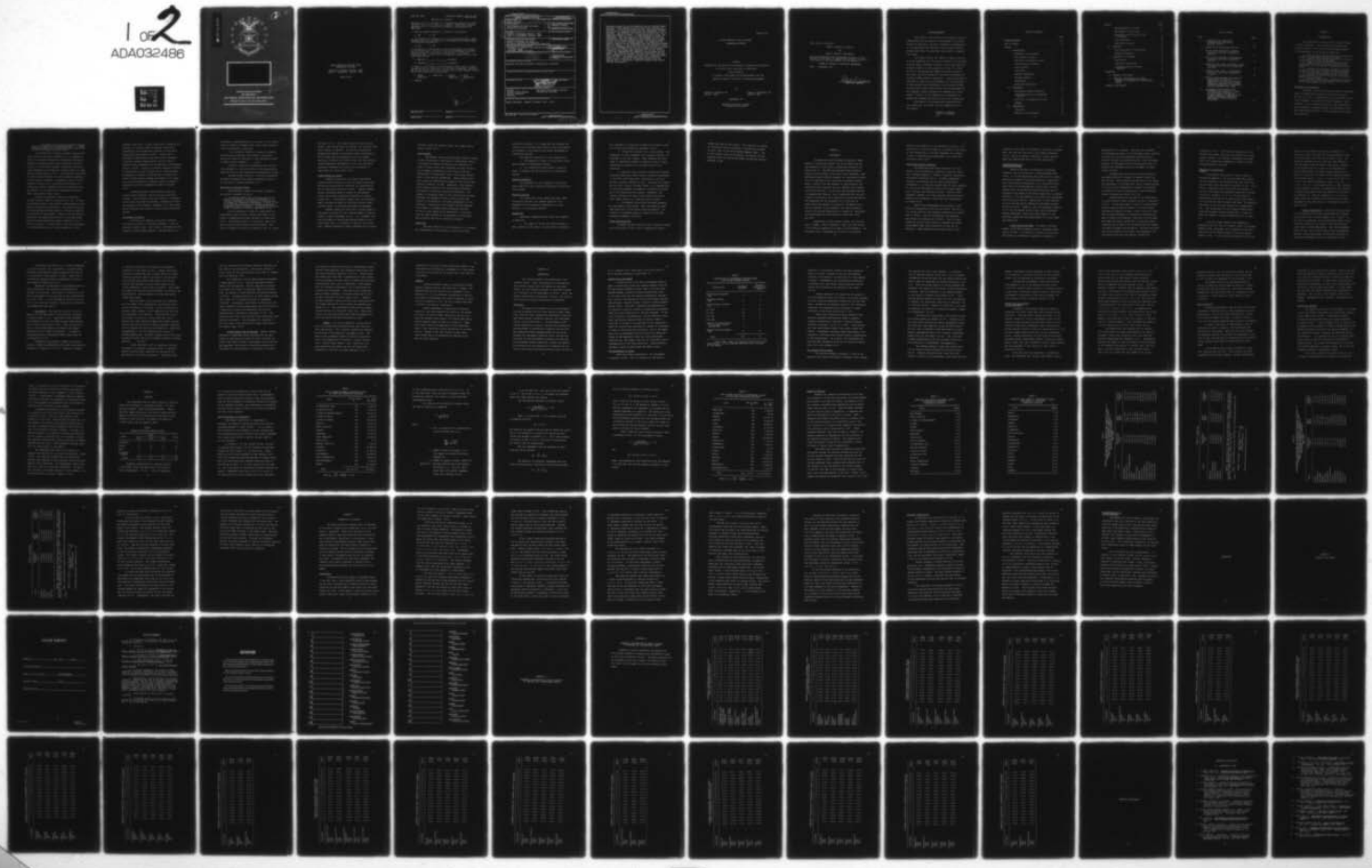
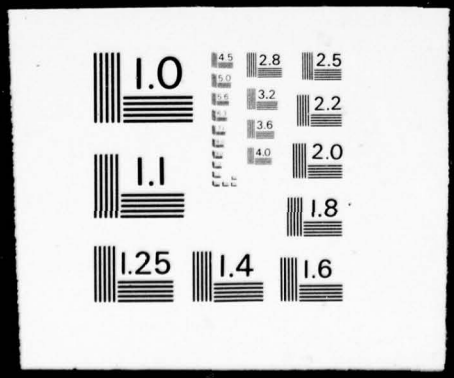
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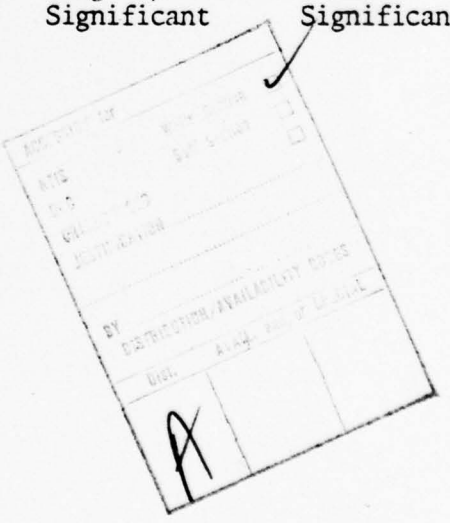
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REPORT DOCUMENTATION PAGE	READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER: SLSR — 36-76B	2. GOVT ACCESSION NO.
3. RECIPIENT'S CATALOG NUMBER	
4. TITLE (and Subtitle): VALUE PROFILE OF THE AIR FORCE CONTRACTING OFFICER.	5. TYPE OF REPORT & PERIOD COVERED: Master's Thesis
6. PERFORMING ORG. REPORT NUMBER	
7. AUTHOR(s): Leonard E. Hopkins, Captain, USAF James A. Scheideman, Captain, USAF	8. CONTRACT OR GRANT NUMBER(s)
9. PERFORMING ORGANIZATION NAME AND ADDRESS: Graduate Education Division School of Systems and Logistics Air Force Institute of Technology, WPAFB, OH	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS: Department of Research and Communicative Studies (SLGR) AFIT/SLGR, WPAFB, OH 45433	12. REPORT DATE: September 1976 13. NUMBER OF PAGES: 88
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office): 99p.	15. SECURITY CLASS. (of this report): UNCLASSIFIED 15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT (of this Report)

Approved for public release; distribution unlimited.

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

18. SUPPLEMENTARY NOTES

APPROVED FOR PUBLIC RELEASE AFR 190-17.

JERRAL F. GUESS, CAPT, USAF
Director of Information

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

Values
Personal Value System
Officer Personnel
Behavior
Air Force Procurement Officers
Contracting Officers

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

Thesis Chairman: Robert B. Weaver, Ph.D., GS-13

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The basic objective of this research was to increase understanding of the personal values of Air Force Contracting Officers. Prior to analyzing the data, the paper discussed the concept of personal values and the methodology of the research. The Rokeach Value Survey was selected for use in measuring personal values. In completing this survey, the respondent ranks two lists of value concepts by order of importance. The instrument was administered to Air Force Contracting Officers assigned to the Aeronautical Systems Divison of Air Force Systems Command. By computing the Kendall Coefficient of Concordance with the results obtained from the sample, it was concluded that there existed a high degree of agreement among the contracting officers in ranking the values, indicating they share a common value system. Composite rank orders were developed for the two lists of values and represented the composite value system for the sample. The results obtained for the contracting officers were compared to the results obtained for a national sample taken in 1968. The Median Test was used to determine statistically significant differences between the two samples and, in conclusion, possible reasons were offered for the differences.

SLSR 36-76B

VALUE PROFILE OF THE AIR FORCE CONTRACTING OFFICER

A Thesis

Presented to the Faculty of the School of Systems and Logistics

of the Air Force Institute of Technology

Air University

In Partial Fulfillment of the Requirements for the

Degree of Master of Science in Logistics Management

By

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September 1976

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MASTER OF SCIENCE IN LOGISTICS MANAGEMENT

DATE: 7 September 1976

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ACKNOWLEDGEMENTS

This thesis is the result of our efforts to gain an understanding of the personal value systems of Air Force Contracting Officers. We wish to express our appreciation to the many people who assisted in this research effort. Without their help, we would have been unable to complete this paper.

Our thesis advisor, Dr. Robert B. Weaver, who has laid the foundation for the study of values in the military, provided expert knowledge, guidance, and in many ways contributed directly to the preparation of the final draft. We wish to acknowledge the support and understanding of our wives, who have endured our long hours and enabled us to keep a proper sense of proportion. A particular debt of gratitude is owed to Darla Scheideman, for her assistance in data analysis and proofreading of the original drafts. We also wish to thank Linda Pearson for her conscientious and competent typing throughout the preparation of this report. Finally, we are indebted to the personnel of Aeronautical Systems Division for their full cooperation.

Any errors or inconsistencies contained within this thesis are, of course, the sole responsibility of the authors.

Leonard E. Hopkins
James A. Scheideman

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CHAPTER I

INTRODUCTION

The importance to the Air Force of good officers is readily apparent. The importance of studying the personal values of Air Force officers becomes apparent in consideration of the following assertions:

1. Personal value systems influence an officer's perceptions of problem situations he faces.
2. Personal value systems influence an officer's decisions and solutions to problems.
3. Personal value systems influence the way an officer looks at other individuals and groups of individuals thus influencing interpersonal relationships.
4. Personal value systems influence the extent to which an officer will accept or resist pressures and goals of military life and military functions.
5. Personal value systems set the limits for the determination of what is and what is not ethical behavior by an officer.
6. Personal value systems influence not only the perception of individual and institutional success, but its achievement as well [5:1-2].

Statement of the Problem

Each year, Air Force contracting officers negotiate, award, and administer contracts involving billions of dollars (26:27-29). A major portion of this amount is for the procurement of aircraft and related systems. Unfortunately, not all contracting actions, most noticeably in the procurement of weapons systems, are performed in the most cost-effective manner. Senator Proxmire has claimed that nowhere is

> . . . the waste of our national resources greater than in the system of weapons procurement . . . where incredible inefficiency, extravagance and covering-up of error have become the rule [19:2].

To overcome the criticism of Senator Proxmire and others who have the same perspective, it is imperative that the individuals selected as contracting officers be capable of performing their tasks effectively and efficiently. An individual becomes a contracting officer by being sponsored by his superiors, based primarily on their subjective observations (9:34). Unfortunately, the ability to judge others accurately is a skill that men possess in a wide variety of degrees. Furthermore, there is a difference of opinion as to the expected performance of a contracting officer, depending upon the organization and the position of the person who is assessing the performance, among other things (9:49).

Although the method of selecting contracting officers actually seems to work quite well (14), it could be improved through a more accurate understanding of their behavior patterns and motivations. One method for evaluating and predicting human behavior involves the study of an individual's value system. Values in this context are defined as "the specialized beliefs an individual holds which influence preferential modes of behavior [27:17]." The set of values, or value profile, held by an individual is the dominating force in directing behavior (1:543).

Personal values have, in fact, been found to underlie differences in virtually every attitudinal, behavioral, preferential, and occupational variable to which value studies have been applied (21:326). Values can be described in quantitative terms and provide, therefore, a possible objective measure which could be used to identify likely candidates for the position of contracting officer (21:323). Values of individual managers influence an organization in both a direct and an indirect manner. Differences in personal values may help to explain the nature of some conflict between individuals in an organization while similarity of personal values is probably responsible for much accommodation among individuals (5:18).

Although personal values probably cannot completely explain behavior, they do provide significant insights. Such insights could prove helpful in determining the type individual who becomes a contracting officer. The purpose of this research, therefore, is to gain information concerning the values of the Air Force contracting officer.

The Concept of Values

The term *value* embraces two distinct concepts: one might say either an individual possesses *a* value or assigns an object value. This value is concerned with the concept of values people possess. Although there is no

universally accepted definition of values in this context, there is generally agreement that values affect behavior and are structured in some order.

