803 P=0.111	-0.1683 P=0.301	-0.0875 P=0.393
OUTPUT QUALITY CONTROL	0.1882 P=0.279		-0.4118 P=0.092	-0.2521 P=0.215	0.3591 P=0.126
PERFORMANCE EVALUATION	-0.4466 P=0.073		0.3491 P=0.133	0.3935 P=0.103	0.2952 P=0.176

* INDICATES THOSE RELATIONSHIPS LISTED IN TABLE IV-1 AND DISCUSSED IN PREVIOUS CHAPTERS.

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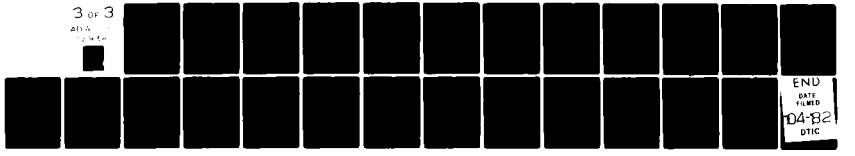

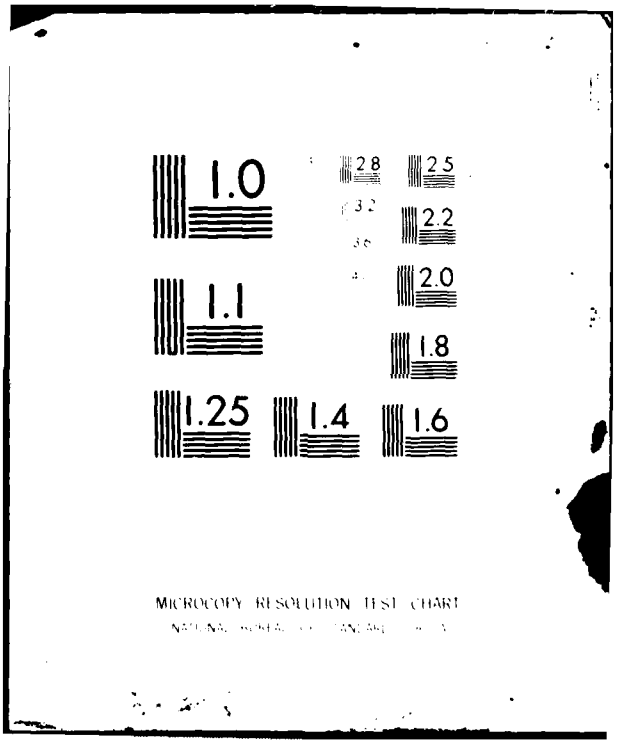
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TABLE 10

TECHNOLOGY VS STRUCTURE FOR NGB

	SPAN OF CONTROL	HIERARCHICAL LEVELS	CENTRAL-IZATION	FORMAL-IZATION
ROUTINENESS OF CONVERSION	-0.4745 P=0.023	0.2520 P=0.157	-0.0867 P=0.366	0.1260 P=0.309
INPUT STANDARDIZATION	0.0394 P=0.438	0.1443 P=0.284	0.2649 P=0.144	-0.2887 P=0.123
INPUT PREDICTABILITY	-0.1608 P=0.262	-0.1179 P=0.321	0.4867 P=0.020	-0.1179 P=0.321
COMPLEXITY OF CONVERSION	-0.3104 P=0.105	0.2275 P=0.182	-0.0939 P=0.355	-0.0910 P=0.360
AUTOMATION OF CONVERSION	0.3304 P=0.090	0.1892 P=0.226	-0.0977 P=0.350	-0.1892 P=0.226
DISCRETION IN CONVERSION	-0.3914 P=0.054	-0.1478 P=0.279	-0.4918 P=0.019	0.0000 P=0.500
OUTPUT QUALITY CONTROL	-0.2396 P=0.169	0.2582 P=0.150	0.0592 P=0.408	0.0000 P=0.500
PERFORMANCE EVALUATION	-0.3093 P=0.106	-0.1667 P=0.254	-0.3824 P=0.059	0.3333 P=0.088

