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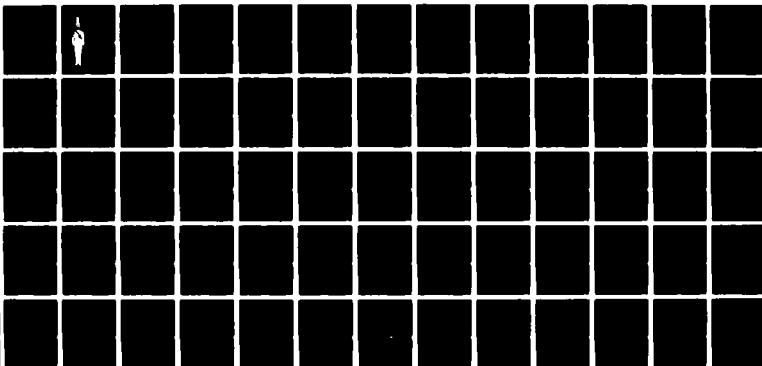
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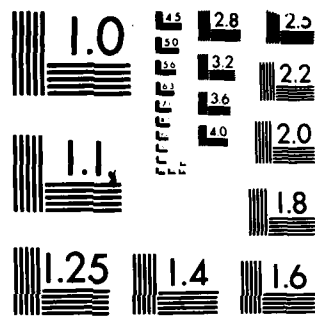
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WEST POINT, NEW YORK

## DEVELOPMENT OF VALUES

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## MORAL JUDGMENTS

of

## WEST POINT CADETS

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DEVELOPMENT OF VALUES AND MORAL JUDGMENTS OF WEST POINT CADETS

Report Number : USMA-OIR-83-002  
Project Number : 326  
Prepared by : Claude Bridges and Robert Priest  
August 1983

ABSTRACT

This report describes the development of personal, social, and moral values, as well as the development of moral judgments in cadets in the Class of 1981. It is the final report of a comprehensive, longitudinal values assessment project initiated in 1977. Cadets were followed over four years, during which time they completed the Rokeach values test, several measures of the relative importance of selected values, and the Scott values scales - - all of which measure personal, social, and moral values. They also completed the Defining Issues Test, which measures the type of moral judgment used by cadets. The results identify some values which are characteristically strong and persistent throughout the four years, some which are characteristically given very low priority, some which cadets held strongly at entrance but eroded, and other values which increased in importance. Over the four years, cadets increased in use of principled moral reasoning as measured by the Defining Issues Test. The Discussion attempts to evaluate whether or not the changes are consistent with USMA's norms. The evaluation is mixed; some of the changes seem consistent with USMA norms, others do not.

NOTE: Any conclusions in this report are not to be construed as official U. S. Military Academy or Department of the Army positions unless so designed by other authorized documents.

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## EXECUTIVE SUMMARY

### A. BACKGROUND.

1. After the 1976 honor incident, which precipitated a number of organizational changes, the need for a program to assess cadet values became evident. The Commandant directed that such a program begin with the Class of 1981, to ascertain cadet values at entrance and throughout their four years at the Academy. It was hoped that the program would contribute to instruction in honor, ethics, and professional matters. Ultimately the goal was to understand value changes in the Corps.

2. The focus of assessment efforts necessarily had to aim at components of cadet value development which are general and common to many college age students. Researchers selected three established value-survey instruments and a test of moral value thinking based on published validities, normative data, and relevance to traditional USMA concerns for integrity, duty, and career success.

3. Throughout the six years of this project, periodic reports were issued. This is the final, comprehensive report. Necessarily, it is long and detailed, but we limited technical matters to a minimum so as to make it accessible to the general reader. In a project of this scope, which reflects the entire four-year cadet career, one should not expect unequivocal cause-and-effect results. It is basic research on how cadets become socialized into the military profession, not an evaluation of a specific limited program, and is aimed at basic understanding rather than quick fixes.

### B. METHOD.

1. One test distinguishes between states of existence which are ends in themselves (terminal values) and those which are useful moral or personal qualities to serve such ends (instrumental values): the Rokeach Value Scales. It requires cadets to rank order, from 1 to 18 in importance, the two sets of values, instrumental and terminal. It was given to all cadets the day they entered the Academy (July 1977), at the conclusion of Cadet Basic Training (August 1977), and at the conclusion of Second Class Summer Training (August 1979). It was given to a sample of cadets just prior to graduation (Spring 1981).

2. Another test defines value as "always" admiring certain positive instances of a value domain, or "always" disliking negative instances of it: the Scott Values Scale. It measures 12 dimensions of value, several of which were not covered by other instruments. Because the 240 item test requires an hour to complete, it was administered to a random sample of cadets three times: at entrance (July 1977), after Cadet Basic Training (August 1977), and just before graduation (Spring 1981).

3. Another value survey reflects the importance to the individual of various long range life goals, career motives and personal qualities; culled from a variety of government-sponsored nation wide opinion surveys, it is referred to as the Importance Inventory. It was given to all cadets at entrance (July 1977), after Cadet Basic Training (August 1977), and after Second Class Summer Training (August 1979). It was given to a sample of cadets just before graduation (Spring 1981).

4. In contrast to the three value surveys described above, the final assessment instrument reflects the process of moral judgment; the Rest Defining Issues Test (DIT). It requires cadets to read a series of hypothetical moral dilemmas, and to indicate the most important considerations for resolving each. The test is scored by



counting the number of considerations which reflect what are regarded as "principled moral reasons" for resolving the dilemma: a higher score reflects greater use of general moral principles in contrast to conventional or pre-conventional thinking. The test was given to a sample of cadets at entrance (July 1977), after Cadet Basic Training (August 1977), after Third Class Summer Training (August 1978), and prior to graduation (Spring 1981).

5. We evaluated the mean scores of cadets on each specific measure in contrast to the mean score of the same individuals at later points of time, using repeated measures T-tests. In addition to such measures of statistical significance, a measure of practical significance is also required. The Executive Summary highlights only those differences which are both statistically significant and also reflect a moderate sized difference of at least half a standard deviation between two means (Cohen's d).

### C. RESULTS.

#### 1. Rokeach Value Scales.

a. Cadets enter the Academy with certain values which they consider important, and they continue to give these values high priority throughout their four years: terminal values such as freedom, true friendship, and family security; instrumental values such as ambitious, capable, courageous, honest, responsible, and self-controlled (Tables 2 and 3).

b. Conversely, cadets enter the Academy with certain values which they consider relatively less important, and they continue to give relatively low priority to them through the four years: terminal values such as "pleasure", "a comfortable life", and "social recognition"; instrumental values such as cheerful, clean, imaginative, and polite (Tables 2 and 3).

c. For some values, cadets attribute decreased importance at each successive testing. For example, cadets at entrance rank "equality" 14th (out of 18), but at graduation rank it 16th. "National security" drops from 8th to 12th, and "obedient" drops from 10th to 17th.

d. In contrast, there is one value which becomes much more important to cadets as they mature: "independence." It goes from 13th to 4th in overall rank.

e. Cadets who eventually graduated had slightly different value profiles in comparison to those who left. Although none of the differences are large, there was a consistent tendency for those who stayed to have a higher value for "responsible", "self-controlled", and "capable." Those cadets who left USMA were consistently significantly higher in the value for "pleasure" and "imaginative" (Table 8).

f. How similar are the values of the Class of 1981 to those of previous groups of cadets? The Rokeach Value Scales had been given to groups of cadets and officers in 1971. When we correlate the value profiles of different groups, the degree of overall similarity is high, with correlations in the 70's for the Spring 1981 profiles (Table 10).

g. A related question asks about the similarity of cadet values to those of officers. We compared the value profiles of cadets to those of a group of Command and Staff college Officers tested in 1977-78, and National Sample Surveys of U.S. males tested in 1968 and 1971. Profiles at entrance and after Cadet Basic Training correlate in the .50's with both officer and U.S. male profiles. But measures of cadet values taken after Second Class Summer Training or just before graduation show a different picture; they correlate in the .70's with officer profile, but only in the .40's with U.S. male profiles. Thus, cadet value profiles have become more similar to officer values and less similar to those of the general public (Table 11).

h. Statements about the value profile of the Class of 1981 as a whole are accurate, but do not generalize to the value profiles of individual cadets. If we were to select any two cadets at random and compare their value profiles, the correlation would be only modest: ranging from .18 to .25. (Table 9).