F. R. Kluckholm referred to values as "complex, but definitely patterned (rank-ordered), principles . . . which give order and direction to the overflowing stream of human acts and thoughts . . . [11:4]."

To Smith, values are "preferences which are usually assigned to a relatively central and hierarchically superior status in the organization of personality [23:101]."

England defined values as "a relatively permanent perceptual framework which shapes the general nature of an individual's response patterns [5:1]."

Definition of Personal Values

This research is based on the work of Rokeach, who defined a personal value as:

> An enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence. A *value system* is an enduring organization of beliefs concerning preferable modes of conduct or end-states of existence along a continuum of relative importance [21:5].

By this definition a value is a prescriptive or proscriptive type of belief, whereby some means or end-state is judged as being either desirable or undesirable (21:7). The enduring quality of values may result from their initially being learned during childhood. Each value is learned in isolation as absolute, that is, always

desirable (21:6). This enduring quality does not mean, however, that values cannot be changed, for individual and social change is possible. As the child matures and becomes more complex, he encounters social situations in which values come into competition with one another, requiring a decision as to which value will have priority. Through experience throughout his life, the individual gradually integrates his values into a hierarchy of importance, his value system (21:6).

Classification of Values

Rokeach's definition of values distinguishes between beliefs concerning a mode of conduct and beliefs concerning an end-state of existence (an idealized goal that an individual strives to attain). Rokeach labeled beliefs concerning modes of conduct as instrumental values, and beliefs concerning end-states as terminal values (21:7). Instrumental values, then, are desirable modes of conduct by which an individual strives toward terminal values, or desirable end-states of existence.

Rokeach argued that there are a limited number of end-states to strive for and a limited number of modes of conduct to their attainment (21:11). It is assumed, then, that the number of values human beings possess is relatively small and it is possible to identify and measure them. Rokeach estimated an adult possesses about eighteen

terminal values and "several times" this number instrumental values (21:11).

Value Systems

The Rokeach Value Survey provides a means of quantitatively describing an individual's value system, making it possible to compare the values of an individual or group to those of any other individual or group (21:323). In an attempt to determine to what extent values are determinants of occupational roles, this survey has been used to study several professions. These studies found that values are significantly related to each kind of professional behavior (21:158). Apparently, unique personality factors and particular value systems predispose individuals to entering a particular occupation. For example, a conceptual model of the military mind has been developed that proposes certain values as being most central to the makeup of a military professional (27:29). Similarly, a distinctive value system could be expected to be found to be common among contracting officers. If such a value system can be identified, it could possibly be used to assist in the selection of individuals best suited to the role of contracting officer.

Objectives

The basic objective of this research is to increase the understanding of the personal values of Air Force

contracting officers. It is hoped that the insights provided by this study may prove useful to Air Force personnel managers in the selection and career development of contracting officers.

The specific objectives of this research are:

1. To determine if there is a distinctive value system common to contracting officers.

2. If a distinctive value system is found to exist, to identify the value profile of a contracting officer.

Research Hypothesis

The hypothesis of this research is that there exists among Air Force contracting officers a distinctive value system.

Research Question

If a distinctive value system does exist among contracting officers, the research question to be addressed is the hierarchy of importance, or value profile, of a contracting officer.

Assumptions

Importance assumptions upon which this research is based are:

1. The number of values that people possess is small enough to allow them to be identified and measured.

This assumption is supported by empirical evidence as well as intuitive and theoretical arguments (21:11).

2. Values are organized into value systems. This assumption is found throughout the literature and will be discussed in the next chapter. When viewed as the hierarchy of importance assigned to specific values, a value system may be thought of as the value profile of an individual.

3. Personal values influence occupational choices. Previous studies have found values to underlie differences in virtually every behavioral, preferential, and occupational variable observed (21:326). Although all officers may not have a choice of career fields, it is assumed that an individual becomes, and remains, a contracting officer due to his underlying value system. Therefore, contracting officers will have a value system distinctive from, albeit similar to, other Air Force officers.

4. The Rokeach Value Survey accurately measures an individual's value system. This instrument has been used extensively in the United States and abroad. Its validity is discussed briefly in Chapter III and more thoroughly elsewhere (21:26-52).

Scope and Limitations

Although the need exists for value research throughout the military (27:151), such a comprehesive study is

beyond the scope of this effort. This research is limited to contracting officers assigned to Aeronautical Systems Division (ASD) of Air Force Systems Command (AFSC). Due to the limited nature of the sample, the results of this research cannot be generalized beyond contracting officers assigned to ASD.

CHAPTER II

BACKGROUND

The Armed Services Procurement Regulation (ASPR) defines a contracting officer (CO) as any person who has the authority to enter into or administer contracts (25: Section 201.3). The ASPR distinguishes among different types of COs according to the type of duty performed. When performing duties normally assigned to a purchasing officer, the CO is referred to as a procuring contracting officer. After a contract has been awarded, an administrative contracting officer interacts with the supplier until completion of the contract. In the event the government decides to terminate the contract, the CO responsible for the settlement is referred to as a termination contracting officer. The responsibility for performing all or any part of these duties may belong to a single CO (25:Section 201.3). For the purposes of this research, the term contracting officer will be used generically to include all individuals with procurement Air Force specialty codes 6534, 6524, and 6516.

Regardless of their specific duties, all COs have much in common. Each CO performs a legal role when acting in his official capacity as an agent of the government. His functional role is performed by virtue of his technical

authority and expertise in his assigned activities. His social role, in which his behavior is subject to the norms of his organization, is his most important job, however, in that it constrains the performance of his legal and functional roles (9:34).

Contracting Officer Selection

The ASPR states that when selecting a CO, the factors to be considered are expertise, training, education, business expertise, judgment, character, reputation, and ethics (25:Section 405.1). Of these, experience, training, and education can be readily ascertained. Furthermore, it is generally agreed that the skill required of a CO can be developed by virtue of the proper experience, training, and education (20:243). There is less agreement, however, as to what approach should be used to describe the attributes or qualities that characterize an effective CO.

Some of this disagreement may originate in the differing perceptions of the role of the CO. The CO is in a unique position that requires interaction on a multitude of fronts: with the contractors, his superiors, and advisors and specialists (9:48-49). Each of these groups has its own unique frame of reference upon which group members base their perceptions of what the CO should be. These perceptions have been found to vary

according to the type of organization, the level of management, and even the life cycle of the product concerned (9:48). The CO is subject, therefore, to many requirements and expectations which are often conflicting.

Characteristics of a Contracting Officer

Being at the point of interface of differing interests, the CO must be able to mediate between them (9:48). It is not surprising, then, that the CO is usually described in terms of his effectiveness as a negotiator, since the purpose of negotiation is to find problem solutions that will be satisfactory to each party involved. Although only the procuring contracting officer may be occupied to any extent in the actual negotiation of defense contracts, it is the process of negotiation that epitomizes the activities of the CO. Negotiation is often referred to as an art that may be acquired and developed through training (20:242). Normally, then, the knowledge required of a CO can be learned and the skills can be developed through experience, leaving the human element of the individual himself as the discriminator of a truly effective negotiator.

Values versus Attitudes. To Riemer, the human element is the major stumbling block to successful negotiation (20:244). He viewed it in terms of the way attitude affects an individual's approach to reaching an

understanding on a proposal. Attitude will determine the knowledge and skills of an individual since a negative attitude will limit the knowledge acquired and will restrict interest in developing skills. With the proper attitude, an individual will not be satisfied until he acquires the knowledge and skills necessary to ensure success (20:244).

Although there are regular attitude surveys of government personnel, attempts to measure values have been limited. More attention has been paid to the theory and measurement of attitudes than values, perhaps because of the more rapid development of methods for measuring attitudes and a lack of distinction in the differences between attitudes and values (21:17-18).

Rokeach defined an attitude as "an organization of several beliefs around a specific object or situation [21:18]." On the other hand, a value is a single belief toward a specific mode of behavior or state-of-being. Attitudes are based on values in that a value is a standard by which favorable or unfavorable evaluations are made of objects or situations, resulting in an attitude. The number of values a person has is relatively small, numbering only as many as he has learned beliefs concerning modes of conduct and end-states. The same individual will have thousands of attitudes, corresponding to the encounters he has had with specific objects and

situations (21:18). Attitudes are expressions of and derived from values, which are more central to an individual's makeup. Any question of measuring attitudes, then, can be made more fundamental in terms of values as determinants of attitude.

Profile of a Contracting Officer

The Rokeach Value Survey, a copy of which is attached as Appendix A, not only provides data concerning an individual's own values but also the values that the individual might attribute to another (21:38). In an effort to determine what values might be ascribed to a CO, four individuals with extensive experience as former contracting officers (8; 12; 14; 28) were asked to complete the value survey by ranking the values according to the way an ideal CO would rank them. The objective was simply to find out what values *should* characterize a CO. The values which all four experts ranked highly could be considered as being agreed upon, at least by these four experts, as being characteristic of an ideal CO.

Since the survey requires the respondent to separately rank two lists of eighteen values, the maximum possible range, seventeen, for a particular value would result only if one expert ranked it first and another ranked it last. It was arbitrarily decided that for the

experts to be considered as being in agreement on a particular value, the range of rankings assigned to that value would have to be less than or equal to six. Two composite rankings, one for each list, were obtained from the median ranks assigned to each value. Finally, it was decided that for a value to be considered as being ranked highly, its median ranking would have to place it in the top five values of the composite ranking. Two terminal values, *a sense of accomplishment* and *self-respect*, and three instrumental values, *ambitious*, *capable*, and *logical*, met these criteria. The remainder of this chapter is devoted to demonstrating from current literature that these values are deemed to be critical to an effective CO. With the exception of *self-respect*, these values are a subset of the values that have been proposed as being most central to the American military mind (27:29).

Values versus Traits. Some texts simply provide an all-inclusive list of the characteristics or personality traits that a CO must possess (e.g., 20:245). In his role as a mediator, the CO should have certain traits that would enable him to interact with others and persuade them to accept compromises. From the government's point of view, the CO should operate from an aggressive posture, always questioning and analyzing proposals to insure that unnecessary costs are eliminated (18:114).

Values have been found to be a direct consequence of culture, society, and personality. Virtually every comparison made between differing personalities has led to a distinctive value pattern (21:326). Saying that a CO should be aggressive may be interpreted as saying he sees himself as ambitious (21:21).

Because he is subjected to many demands which are often conflicting, the CO should be consistent and rational in his duties. The conflict to which he is subject is the aspect of his work that is most dissatisfying to the CO (9:64). Of the instrumental values in the survey, *logical* provides a means of coping with the conflicting demands made upon the CO.

Need Theory. The behavior of the CO, like the behavior of all individuals, is motivated by the desire to satisfy needs (17:73). Individuals often transcend the boundaries of their own needs through identification with a larger organization (17:81). That is what the CO must do, for the satisfaction of needs is the common denominator of all types of negotiation. If people or organizations had no unsatisfied needs, there would be no bargaining (17:79).

Nierenberg's Need Theory is based on the satisfaction of needs and assumptions that needs follow Maslow's hierarchy of importance (17:73-74). Rokeach's findings

on values as motivators are consistent with Maslow's hierarchy of human needs (21:327). Rokeach found that the poor and uneducated hold a higher regard for values concerning material comfort and security, values which would satisfy lower-order safety needs, than do the affluent and educated, who hold these values as relatively unimportant, taking them for granted. Their needs for comfort and security being satisfied, the affluent and educated place greater emphasis on values reflecting higher-order needs.

When the needs of the individual are compatible with the needs of the organization, the motives of the CO are not subject to criticism. In the satisfaction of personal needs, however, lies a temptation for the CO to take advantage of his position. Realizing that he will be eligible to retire at a fairly young age, the CO working with large firms that employ many former military officers may not be willing to take an aggressive posture with the company that may soon be feeding him. Under such circumstances, it is not surprising that critics of defense spending ask, "How hard a bargain does an Air Force Lieutenant Colonel drive with Lockheed or Boeing or General Dynamics . . . [19:165]?"