	VERTICAL COMMUNICATIONS	INTER-DEPENDENCE	COORDI-NATION	SPECIAL-IZATION
ROUTINENESS OF CONVERSION	-0.1816 P=0.235	-0.1899 P=0.225	0.0 P=0.500	0.0529 P=0.417
INPUT STANDARDIZATION	-0.2774 P=0.133	0.0 P=0.500	0.0884 P=0.364	0.1213 P=0.316
INPUT PREDICTABILITY	-0.1132 P=0.327	-0.2843 P=0.126	0.0722 P=0.388	-0.0990 P=0.348
COMPLEXITY OF CONVERSION	0.3279 P=0.092	0.2607 P=0.148	-0.0279 P=0.456	0.1338 P=0.298
AUTOMATION OF CONVERSION	0.2045 P=0.208	0.1569 P=0.267	0.2027 P=0.210	0.3378 P=0.085
DISCRETION IN CONVERSION	0.1776 P=0.240	-0.1560 P=0.268	0.3169 P=0.100	-0.2795 P=0.131
OUTPUT QUALITY CONTROL	0.1240 P=0.312	0.2335 P=0.175	0.3162 P=0.101	0.1085 P=0.334
PERFORMANCE EVALUATION	0.1601 P=0.263	-0.4020 P=0.049	0.1021 P=0.343	0.0000 P=0.500

TABLE 10A

PARTIAL CORRELATIONS OF TECHNOLOGY VS STRUCTURE FOR NGB

	SPAN OF CONTROL	HIERARCHICAL LEVELS	CENTRAL-IZATION	FORMAL-IZATION
ROUTINENESS OF CONVERSION	-0.2710 P=0.210	0.3445 P=0.150	-0.1628 P=0.316	0.4189 P=0.100
INPUT STANDARDIZATION	0.1935 P=0.284	0.1438 P=0.337	0.2017 P=0.276	-0.3794 P=0.125
INPUT PREDICTABILITY	-0.3529 P=0.144	-0.2614 P=0.219	0.5557 P=0.038	-0.3832 P=0.122
COMPLEXITY OF CONVERSION	-0.4402 P=0.088	0.0121 P=0.486	0.2524 P=0.227	-0.2755 P=0.206
AUTOMATION OF CONVERSION	0.4032 P=0.109	0.1498 P=0.330	-0.1390 P=0.342	-0.1668 P=0.312
DISCRETION IN CONVERSION	-0.2873 P=0.196	-0.2991 P=0.186	-0.1811 P=0.297	-0.4069 P=0.107
OUTPUT QUALITY CONTROL	0.0453 P=0.447	0.1474 P=0.333	-0.0143 P=0.483	-0.0247 P=0.471
PERFORMANCE EVALUATION	-0.1720 P=0.307	-0.0855 P=0.401	-0.5349 P=0.045	0.5238 P=0.049

	VERTICAL COMMUNICATIONS	INTER-DEPENDENCE	COORD-NATION	SPECIAL-IZATION
ROUTINENESS OF CONVERSION	-0.0738 P=0.415	-0.2726 P=0.209	-0.3993 P=0.112	0.2989 P=0.186
INPUT STANDARDIZATION	-0.3017 P=0.184	0.1439 P=0.336	-0.0088 P=0.490	0.1312 P=0.350
INPUT PREDICTABILITY	0.0471 P=0.445	-0.2027 P=0.275	0.2012 P=0.277	-0.2838 P=0.199
COMPLEXITY OF CONVERSION	0.3177 P=0.171	0.0231 P=0.473	-0.2350 P=0.243	0.0203 P=0.476
AUTOMATION OF CONVERSION	0.2259 P=0.252	0.0456 P=0.447	0.2725 P=0.209	0.3424 P=0.151
DISCRETION IN CONVERSION	-0.2627 P=0.218	0.0677 P=0.422	0.5640 P=0.035	-0.4607 P=0.077
OUTPUT QUALITY CONTROL	-0.0450 P=0.448	0.4060 P=0.108	0.5204 P=0.050	-0.0637 P=0.426
PERFORMANCE EVALUATION	0.3293 P=0.161	-0.4530 P=0.081	-0.2616 P=0.219	0.2382 P=0.240

* INDICATES THOSE RELATIONSHIPS LISTED IN TABLE IV-1 AND DISCUSSED IN PREVIOUS CHAPTERS.