2. Scott Value Scales. Detailed findings were presented in an earlier report (Priest, 1982). General conclusions are discussed below.

During Cadet Basic Training, cadets increased their adherence to intellectualism, kindness, religiousness, and creativity to a moderate degree. During the next 46 months, values decreased on nearly all the scales to some extent. There was a large decrease in valuation of academic achievement, and moderate decreases in loyalty and religiousness.

### 3. Importance Inventory.

a. Cadets consistently placed relatively high importance on the following items for all four years: "being successful in my line of work," "finding the right person to marry and have a family life," "having strong friendships," to have "self-control," "to be happy" and "to be dependable."

b. They consistently placed relatively low importance on: "having lots of money," "making lots of money," "being close to parents and relatives," "getting away from this area of the country," "avoiding a high pressure job," and "freedom from supervision in my work."

c. They showed moderate decreases over the four years in: "to obey the law," "keeping up-to-date with community affairs," and "being a leader in my community." There were no values which increased in importance over the years, but some showed a turbulent up-down pattern. For example, "developing a meaningful philosophy of life": increased significantly in importance after CBT in 1977, and then showed a much larger decrease in importance after two years in August 1979. "Living close to parents and relatives" was rated relatively low in importance at entrance in July 1977, but immediately after CBT, it was rated significantly and moderately more important; in 1979 and 1981 it had declined in importance to its original levels.

d. On many of the items, West Point cadets change their values in the same direction as civilian youth in other samples, for example, "being a leader."

### 4. Defining Issues Test.

a. At entrance, cadets average 36 percent in use of "principled reason" to justify their response to a set of complex moral dilemmas. A large group of high school seniors obtained a score of 32% (Table 24).

b. After CBT the average score had increased to nearly 38%. By August 1978, it had further increased to nearly 40%. By Spring 1981, it had increased to nearly 43%. This compares to 42% for college students generally.

c. The same general pattern of increasing percent of judgments based on moral principles (P% scores) was found for cadet groups who were tested one, two, three or four times.

D. CONCLUSIONS AND IMPLICATIONS.

1. Cadets appear to be developing as they should in a number of major areas; some of their values at entrance are consistent with traditional USMA concerns for integrity, duty and career success, and these values are maintained throughout the four years. Their value profiles become more similar to the value profiles of successful officers. They progress satisfactorily in use of principled moral reasoning to solve complex moral dilemmas. There is good evidence that these findings are general, applying to other classes besides the Class of 1981.

2. Although the overall portrait of cadet values is reassuring, there are a few danger signals. Scientific caution requires us to state that these danger signals may be interpreted away by alternative explanations (which are given in the Discussion section of the main report for the benefit of the reader). Nevertheless, the "worst case" interpretation of these danger signals is stated here in the Executive Summary, for they deserve full and thoughtful consideration. The Office of Institutional Research intends to conduct follow-on research specifically addressed at conclusions a and h (below).

a. Cadets value "self-control" in the abstract, but not at the cost of controlling anger under provocation [see p.37, para (2)].

b. Although cadets behave politely by civilian standards, they do not value politeness or see its relationship to a broader mix of social skills [p.37, para (3)].

c. Cadets value honesty in general, but have difficulty when honesty conflicts with other values such as friendship. The Academy should continue to educate cadets in ways to deal with such "gray areas," through the four year Honor Education program and the Ethics and Professionalism curriculum [p.37, para (5)].

d. Cadets lost respect for equality (brotherhood equality of opportunity for all), and end up lower than officers. This could reflect insensitivity to EEO problems. Human relations training at USMA should continue to educate cadets about the extent of equality problems in the Army [p.38, para (1)].

e. Cadets drop sharply in their adherence to "obedience" as a value over the four years. While this probably reflects a broadened concept of duty, it indicates a need for the Duty Concept Working Group to continue to be aware of cadet concepts of duty [p.39, para (2)].

f. After a short time at the Academy, cadets lower the priority given to "national security" as a terminal value. This is very surprising at a military academy, and may reflect a need for better education on national security issues [p.39, para (4)].

g. Cadet Basic Training tends to be associated with increased adherence to many values, whereas the remaining training has the opposite effect. This probably reflects tension between "Athenian" and "Spartan" goals at USMA, and suggests the need for continued efforts to promote dialogue between academic instructors and tactical officers [p.40, section c].

h. Cadets, over the four years, decrease their rated importance of obedience to the law. This requires further investigation by OIR, with the consultation of the Dept of Law [p.41, para (2)].

i. Given the emphasis that USMA puts on moral education, it is perhaps disappointing that cadets do not develop further in use of principled moral reasoning. To find out if this really is a problem the moral reasoning level of officers could be used as the basis for evaluating cadet moral development at USMA [p.42, para 3].

## I. INTRODUCTION

### A. BACKGROUND.

1. In 1976, following an honor incident which precipitated an institutional crisis of major proportion, the U.S. Military Academy instituted a number of new policies and programs. It instituted an annual review of the health of the Honor Code and System by a committee of cadets and officers, an academic program on ethics and professionalism, and wrote a series of concept papers to clarify the fundamental goals and objectives of the Academy. At that time the Commandant of Cadets, LTG Ulmer (then BG), recognized the need for a systematic program of value assessment, and directed that the assessment program begin with the Class of 1981. The emphasis was to ascertain cadet attitudes and values at entrance and throughout the four year cadet career, regarding "personal integrity, sense of duty and relative importance of traditional indicators of success (such as financial security, promotion within profession, public recognition", etc.) (Ulmer, 5 Nov 1976). Originally it was hoped that the value assessment would contribute to Honor instruction and to instruction in ethics and professionalism. Ultimately, the goal was to help understand attitude change in the Corps and to help diagnose potential future problems before they reached unmanageable proportions.

2. Designing an assessment program for a four year study of the same individuals was a challenging task. The development of cadet values must be understood in the context of other contemporary research on college students. Thus, it was important to use research instruments that had been developed and validated on civilian student groups of comparable age to entering cadets. Furthermore, the testing instruments had to be short enough so they could be administered in a few hours. Eventually, researchers in Institutional Research, working with officers in the Office of Military Leadership (which was then under the control of the Commandant) proposed two basic types of assessment: one to measure the content of cadet values, using three different instruments; and a second type to measure the process of cadet thinking about moral issues. To measure content of cadet values, the researchers proposed using a short well-established test, which requires an individual to rank order certain words or phrases as guiding principles of life (tests are usually referenced by the name of their developer; hence, in this case, we refer to the Rokeach Value Scales). A second set of value content measures reflect admiration for instances of valued behavior domains such as honesty, loyalty, status, (and nine others). Longer to administer and not as widely used, this test covered values which appeared to have a high degree of relevance to USMA programs (these are referred to as the Scott Value Scales). A third and final set of value content scales reflect judgments of the importance of various long range life goals, career motives, or personal qualities: they were culled from a variety of government sponsored surveys and are described below as the Importance Inventory. When these three sets of value-content instruments were proposed, it was expected that each would complement the other, so that a more complete and accurate portrait of cadet values would emerge. To measure the process of cadet thinking about moral issues, the researchers proposed a test which measures the developmental level of reasons chosen by cadets in resolving a set of hypothetical moral dilemmas (known as the Defining Issues Test, or the Rest DIT).