A study was made in 1967 of personnel from both government and industry to determine what, if anything, besides contract profit opportunities influences the performance of contracting personnel. Indications were

that the satisfaction of personal needs may dominate over the needs of the organization. The overall ranking of doing a good job was seventh behind such items as remuneration and security (3:63).

As a negotiator, the CO needs extensive knowledge of human behavior (17:8). He must know what motivates himself and his opponent. When his approach to negotiation takes into account the personal needs of the other side, its chances of being effective are greatly improved (17:79-80). As Maslow pointed out in 1954, humans arrange their needs into a definite hierarchy of importance (15:80-98). Nierenberg's need theory of negotiation provides a method of finding those needs that are involved in a bargaining situation and determining the relative effectiveness of negotiating techniques (17:80). The technique which deals with the most basic unsatisfied need should be successful. The government CO, according to the 1967 study, is motivated by the lower order security and comfort needs (3:63).

Accomplishment and Self-Esteem. Karass, however, described an experiment which indicates that the most effective negotiators are those who seek to satisfy the higher order needs related to achievement and self-esteem. The experiment was designed to objectively measure what determines the effectiveness of a negotiator by studying

the results of negotiations among 120 professional buyers, contract administrators, and termination specialists from four major aerospace companies (10:14-16). Karass found that people who think well of themselves are less susceptible to influence and less likely to change their opinions than people who think less of themselves. Since negotiation is a process of persuasion, the CO should have no problem with self-esteem. Individuals with a good self-image initiate attempts to influence others and will not be easily diverted from their goals (10:93). Probably the most important finding was that those negotiators with the highest aspiration levels achieve the greatest successes (10:17). The achievement oriented person expects success and sets his aspiration level high. Those individuals with high aspirations got higher settlements and those who wanted less were satisfied with less.

Capable. As would be expected, skilled negotiators in the experiment performed better than those who were less skilled. Skill, however, became less important as the power of the negotiator increased (10:20). The power of the government behind a skilled CO should provide a high probability of success in contract negotiations. Karass found, however, that a negotiator with high aspirations can defeat one with low aspirations regardless of the skill and power imbalance (10:8). A

combination of ability and high aspirations appears to be the assurance of success as a government CO. High aspirations will follow when the individual has a high need for achievement.

Summary

Although different types of contracting officers perform different duties, they have much in common. The ASPR provides certain factors to be considered in the selection of a CO, but different perceptions of the CO's role leads to disagreement as to what attributes or qualities are necessary in a CO. The CO is usually described in terms of his role as a negotiator.

Several approaches to describing an effective negotiator have been examined and related to the concept of values. By having former contracting officers complete the Personal Value Survey, five values were identified as possibly being critical to an ideal CO. These values were found to be supported by other approaches taken in the literature as being descriptive of an effective CO. Whether or not COs actually do rank these values highly was to be determined by sampling active duty Air Force officers.

CHAPTER III

METHODOLOGY

This chapter presents the methodology of the research effort. First, the population is defined and the selected research site and sample are described. Second, the data gathering process is presented followed by a discussion of the measurement of values. Third, the Rokeach Value Survey is described in detail, and finally, the statistical analysis techniques are presented.

Population

The population consisted of the value systems of military personnel with Air Force Specialty Codes (AFSC) 6516, 6524, and 6534, respectively designated as Procurement Staff Officer, Production Officer, and Procurement Officer (24:A14-35—A14-40.2). The Procurement Staff Officer administers, controls, and monitors programs for the procurement or production of supplies and services. The Production Officer manages production activities, develops and implements industrial plans, and monitors contracts for the procurement of supplies and services. The Procurement Officer negotiates, awards, and administers contracts for the acquisition of supplies and services at both central and base procurement levels (22:A14-33).

As of 1 February 1976, there were 1,292 active duty Air Force officers assigned to these AFSCs (6).

Research Site and Sample

A major portion of Air Force procurement funds is spent in acquiring aircraft and related systems (26:27-29). The Aeronautical Systems Division (ASD) of the Air Force Systems Command, located at Wright-Patterson AFB, Ohio, is the focal point for the planning, engineering, development, testing, and acquisition of Air Force weapon systems. ASD performs it mission through a series of System Program Offices (SPOs). Each SPO is assigned the responsibility for managing a specific aircraft or subsystem and operates under the direct supervision of the ASD commander. Of the 1,292 officers in the population, 109 are assigned to ASD. Their distribution among the SPOs is shown in Table 1. Since ASD is located on the same base as the researchers, these 109 officers were selected as a sample of convenience in order to facilitate data collection. Due to the sample being one of convenience and the variation in duties performed at ASD compared to other Air Force procurement organizations, this sample could not be justified as being representative of the total population. Generalizations, therefore, cannot be made beyond the sample itself.

The Measurement of Values

There are several approaches to the measurement of personal values. One is to observe an individual's

TABLE 1

DISTRIBUTION OF CONTRACTING OFFICERS AMONG ASD SYSTEM PROGRAM OFFICES

Organization	Personnel Assigned	Personnel Available for Sample*
Aeronautical Equipment SPO	6	5
Aerospace Systems SPO	11	2
Airlift/Tanker Aircraft SPO	7	6
A-10 SPO	18	14
B-1 SPO	15	9
F-15 SPO	22	16
F-16 SPO	3	2
Remotely Piloted Vehicle/ Air Launched Surface Missile SPO	8	7
Research and Development SPO	19	13
Total	109	74

*Due to TDY, leave, and special projects with other organizations, not all assigned personnel were available for the sample.

behavior in a structured situation and draw inferences about his values. Because of the time and expenses involved, this method is not practical for large numbers of people. Furthermore, the interpretation of behavior is difficult for even highly trained observers and the results may be biased by the observer's own values (21:26).

Another approach is to simply ask the subject to tell the researcher about his values. This direct approach to obtain conscious-subsurface information also has drawbacks. Because of the personal nature of the information requested, the respondent may be reluctant to answer truthfully or may answer selectively (7:395).

Other value studies of military personnel have primarily employed questionnaires based on Osgood's "semantic differential" technique to measure meanings attached to concepts (4:5-6; 5:2; 13:38). Unfortunately, this type questionnaire tends to be rather lengthy and complex. Respondents sometimes request assistance in its completion, indicating some confusion about interpretation of the questionnaire. As a result, the respondents may have provided information which did not correctly reflect their true value systems (4:10).

The Personal Value Survey

To avoid the preceding drawbacks, a form of the personal value survey developed by Professor Milton Rokeach

was selected for use in this research. It provides a list of eighteen terminal values and a list of eighteen instrumental values and asks that the subject simply rank them in order of importance as guiding principles in his life. Since the survey material in no way suggests the responses, the ranking of the values is highly projective in nature. The only reference in the ranking process is the subject's internal value system (21:27). This ranking process assumes only that it is not the presence or absence of a particular value that is important, but its relative ranking. Despite its simplicity, this ranking measures the same kind of meaning as Osgood's "semantic differential" (21:50).

The particular values used in the survey evolved over several years of research (21:27). Rokeach originally used twelve terminal and twelve instrumental values but found that some important values had been omitted. The two lists of eighteen values were found to be reasonably comprehensive while still avoiding a burdensome ranking test for the subject (21:29). The values are arranged alphabetically and are presented along with a brief definition in parentheses (see Appendix A).

The eighteen terminal values were chosen from a list of several hundred obtained from various sources (21:29). Rokeach eliminated those values that were judged to be more or less synonymous, those which were too

general (overlapped concepts embodied in other values) or too specific, and those which were not true terminal values (did not represent an end-state of existence).

The eighteen instrumental values were selected from Anderson's list of 555 personality-trait words (2:272-279). Rokeach used a process of elimination similar to that used in selecting terminal values to obtain the instrumental values which he felt would represent the most important values in American society (21:29).

Reliability and Validity of the Instrument

A sample of 189 college students was asked to recomplete the survey three weeks after originally completing it. The test-retest reliabilities were .75 for terminal values and .65 for instrumental values (21:33). Terminal values reliabilities have been found to be consistently higher than instrumental value reliabilities, perhaps because terminal values are learned earlier in life and thus become stabilized earlier than do instrumental values. Another possibility is that since an individual possesses several times fewer terminal values than instrumental values, the list of terminal values is more complete and the respondent is more certain of their order of importance (21:34).

Since the values are presented in alphabetical order, the respondent may, through order effect, tend to

rank as more important values such as *ambitious*, *broad-minded*, and *capable*. Early research indicated such an order effect for the instrumental values, possibly because these values were ranked after the terminal values when the respondent was more fatigued (21:40). Further research, however, indicated that the apparent order effect was due to the nature of the samples being studied (21:41). By chance, the top half of the list of instrumental values contains values such as *honest*, *ambitious*, and *courageous* which might generally be held as being more important than values contained in the lower half of the list, such as *intellectual*, *obedient*, and *polite*. By comparing the rankings of college students, who consistently rank values such as *intellectual*, *logical*, and *imaginative* (which appear in the lower half of the list) highly, to the rankings of a national sample, it was concluded that there is no order effect built into the value survey (21:42).

The possibility that subjects tend to complete the value survey in a manner they believe to be socially desirable, rather than reflecting their true feelings, has been acknowledged and examined (21:42). Experimental subjects were asked to rank the terminal values according to the standard instructions (to reflect their true feelings), and were later asked to rank the same values again, but in an order that they deemed to be socially

preferred ranking. The low correlation between the two rankings indicates that the personal value survey does, in fact, reflect the respondent's true feelings (21:42).

The Rokeach Value Survey was administered in 1968 by the National Opinion Research Center to a sample of Americans over age twenty-one. This effort provided perhaps the first descriptive data of a systematic nature on values of a cross section of adult American society (21:55-56).

Data Collection

The duties performed by the COs within ASD include considerable temporary duty at other geographic locations. Additionally, a portion of these officers were on leave at the time the sample was taken. As shown in Table 1, 74 of the 109 assigned personnel were available for sampling.

At each of the SPOs, an administrative clerk or secretary was asked to assist in the distribution and collection of the surveys. When the clerk had gathered the completed surveys, he notified the researchers to pick them up. The time required for distribution and collection of the surveys varied among the SPOs from one to two weeks.

Of the seventy-four surveys distributed, sixty-four responses were received. Three surveys contained incomplete data and were unusable. Several explanations

accounted for the remaining ten surveys. Some of the subjects had departed on leave or temporary duty either without returning a completed survey or before the clerk had distributed the surveys. In some cases, the clerk had notified the researchers to pick up the surveys before collecting all that had been distributed. In other cases, the clerk may have simply misstated the availability of personnel. Few, if any, of the subjects chose not to respond. Nonresponse bias, therefore, was assumed to be minimal.

Statistical Analysis

The Kendall coefficient of concordance, *W*, was used to test the research hypothesis that contracting officers have a common value system. *W* expresses the degree of association among more than two variables measured in ranks (22:229). *W* may be thought of as an index of the divergence of the agreement in actual rankings made by the sampled contracting officers from perfect agreement (if all values were ranked in exactly the same order by all the subjects). *W* is intended for use at the ordinal data level, which is the level achieved in the process of ranking values. Two values were computed for *W*, one for the rankings assigned to terminal values, and one for the rankings assigned to instrumental values.

As in other studies of military values (4; 13), a .05 level of significance was selected for statistical

tests. A *W* significant at the .05 level may be interpreted as meaning that the contracting officers were applying the same standards or value judgments in their rankings (22:237). A high degree of agreement among the sampled contracting officers, as indicated by a significant value of *W*, would support the hypothesis that the contracting officers have a distinctive value system.