TABLE 11

TECHNOLOGY VS. STRUCTURE FOR OTHERS

	SPAN OF CONTROL	HIERARCHICAL LEVELS	CENTRAL-IZATION	FORMAL-IZATION
ROUTINENESS OF CONVERSION	0.1195 P=0.254	-0.0099 P=0.478	0.0659 P=0.358	0.0355 P=0.422
INPUT STANDARDIZATION	-0.1002 P=0.290	0.1365 P=0.224	0.1663 P=0.178	0.2399 P=0.089
INPUT PREDICTABILITY	-0.0170 P=0.463	0.0479 P=0.396	-0.0876 P=0.314	0.0802 P=0.329
COMPLEXITY OF CONVERSION	0.0353 P=0.423	-0.0275 P=0.440	0.0871 P=0.315	0.5005 P=0.002
AUTOMATION OF CONVERSION	-0.1312 P=0.233	-0.7058 P=0.000	-0.0143 P=0.468	-0.0389 P=0.415
DISCRETION IN CONVERSION	0.2021 P=0.130	-0.0067 P=0.485	0.1462 P=0.209	0.1815 P=0.156
OUTPUT QUALITY CONTROL	-0.2872 P=0.053	-0.0561 P=0.378	-0.2203 P=0.109	0.4077 P=0.009
PERFORMANCE EVALUATION	-0.2294 P=0.100	0.0296 P=0.435	-0.1371 P=0.223	0.4390 P=0.005

	VERTICAL COMMUNICATIONS	INTER-DEPENDENCE	COORDI-NATION	SPECIAL-IZATION
ROUTINENESS OF CONVERSION	0.0961 P=0.297	-0.0983 P=0.293	-0.0503 P=0.390	0.1627 P=0.183
INPUT STANDARDIZATION	0.1338 P=0.229	-0.0417 P=0.409	0.0538 P=0.383	-0.0168 P=0.463
INPUT PREDICTABILITY	0.0159 P=0.465	-0.1890 P=0.146	-0.1138 P=0.264	0.1124 P=0.267
COMPLEXITY OF CONVERSION	0.1270 P=0.241	0.3600 P=0.020	0.2115 P=0.119	0.2562 P=0.075
AUTOMATION OF CONVERSION	-0.1799 P=0.158	0.0231 P=0.449	0.0553 P=0.380	0.0065 P=0.486
DISCRETION IN CONVERSION	-0.0813 P=0.326	0.0725 P=0.344	0.2271 P=0.102	-0.0826 P=0.324
OUTPUT QUALITY CONTROL	0.2479 P=0.082	0.0071 P=0.484	0.0914 P=0.307	0.2266 P=0.102
PERFORMANCE EVALUATION	0.4970 P=0.002	0.0374 P=0.418	0.1876 P=0.148	0.0568 P=0

TABLE 11A

PARTIAL CORRELATIONS OF TECHNOLOGY VS STRUCTURE

FOR OTHERS

	SPAN OF CONTROL	HIERARCHICAL LEVELS	CENTRAL-IZATION	FORMAL-IZATION
ROUTINENESS OF CONVERSION	0.1201 P=0.279	-0.1731 P=0.199	0.1815 P=0.187	0.1647 P=0.211
INPUT STANDARDIZATION	0.0222 P=0.457	0.1989 P=0.165	0.3529 P=0.038	0.1709 P=0.202
INPUT PREDICTABILITY	0.0379 P=0.427	0.1654 P=0.210	-0.1859 P=0.182	-0.0240 P=0.454
COMPLEXITY OF CONVERSION	0.0377 P=0.428	0.2220 P=0.138	0.0215 P=0.458	* 0.6423 P=0.000
AUTOMATION OF CONVERSION	-0.1015 * P=0.311	-0.7437 P=0.000	0.0314 P=0.439	-0.2946 P=0.072
DISCRETION IN CONVERSION	0.2316 P=0.127	-0.0296 P=0.443	0.2086 P=0.153	0.1941 P=0.171
OUTPUT QUALITY CONTROL	-0.1569 P=0.222	0.0217 P=0.458	-0.1919 P=0.174	0.3849 P=0.026
PERFORMANCE EVALUATION	-0.0837 P=0.342	-0.0825 P=0.344	-0.0315 P=0.439	0.0959 P=0.321