3. The four-year assessment program was approved by the Commandant and by his successor and implemented, with various modifications as one might expect. Originally, the Office of Military Leadership (OML) was assigned the task of managing the research and issuing the final report, with technical support to be provided by the Office of Institutional Research. A major reorganization removed OML from the control of the Commandant and changed its mission from research to teaching, as the Department of Behavioral Science and Leadership. As a consequence, researchers in OIR assumed responsibility for completion of the project and report. Throughout the six years since the data collection first began on this project, periodic reports have been made. A brief

summary of these earlier reports is given below.

a. CPT Forsythe and LTC Johnson of BS&L used information from the Rokeach Value Survey and several other instruments of their own design, to evaluate a specific course - - MI101, Standards of Professional Behavior. They noted a high degree of stability in the way their group of cadets rank-ordered the values at entrance in 1977, two months later, and at the conclusion of the course. Information from this evaluation was thus used in Improving Ethics and Professionalism instruction (Forsythe and Johnson, 15 Feb 1978).

b. Cadet Kaseman used information from the Rest DIT to evaluate the development of cadet moral thinking. She reported significant increases in moral maturity in the first year and a half at USMA, in the Class of 1981 (Kaseman, 1980).

c. Dr. Priest described changes in cadet values on the Scott Scales during CBT (Priest, 1980a). A comparison technical report showed relationships among the Scott Value Scales, the Rokeach, the Importance Inventory, and Rest's DIT; although there is some overlap, each scale also appears to contribute uniquely to the overall assessment (Priest, 1980b). A complete description of changes throughout the four years of Scott Scales was also made (Priest, 1982).

#### B. ASSUMPTIONS, GOALS, AND LIMITATIONS.

1. Since this is the final report on value change in the Class of 1981, it is the most comprehensive. It must discuss and integrate the findings from prior reports, as well as emphasizing the more recent data which has not previously been reported.

2. The primary focus is on the development and maintenance of cadet values and on the development of cadet moral thinking processes. Rokeach (1973) defines a value as a relatively enduring belief about a mode of conduct or an end state of existence. Scott (1965) emphasized the universal absolute character of values: "a person may be said to entertain a value to the extent that he conceives a particular state of affairs as an ultimate end, an absolute goal under all circumstances, and a universal "ought" towards which all people should strive" (p 15). Values, therefore, are to be distinguished from skills, competencies, behaviors or performances. Since this report focuses on values, it cannot include other important goals of military education, such as specific knowledge, military skills and performances.

3. The research was designed to focus on general, widely-established indicators of value, so that we can understand and explain cadet development using the same frame of reference that is used for studies of comparable age-groups in the civilian environment. While this approach is certainly useful, it means that the research is necessarily more "basic" than is typical of many institutional research projects. In some projects, we have found standardized, commercially developed tests were not as useful as they could be, because certain items appear to be inappropriate to the unique goals of USMA (Priest, 1979). By systematically investigating the military goal-relatedness of the test items (a process termed "calibration"), the interpretability of test scores is enhanced (Priest, 1980 c). It was beyond the scope of the present work to undertake a calibration of the military relevance of items on the Rokeach, the Importance Inventory, or the Rest DIT. Thus, because there are no clearly specified institutional standards for how high certain scores should be on the Rokeach, the Importance Inventory, or the DIT, it is difficult to make precise interpretations. This is a small price to pay for the greater generality of the research findings.

4. The research was also designed as a long range comprehensive study of how cadets become socialized into the military profession. In contrast to many institutional research projects which focus on timely evaluations of programs with clear, limited objectives, this research focuses on the entire four-year cadet experience. With such a

research design, one cannot expect to form unambiguous causal interpretations. At best, if cadet values seem to be developing in a desirable direction, one can only speculate as to the experiences which may have contributed positively. Conversely, if cadet values seem to be developing in an undesirable direction in some instances, one cannot blame particular programs - it is only a signal that one must search for long range solutions.

5. Although this report is lengthy, because it reports detailed comparisons over a four year period, it does not include a number of potentially interesting technical analyses which could and probably should be completed. It avoids technical tools such as factor analysis and canonical correlations not only because such analysis would add to the length of an already long report, but also because such analyses, being beyond the grasp of the technically untutored, might tend to limit the number of readers who can read the report with comprehension. Unfortunately, the price we must pay for such a nontechnical stance is that we lose the potential for general summaries and insights which multivariate procedures often produce.

6. Finally, this research is a case study of a single USMA class - the Class of 1981. Strictly speaking, the analyses and conclusions apply only to this class. There is, however, good reason to believe that the findings and conclusions will apply to future classes as well. The Rokeach Value Scales were administered to prior classes (Bridges, 1973), and the results reported below show considerable comparability between the value profiles of earlier classes and those of the Class of 1981. The Scott Value Scales were also given to a prior class - the Class of 1979. It was concluded that the Class of 1981 and the Class of 1979 had "substantially the same pattern of value development" (Priest, 1982, p.VI).

## II METHOD

A. CRITERIA FOR ASSESSMENT DESIGN. It was beyond the scope of this research to develop new instruments for assessing unique elements of the USMA curriculum, particularly since in 1976 that curriculum was being modified and its future elements were not clearly delineated. Thus, the focus had to be on those components of individual value development which are relatively general in application and common to many college and university programs. Several criteria for selection of the most appropriate set of research tests, among many competing ones available in the published literature, emerged: the validities of the instruments should be well demonstrated; there should be normative data available from other college groups which had taken the tests; the variables assessed must include measures of personal integrity, sense of duty, and national loyalty. The testing time required had to be limited to tight constraints dictated by the schedules of entering cadets (Bridges, 1977).

### B. RESEARCH INSTRUMENTS.

1. General. Two basic types of instruments were identified: measures of value content, reflecting what individuals believe, consider desirable, or important; and measures of process, reflecting basic types of reasoning individuals use in decisions about value-laden issues. Four instruments were chosen, three reflecting value content, one reflecting value processing.

2. Rokeach Value Scales. Rokeach (1973) developed two lists of values commonly held by people. One list represents end-states of existence that people strive for, which are called terminal values. A second list represents personal or moral qualities of people that typically are not ends-in-themselves, but are considered generally useful in promoting ultimate values, which are termed instrumental values. Each list of

terminal values and of instrumental values consists of 18 brief phrases. Individuals are required to read through all 18 items on each list, then to select six values which are most important "as a guiding principle in your life," select the six least important, and finally to completely rank order all items in importance from 1 (most important) to 18 (least important). A copy of the test and instructions is given in Appendix D of this report, for the convenience of the reader. The Rokeach Value Scales have many desirable characteristics as specified above: they have been the subject of extensive research (Rokeach, 1973; Feather, 1975); national norms are available; they include measures of integrity and duty; and they take only about 30 minutes to administer.

3. Scott Value Scales. Scott (1965) developed a list of 12 domains of value among college students: intellectualism, kindness, social skills, loyalty, academic achievement, physical development, status, honesty, religiousness, self-control, creativity, and independence. For each domain, there are 20 statements representing concrete examples of the given value. An individual taking the Scott Values Test responds to each item by choosing (1) always admire, (2) depends on the situation, or (3) always dislike. In scoring the scales, individuals receive one point of credit for each positive behavior they "always admire" or for each negative behavior they "always dislike." The Scott Scales cover values that were considered important at West Point, such as physical development, loyalty, and academic achievement - - which were not covered by the Rokeach Value Scales. The basic reliability and validity of the scales had been established in prior work. The scales require about an hour to administer, and so they were administered only to a sample of cadets in any one testing session. A full discussion of the Scott Value Scales and their particular strengths and weaknesses has already been presented, and will not be repeated here (Priest, 1982). The data from the earlier report will be summarized briefly here as appropriate in the discussion, but will not be analysed in detail in the present report.