Frequency distributions of the rankings assigned to a specific value have been found to be nonnormal distributions (21:56). Many are highly skewed in one direction or the other. Because these distributions differ markedly from normality and because ordinal data is involved, the median ranking assigned to each value was used as the measure of central tendency. To answer the research question, two composite rankings were developed: one for terminal values and one for instrumental values. The composite rankings were formed by ordering the medians computed for each value. These composite rankings represent the value profile of the sample.

The composite rank order is also useful for comparing the position of a particular value across groups (21:56). The rankings obtained from the contracting officers were compared to those obtained from the national sample of adult Americans. The nonparametric median test was used to test for signficant differences. The median test utilizes a chi-square statistic to test whether or not two groups differ in central tendency (22:111).

CHAPTER IV

FINDINGS

The respondents were all males ranging in military grade from Lieutenant to Lieutenant Colonel. All were college graduates, some with advanced degrees. Table 2 shows the sample distribution by military grade and AFSC. Appendix B contains the frequency distributions of ranks assigned to each value for the sample, the sample by military grade, and the sample by AFSC.

TABLE 2

SAMPLE BY MILITARY GRADE AND AFSC

Grade	AFSC			Total
	6516	6524	6534	
Lieutenant	0	3	6	9
Captain	0	13	21	34
Major	13	0	0	13
Lieutenant Colonel	5	0	0	5
Total	18	16	27	61

Frequency distributions of rankings assigned to individual values have been found to be distinctively nonparametric (21:56). Since no assumption

as to underlying distributions could be made and the ranking of values provides ordinal data, a nonparametric test of ordinal data was required to test the hypothesis that the value systems of contracting officers are related. Of the measures available, the coefficient of concordance has been used in similar studies (21:37) and was selected for use in this research.

The Coefficients of Concordance

The Kendall coefficient of concordance, W, expresses the degree of association among more than two variables measured in ranks (22:229). W is an index of the divergence of the agreement in actual rankings made by the sampled contracting officers from perfect agreement (all values being ranked in exactly the same order by all the subjects).

To compute W for the terminal values, the sets of rankings were placed in an 18×61 matrix to facilitate finding the sum of ranks, R_j, for each value. Table 3 shows the sum of ranks assigned to each terminal value. If all the contracting officers had been in perfect agreement, one value would have received sixty-one ranks of 1 and the sum of ranks, R_j, for that value would have been 61. The value which all contracting officers designated as second in importance would have $R_j = 2 \times 61 = 122$, and so on for each value up to and including that value designated

TABLE 3

SUM OF RANKS ASSIGNED TO TERMINAL VALUES
BY SIXTY-ONE CONTRACTING OFFICERS

Value	Sum of Ranks R_j	$\left[R_j - \frac{\Sigma R_j}{N}\right]^2$
A Comfortable Life	636	3,192.25
An Exciting Life	669	8,010.25
A Sense of Accomplishment	357	49,506.25
A World at Peace	647	4,556.25
A World of Beauty	870	84,390.25
Equality	734	23,870.25
Family Security	308	73,712.25
Freedom	362	47,306.25
Happiness	533	2,162.25
Inner Happiness	466	12,882.25
Mature Love	579	0.25
National Security	619	1,560.25
Pleasure	840	67,860.25
Salvation	703	15,252.25
Self-Respect	324	65,280.25
Social Recognition	750	29,070.25
True Friendship	628	2,352.25
Wisdom	406	30,102.25
Total	ΣR_j =10,431	521,066.5

$$\text{Mean } R_j = \frac{\Sigma R_j}{N} = \frac{10,431}{18} = 579.5$$

as least important, which would have $R_j = 18 \times 61 = 1,098$. If, on the other hand, there had been no agreement among the contracting officers, the various R_js would have been approximately equal.

W is a function of the degree of variance among the sums of ranks and is computed:

$$W = \frac{s}{\frac{1}{12}k^2(N^3-N)}$$

where:

s = sum of squares of the observed deviations from the mean of R_j:

$$\sum_{j=1}^{N} R_j - \left[\frac{\Sigma R_j}{N}\right]^2$$

k = number of sets of rankings, i.e., the number of contracting officers sampled--61,

N = Number of objects (values) ranked--18,

$\frac{1}{12}k^2(N^3-N)$ = maximum possible sum of the squared deviations, i.e., the sum s which would occur with perfect agreement among the k rankings (22:23).

It can be seen that W may take values only between 0 and +1. The closer W is to 1, the higher the agreement among the judges ranking the objects.

For the rankings assigned to terminal values:

$$W = \frac{521,066.5}{\frac{1}{12}(61)^2(18^3-18)} = 0.29$$

When N is larger than 7, a chi square value may be computed (22:236):

$$\chi_s^2 = k(N-1)W$$

The computed chi square value may then be tested for significance by reference to a table of chi square critical values with degrees of freedom = $N-1$. As in other studies of military values (4; 13), a .05 level of significance was used to test for significance.

The null hypothesis that the rankings are unrelated may now be written:

$$H_0: \quad \chi_s^2 \leq \chi_{crit}^2$$

The research, or alternate, hypothesis that contracting officers have a distinctive value system becomes:

$$H_1: \quad \chi_s^2 \geq \chi_{crit}^2$$

For the rankings assigned to terminal values:

$$\chi_s^2 = 61(18-1)(0.28) = 300.73$$

From a table of chi square critical values (22:249), $\chi^2_{crit}=27.59$ for $\alpha=.05$ and degrees of freedom = 18-1=17. The null hypothesis can, therefore, be rejected and the research hypothesis is supported. The probability value associated with the observed W is less than .001, indicating with considerable assurance that the agreement among the contracting officers is not due to chance but rather to the contracting officers applying similar internal standards in ranking the value concepts.

Table 4 shows the sum of ranks assigned to each instrumental value. For the instrumental values:

$$W = \frac{515,184.5}{\frac{1}{12}(61)^2(18^3-18)} = 0.29$$

and

$$\chi_s^2 = 61(18-1)(0.29) = 300.73$$

Again, the probability value associated with the observed W is less than .001 and the research hypothesis is supported.

TABLE 4

SUM OF RANKS ASSIGNED TO INSTRUMENTAL VALUES
BY SIXTY-ONE CONTRACTING OFFICERS

Value	Sum of Ranks R_j	$\left[R_j - \frac{\Sigma R_j}{N}\right]^2$
Ambitious	500	6,320.25
Broadminded	552	756.25
Capable	389	36,290.25
Cheerful	751	29,412.25
Clean	866	82,082.25
Courageous	450	16,770.25
Forgiving	655	5,700.25
Helpful	670	8,190.25
Honest	257	104,006.25
Imaginative	613	1,122.25
Independent	495	7,140.25
Intellectual	574	30.25
Logical	554	650.25
Loving	637	3,306.25
Obedient	873	86,142.25
Polite	788	43,472.25
Responsible	299	78,680.25
Self-Controlled	508	5,112.25
Total	$\Sigma R_j = 10,431$	$s = 515,184.5$

$$\text{Mean of } R_j = \frac{\Sigma R_j}{N} = \frac{10,431}{18} = 579.5$$

Composite Rankings

Because the frequency distributions of the rankings assigned to values have been found to deviate markedly from normality and from one another, the measure of central tendency considered most appropriate was the median rather than the mean (21:56). From the median rankings for each value as shown in Appendix B, a composite rank order was developed for each list of values. These composite rank orders are useful both as a general index of the relative position of a particular value in the total hierarchy of values and when comparing the position of a particular value across groups (21:56). These composite rankings, then, may be taken in answer to the research question as representing the value profile of the sampled contracting officers. The composite rank orders for terminal values and for instrumental values are shown in Tables 5 and 6, respectively.

The median test was used to determine significant differences between the rankings obtained from the COs and the rankings obtained from adult Americans by the national sample in 1968. Since the COs were all male and college graduates, their rankings were compared first to the rankings of only the males in the national sample (21:364-367) and then to the rankings of college graduates, which included females (21:380-391). Tables 7 and 8 compare the medians and composite rank orders for the three

TABLE 5

COMPOSITE RANK ORDER OF TERMINAL VALUES
FOR SAMPLE OF SIXTY-ONE
CONTRACTING OFFICERS

Value	Median
Self-Respect	4.25
Family Security	4.38
A Sense of Accomplishment	4.92
Freedom	5.33
Wisdom	6.31
Inner Harmony	7.25
Happiness	8.43
Mature Love	9.31
True Friendship	10.20
A Comfortable Life	10.75
National Security	11.25
A World at Peace	11.33
An Exciting Life	11.63
Equality	12.92
Social Recognition	12.94
A World of Beauty	14.44
Pleasure	14.92
Salvation	16.00

TABLE 6

COMPOSITE RANK ORDER OF INSTRUMENTAL VALUES FOR SAMPLE OF SIXTY-ONE CONTRACTING OFFICERS

Value	Median
Honest	2.43
Responsible	4.56
Courageous	6.08
Capable	6.29
Ambitious	7.81
Independent	8.00
Self-Controlled	8.00
Logical	8.25
Broadminded	8.75
Intellectual	9.63
Imaginative	10.08
Forgiving	10.67
Loving	11.13
Helpful	11.40
Cheerful	12.67
Polite	13.81
Clean	14.44
Obedient	15.94

TABLE 7

TERMINAL VALUE MEDIANS AND COMPOSITE RANK ORDERS FOR SAMPLE OF CONTRACTING OFFICERS AND NATIONAL SAMPLE BY ADULT MALES AND COLLEGE GRADUATES--ARRANGED BY CONTRACTING OFFICER COMPOSITE RANK ORDER

Value	Contracting Officers 61*	Adult Males 665*	College Graduates 151*
Self-Respect	4.25 (1)	8.16 (6)**	6.78 (6)**
Family Security	4.38 (2)	3.86 (2)	4.66 (2)
A Sense of Accomplishment	4.92 (3)	8.29 (7)**	6.00 (5)
Freedom	5.33 (4)	4.91 (3)	4.96 (3)
Wisdom	6.31 (5)	8.49 (8)**	5.24 (4)
Inner Harmony	7.25 (6)	11.08(13)**	9.25 (9)
Happiness	8.43 (7)	7.94 (5)	10.00(10)
Mature Love	9.31 (8)	12.57(14)**	10.33(11)
True Friendship	10.20 (9)	9.63(11)	8.69 (8)
A Comfortable Life	10.75(10)	7.77 (4)	12.94(14)
National Security	11.25(11)	9.21(10)	11.46(12)
A World at Peace	11.33(12)	3.75 (1)**	4.05 (1)**
An Exciting Life	11.63(13)	14.62(18)**	14.05(16)**

TABLE 7--Continued

Value	Contracting Officers 61*	Adult Males 665*	College Graduates 151*
Equality	12.92(14)	8.87 (9)**	8.56 (7)**
Social Recognition	12.94(15)	13.79(16)	14.73(17)**
A World of Beauty	14.44(16)	13.61(15)	12.63(13)**
Pleasure	14.92(17)	14.14(17)	15.70(18)
Salvation	16.00(18)	9.88(12)	13.31(15)

SOURCE: Data source for adult males and college graduates: Sample obtained by National Opinion Research Center in 1968. Milton Rokeach. The Nature of Human Values. (New York: The Free Press, 1973), pp. 364-391.

NOTE: Figures shown are median rankings and, in parentheses, composite rank orders.