	VERTICAL COMMUNICATIONS	INTER-DEPENDENCE	COORD-NATION	SPECIAL-IZATION
ROUTINENESS OF CONVERSION	0.2975 P=0.070	-0.0533 P=0.398	0.0899 P=0.331	0.0645 P=0.377
INPUT STANDARDIZATION	0.0645 P=0.377	0.0179 P=0.465	0.1043 P=0.306	-0.1503 P=0.232
INPUT PREDICTABILITY	-0.0282 P=0.446	-0.1271 P=0.268	-0.1863 P=0.181	0.1320 P=0.260
COMPLEXITY OF CONVERSION	0.1309 P=0.262	0.3364 P=0.046	0.1367 P=0.253	0.3834 P=0.027
AUTOMATION OF CONVERSION	-0.1765 P=0.194	-0.0714 P=0.364	0.0302 P=0.442	-0.1258 P=0.270
DISCRETION IN CONVERSION	-0.2167 P=0.144	0.0773 P=0.354	0.2313 P=0.128	-0.0913 P=0.329
OUTPUT QUALITY CONTROL	-0.1497 P=0.233	0.1667 P=0.208	0.0785 P=0.352	0.2774 P=0.085
PERFORMANCE EVALUATION *	0.5156 P=0.004	-0.1210 P=0.278	0.0543 P=0.396	-0.1256 P=0.270

* INDICATES THOSE RELATIONSHIPS LISTED IN TABLE IV-1 AND DISCUSSED IN PREVIOUS CHAPTERS.

APPENDIX F

ADVICE TO NEW COMPTROLLER/DCSRM
IN FIRST 100 DAYS OF ASSIGNMENT

This checklist was developed by the Deputy Chief of Staff for Response Management (DCSRM), Headquarters TRADOC, Fort Monroe, Virginia. The authors decision to present the checklist was based on two factors. First, the checklist is a comprehensive document that contains the managerial and technical information that comptrollers must be familiar with in carrying out their responsibilities. Second, the checklist is well organized and straightforward which makes it a useful tool that comptrollers can utilize to facilitate the crucial transition period of the "first one-hundred days" in their new assignment.

A. GENERAL:

1. You are a manager.
2. Assess strong and weak points of your organization.
3. Get to know well those you support and those who support you.
4. Pay attention to what your boss says.
5. Don't reorganize.
6. Don't allow your subordinates to pass you the "monkey." (i.e., encourage subordinates to present alternative solutions, with advantages and disadvantages, for their problem.)
7. Establish rapport with the local CPO (learn the CPO) language, procedures, channels.
8. Secure the confidence of your Command Group.
9. Assess the capabilities of your people. Determine those that can run with the ball and those that need some supervision.

B. MANAGEMENT ANALYSIS:

1. Conduct a detailed analysis of current situation to include:
   a. Financial management processes in effect.
   b. Viability of PBAC and Working PBAC
   c. Commander's management indicators and methods.
2. Insure that the commander and staff are knowledgeable in financial management applications; if not, conduct awareness training.
3. Insure real time review and analysis established, if not implement.
4. Insure there is a financial management improvement program on-going; if not, implement.

C. BUDGET:

1. Is there a phased obligation plan for the current year to measure actual execution?
2. Is there a listing of your current most urgent fund requirements, along with a plan if resources don't materialize.
3. Is there a plan for a windfall funds-capability to obligate on short notice, along with a convincing description of the benefits to be derived from their accomplishment?
4. Clearly assign budget analyst responsibilities; i.e., program director, high priority projects/actions.
5. Establish effective communication with higher headquarters insuring that no one is surprised. Periodic visits pay off.
6. What was the obligation rate for operating appropriations last fiscal year? What are the deobligations this year? (An indicator of the validity of last year's obligations.)
7. How do you control and monitor your reimbursable program? Is the ISSA (Inter Service Support Agreement) function in your organization? If not, how is the financial impact of an ISSA coordinated?
8. Do you control the Budget function? Or do the Program Directors? Is your budget office merely a bookbinding operation for the program directors? Do you control all reprograming?