4. Importance Inventory. Although both the Rokeach and the Scott Value Scales represent systematic, fairly extensive measures of value, much of the supporting research comes from studies of students at particular colleges which may not be representative of the youth population of the nation as a whole. Thus, there was a need for value measures which could be interpreted in reference to nationally representative youth norms. Three government-sponsored surveys were identified. One was a survey of all high school youth who had graduated in 1972; they were surveyed in 1972, 1973, and 1974. This is known as the National Longitudinal Survey (NLS) (Thompson, 1974; Tabler, 1977), from which twenty items were selected. Another eleven items were selected from the National Health Survey (NHS) of youth age 12-17, which was conducted 1966-1970 (Scanlon, 1975). Finally, 17 items were selected from the Cooperative Institutional Research Survey administered by the American Council on Education (ACE) to students entering over 200 colleges and universities (Astin, King & Richardson, 1975). Collectively, these items reflect absolute judgments about the importance of various long range life goals, career motives, or personal qualities, hence they are referred to as the Importance Inventory.

5. The Defining Issues Test. This test is based on a theory of moral reasoning developed by Kohlberg (1967). Kohlberg does not study the content of moral choice (e.g., whether or not to lie in a particular situation) but the underlying reasons that an individual uses to justify a moral choice. He showed that the concepts which an individual uses to resolve moral dilemmas normally develop through a series of six sequentially ordered stages, beginning with punishment and obedience orientation (stages 1 and 2), moving to a conventional acceptance of societal or in-group rules (stages 3 and 4), and arriving at a postconventional autonomy in which more decisions are made on the basis of universally valid ethical principles of fairness (stages 5 and 6). At each succeeding stage there is a greater appreciation of welfare of others and a greater desire to resolve moral dilemmas in a fair and equitable manner. While, according to Kohlberg, the stages are considered to be invariant (i.e., all persons follow the same sequence), not everyone achieves full development. Thus a cross-section of any population, including military officers, will reveal a sizable number of persons at different moral stages. Although the theory and techniques of Kohlberg have attained the most eminence in the

area of ethical development, his assessment requires lengthy individual interviews by a highly trained evaluator to "stage type" an individual. An objective paper and pencil test for group administration, based on Kohlberg's theory of cognitive moral development, had been well received; Rest's "Defining Issues Test" (DIT). It requires about an hour to administer. Some relevant normative data were available, and Rest's DIT was used to evaluate professional ethics courses being introduced in various medical, dental and law colleges. Different forms of the DIT present three to six moral dilemmas. For each dilemma, cadets rank order the four most important considerations in a list of twelve. Each consideration represents one of the moral stages of Kohlberg's theory. There are no "right" or "wrong" decisions to any dilemma; the test reflects the development level of considerations important to the respondent when making moral judgments. Rest considers moral judgment assessment to be an assessment of sophistication and adequacy of thinking.

C. DATA COLLECTION.

1. General. Table 1 below gives the overall testing schedule as implemented.

TABLE 1  
Testing Schedule

Time	Class Size	Test given			
		Rokeach	Scott	Importance Inventory	DIT
1. At Entrance (July '77)	1470	X	1/2	X	1/2
2. After Cadet Basic Training (August '77)	1346	X	1/2	X	1/2
3. After Third Class Summer Training (August '78)	1128	-	-	-	X
4. After 2nd Class Summer Training (August '79)	1023	X	-	X	-
5. Before Graduation (Spring '81)	971	S	S	S	S

Notes: X - given to the whole class  
 1/2 - given to a random 1/2 the class  
 S - given to a selected sample

2. Several important additional considerations must be noted because they have a bearing on the interpretation of the results. The first four test administrations were all conducted in large auditoriums, at a time regularly set aside for research testing. Although cadets were expected to complete a number of questionnaires in the allotted time, a high percentage of the Corps who were available for testing did complete them satisfactorily. The fifth administration was completed in various ways. The Scott was administered to a carefully selected random sample in a group setting; the Rokeach and the Importance Inventory were included as a part of mail survey which is given to members of the first class, and is voluntarily completed in the cadet's "free time"; the DIT was completed as an out of class assignment by students enrolled in a senior level course in Leadership, as preparation for a unit on Kohlberg's theory of moral development. Except for the Scott, the changed conditions of administering the tests may have affected the motivation or the responses of cadets. Thus, we cannot be sure if the differences in score from one testing to the next are due to genuine change over time, or



whether they are due, in part, to differences in motivation affected by differences in testing conditions.

3. Only 52% of cadets who were invited to complete the First Class Questionnaire did so (Houston, 1981). Thus, the scores on the Rokeach and the Importance Inventory may not be as representative of the class as a whole as the earlier test administrations of these instruments were. Half of the First Class Questionnaire was given under conditions of anonymity. Thus, only half of the available data on the Rokeach and Importance Inventory could be used for purposes of making longitudinal comparisons of change in values over time in the same cadets. Fortunately, there are only small differences between the two groups (anonymous, not anonymous) on the Rokeach and Importance Inventory (Butler and Priest, 1982).

4. The DIT, as normally given, includes six moral dilemmas, including one dealing with stealing. The stealing dilemma was not included in the first two test administrations, but was in the last two. We found a close correspondence between scores based on five stories and scores based on six stories for the latter two testings. Data in this report are based on scores from the five stories which are common to all four testings. The mere presence of a sixth dilemma on the last two testings may have caused cadets to think more carefully and possibly more maturely about moral consideration on the other five which were scored. Thus, differences between testings may be due to genuine change over time, or additionally, they may be due to the stimulus provided by the additional (unscored) story on the DIT on the last two testings.

#### D. STATISTICAL ANALYSIS PROCEDURES.

1. The Rokeach Value Scales require an individual to rank order 18 instrumental values from 1 to 18, and likewise to rank order 18 terminal values. Because the numbers derived from this procedure may not necessarily have equal interval properties, Rokeach and other workers have generally chosen to report medians (rather than means) as the preferred measure of an average group member's value profile. In keeping with the tradition, we report the median value for all cadets tested on the Rokeach Value Scales for each of the four administrations (Tables 2 and 3). In order to test for the statistical significance of changes in a longitudinal design, being restricted to ordinal-level statistics indicates the use of the Wilcoxon matched-pairs signed rank test. We report these tests in a Appendix for the interested scholar. However, we believe that restricting the analysis to ordinal-level statistics is unnecessarily limiting. The ranks assigned may in fact have equal interval properties. Thus, we report mean ranks for the longitudinal group in Tables 4 and 5, and a repeated measures analysis of variance. Use of interval level statistics also permits one to calculate magnitude-of-change measures. To describe the magnitude of changes from one administration to another, we use a modification of Cohen's  $d$  (Cohen, 1969) for repeated measures tests. For a repeated measures test, Cohen's  $d$  is simply the mean change score divided by the standard deviation of the difference, which is given directly by the pair-wise t-test program of SPSS. Following Cohen, changes of .49 or less are regarded as "small" in magnitude; changes of .50 to .79 are regarded as "medium" in magnitude; and changes of .80 or larger are regarded as "large." Cohen's  $d$  is reported for changes in Rokeach value mean score in Tables 6 and 7. In order to test which values were related to attrition, mean Rokeach values of attriting and non attriting cadets were compared by a t-test. Note that the latter procedure assumes interval level statistics also. As a practical matter, we found a very high correlation between mean and median value profiles of cadets, and thus, the use of more conservative ordinal-level statistics is not likely to matter. There were 1128 cadets who completed the Rokeach in both July 77 and August 77; 632 in both August 77 and August 79; 75 in both August 79 and Spring 81; and 87 in both July 77 and Spring 81. The detailed analysis of changes between successive test administrations uses all the available data, and is not restricted to those who were in the longitudinal group.