*Number in sample: Contracting Officers 61
Adult Males 665
College Graduates 151

**Indicates significant difference at α=.05.

TABLE 8

INSTRUMENTAL VALUE MEDIANS AND COMPOSITE RANK ORDERS FOR SAMPLE OF CONTRACTING OFFICERS AND NATIONAL SAMPLE BY ADULT MALES AND COLLEGE GRADUATES--ARRANGED BY CONTRACTING OFFICER COMPOSITE RANK ORDER

Value	Contracting Officers 61*	Adult Males 665*	College Graduates 151*
Honest	2.43 (1)	3.43 (1)	3.13 (1)
Responsible	4.56 (2)	6.58 (3)**	5.52 (2)
Courageous	6.08 (3)	7.49 (5)	7.89 (5)
Capable	6.29 (4)	8.86 (8)**	9.18 (9)**
Ambitious	7.81 (5)	5.61 (2)	7.78 (4)
Independent	8.00 (6)	10.17(11)	8.78 (7)
Self-Controlled	8.00 (7)	9.65(10)	8.94 (8)
Logical	8.25 (8)	13.51(16)**	10.67(13)**
Broadminded	8.75 (9)	7.20 (4)**	6.00 (3)**
Intellectual	9.63(10)	12.77(15)**	9.40(10)
Imaginative	10.08(11)	14.28(18)**	11.06(14)
Forgiving	10.67(12)	8.23 (6)**	10.08(11)
Loving	11.13(13)	10.90(14)	10.29(12)

TABLE 8--Continued

Value	Contracting Officers 61*	Adult Males 665*	College Graduates 151*
Helpful	11.40(14)	8.35 (7)**	8.65 (6)**
Cheerful	12.67(15)	10.41(12)**	11.75(15)
Polite	13.81(16)	10.85(13)**	13.55(17)
Clean	14.44(17)	9.43 (9)**	13.54(16)
Obedient	15.94(18)	13.51(17)**	15.87(18)

SOURCE: Data source for adult males and college graduates: Sample obtained by National Opinion Research Center in 1968. Milton Rokeach. The Nature of Human Values (New York: The Free Press, 1973), pp. 364-391.

NOTE: Figures shown are median rankings and, in parentheses, composite rank orders.

*Number in sample: Contracting Officers 61
Adult Males 665
College Graduates 151

**Indicates significant difference at α=.05.

groups and indicate significant differences at the .05 level of significance.

As can be seen from Tables 7 and 8, significant differences were found in the rankings of eight terminal and twelve instrumental values when the COs were compared to adult males. The largest terminal value difference was found for *a world at peace*, which had a median of 3.75 for the adult males and 11.33 for the COs. The largest instrumental value differences was for *logical*, which had a median of 13.51 for the adult males and 8.25 for the COs. When the COs were compared to college graduates, the number of significant differences decreased to six for terminal values and four for instrumental values. The largest terminal value difference was again found for *a world at peace*, which had a median of 4.05 for the college graduates. The largest instrumental value difference was found for *capable*, which had a median of 9.18 for the college graduates and 6.29 for the COs.

It should be noted that the medians and composite rank orders for the three groups are for convenience of description and comparison only; they do not enter into calculations of statistical significance using the median test. The median test measures the significance of difference between the number of respondents in two groups who fall above and below the median for the two groups combined (22:11). Consequently, the median obtained for

the COs for a particular value may appear quite different from the median obtained for either the adult males or college graduates but the two groups may not be statistically different when combined for the median test. For example, the rankings obtained for *salvation* for both COs and adult males tend to accumulate at both ends of the scale with fewer rankings in the middle range. This distribution produces a sample median that is pulled toward the end with more rankings. Although the difference between the median obtained for COs and the median obtained for adult males appears large, there is no significant difference when the two groups are combined.

CHAPTER V

DISCUSSION OF FINDINGS

The objectives of this research were to determine if COs share a similar value system and, if so, its hierarchy of importance. Within the limitations of the research effort, these objectives were met. Through the use of the Kendall coefficient of concordance, it was concluded with considerable assurance that the COs were applying essentially the same internal standards in ranking the values. The low probability value associated with the computed coefficients of concordance indicates a high degree of agreement among the COs in assigning the ranks. By combining the individual responses, two composite rank orders, presented in Tables 5 and 6, were developed and represent the value profile of the sample.

Conclusions

Although the national sample is somewhat dated, it was felt that a valid comparison could be made between the COs and a cross-section of American society as represented by the national sample since values are relatively stable over time. Eight terminal values and twelve instrumental values were ranked significantly different by the

COs when compared to the national sample of adult males. Twelve of these differences, however, disappeared when the COs were compared to college graduates. These results are summarized in Tables 7 and 8.

Since the COs had all completed college, it is not surprising that their value profile is similar to that of other college graduates. Differences in education level, one measure of socio-economic status, have been associated with widespread value differences (21:63). Among the values that are ranked higher by the better educated than the less well educated are *a sense of accomplishment, inner harmony, mature love, wisdom, imaginative, intellectual,* and *responsible.* Conversely, among the values that have been found to be ranked lower by the better educated are *cheerful, clean, forgiving, obedient,* and *polite* (21:63-65). The results obtained from the COs are consistent with these findings. It appears, then, that the educational background of the CO influences his value system to a large extent.

For only two values, *a world of beauty* and *social recognition,* were the rankings significantly different between the COs and the college graduates and not significantly different between the COs and the adult males. Apparently, the COs are similar to other adult males in ranking *a world of beauty* lower than do most college graduates. Men have been found to rank *social recognition*

higher than do women (21:59). This finding may explain why although no significant difference was found between the COs and adult males in rankings assigned to *social recognition*, COs were found to rank the value significantly higher than do the college graduates. Because the college graduates include women, their presence may have tended to lower the rankings assigned to *social recognition*.

In all, eight values were assigned rankings by the COs which were significantly different from those assigned by both the adult males and the college graduates. Three of these values, *self-respect*, *capable*, and *logical*, were among the five values predicted in Chapter II to be characteristics of a CO. The other values assigned significantly different rankings by the COs were *a world at peace*, *equality*, *broadminded*, *helpful*, and *an exciting life*. *An exciting life* was ranked higher by the COs than the national sample; the other values were ranked lower by the COs.

At this point, it should be noted that there are alternative reasons why a particular value may receive a high or a low ranking (21:62). A value may be ranked low because it represents something already possessed and therefore taken for granted or, conversely, a value may be ranked high because it represents an unfulfilled need. On the other hand, a person may rank a value high because

it represents something he possesses to some degree but desires more; conversely, he may rank the value low because it represents something he neither has nor wants. In other cases, a person may even rank a value low because it represents something of which he is perceptually unaware. It may be necessary, therefore, to go beyond the value survey to determine the reasons why a CO or any other individual ranks the values as he does. With some knowledge of the characteristics of a sample, however, some inferences may be made.

The comparatively high ranking assigned to *an exciting life* by the COs may be found among other military personnel as well. The opportunity for world-wide travel and adventure has long been a recruitment incentive used by the military. It would seen reasonable to expect military personnel, particularly those who had not been drafted into service, to place a higher importance on *an exciting life* than do their civilian counterparts.

The times the samples were taken may account for a rather large difference in rankings assigned to *a world at peace*. The national sample was taken in 1968, the year of the Tet Offensive by the North Vietnamese, while the war in Southeast Asia was being bitterly fought. The COs, on the other hand, were sampled several years after the treaty was signed ending United Stated involvement in Vietnam, a time when no United States forces

were engaged in combat. It is not surprising, therefore, that *a world at peace* was ranked significantly higher by the 1968 sample.

The COs also ranked *broadminded* and *helpful* significantly lower than did the national sample. Again, the results may be found to be characteristics of military personnel in general rather than COs specifically. Although innovation is officially encouraged, the military officer is afraid of making the one mistake that will single him out from his peers (27:39). This fear leads to the "cover your mistakes" and "never volunteer for anything" attitudes that are so often found in the military and other large bureaucracies.

The findings of this research are, for the most part, consistent with the predictions made in Chapter II based upon the literature review and survey responses obtained from the procurement authorities. Of the terminal values, it was predicted that *self-respect* and *a sense of accomplishment* would receive high rankings from the COs. These values ranked first and third, respectively, in the composite rank order of terminal values. The instrumental values predicted to receive high rankings were *capable*, *ambitious*, and *logical*, which ranked fourth, fifth, and seventh, respectively, in the composite rank order of instrumental values.

Although the predicted instrumental values did not receive as high rankings as the predicted terminal values, all the predicted values with the exception of *ambitious* were ranked significantly higher by the COs when compared to the national sample of adult males. *Ambitious* appears to be one of the values that are important to American men and women in general (21:58). A possible reason that the terminal values were predicted more accurately than the instrumental values is that since there are fewer terminal values, the list of terminal values is a more complete list and represents concepts that are more distinctive from one another than those included in the list of instrumental values. In any case, the COs appear to place a relatively high importance upon what have been called the "managerial values" (27:37): *ambitious, logical,* and *capable.*

Of the five values predicted to be characteristic of COs, *self-respect, capable,* and *logical* were found to discriminate significantly between COs and the national sample of both adult males and college graduates. These are, then, the values that are most distinctive of a CO when compared to civilian counterparts. Because of the paucity of value research in the military, however, it is unknown at this time to what extent these values represent characteristics of military personnel performing other duties.

Practical Implications

In examining the value profile of the COs, it is evident that greater importance is placed on personal goals such as *self-respect, a sense of accomplishment, honest, responsible,* and *courageous* than on the interpersonal or organizational goals such as *national security, social recognition, obedient, polite,* and *helpful.* This value hierarchy seems to indicate that appeals to individual professionalism would be more effective in motivating COs than appeals to organizational or Air Force pride. This indication implies that modern participative management techniques such as management by objective, decentralization, and job enrichment could have a significant impact on the job satisfaction and retention of COs.

Current attempts to reduce benefits of military personnel (e.g., commissary subsidies, medical services, and retirement compensation) are recognized as having an adverse effect on morale. The high ranking assigned to *family security,* however, indicates that the results of such reductions could be more serious than is generally realized.

The relatively low ranking assigned to *equality* could have serious implications for Air Force equal opportunity programs for racial minorities and women. It is not clear whether *equality* received a relatively low ranking because equal opportunity programs have

basically succeeded and *equality* is taken for granted or because the COs place a relatively low importance on the concepts behind *equality*. If the latter is found to be the case, equal opportunity programs may need reexamination of their effectiveness. On the other hand, the rankings assigned to *equality* may simply reflect the political ideology of the COs. Studies have indicated that variations from liberal to conservative in the United States are related to variations in the rankings assigned to *equality* (21:180-181). The rankings assigned to *equality* by the COs are indicative of a conservative ideology, as might be expected of military officers.

The Personal Value Survey has been proposed for use as a diagnostic tool for vocational counseling and selection (21:330). Values are reflected in virtually all of an individual's observable behavior and, through an understanding of values, future behavior may be predicted. This understanding may someday lead to more effective recruiting and retention policies, not only of COs, but of all Air Force personnel. Furthermore, it is possible to cause long-term value change in an individual which will lead to changes in related attitudes and behavior (21:334). The military could choose selected values for change on the assumption that value change would lead to favorable changes in associated attitudes and behavior.

Recommendations for Further Research

The sampled COs were a sample of convenience and represented less than 5 percent of the total population. Since the sample could not be justified as being representative of the population, generalizations cannot be made beyond the sample itself. Replication of this research with samples of other COs is recommended to provide a more complete understanding of the values of Air Force COs. Until sufficient information is available, valid comparisons cannot be made between COs and other groups.

The CO performs two roles simultaneously. In addition to his specific duties, the CO is also a military officer of the Air Force. Further research is required to determine what values, if any, distinguish between COs and officers in other career fields. Comparisons might be made with personnel involved in aircraft operations, missile operations, research and development, or medical care, to name just a few. Appendix B contains the frequency distributions obtained from the sample of COs by military grade as well as AFSC in order to facilitate comparisons with future samples.