D. FINANCE AND ACCOUNTING:

1. RS 3679 Violations:
   a. Prohibits authorizations of obligations and disbursements in excess of funds available.
   b. AR 37-20 describes what constitutes a violation.
   c. Prevent RS 3679 by establishing clear lines of authority/responsibility, directing Major Activity Directors to review obligations for validity monthly and responding to assistance and audit findings with positive follow-up action.
2. Fund Control and Distribution:
   a. Familiarity with various appropriations received.
   b. Insuring personnel are knowledgeable in Fund Authorization Document restrictions, financial and administrative limitations and targets.
   c. Utilize decentralized fund distribution and control concept.
3. Philosophy of 99.9 Percent Obligation Rate:
   a. Serves as an informal bench marker.
   b. Not necessarily a viable measure of effective and efficient fund utilization.
4. Year-end Accounting Procedures:
   a. Preparation and dissemination of LOI and checklist.
   b. Effect coordination with Automated Management Officer (AMO)
   c. Insure timely reporting.
   d. Awareness of New FY Changes.
5. Accounts Receivable:
   a. Establish adequate controls in aging of receivables.
   b. Establish firm procedures to charge interest for late payments.
   c. Insure no undue delay exists in processing collections.
6. Installation Accountant Duties: Provides policy and guidance for general fund, nonappropriated, stock fund and financial reporting.
7. Validating Unliquidated Obligations.
   a. Continuous review to free up funds.
   b. Timely liquidation.

8. Stock Fund:

   a. Obligation authority should be relative to support requirements.

   b. Assure that sufficient stock fund case exists to cover accounts payable.

9. DELMAR:

   a. Accurate and timely submissions.

   b. Prompt follow-up on deficiency error lists from the Finance Center.

10. Quality Assurance: Insures that adequate internal controls and procedures are developed in all functional areas of F&AO to include early detection of errors, improve financial services and compliance with financial regulations.

11. Central Accounting Office (CAO):

   a. Purpose--to provide financial management using standardized accounting and reporting techniques for installation club system and other NAF activities.

   b. Financing--in part from congressional appropriations and from non-appropriated funds generated from the sale of goods and services to DOD military, dependents and authorized civilian personnel.

   c. Problems--NAF alleged excessive costs, untimely reports and poor relationship with DPCA.

12. Financial Systems:

   a. Ascertain input cycles are run on a timely basis.

   b. Insure that personnel are adequately trained in systems; i.e., STANFINS, STARCIPS, and STARFIARS.

   c. Determine if system change requested (SCR) are submitted when a system shortcoming is identified.

13. Personnel:

   a. Establish adequate training programs.

   b. Ensure stability in high turn-over areas.

   c. Administer career intern program.

14. Travel:

   a. Travel vouchers required to be paid within 5 working days (goal).

   b. Managers should be aware of the NG and Reserve summer workload (May-Sep), and its severe impact on travel processing.

15. Contingency Plans:

    a. Plans should exist to support military and civilian pay should computer support fail.

    b. Backup computer support and manual procedures should be outlined.

16. Military Pay:

    a. Input error rate (to Finance Center) and document late submission rates (from servicing units) should be readily available.

    b. Status of tax input should be known especially if assuming duties during Nov-Jan.

17. Civilian Pay: Review retirement processing procedures to insure records are forwarded to Office of Personnel Management (OPM) 30 days after retirement as required.

18. Commercial Accounts: Review receiving report submissions since late receipts are the major cause of lost discounts.

19. Finance Monthly Operations Report and the Command Summary and Analysis Report: Provides the Comptroller and Command with information concerning major areas of interest.

E. INTERNAL REVIEW:

1. Annual Internal Review Program:

    a. Is there an annual Internal Review Program?

    b. Was it signed by the installation commander?

    c. Where are the internal review resources being used?

    d. Does the program provide a balanced coverage, that is, are many of the audits requested by the commander's staff?

    e. What is the extent of program backlog and "degree of risk" this exposes the command to. In other words, is what you're not going to do, because of lack of audit mandays, also shown in the annual plan? Is some conscious judgment made by the command group that what you're not going to do constitutes an acceptable degree of risk to the command?