2. The Importance Inventory (II). Items 1-10 of the Importance Inventory are based on the National Longitudinal Survey of Student Life Goals (NLS Life Goals). "Not important" was scored 1; "somewhat important," 2; and "very important," 3. Items 11-27 are based on the American Council on Education Life Goals items: "essential" was scored 4; the other responses were scored like the NLS Life Goals were. Items 28-37 are based on NLS Job Motivation values and are scored like NLS Life Goals. Items 38-48 are based on the National Health Survey of adolescent values. The scoring is "extremely important," 4; "important," 3; "slightly important," 2; "unimportant," 1. Repeated measures F-tests were performed on means of each item, for cadets in the longitudinal group (N=87), who had taken the inventory all four times (note: the ACE life goals were not administered in Spring 1981). A detailed analysis of changes in the importance of these values from one test administration to the next was also conducted, using repeated measures t-tests on all available data. There were 1289 cadets who took the II in July and August 1977; 769 in August 1977 and August 1979; 89 in August 1979 and Spring 1981; 109 took the July 1977 form and the Spring 1981 form. Clearly, the t-tests based on a larger number of cases are statistically more powerful, and even relatively small changes would be significant. Cohen's  $d$  was used to describe the magnitude of change for the II scales, as described above.

### III RESULTS

#### A. ROKEACH VALUES.

1. Tables 2 and 3 show median importance rankings which cadets assigned to terminal and instrumental values. While there were small or moderate changes in the way cadets evaluated particular items, there was a fair degree of stability in the way cadets ranked all of the 36 items as an overall "value system."

a. Table 2 shows cadets fairly consistently assigned relatively high importance to: freedom, self-respect, true friendship, and family security. But they assigned relatively low importance ranks to: a comfortable life, a world of beauty, equality, pleasure, and social recognition. As we shall see later, there were small changes in some of these values; but the changes are within an overall pattern of stability.

TABLE 2

Median rankings and composite rank orders for all tested cadets.  
Class of 1981 - Terminal Values

	NCT 77	RWK 77	RWK 79	SPG 81
1. A comfortable life	13.46 (15)	12.13 (15)	11.62 (14)	11.79 (13)
2. An exciting life	11.23 (13)	10.98 (13)	9.63 (10)	8.83 (10)
3. A sense of accomplishment	7.04 ( 5)	9.08 (10)	7.46 ( 6)	6.38 ( 4)
4. A world at peace	8.95 ( 9)	8.82 ( 9)	10.62 (12)	11.07 (11)
5. A world of beauty	14.82 (16)	14.85 (17)	14.73 (17)	15.00 (18)
6. Equality	11.28 (14)	12.03 (14)	13.23 (16)	13.50 (16)
7. Family security	7.34 ( 6)	5.89 ( 2)	6.60 ( 5)	6.93 ( 6)
8. Freedom	5.43 ( 1)	5.73 ( 1)	5.51 ( 1)	4.83 ( 1)
9. Happiness	7.65 ( 7)	6.97 ( 6)	5.97 ( 2)	7.61 ( 8)
10. Inner harmony	9.89 (12)	9.41 (11)	9.79 (11)	8.20 ( 9)
11. Mature love	9.30 (10)	8.40 ( 8)	7.56 ( 7)	6.25 ( 3)
12. National security	8.90 ( 8)	10.24 (12)	10.99 (13)	11.73 (12)
13. Pleasure	14.90 (18)	14.62 (16)	13.10 (15)	13.77 (17)
14. Salvation	9.31 (11)	6.81 ( 5)	8.68 ( 9)	12.70 (14)
15. Self respect	5.46 ( 2)	7.18 ( 7)	6.24 ( 3)	5.50 ( 2)
16. Social recognition	14.84 (17)	15.04 (18)	14.86 (18)	13.40 (15)
17. True friendship	6.20 ( 4)	6.32 ( 3)	6.58 ( 4)	6.64 ( 5)
18. Wisdom	6.00 ( 3)	6.81 ( 4)	8.18 ( 8)	7.50 ( 7)
N	1366	1289	707	98

Note: Higher numbers indicate relatively lower importance. The rank order of each median is given in parentheses (composite rank order); 1 stands for the most important value, etc.

b. Table 3 shows cadets fairly consistently assigned relatively high importance to: honest, capable, ambitious, courageous, responsible, and self control. They assigned relatively low importance to: cheerful, clean, imaginative, intellectual, obedient, and polite.

TABLE 3

Median rank and composite rank order for all tested cadets.  
Class of 1981 - Instrumental Values

Value	NCT 77	RWK 77	RWK 79	SPG 81
1. Ambitious	6.50 ( 4)	6.45 ( 4)	7.44 ( 5)	8.50 ( 7)
2. Broadminded	9.65 ( 7)	9.65 ( 8)	9.03 ( 8)	9.75 ( 9)
3. Capable	7.82 ( 6)	8.45 ( 5)	7.18 ( 4)	7.50 ( 5)
4. Cheerful	13.45 (17)	13.20 (17)	12.36 (14)	11.50 (13)
5. Clean	12.21 (16)	11.93 (15)	13.46 (18)	15.20 (18)
6. Courageous	7.80 ( 5)	9.10 ( 6)	7.49 ( 6)	5.70 ( 3)
7. Forgiving	11.26 (12)	11.82 (14)	11.38 (12)	10.50 (12)
8. Helpful	10.16 ( 9)	9.66 ( 9)	10.17 (11)	10.00 (11)
9. Honest	2.67 ( 1)	2.78 ( 1)	2.84 ( 1)	3.00 ( 1)
10. Imaginative	14.58 (18)	14.10 (18)	12.37 (15)	12.90 (15)
11. Independent	11.68 (13)	10.16 (10)	8.51 ( 7)	7.25 ( 4)
12. Intellectual	11.92 (14)	10.77 (11)	11.49 (13)	12.00 (14)
13. Logical	10.05 ( 8)	10.77 (12)	9.12 ( 9)	9.81 (10)
14. Loving	11.18 (11)	9.49 ( 7)	9.76 (10)	8.17 ( 6)
15. Obedient	10.24 (10)	11.55 (13)	13.32 (16)	14.33 (17)
16. Polite	12.17 (15)	12.31 (16)	13.41 (17)	13.30 (16)
17. Responsible	3.92 ( 2)	4.16 ( 2)	4.14 ( 2)	3.93 ( 2)
18. Self Control	5.28 ( 3)	5.26 ( 3)	6.23 ( 3)	8.64 ( 8)
N	1366	1219	715	98

Note: Higher numbers indicate relatively lower importance. The rank order of each median is given in parentheses (composite rank order); 1 stands for the most important value, etc.