APPENDIXES

APPENDIX A

ROKEACH VALUE SURVEY

VALUE SURVEY

BIRTH DATE_____SEX: MALE_____FEMALE_____

CITY and STATE OF BIRTH_____

NAME (FILL IN ONLY IF REQUESTED)_____NOT REQUIRED_____

MILITARY GRADE_____AFSC_____

EDUCATION LEVEL_____

© 1967 BY MILTON ROKEACH

HALGREN TESTS
873 PERSIMMON AVE.
SUNNYVALE, CALIFORNIA 94087

PRIVACY STATEMENT

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

a. Authority:

1. 10 U.S.C., 8--12, Secretary of the Air Force, Powers, Duties, Delegation by Compensation; and/or

2. EO 93-97, 22 Nov 43, Number System for Federal Accounts Relating to Individual Persons; and/or

3. DoD Instruction 1100.13, 17 Apr 68, Surveys of Department of Defense Personnel; and/or

4. AFR 178-9, 9 Oct 73, Air Force Military Survey Program.

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

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

d. Participation in this survey is entirely voluntary.

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

INSTRUCTIONS

On the next page are 18 values listed in alphabetical order. Your task is to arrange them in order of their importance to YOU, as guiding principles in YOUR life. Each value is printed on a gummed label which can be easily peeled off and pasted in the boxes on the left-hand side of the page.

Study the list carefully and pick out the one value which is the most important for you. Peel it off and paste it in Box 1 on the left.

Then pick out the value which is second most important for you. Peel it off and paste it in Box 2. Then do the same for each of the remaining values. The value which is least important goes in Box 18.

Work slowly and think carefully. If you change your mind, feel free to change your answers. The labels peel off easily and can be moved from place to place. The end result should truly show how you really feel.

1	A COMFORTABLE LIFE (a prosperous life)
2	AN EXCITING LIFE (a stimulating, active life)
3	A SENSE OF ACCOMPLISHMENT (lasting contribution)
4	A WORLD AT PEACE (free of war and conflict)
5	A WORLD OF BEAUTY (beauty of nature and the arts)
6	EQUALITY (brotherhood, equal opportunity for all)
7	FAMILY SECURITY (taking care of loved ones)
8	FREEDOM (independence, free choice)
9	HAPPINESS (contentedness)
10	INNER HARMONY (freedom from inner conflict)
11	MATURE LOVE (sexual and spiritual intimacy)
12	NATIONAL SECURITY (protection from attack)
13	PLEASURE (an enjoyable, leisurely life)
14	SALVATION (saved, eternal life)
15	SELF-RESPECT (self-esteem)
16	SOCIAL RECOGNITION (respect, admiration)
17	TRUE FRIENDSHIP (close companionship)
18	WISDOM (a mature understanding of life)

WHEN YOU HAVE FINISHED, GO TO THE NEXT PAGE.

Below is another list of 18 values. Arrange them in order of importance, the same as before.

1	
2	
3	
4	
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17	
18	

AMBITIOUS
(hard-working, aspiring)

BROADMINDED
(open-minded)

CAPABLE
(competent, effective)

CHEERFUL
(lighthearted, joyful)

CLEAN
(neat, tidy)

COURAGEOUS
(standing up for your beliefs)

FORGIVING
(willing to pardon others)

HELPFUL (working for the welfare of others)

HONEST
(sincere, truthful)

IMAGINATIVE
(daring, creative)

INDEPENDENT
(self-reliant, self-sufficient)

INTELLECTUAL
(intelligent, reflective)

LOGICAL
(consistent, rational)

LOVING
(affectionate, tender)

OBEDIENT
(dutiful, respectful)

POLITE
(courteous, well-mannered)

RESPONSIBLE
(dependable, reliable)

SELF-CONTROLLED
(restrained, self-disciplined)

APPENDIX B

FREQUENCY DISTRIBUTIONS OF RANKS ASSIGNED TO TERMINAL AND INSTRUMENTAL VALUES

APPENDIX B

FREQUENCY DISTRIBUTIONS OF RANKS ASSIGNED TO TERMINAL AND INSTRUMENTAL VALUES

Appendix B contains frequency distributions of the rankings assigned to terminal and instrumental values by sixty-one contracting officers. Frequency distributions are provided for the entire sample, the sample by military grade, and the sample by Air Force Specialty Code (AFSC).

FREQUENCY DISTRIBUTIONS--TERMINAL VALUES
SIXTY-ONE CONTRACTING OFFICERS

Value/Rank	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Median
A Comfortable Life	3	3	0	1	4	3	10	3	1	2	2	2	3	5	5	9	2	3	10.75
An Exciting Life	0	2	2	1	6	2	3	5	0	2	7	4	5	4	9	3	5	1	11.63
A Sense of Accomplishment	6	4	7	11	6	4	4	5	6	1	0	3	1	2	1	0	0	0	4.92
A World at Peace	3	0	4	4	0	2	3	6	3	3	3	3	6	3	6	7	3	2	11.33
A World of Beauty	0	0	0	0	1	0	0	0	2	3	4	4	9	8	5	10	9	6	14.44
Equality	0	1	4	1	3	1	0	3	3	2	4	6	6	6	6	5	4	6	12.92
Family Security	8	13	6	4	6	8	0	2	6	4	0	3	0	0	0	1	0	0	4.38
Freedom	6	7	6	9	3	4	5	3	5	5	5	2	0	0	0	1	0	0	5.33
Happiness	1	0	5	6	3	4	5	7	4	9	3	3	2	2	3	0	3	1	8.43
Inner Harmony	7	6	3	3	8	2	2	2	3	7	3	5	2	1	3	1	1	2	7.25
Mature Love	0	3	2	1	2	6	4	6	8	3	10	1	4	5	2	3	1	0	9.31
National Security	1	6	1	4	3	3	2	1	3	5	2	7	4	5	3	6	4	1	11.25
Pleasure	1	0	0	2	0	0	1	2	5	2	3	1	6	5	6	9	8	10	14.92
Salvation	11	2	2	1	0	2	4	1	1	1	1	1	1	1	1	1	10	20	16.00
Self Respect	5	12	9	6	5	5	4	4	2	1	2	3	1	0	2	0	0	0	4.25
Social Recognition	0	0	3	1	3	1	1	2	3	3	3	7	8	7	5	3	4	7	12.94
True Friendship	0	0	0	2	6	6	5	4	4	5	7	5	1	6	2	1	5	2	10.20
Wisdom	9	2	7	4	2	8	8	5	2	3	2	1	2	1	2	1	2	0	6.31

FREQUENCY DISTRIBUTIONS--INSTRUMENTAL VALUES
SIXTY-ONE CONTRACTING OFFICERS

Value/Rank	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Median
Ambitious	4	3	4	6	6	4	1	8	0	4	5	4	1	3	2	2	3	1	7.81
Broadminded	1	2	4	5	2	3	6	6	6	5	2	6	3	3	1	1	3	2	8.75
Capable	5	6	3	6	5	7	7	8	2	4	1	3	2	2	0	0	0	0	6.29
Cheerful	0	1	1	2	1	1	1	2	5	3	4	8	9	5	4	1	8	5	12.67
Clean	0	0	0	0	0	2	0	0	1	5	3	5	6	9	6	8	8	8	14.44
Courageous	2	8	7	4	6	6	3	4	0	1	4	4	6	1	2	1	0	2	6.08
Forgiving	0	5	1	1	4	3	6	2	4	4	3	3	3	2	5	4	7	4	10.67
Helpful	1	2	2	0	5	4	1	5	1	5	5	6	3	2	7	4	3	5	11.40
Honest	24	7	4	6	2	3	2	2	4	0	2	1	2	1	1	0	0	0	2.43
Imaginative	1	2	4	2	5	2	4	1	6	6	4	4	3	3	4	5	2	3	10.08
Independent	8	4	4	3	2	4	4	3	5	2	5	2	3	2	5	3	1	1	8.00
Intellectual	2	2	4	8	1	3	5	1	4	4	5	4	3	4	3	1	3	4	9.63
Logical	0	4	1	5	6	7	6	2	8	2	1	0	4	2	2	7	4	0	8.25
Loving	2	0	6	4	3	2	2	3	4	2	4	2	3	6	6	7	3	2	11.13
Obedient	0	1	3	0	1	1	0	0	1	3	5	1	4	3	4	8	5	21	15.94
Polite	0	0	1	2	0	0	1	3	5	4	4	4	4	8	7	7	10	1	13.81
Responsible	7	11	8	4	9	5	6	4	3	1	1	0	0	0	1	0	0	1	4.56
Self Controlled	4	3	4	3	3	4	6	7	2	6	3	4	2	5	1	2	1	1	8.00

FREQUENCY DISTRIBUTIONS--TERMINAL VALUES
SIXTY-ONE CONTRACTING OFFICERS BY GRADE

Value/Rank	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Median
A Comfortable Life																			
LtC/Maj	1	1	0	0	1	1	2	1	0	1	1	0	1	1	1	5	1	0	11.50
Capt	2	2	0	1	1	1	7	2	1	1	0	2	0	4	4	3	0	3	9.50
Lt	0	0	0	0	2	1	1	0	0	0	1	0	2	0	0	1	1	0	11.00
An Exciting Life																			
LtC/Maj	0	0	0	0	3	0	0	1	0	0	2	3	2	2	3	1	0	1	12.50
Capt	0	2	2	1	3	2	1	2	0	1	4	1	3	2	3	2	5	0	11.25
Lt	0	0	0	0	0	0	2	2	0	1	1	0	0	0	3	0	0	0	10.00
A Sense of Accomplishment																			
LtC/Maj	2	0	1	5	1	3	0	1	3	0	0	1	1	0	0	0	0	0	5.50
Capt	3	4	4	5	5	1	3	2	3	1	0	2	0	0	1	0	0	0	4.70
Lt	1	0	2	1	0	0	1	2	0	0	0	0	0	2	0	0	0	0	7.00
A World at Peace																			
LtC/Maj	0	0	1	0	0	0	2	2	0	0	1	1	2	1	2	2	3	1	13.50
Capt	2	0	1	4	0	2	1	4	0	3	2	2	4	2	4	3	0	0	10.50
Lt	1	0	2	0	0	0	0	0	3	0	0	0	0	0	0	2	0	1	9.00
A World of Beauty																			
LtC/Maj	0	0	0	0	0	0	0	0	1	0	1	1	4	3	2	2	3	1	14.17
Capt	0	0	0	0	1	0	0	0	1	2	3	3	4	3	3	7	3	4	14.50
Lt	0	0	0	0	0	0	0	0	0	1	0	0	1	2	0	1	3	1	16.00

FREQUENCY DISTRIBTUIONS--TERMINAL VALUES--Continued

Value/Rank	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Median
Equality																			
LtC/Maj	0	1	0	0	0	1	0	1	1	2	2	1	1	1	2	2	0	3	12.50
Capt	0	0	3	1	3	0	0	1	2	0	1	4	3	4	3	3	4	2	13.17
Lt	0	0	1	0	0	0	0	1	0	0	1	1	2	1	1	0	0	1	12.75
Family Security																			
LtC/Maj	3	4	3	1	2	2	0	1	2	0	0	0	0	0	0	0	0	0	3.17
Capt	4	7	3	3	3	6	0	1	2	4	0	0	0	0	0	1	0	0	4.50
Lt	1	2	0	0	1	0	0	0	2	0	0	3	0	0	0	0	0	0	8.75
Freedom																			
LtC/Maj	2	2	2	1	1	2	1	1	0	2	2	2	0	0	0	0	0	0	6.00
Capt	3	3	4	6	1	1	4	2	5	2	2	0	0	0	0	1	0	0	5.50
Lt	1	2	0	2	1	1	0	0	0	1	1	0	0	0	0	0	0	0	4.25
Happiness																			
LtC/Maj	0	0	2	2	1	0	3	2	0	4	0	0	0	0	1	0	2	1	8.00
Capt	1	0	2	3	2	2	2	5	3	4	2	2	2	2	1	0	1	0	8.50
Lt	0	0	1	1	0	2	0	0	1	1	1	1	0	0	1	0	0	0	9.00
Inner Harmony																			
LtC/Maj	3	2	1	1	2	1	0	0	2	3	0	0	0	0	2	0	0	1	5.50
Capt	4	3	1	2	3	1	1	2	1	4	1	4	2	1	1	1	1	1	8.50
Lt	0	1	1	0	3	0	1	0	0	0	2	1	0	0	0	0	0	0	5.33