2. Post Audit Results: Obtain a briefing on the results of past audits (briefing should cover last twelve months), findings, and recommendations, to include both external (GAO, DAS, and AAA) and internal review audit reports. Briefings should also cover current status of corrective actions on the audit reports.

3. Internal Review Audit Staff:

   a. Is the staff doing work other than audit? If so, why?

   b. Does the audit staff feel independent in terms of their ability to conduct audits and report unbiased results--especially findings in the comptroller area?

   c. Does the audit staff have a good audit training program--is programed training accomplished?

   d. Does the grade level of the auditors appear adequate--are internal review grade levels comparable to other comptroller divisions' grade levels?

   e. Does the internal review chief report directly to the comptroller?

   f. Is there a formal system for controlling staff work (e.g., audit assignment sheets, etc.)?

4. Audit Follow-up Program: Determine if a program has been established to follow-up on and track the progress of corrective actions on a timely basis.

5. Report Process:

   a. Are written reports prepared for all internal review and follow-up reviews?

   b. What is the process internal review reports go through for issuance, activity response, and final approval? Do commanders receive a copy of every report?

   c. Are written reports issued on a timely basis?

   d. Is any special action taken on audit reports which reflect repeat findings?

F. RESOURCE AND ECONOMIC ANALYSIS:

1. Determine what capability exists within the office to perform missions and functions in this area. In some cases, authorized organizations do not exist, yet the function may have to be performed. If no activity exists, identify individuals that have backgrounds in mathematics, statistics, economics, accounting, or operations research and assign these functions to one or more individuals within the office.

2. Identify to what extent analytic studies are being done, techniques are being used and applied.

3. Eliminate any make-work efforts that are not contributing to the overall operation of the Comptroller or DCSRM organization unless directed by regulations. Even question those when it is felt they are worthless.

4. Develop a plan of attack on how quantitative techniques can be integrated into the program and budget process. Specifically consider the use of economic analysis (comparison of alternatives) when looking at various programs or projects for implementation. It is better to justify with analytic proof prior to the decision rather than after the fact.

5. Make sure you have an up to date file of appropriate cost and economic analysis regulations and handbooks. These are a necessity if you are tasked by higher headquarters to conduct a study.

G. MORE GENERAL:

1. Get to know your Program Directors and their people. Visit them. Assist them in accomplishing their mission.

2. Truly become an honest broker.

3. Take care of your people.

4. Enjoy yourself; smile a lot; you've got a great job.

APPENDIX G

PROPOSED USAREUR PECULIAR COURSE FOR DA JUNIOR LEVEL COMPTROLLERS

The following is an outline of the subject areas for the USAREUR peculiar course proposed by the 3rd Infantry Division Comptroller, LTC Quinn. LTC Quinn's budget officer, Major Plowden, provided the authors with this outline.

1. Duration--5 days
2. Eligiblity--Personnel assigned to junior comptroller position (i.e., budget, manpower management, management or internal review).
3. Course Content
    a. Control of Logistical Expenditure (COLEX) funding system in Europe.
    b. Procurement System
        (1) USAREUR peculiar aspects/procedures.
        (2) General procedures.
    c. Cost Models for tactical units to allocate COLEX funding.
    d. Peculiarities of Special Programs.
        (1) P95-Representation funding for partnership activities.
        (2) P87-Training Funds for community education centers.
    e. USAREUR budgeting system/philosophy for preparation of command operating budget estimates.

This course could be taught at the Human Resources and Management Department of the Seventh Army Combined Arms Training Center at McGraw Kaserne in Munich. The authors envision junior level comptrollers attending this course ASAP after initial assignment. Time and mission permitting, junior level comptrollers could then attend any of the more specialized resource management course (e.g., program/budget, manpower management, fund control courses) now being taught at the Seventh Army Combined Arms Training Center in Munich. These more specialized courses are listed in USAREUR PAM 350-205.

APPENDIX H

INTERVIEWS

In the course of gathering research for this thesis the authors conducted separate interviews with Commander Edwin Fincke, Assistant Professor in Financial Management, Naval Postgraduate School, Monterey, California, and Colonel William Graham, Comptroller, 7th Infantry Division at Fort Ord, California. Commander Fincke was also the past Director of the United States Navy (USN) Practical Comptrollership Course (PCC). The interview with Commander Fincke was conducted on 2 October, 1981. The interview with Colonel Graham was conducted on 16, October, 1981. The topic of discussion for the two interviews was the training of junior level DA comptrollers. What follows is a point by point account of what the two officers said in the interviews.