2. Tables 4 and 5 show the mean importance rank assigned to the value scales by a subgroup of 68 cadets who had taken them four times: at entrance, after Cadet Basic Training (in 1977), two years later (August 1979), and nearly two more years later near graduation in Spring 1981. While this group is smaller and more highly selected than the sample of all who took the Rokeach (presented in Tables 2 and 3), it permits a more accurate assessment of value changes over time within the group. The last column in each table shows the results of a repeated measures analysis of variance: there were 21 values which showed a pattern of statistically significant change over the years. Cadet values changed in one of three ways: a pattern of small to moderate decreases in the importance of certain values (erosion); a pattern of small to moderate increases in the importance of other values (appreciation); and a pattern of significant up and down change over the four year cycle (turbulence).

a. Table 4 shows several values with the erosion pattern: equality, national security, a world at peace, and wisdom. Other values showed the appreciation pattern: a comfortable life, happiness, and mature love. Other values followed the turbulence pattern: a sense of accomplishment, pleasure and salvation. However, the following values did not change significantly in importance over four years for this group: an exciting life, a world of beauty, family security, freedom, inner harmony, self respect, social recognition, or true friendship.

TABLE 4  
ROKEACH MEAN VALUE SCORES FROM  
LONGITUDINAL GROUP  
(TERMINAL VALUES)

	MEANS				F
	1	2	3	4	
1. A comfortable life	13.00	11.28	10.60	10.54	7.39*
2. An exciting life	10.01	10.40	9.75	9.29	1.28
3. A sense of accomplishment	6.51	8.09	7.85	7.57	2.84*
4. A world at peace	8.93	9.49	9.81	10.79	2.91*
5. A world of beauty	14.49	14.96	14.19	14.24	1.20
6. Equality	10.56	11.59	12.18	13.19	9.34*
7. Family security	8.00	7.03	7.68	7.63	.93
8. Freedom	6.28	5.74	5.88	5.74	.45
9. Happiness	7.81	7.76	6.38	6.72	3.35*
10. Inner harmony	9.13	9.91	9.79	8.79	1.28
11. Mature love	9.51	8.25	7.06	6.60	7.69*
12. National security	8.34	9.74	11.43	11.43	17.34*
13. Pleasure	14.28	14.09	11.99	13.22	8.09*
14. Salvation	11.28	9.15	10.00	10.24	4.55*
15. Self-respect	5.94	6.85	6.38	6.78	1.35
16. Social recognition	12.84	13.26	13.85	12.69	1.59
17. True friendship	7.22	6.71	7.06	7.09	.33
18. Wisdom	6.87	6.72	8.85	8.44	5.85*

Key

- 1 = at entrance, 1977
- 2 = after Cadet Basic Training, 1977
- 3 = August 1979
- 4 = Spring 1981

Note: The lower the numbered rank, the higher the importance of that value.

\*P <.05 N=68

b. Table 5 shows erosion of the following instrumental values: ambitious, clean, obedient, polite, and self controlled. It shows increased appreciation of: cheerful, imaginative, independent, and loving. It also shows value turbulence for: capable and forgiving. However, there were no significant changes in: broadminded, courageous, helpful, honest, intellectual, logical, and responsible.

TABLE 5  
ROKEACH MEAN VALUE SCORE FROM  
LONGITUDINAL GROUP  
(INSTRUMENTAL VALUES)

	MEANS				
	1	2	3	4	F
1. Ambitious	6.76	6.83	8.59	9.80	9.92*
2. Broadminded	9.64	9.56	8.29	9.53	2.20
3. Capable	8.62	9.32	7.38	8.42	3.60*
4. Cheerful	12.48	12.68	11.74	10.83	3.70*
5. Clean	12.17	11.86	13.68	14.24	8.24*
6. Courageous	8.09	8.92	8.24	7.42	1.99
7. Forgiving	11.30	12.21	11.30	9.77	5.91*
8. Helpful	9.65	9.44	9.97	9.61	.26
9. Honest	3.45	3.76	3.32	3.24	.49
10. Imaginative	13.68	13.73	12.50	11.77	5.59*
11. Independent	11.92	10.77	9.38	7.98	11.86*
12. Intellectual	11.39	10.15	11.70	11.74	2.38
13. Logical	9.94	10.68	9.14	9.73	1.56
14. Loving	10.39	9.00	9.14	7.97	3.42*
15. Obedient	10.26	11.15	12.97	13.21	12.86*
16. Polite	10.85	11.56	12.24	13.00	4.88*
17. Responsible	4.12	4.17	4.95	4.82	1.62
18. Self-controlled	6.27	5.20	6.56	7.89	6.00*

Key

- 1 = at entrance, 1977
- 2 = after Cadet Basic Training, 1977
- 3 = August 1979
- 4 = Spring 1981

Note: Lower ranks indicate higher importance.

3. The next set of tables shows a more detailed and sensitive analysis of changes in values between one survey period and the next. We are interested in identifying the extent of change in one of four intervals: changes during Cadet Basic Training, (CBT); changes during the next two year interval, from the start of fourth class academic instruction (early); changes during the last two years, including second class academics, first class summer, and the first class academic year (later); and finally changes over the entire four year interval (net).

a. Table 6 shows mean standardized change scores for each of these four intervals. Generally, the analysis is consistent with those discussed above for Table 4. However, because it focuses on changes in a shorter interval, the sample sizes for some comparisons are larger, and the statistical tests are more powerful. Table 6 shows 12 small statistically significant changes in values during CBT. It shows 14 small significant changes in the early period, one small significant in the later period, and a total of 7 significant net changes. In some cases, Table 6 identifies small significant changes which were not apparent in the analysis of Table 4: for example, an increase in value for "an exciting life" in the early period; and increase in value for a "world of beauty" in the early period; and increase in value for "family security" during CBT; increased value for "inner harmony" during CBT, followed by a decrease during the early period; decreased value for "self respect" during CBT; and decreased value for "true friendship" in the early period. Table 6 also identifies the specific time period during which values show a turbulent pattern of change: "a sense of accomplishment" decreases in value during CBT, but increases again in the early period; "pleasure" increases in value during CBT, and the early period, but decreases in the later period; "salvation" increases in value during CBT but decreases in value in the early period. Consistent with earlier analysis, the two largest net changes are moderate sized decreases in valuation for equality and national security.

TABLE 6  
STANDARDIZED CHANGE IN TERMINAL VALUES  
(COHEN'S d) BETWEEN 4 SURVEYS

	Time Interval			
	A	B	C	D
1. A comfortable life	.26*	.16*	-.02	.35*
2. An exciting life	.04	.24*	.13	.21*
3. A sense of accomplishment	-.26*	.18*	.11	-.11
4. A world at peace	-.03	-.24*	.15	-.27*
5. A world of beauty	.00	.09*	-.04	.04
6. Equality	-.20*	-.14*	-.17	-.51*
7. Family security	.22*	-.07	.00	.07
8. Freedom	.00	.02	.07	.18
9. Happiness	.11*	.09*	-.09	.12
10. Inner harmony	.10*	-.13*	.19	.13
11. Mature love	.16*	.16*	.04	.35*
12. National security	-.30*	-.20*	-.05	-.58*
13. Pleasure	.07*	.35*	-.30*	.18
14. Salvation	.30*	-.18*	-.07	.05
15. Self-respect	-.29*	.07	-.04	-.15
16. Social recognition	-.05	.00	.23	.04
17. True friendship	-.01	-.10*	.02	.02
18. Wisdom	-.16*	-.23*	.01	-.25*

A = NCT to RWK 77 (CBT)  
 B = RWK 77 to RWK 79 (Early)  
 C = RWK 79 to FCQ 81 (Later)  
 D = NCT to FCQ 81 (Net)

+ = decrease in rank (increase priority)  
 - = increase in rank (decrease in priority)  
 \* = significant at .05 level

b. Table 7 shows mean standardized change scores for instrumental values. Generally, the analysis is consistent with those discussed above for Table 5. Table 7 shows 11 small significant changes during CBT, 14 small significant changes in the early period, 5 small changes in the later period, and 10 significant net changes. Table 7 identifies the specific periods during which turbulent change takes place, including some small changes not identified in Table 5. "Broadminded" increases in value during the early period, followed by a decrease during the later period; "capable" decreases in value during CBT, then increases during the early period; "courageous" decreased in value during CBT, then increases in the early period; "forgiving" shows a small decrease in CBT, a small increase in the later period, for a small net increase overall; "helpful" increases as a value in CBT, then decreases in the early period; "logical" decreases in CBT, then decreases in the early period. The two largest net changes are a moderate decrease in "obedient", and a moderate increase in "independent"; both net changes develop from the accumulation of small changes in CBT and the early period.