FREQUENCY DISTRIBUTIONS--TERMINAL VALUES--Continued

Value/Rank	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Median
Mature Love																			
LtC/Maj	0	2	0	0	1	1	1	2	3	0	5	1	1	1	0	0	0	0	9.17
Capt	0	1	1	1	1	5	2	4	5	1	5	0	2	2	2	1	1	0	8.90
Lt	0	0	1	0	0	0	1	0	0	2	0	0	1	2	0	2	0	0	13.00
National Security																			
LtC/Maj	0	1	1	2	0	0	0	0	1	3	1	4	1	2	1	1	0	0	11.50
Capt	0	3	0	1	2	3	2	0	2	2	1	3	2	3	2	5	3	0	11.83
Lt	1	2	0	1	1	0	0	1	0	0	0	0	1	0	0	0	1	1	5.00
Pleasure																			
LtC/Maj	0	0	0	1	0	0	0	2	2	0	1	0	2	1	1	2	3	3	14.50
Capt	1	0	0	1	0	0	1	0	2	1	2	1	4	4	3	4	4	6	14.50
Lt	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	3	1	1	15.67
Salvation																			
LtC/Maj	4	0	1	0	0	1	3	1	0	0	0	0	0	1	0	0	2	5	7.50
Capt	5	2	1	0	0	1	0	0	1	1	1	0	1	0	0	1	6	14	17.00
Lt	2	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	2	1	12.00
Self Respect																			
LtC/Maj	1	5	1	3	1	1	2	1	1	1	0	0	1	0	0	0	0	0	4.17
Capt	4	5	8	2	4	1	2	1	1	0	1	3	0	0	2	0	0	0	3.50
Lt	0	2	0	1	0	3	0	2	0	0	1	0	0	0	0	0	0	0	6.00

FREQUENCY DISTRIBUTIONS--TERMINAL VALUES--Continued

Value/Rank	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Median
Social Recognition																			
LtC/Maj	0	0	2	0	1	0	1	0	1	1	1	3	1	2	2	2	1	0	12.17
Capt	0	0	1	1	2	1	0	2	2	2	2	3	5	4	2	1	2	4	12.70
Lt	0	0	0	0	0	0	0	0	0	0	0	1	2	1	1	0	1	3	15.00
True Friendship																			
LtC/Maj	0	0	0	0	3	3	0	0	1	1	0	1	0	3	0	1	3	2	12.50
Capt	0	0	0	1	2	3	4	3	2	2	6	4	1	2	2	0	2	0	10.50
Lt	0	0	0	1	1	0	1	1	1	2	1	0	0	1	0	0	0	0	9.00
Wisdom																			
LtC/Maj	2	0	3	2	1	2	3	2	0	0	1	0	1	0	1	0	0	0	6.00
Capt	5	2	3	1	1	5	3	3	1	3	1	0	1	1	1	1	2	0	6.50
Lt	2	0	1	1	0	1	2	0	1	0	0	1	0	0	0	0	0	0	6.00

FREQUENCY DISTRIBUTIONS--INSTRUMENTAL VALUES
SIXTY-ONE CONTRACTING OFFICERS BY GRADE

Value/Rank	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Median
Ambitious																			
LtC/Maj	2	1	0	2	1	1	1	3	0	3	2	0	0	0	1	0	1	0	7.83
Capt	2	2	2	2	5	2	0	5	0	1	3	3	0	1	1	2	2	1	7.90
Lt	0	0	2	2	0	1	0	0	0	0	0	1	1	2	0	0	0	0	6.00
Broadminded																			
LtC/Maj	0	2	1	1	0	3	0	1	1	1	0	2	1	2	0	1	2	0	9.50
Capt	0	0	3	2	2	0	5	4	4	3	2	3	2	1	1	0	0	2	8.75
Lt	1	0	0	2	0	0	1	1	1	1	0	1	0	0	0	0	1	0	8.00
Capable																			
LtC/Maj	2	2	1	1	2	0	2	1	0	3	1	0	1	2	0	0	0	0	7.00
Capt	3	3	2	4	1	6	5	5	2	1	0	1	1	0	0	0	0	0	6.17
Lt	0	1	0	1	2	1	0	2	0	0	0	2	0	0	0	0	0	0	6.00
Cheerful																			
LtC/Maj	0	0	0	1	1	0	0	0	1	1	1	5	1	1	1	1	2	2	12.30
Capt	0	1	0	1	0	1	1	2	2	1	2	3	6	4	2	0	5	3	13.00
Lt	0	0	1	0	0	0	0	0	2	1	1	0	2	0	1	0	1	0	11.00
Clean																			
LtC/Maj	0	0	0	0	0	0	0	0	0	1	2	4	2	2	3	1	2	1	13.50
Capt	0	0	0	0	0	2	0	0	1	3	0	1	3	7	3	3	5	6	14.50
Lt	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	4	1	1	15.86

FREQUENCY DISTRIBUTIONS--INSTRUMENTAL VALUES--Continued

Value/Rank	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Median
Courageous																			
LtC/Maj	1	2	2	0	2	1	1	0	0	0	2	1	3	1	0	0	0	2	7.50
Capt	1	4	4	2	3	2	2	4	0	1	2	3	3	0	2	1	0	0	7.00
Lt	0	2	1	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	4.25
Forgiving																			
LtC/Maj	0	1	1	0	2	1	3	2	2	1	1	0	1	0	1	0	2	0	8.00
Capt	0	3	0	1	2	2	3	0	1	2	2	1	2	2	3	3	4	3	12.50
Lt	0	1	0	0	0	0	0	0	1	1	0	2	0	0	1	1	1	1	12.25
Helpful																			
LtC/Maj	0	1	0	0	2	1	0	2	0	1	3	1	2	0	3	1	0	1	11.17
Capt	1	0	2	0	3	3	1	2	0	4	0	5	1	2	3	3	2	2	11.70
Lt	0	1	0	0	0	0	0	1	1	0	2	0	0	0	1	0	1	2	11.25
Honest																			
LtC/Maj	5	4	1	2	1	0	1	2	1	0	0	0	0	1	0	0	0	0	2.50
Capt	15	3	2	4	0	3	1	0	3	0	1	0	1	0	1	0	0	0	2.17
Lt	4	0	1	0	1	0	0	0	0	0	1	1	1	0	0	0	0	0	3.00
Imaginative																			
LtC/Maj	0	1	1	1	1	1	2	0	1	2	2	0	2	1	1	1	1	0	10.00
Capt	0	1	2	1	1	1	2	1	4	4	2	3	1	1	2	4	1	3	10.50
Lt	1	0	1	0	3	0	0	0	1	0	0	1	0	1	1	0	0	0	5.33

FREQUENCY DISTRIBUTIONS--INSTRUMENTAL VALUES--Continued

Value/Rank	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Median
Independent																			
LtC/Maj	3	0	0	1	1	1	3	0	1	0	1	1	1	1	2	2	0	0	7.50
Capt	3	3	4	1	1	1	1	3	4	2	3	1	1	0	3	1	1	1	8.50
Lt	2	1	0	1	0	2	0	0	0	0	1	0	1	1	0	0	0	0	5.75
Intellectual																			
LtC/Maj	0	1	2	4	1	0	1	1	2	0	0	1	1	1	0	0	1	2	7.50
Capt	2	1	2	3	0	3	2	0	2	1	5	3	2	2	1	1	2	2	10.50
Lt	0	0	0	1	0	0	2	0	0	3	0	0	0	1	2	0	0	0	10.00
Logical																			
LtC/Maj	0	1	0	1	2	4	0	0	3	1	0	0	1	1	1	2	1	0	8.83
Capt	0	3	1	4	3	2	4	2	3	1	1	0	2	0	1	5	2	0	7.50
Lt	0	0	0	0	1	1	2	0	2	0	0	0	1	1	0	0	1	0	8.75
Loving																			
LtC/Maj	0	0	1	3	0	1	1	2	0	0	1	0	0	0	1	6	2	0	11.50
Capt	2	0	4	1	2	1	1	1	4	2	2	2	2	5	2	0	1	2	10.00
Lt	0	0	1	0	1	0	0	0	0	0	1	0	1	1	3	1	0	0	14.00
Obedient																			
LtC/Maj	0	0	0	0	1	1	0	0	1	2	0	0	1	2	1	1	0	8	15.50
Capt	0	1	2	0	0	0	0	0	0	1	3	1	3	1	3	6	4	9	15.83
Lt	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	1	1	4	17.00

FREQUENCY DISTRIBUTIONS--INSTRUMENTAL VALUES--Continued

Value/Rank	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	71	18	Median
Polite																			
LtC/Maj	0	0	1	0	0	0	0	1	2	1	1	1	1	2	3	1	3	1	14.00
Capt	0	0	0	2	0	0	1	1	2	3	3	2	2	4	4	5	5	0	13.75
Lt	0	0	0	0	0	0	0	1	1	0	0	1	1	2	0	1	2	0	13.75
Responsible																			
LtC/Maj	3	1	6	1	1	2	0	1	1	0	1	0	0	0	0	0	0	1	3.33
Capt	3	8	2	3	8	3	2	1	2	1	0	0	0	0	1	0	0	0	4.62
Lt	1	2	0	0	0	0	4	2	0	0	0	0	0	0	0	0	0	0	6.88
Self-Controlled																			
LtC/Maj	2	1	1	0	0	1	3	2	2	1	0	2	0	1	0	1	1	0	8.00
Capt	2	1	2	3	3	2	3	3	0	3	3	2	2	4	1	0	0	0	7.83
Lt	0	1	1	0	0	1	0	2	0	2	0	0	0	0	0	1	0	1	8.25

FREQUENCY DISTRIBUTIONS--TERMINAL VALUES
SIXTY-ONE CONTRACTING OFFICERS BY AFSC

Value/Rank	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Median
A Comfortable Life																			
6516	1	1	0	0	1	1	2	1	0	1	1	0	1	1	1	5	1	0	11.50
6524	1	1	0	0	1	0	1	2	0	0	1	1	0	2	2	2	1	1	12.50
6534	1	1	0	1	2	2	7	0	1	1	0	1	2	2	2	2	0	2	7.43
An Exciting Life																			
6516	0	0	0	0	3	0	0	1	0	0	2	3	2	2	3	1	0	1	12.50
6524	0	1	0	0	1	2	0	2	0	2	4	1	0	1	1	1	0	0	10.50
6534	0	1	2	1	2	0	3	2	0	0	1	0	3	1	5	1	5	0	13.00
A Sense of Accomplishment																			
6516	2	0	1	5	1	3	0	1	3	0	0	1	1	0	0	0	0	0	5.50
6524	1	0	2	1	4	1	4	1	0	0	0	1	0	1	0	0	0	0	5.50
6534	3	4	4	5	1	0	0	3	3	1	0	1	0	1	1	0	0	0	4.00
A World at Peace																			
6516	0	0	1	0	0	0	2	2	0	0	1	1	2	1	2	2	3	1	13.50
6524	1	0	1	4	0	0	0	1	1	2	2	0	1	1	0	1	0	1	9.50
6534	2	0	2	0	0	2	1	3	2	1	0	2	3	1	4	4	0	0	11.75
A World of Beauty																			
6516	0	0	0	0	0	0	0	0	1	0	1	1	4	3	2	2	3	1	14.17
6524	0	0	0	0	1	0	0	0	0	2	1	1	1	0	2	4	2	2	15.50
6534	0	0	0	0	0	0	0	0	1	1	2	2	4	5	1	4	4	3	14.20