A. Interview with Commander Fincke

1. Junior level comptrollers should receive some formal training in civilian personnel relations. The training should consist of three parts. First, a Civilian Personnel Officer should familiarize the junior level comptrollers with pertinent civilian personnel regulations, especially the regulations relating to firing and overtime procedures. Second, a Civilian Personnel Officer should familiarize the junior level comptrollers with the important aspects of the labor union versus management relationship. A case study could be used to generate such a discussion. Commander Fincke mentioned that the Practical Comptrollership Course (PCC) taught at the Naval Postgraduate School used the Naval Communications Station Case Study as a vehicle for generating class discussions of the civilian versus military relationship.

2. Junior level comptrollers should receive some formal training in written and oral communication. Specifically, young comptrollers must understand the perspective of the

person being addressed (i.e., in most cases, what is important to the boss).

3. Junior level comptrollers should receive some small amount of formal instruction in time management. It is important that junior level comptrollers learn how to prioritize tasks in both their professional and personal lives.

4. Junior level comptrollers should receive some formal training on the reasons for and benefits of long range planning within comptroller organizations. Junior level comptrollers should learn how to conduct long range planning for their particular organization or division thereof. Crisis management is easy since people like to put out fires. Managers receive instant results when they resolve a crisis.

5. Junior level comptrollers should make all possible efforts to achieve harmony with their boss. Use common sense at all times.

6. Junior level comptrollers must recognize that there is a corporate knowledge (i.e., an institutional memory) with civilian personnel. Military officers should not reinvent the wheel when they arrive in an organization composed primarily of civilians.

7. A good leader/manager in a military environment will be a good manager in a civilian environment.

B. Interview with Colonel Graham

1. Junior level comptrollers must learn technical aspects of dealing with civilians (i.e., the rules and regulations).

2. Dealing with civilians important. Comptrollers must go see the civilian activity directors on a fairly regular basis in order to develop a rapport with them.

3. Newly assigned junior level comptrollers should participate in an intern program in order to develop the necessary technical skills required of comptrollers. The intern program should be an 18 month program. Fifteen of these months should be spent in the budget division. This intern program should be part of the career program scheme for a military officer with the comptroller (i.e., 45) specialty and should be for Captains.

4. Necessary schooling for junior level DA comptrollers includes a civilian master's program plus the Military Comptrollership Course taught at Fort Benjamin Harrison, Indiana.

APPENDIX I

TULLY AND BATISTE'S PROPOSED PRACTICAL COMPTROLLERSHIP COURSE (PCC)

DAY	SUBJECT	PERIOD
General Coverage (5 hours)		
1	Course Overview	1
1	Basic Comptrollership Organizations	2-5
Accounting and Finance Systems (30 hours)		
1	Functions of USAFAC	6
1	Duties of the Installation Accountant	7
1	Fiscal Code Overview	8
2	Fiscal Code Overview (cont'd)	1
2	Funds Flow	2-5
2	Control of Funds	6-8
3	Control of Funds (cont'd)	1
3	Accounting Management	2-5
3	Accounting Reports (STANFINS)	6-8
4	Accounting Reports (DELMARS)	1-5
4	Revolving Fund Concepts	6-7
4	Accounting Exercise	8
5	Accounting Exercise/Critique	1-3
Management Practices (20 hours)		
5	Management Organizational Functions	4-5
5	Manpower Management	6-7
5	Manpower Surveys/Job Time Accting	8

DAY	SUBJECT	PERIOD
6	Manpower Surveys/Schedule X Reports	1-3
6	Internal Review	4
6	Army Audit Agency	5
6	Cost Analysis	6-8
7	Cost Analysis (cont'd)	1-5
7	Management/Economic Analysis	6-7
Budget Formulation and Execution (40 hours)		
7	PPBS Overview	8
8	PPBS Overview (cont'd)	1-3
8	Activity Budgeting	4-5
8	Installation Budgeting	6-7
8	Major Command Budgeting	8
9	Major Command Budgeting (cont'd)	1
9	Appropriation Budgeting	2-3
9	Quantitative Budget Analysis	4-8
10	Computer Exercise, Budget Formulation/Critique	1-8
11	Review and Analysis	1-4
11	Budget Execution/Reprogramming	5-8
12	Budget Execution Exercise/ Critique	1-7
12	Course Wrap Up/Critique	8
	TOTAL	95