TABLE 7  
STANDARDIZED CHANGE IN INSTRUMENTAL VALUES  
(COHEN'S d) BETWEEN 4 PERIODS

	Time Interval			
	A	B	C	D
1. Ambitious	-.01	-.19*	-.23	-.43*
2. Broadminded	.00	.11*	-.27*	-.05
3. Capable	-.13*	.16*	-.18	.03
4. Cheerful	.03	.15*	.27*	.32*
5. Clean	.05	-.27*	-.07	-.49*
6. Courageous	-.19*	.20*	.22	.09
7. Forgiving	-.09*	.05	.28	.21*
8. Helpful	.12*	-.09*	.11	-.01
9. Honest	-.07*	-.06	.08	.03
10. Imaginative	.06	.25*	.06	.37*
11. Independent	.18*	.26*	.25*	.63*
12. Intellectual	.18*	-.03	-.08	-.09
13. Logical	-.07*	.19*	-.18	.07
14. Loving	.25*	.03	.16	.35*
15. Obedient	-.26*	-.24*	-.08	-.60*
16. Polite	-.05	-.18*	-.06	-.39*
17. Responsible	-.07*	.14*	.03	-.13
18. Self-controlled	.03	-.28*	-.27*	-.35*

A = NCT to RWK 77 (CBT)  
 B = RWK 77 to RWK 79 (Early)  
 C = RWK 79 to FCQ 81 (Later)  
 D = NCT FCQ 81 (Net)  
 + = Decrease in rank. (Increase priority)  
 - = Increase in rank. (decrease in priority)  
 \* = Significant at .05 level



c. Appendix A presents supplementary information which relates to the detailed analysis of changes in specific time periods. Tables 1.1 and 1.2 give the actual percentage of cadets who increased priority on specific items, together with a non-parametric measure of change, the Wilcoxon Matched Pairs Signed Rank Test. Tables 1.3 and 1.4 show the product moment correlation between values at the end-points of each period. This information is supplemental and will not be discussed here.

4. Tables 4-7 have shown how values develop among cadets who remain at the Academy, but do not identify values which differentiate those who remain from those who leave. Table 8 shows the value items at several points in time, which significantly differentiated two groups of cadets: cadets who eventually graduated from the Academy (graduates) from those who did not (leavers). A number of items are omitted from this table because there was no statistically significant difference between graduates and leavers at any point in time.

a. Graduates and leavers had the same mean values on the following 24 scales: a comfortable life, an exciting life, a sense of accomplishment, a world at peace, a world of beauty, equality, family security, freedom, happiness, inner harmony, mature love, salvation, true friendship, wisdom, ambitious, broadminded, clean, courageous, forgiving, helpful, honest, logical, obedient, and polite.

b. Table 8 shows 12 values which predict attrition. Graduates consider certain values to be more important than do leavers: national security, self-respect, social recognition, capable, responsible, and self-controlled. Leavers consider other values more important than do graduates: pleasure, cheerful, imaginative, independent, intellectual, and loving. Seven of these twelve values were significantly differentiating when tested at entrance. When values were measured just after Cadet Basic Training, national security, social recognition, cheerful, and imaginative emerged as significant new predictors for cadets remaining through Cadet Basic Training; while self-respect, pleasure, independent, and loving were no longer significant predictors of attrition after Cadet Basic Training. By 1979, almost all of the 442 leavers had already left. Nevertheless, the leavers who still remained were significantly different from the graduates in national security, responsible, pleasure, imaginative, and intellectual, as measured at the time. The strongest and most consistent predictor all three times was "responsible". Self-controlled, pleasure, and imaginative were also consistently related to attrition at two times. In general, the overall pattern of results make good theoretical sense. However, in absolute terms, no single value scale at any time was strongly related to attrition. These findings extend almost to graduation and compliment the earlier findings that cadets in the Class of 1975 who resigned during Cadet Basic Training, as contrasted with those who completed Cadet Basic Training, typically valued significantly less accomplishment, obedient, ambitious and responsible (largely long term, goal oriented values) and significantly more inner harmony, mature love and cheerful (more hedonistic self-gratification values). (Bridges 1972, p 7-10).

TABLE 8  
VALUES WHICH DIFFERENTIATE FOR THREE TESTING TIMES,  
THOSE CADETS WHO GRADUATE USMA ("G") FROM  
THOSE WHO DO NOT GRADUATE ("NG")

Rokeach Values	Mean Rank Assigned Values when Tested					
	NCT 77		RWK 77		RWK 79	
	G	NG	G	NG	G	NG
<u>Values Which Are More Important To Successful Cadets</u>						
T. National Security	8.7	9.2	10.0	11.6	10.7	12.2*
T. Self Respect	6.1	6.5*	7.3	7.8	7.0	6.8
T. Social Recognition	13.9	13.8	13.8	14.4*	13.8	14.3
I. Capable	8.0	8.6*	8.6	9.3*	7.7	7.2
I. Responsible	4.6	5.1*	4.8	5.3*	5.2	6.6*
I. Self Controlled	6.1	6.7*	5.9	6.7*	7.3	8.5
<u>Values Which Are More Important To Cadets Who Left USMA Before Graduation</u>						
T. Pleasure	14.1	13.6*	13.7	13.3	12.2	10.5*
I. Cheerful	12.4	12.1	12.4	11.8*	11.4	12.6
I. Imaginative	13.2	12.8	13.0	12.5*	11.8	9.9*
I. Independent	11.3	10.7*	10.3	9.8	9.0	7.6
I. Intellectual	11.3	11.3	10.4	10.5	10.9	9.2*
I. Loving	10.7	10.0*	9.6	8.9	9.4	9.0
N	1871	442	825	322	652	37

\* p < .05 by T Test.

Note: The lower the mean rank, the greater the importance of the value as a guiding principle.

T = Terminal Value; I = Instrumental Value  
G = Cadets who later graduated; NG = Those who did not.

5. So far the analysis has focused on changes in specific values, or on the predictive efficiency of specific values. However, the Rokeach Value Scales were designed to measure an individual's value system. We are interested in the extent to which different cadets have similar value systems, and calculated a coefficient of concordance of cadet value systems for instrumental and terminal values, at each time. The coefficient of concordance measures the extent to which all cadets agree with each other in rank ordering the values: if we were to select any two cadets at random, it reflects the correlation between their value profiles. Table 9 presents the result. As the table shows, there is a statistically significant degree of concordance among cadets with respect to both instrumental and terminal value systems. The average level of agreement is in the .18 to .25 range (on a .00 to 1.00 scale), and is about the same for instrumental and terminal value systems at each survey period. Thus, in spite of significant changes in individual values, the overall degree of concordance among the cadets with respect to value systems is not especially high when tested at entrance and does not increase over time. Specifically, the average of the intercorrelations between all cadets in the ranking of the Rokeach Values (i.e., in their value systems) is slightly

less than .25 even near graduation. Though the average importance of some specific Rokeach values to a class do change for the class as a whole, the USMA experience does not force cadets into a uniform value system mold.