FREQUENCY DISTRIBUTIONS--TERMINAL VALUES--Continued

Value/Rank	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Median
Equality																			
6516	0	1	0	0	0	1	0	1	1	2	2	1	1	1	2	2	0	3	12.50
6524	0	0	2	1	1	0	0	0	2	0	0	1	2	2	2	1	0	2	13.00
6534	0	0	2	0	2	0	0	2	0	0	2	4	3	3	2	2	4	1	13.00
Family Security																			
6516	3	4	3	1	2	2	0	1	2	0	0	0	0	0	0	0	0	0	3.17
6524	2	5	1	1	2	2	0	0	0	2	0	0	0	0	0	1	0	0	3.50
6534	3	4	2	2	2	4	0	1	4	2	0	3	0	0	0	0	0	0	5.63
Freedom																			
6516	2	2	2	1	1	2	1	1	0	2	2	2	0	0	0	0	0	0	6.00
6524	3	4	1	4	0	0	1	1	0	0	1	0	0	0	0	1	0	0	3.50
6534	1	1	3	4	2	2	3	1	5	3	2	0	0	0	0	0	0	0	6.67
Happiness																			
6516	0	0	2	2	1	0	3	2	0	4	0	0	0	0	1	0	2	1	8.00
6524	0	0	2	0	1	1	2	2	2	2	1	1	1	0	0	0	1	0	8.50
6534	1	0	1	4	1	3	0	3	2	3	2	2	1	2	2	0	0	0	8.75
Inner Harmony																			
6516	3	2	1	1	2	1	0	0	2	3	0	0	0	0	2	0	0	1	5.50
6524	1	0	1	0	2	1	0	1	1	1	1	3	0	1	1	1	1	0	10.50
6534	3	4	1	2	4	0	2	1	0	3	2	2	2	0	0	0	0	1	5.38

FREQUENCY DISTRIBTUIONS--TERMINAL VALUES--Continued

Value/Rank	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	71	81	Median
Mature Love																			
6516	0	2	0	0	1	1	1	2	3	0	5	1	1	1	0	0	0	0	9.17
6524	0	1	1	1	0	1	2	2	2	1	2	0	2	1	0	0	0	0	8.50
6534	0	0	1	0	1	4	1	2	3	2	3	0	1	3	2	3	1	0	10.25
National Security																			
6516	0	1	1	2	0	0	0	0	1	3	1	4	1	2	1	1	0	0	11.50
6524	0	2	0	2	2	1	0	0	1	0	0	2	1	1	1	0	3	0	9.50
6534	1	3	0	0	1	2	2	1	1	2	1	1	2	2	1	5	1	1	11.00
Pleasure																			
6516	0	0	0	1	0	0	0	2	2	0	1	0	2	1	1	2	3	3	14.50
6524	1	0	0	0	0	0	0	0	2	0	0	0	0	2	3	3	3	2	15.50
6534	0	0	0	1	0	0	1	0	1	2	2	1	4	2	2	4	2	5	14.25
Salvation																			
6516	4	0	1	0	0	1	3	1	0	0	0	0	0	1	0	0	2	5	7.50
6524	2	0	1	1	0	1	0	0	1	0	1	0	1	0	0	0	2	6	13.50
6534	5	2	0	0	0	0	1	0	0	1	0	1	0	0	1	1	6	9	16.75
Self-Respect																			
6516	1	5	1	3	1	1	2	1	1	1	0	0	1	0	0	0	0	0	4.17
6524	2	2	3	0	0	1	1	2	1	0	1	1	0	0	2	0	0	0	6.50
6534	2	5	5	3	4	3	1	1	0	0	1	2	0	0	0	0	0	0	4.00

FREQUENCY DISTRIBTUIONS--TERMINAL VALUES--Continued

Value/Rank	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Median
Social Recognition																			
6516	0	0	2	0	1	0	1	0	1	1	1	3	1	2	2	2	1	0	12.17
6524	0	0	0	0	0	0	0	0	1	2	0	1	6	2	1	0	1	2	13.17
6534	0	0	1	1	2	1	0	2	1	0	2	3	1	3	2	1	2	5	13.00
True Friendship																			
6516	0	0	0	0	3	3	0	0	1	1	0	1	0	3	0	1	3	2	12.50
6524	0	0	0	0	1	2	3	0	2	2	1	2	0	2	0	0	1	0	9.50
6534	0	0	0	2	2	1	2	4	1	2	6	2	1	1	2	0	1	0	10.25
Wisdom																			
6516	2	0	3	2	1	2	3	2	0	0	1	0	1	0	1	0	0	0	6.00
6524	2	0	1	1	0	3	2	2	0	0	0	1	1	0	1	1	1	0	7.00
6534	5	2	3	1	1	3	3	1	2	3	1	0	0	1	0	0	1	0	6.00

FREQUENCY DISTRIBUTIONS--INSTRUMENTAL VALUES
SIXTY-ONE CONTRACTING OFFICERS BY AFSC

Value/Rank	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Median
Ambitious																			
6516	2	1	0	2	1	1	1	3	0	3	2	0	0	0	1	0	1	0	7.83
6524	0	0	2	0	3	0	0	3	0	0	0	2	0	3	1	1	0	1	8.50
6534	2	2	2	4	2	3	0	2	0	1	3	2	1	0	0	1	2	0	6.00
Broadminded																			
6516	0	2	1	1	0	3	0	1	1	1	0	2	1	2	0	1	2	0	9.50
6524	1	0	3	1	1	0	1	2	0	1	1	3	1	0	0	0	0	1	8.00
6534	0	0	0	3	1	0	5	3	5	3	1	1	1	1	1	0	1	1	8.80
Capable																			
6516	2	2	1	1	2	0	2	1	0	3	1	0	1	2	0	0	0	0	7.00
6524	1	2	0	2	1	3	2	3	1	1	0	0	0	0	0	0	0	0	6.17
6534	2	2	2	3	2	4	3	4	1	0	0	3	1	0	0	0	0	0	6.13
Cheerful																			
6516	0	0	0	1	1	0	0	0	1	1	1	5	1	1	1	1	2	2	12.30
6524	0	1	0	0	0	0	1	2	0	0	1	1	2	2	0	0	4	2	13.50
6534	0	0	1	1	0	1	0	0	4	2	2	2	6	2	3	0	3	1	12.58
Clean																			
6516	0	0	0	0	0	0	0	0	0	1	2	4	2	2	3	1	2	1	13.50
6524	0	0	0	0	0	2	0	0	1	2	0	0	0	0	2	2	2	5	16.00
6534	0	0	0	0	0	0	0	0	0	2	1	1	4	7	1	5	4	2	14.29

FREQUENCY DISTRIBUTIONS--INSTRUMENTAL VALUES--Continued

Value/Rank	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Median
Courageous																			
6516	1	2	2	0	2	1	1	0	0	0	2	1	3	1	0	0	0	2	7.50
6524	1	4	3	2	2	1	0	0	0	0	1	0	1	0	1	0	0	0	3.50
6534	0	2	2	2	2	4	2	4	0	1	1	3	2	0	1	1	0	0	7.25
Forgiving																			
6516	0	1	1	0	2	1	3	2	2	1	1	0	1	0	1	0	2	0	8.00
6524	0	0	0	0	2	1	2	0	2	1	2	2	1	1	0	0	2	0	10.50
6534	0	4	0	1	0	1	1	0	0	2	0	1	1	1	4	4	3	4	14.88
Helpful																			
6516	0	1	0	0	2	1	0	2	0	1	3	1	2	0	3	1	0	1	11.17
6524	1	1	0	0	1	1	1	1	0	3	0	1	1	0	3	1	0	1	10.17
6534	0	0	2	0	2	2	0	2	1	1	2	4	0	2	1	2	3	3	11.88
Honest																			
6516	5	4	1	2	1	0	1	2	1	0	0	0	0	1	0	0	0	0	2.50
6524	8	1	1	3	0	1	1	0	0	0	1	0	0	0	0	0	0	0	1.50
6534	11	2	2	1	1	2	0	0	3	0	1	1	2	0	1	0	0	0	2.75
Imaginative																			
6516	0	1	1	1	1	1	2	0	1	2	2	0	2	1	1	1	1	0	10.00
6524	0	0	2	1	0	1	0	1	3	2	0	0	0	1	2	1	0	2	9.50
6534	1	1	1	0	4	0	2	0	2	2	2	4	1	1	1	3	1	1	10.75

FREQUENCY DISTRIBUTIONS--INSTRUMENTAL VALUES--Continued

Value/Rank	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Median
Independent																			
6516	3	0	0	1	1	1	3	0	1	0	1	1	1	1	2	2	0	0	7.50
6524	1	0	1	2	1	2	0	1	3	0	0	1	1	0	2	1	0	0	8.50
6534	4	4	3	0	0	1	1	2	1	2	4	0	1	1	1	0	1	1	7.75
Intellectual																			
6516	0	1	2	4	1	0	1	1	2	0	0	1	1	1	0	0	1	2	7.50
6524	0	0	0	3	0	0	1	0	2	2	3	2	0	1	0	0	1	1	10.50
6534	2	1	2	1	0	3	3	0	0	2	2	1	2	2	3	1	1	1	10.25
Logical																			
6516	0	1	0	1	2	4	0	0	3	1	0	0	1	1	1	2	1	0	8.83
6524	0	2	0	1	1	1	3	0	0	0	1	0	2	0	0	3	2	0	7.50
6534	0	1	1	3	3	2	3	2	5	1	0	0	1	1	1	2	1	0	7.75
Loving																			
6516	0	0	1	3	0	1	1	2	0	0	1	0	0	0	1	6	2	0	11.50
6524	1	0	1	0	1	1	1	1	2	1	1	1	1	3	1	0	0	0	9.50
6534	1	0	4	1	2	0	0	0	2	1	2	1	2	3	4	1	1	2	12.00
Obedient																			
6516	0	0	0	0	1	1	0	0	1	2	0	0	1	2	1	1	0	8	15.50
6524	0	1	1	0	0	0	0	0	0	0	1	0	3	0	1	4	3	2	15.75
6534	0	0	2	0	0	0	0	0	0	1	4	1	0	1	2	3	2	11	16.33

FREQUENCY DISTRIBUTIONS--INSTRUMENTAL VALUES--Continued

Value/Rank	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Median
Polite																			
6516	0	0	1	0	0	0	0	1	2	1	1	1	1	2	3	1	3	1	14.00
6524	0	0	0	0	0	0	1	0	1	1	1	1	3	2	2	2	2	0	13.50
6534	0	0	0	2	0	0	0	2	2	2	2	2	0	4	2	4	5	0	13.88
Responsible																			
6516	3	1	6	1	1	2	0	1	1	0	1	0	0	0	0	0	0	1	3.33
6524	1	4	1	1	2	1	1	2	1	1	0	0	0	0	1	0	0	0	5.00
6534	3	6	1	2	6	2	5	1	1	0	0	0	0	0	0	0	0	0	4.75
Self-Controlled																			
6516	2	1	1	0	0	1	3	2	2	1	0	2	0	1	0	1	1	0	8.00
6524	1	0	1	0	1	1	1	0	0	1	3	2	0	3	0	1	0	1	11.17
6534	1	2	2	3	2	2	2	5	0	4	0	0	2	1	1	0	0	0	7.25

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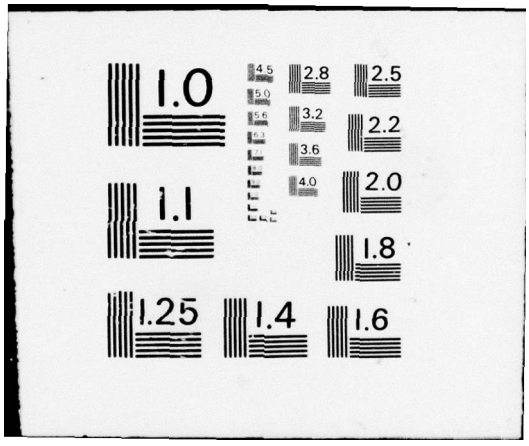
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VALUE PROFILE OF THE AIR FORCE CONTRACTING OFFICER.(U)
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