APPENDIX J

ADDENDUM TO TULLY AND BATISTE'S PROPOSED PRACTICAL COMPTROLLERSHIP COURSE (PCC)

A. GENERAL

This 24 hour course addendum contains relevant organizational behavior information and material that is designed to better prepare the new junior level financial manager for duties within the DA comptrollership field. The course material listed in the addendum is designed to alleviate some of the most common organizational behavior deficiencies exhibited by junior level DA comptrollers (refer to Table IV-8). Specifically, these organizational behavior deficiencies are staff procedures, oral and written communication and civilian personnel management/relations. Additionally, in selecting the material for inclusion in the course addendum, the authors undertook the following two actions. (1) Conducted a thorough evaluation of Commander Fincke's and Colonel Graham's comments (refer to Appendix H). (2) Conducted a thorough evaluation of the DA comptrollers' recommendations outlined in Table IV-9.

B. PROPOSED PCC ADDENDUM

The proposed PCC addendum contains 24, 1 hour periods over a period of 3 days. The addendum is a continuation of Tully and Batiste's PCC outlined in Appendix I and therefore begins on day 13.

DAY	COURSE MATERIAL	REFERENCE	PERIOD
	Staff Procedures (4 hours)		
13	"Organizational Management and Field Comptrollership or Being in the Trenches."	Bobulinski, 1981	1-2
13	Planning Objectives and Goals	Webber, p. 267, 1979	3
13	Controlling Performance	Webber, p. 297, 1979	4
	Written Communication* (8 hours)		
13	Principle of Shortness	DA Effective Writing Workbook I and Film #MF12-5317	5-6
13	Principle of Simplicity	DA Effective Writing Workbook II and Film #MF12-5318	7-8
14	Principle of Strength	DA Effective Writing Workbook III and Film #MF12-5319	1-2
14	Principle of Sincerity	DA Effective Writing Workbook IV and Film #MF12-5320	3-4
	Civilian Personnel Management/Relations** (4 hours)		
14	Civilian Personnel Administration Procedures	Applicable DOD and DA Regulations	5-7
14	Civilian Personnel Relations Case Study	N/A	8
	Oral Communications*** (4 hours)		
15	"Talk, Talk, A Series of Ideas, to Improve Your Presentations: Parts One Thru Eleven"	Olewine, Fall 1972--Spring 1975	1-4
	General (4 hours)		
15	"A Management Philosophy" "A Philosophy for Military Comptrollers"	Kjellstrom, 1974 Lynn, 1974	5

DAY	COURSE MATERIAL	REFERENCE	PERIOD
15	"The First One Hundred Days"	Gudinas	6
	"Comptrollers Manage Resources, Why Not Time?"	Beisser, 1977	
15	The Pledger Comptrollership Model	Griswold and Kehoe, 1981	7-8

TOTAL HOURS FOR THIS PCC ADDENBUM = 24

TOTAL HOURS FOR TULLY AND BATISTE'S PCC + GRISWOLD AND KEHOE'S PCC ADDENDUM = 119

*Number MF12-5317 is a 24 minute film.
Number MF12-5318 is a 21 minute film.
Number MF12-5319 is a 21 minute film.
Number MF12-5320 is a 25 minute film.

ST 17-186-1 (1981) can be used as a supplement to this course material. The information on written communication was obtained from Stoller (1981).

**The authors envision a Civilian Personnel Officer teaching this block of instruction. The instruction would cover such topics as performance appraisal, complaints, grievance process, training and development, pay setting procedures and basic support training [Middaugh, 1981]. The purpose of a case study is to generate a class discussion (i.e., an exchange of ideas) of the civilian versus military relationship within DA comptroller organizations.

***This block of instruction is based on the 11 short articles written by Olewine (1972-1975) in the Armed Forces Comptroller. The instructor and students should be able to cover 2-3 of these articles per 1 hour period.

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