TABLE 9  
KENDALL'S COEFFICIENT OF CONCORDANCE

Time of Survey	N	Instrumental Values	Terminal Values
July 1977	1366	.22*	.22*
After CBT '77	1289	.20*	.21*
Aug 1979	714	.20*	.18*
Spring 81	98	.25*	.24*

\*Statistically significant Friedman's analysis of variance by ranks,  $p < .001$

6. The Rokeach Value Scales have been administered to other groups of cadets, officers, university students, and representative groups of U.S. adults, as well as to the Class of 1981. How similar are the value profiles in the current survey of the Class of 1981 with value profiles of other groups?

a. Table 10 shows the correlation between the value profiles of the Class of 1981 and the value profiles of all classes tested in 1971. The correlations are all highly significant, indicating that USMA cadets in the Class of 1981 had very similar overall value profiles to the four groups tested in 1971. First Classmen in 1981 were more similar to First and Second Classmen tested in 1971 than they were to lower ranking year groups. Also new cadets and Fourth Classmen in the Class of 1981 were more similar to Fourth Classmen tested in 1971 than to older groups. These data suggest that the Class of 1981 developed a value profile which changed over time in the same direction as earlier classes changed. This shows that the findings from the Class of 1981 can be generalized to other class year groups.

TABLE 10

## TAU CORRELATIONS BETWEEN VALUE PROFILES OF TWO GROUPS OF CADETS

Classes of 1972-75 Tested In		Class of 1981 Tested At			
Reorganization Week	Year	Entrance 1977	Reorganization Week 1977	Reorganization Week 1979	Spring 1981
Class	Year	New Cadets	4th Class	2nd Class	1st Class
1975	4th Class	.70*	<u>.76*</u>	.77*	.71*
1974	3rd Class	.63*	.64*	.73*	.75*
1973	2nd Class	.57*	.60*	<u>.73*</u>	.80*
1972	1st Class	.60*	.59*	.70*	<u>.79*</u>

\*p &lt;.001

\_\_\_\_\_ Indicates correlations between profiles from cadets in the same relative year groups.

Source of 1971 data: Bridges, 1972

Source of 1981 data: This report, Tables 2 &amp; 3.

N= 36 items, instrumental and terminal.

b. Table 11 shows rank order correlations between the Class of 1981 value profiles and those of several non-cadet groups. The trend of the correlations over time is worth noting: the older the Class of 1981 became, the more its value profile resembled the value profile of the two officer groups and the less it resembled the value profile of the two representative samples of U.S. males.

TABLE 11

## TAU CORRELATIONS BETWEEN VALUE PROFILES OF CADETS AND OTHER GROUPS

Other Group	Tested In	Class of 1981 Tested At			
		Entrance	Reorganization	Reorganization	Spring
		Week 1977	Week 1977	Week 1979	1981
West Point <sup>a</sup> Officers	1971	.56*	.53*	.67*	.66*
Command & <sup>a</sup> Staff College Officers	1977- 1978	.55*	.52*	.71*	.71*
U.S. Males <sup>b</sup>	1968	.48*	.46*	.42*	.38*
U.S. Males <sup>b</sup>	1971	.51*	.50*	.47*	.40*

\* p &lt;.001

<sup>a</sup> Source: Memo for record, Survey of Values held by Command and General Staff College Students, 1978: MAOR 244.

<sup>b</sup> Source: Rokeach, cited in Feather, 1975, p 208-209.

B. IMPORTANCE INVENTORY.

1. Whereas the Rokeach Values Inventory requires the individual to rank order 18 terminal and 18 instrumental values in importance, the importance inventory requires a simpler response: direct rating of the importance of each item. The "Importance Inventory" is actually a collection of short value scales from four different sources: one set is the Life Goal Scale, from a National Longitudinal Survey of high school graduates in the Class of 1972 (NLS: Thompson, 1974; Tabler, 1977); another set is the Job Motivation Value Scales from the NLS; another set was designed to measure adolescent value systems for the National Health survey of Youth ages 12-17 (Scanlon, 1975), and a final set was the Life Goal items from the Cooperative Institutional Research Program of the American Council of Education (Astin, et al. 1975).

a. There were 87 cadets who completed the NLS Life Goals questions on all four occasions—at entrance, after CBT, two years later in reorganization week 1979, and again at graduation. Table 12 shows the mean response of this group on each occasion. Certain items were rated very important, consistently over the 4 years: being successful in my line of work; finding the right person to marry and having a happy family life; and having strong friendships. Other items were rated as relatively less important, consistently over the four years: living close to parents and relatives; getting away from this area of the country.

TABLE 12  
NLS LIFE GOALS MEAN  
IMPORTANCE TO YOU IN YOUR LIFE

	Mean Score				F <sup>a</sup>
	1	2	3	4	
1. Being successful in my line of work	2.94	2.83	2.66	2.70	8.28*
2. Find right person to marry & having happy family life	2.76	2.87	2.75	2.76	1.69
3. Having lots of money	1.75	1.88	1.68	1.85	3.12*
4. Having strong friendships	2.80	2.89	2.72	2.61	5.59*
5. Being able to find steady work	2.60	2.70	2.41	2.47	5.81*
6. Being a leader in my community	2.32	2.23	1.85	1.80	22.84*
7. Being able to give my children better opportunities	2.41	2.57	2.27	2.27	6.51*
8. Living close to parents & relatives	1.54	1.71	1.62	1.51	2.49
9. Getting away from this area of the country	1.21	1.45	1.56	1.66	7.96*
10. Working to correct social & economic inequalities	2.10	1.99	1.67	1.67	14.09*

Scale: 3 = very important; 2 = somewhat important; 1 = not important.

<sup>a</sup>n = 87 \*p <.05

1 = July 1977

2 = August 1977

3 = August 1979

4 = Spring 1981

b. Table 13 shows a detailed analysis of the magnitude of change in four periods: during CBT; the early period from the end of CBT until two years later; a later period, from start of Second Class academics until graduation; and net change over the four years from entrance to graduation.

(1) A number of values showed the erosion pattern of change over the four years with the value items being rated lower in later surveys: "being successful in my line of work"; "being able to find steady work"; "being able to give my children better opportunities than I've had"; "working to correct social and economic inequalities"; and "being a leader in my community." All of these were small net changes, except for the latter.

(2) Two items became increasingly important (appreciation pattern) over time: "having lots of money," and "getting away from this area of the country."

(3) Three items showed a turbulent pattern of change (up & down, or down & up) over the four years: "finding the right person to marry and have a happy family life" became more important in CBT, but significantly less important in the early period, (these changes were small and significant in the detailed analysis of table 13, but did not appear in the more general longitudinal subgroup analysis of table 12); having strong friendships became more important during CBT, but then became less important in the early period, in a net decrease in importance over 4 years; "living close to parents and relatives" became more important to a moderate degree during CBT, followed by a small decrease in importance in the early period.

TABLE 13  
NLS LIFE GOALS:  
STANDARDIZED CHANGE (COHEN'S d)

	Time Interval			
	A	B	C	D
1. Being successful in my line of work	.14*	.32*	-.02	.47*
2. Find right person to marry and having a happy family life	.11*	.16*	-.03	-.04
3. Having lots of money	-.21*	.01	-.19	-.11
4. Having strong friendships	-.07*	.26*	.14	.29*
5. Being able to find steady work	-.06	.38*	-.07	.19
6. Being a leader in my community	.27*	.34*	.07	.68*
7. Being able to give my children better opportunities	-.01	.31*	.00	.20*
8. Living close to parents & relatives	-.65*	.23*	.14	.05
9. Getting away from this area	-.31*	-.28*	-.10	-.43*
10. Working to correct social & economic inequalities	.13*	.34*	.03	.41*

A = During CBT  
B = 1st two years (1977 to '79)  
C = Last 2 years (79 to 81)  
D = Net change

Note: Negative numbers denote increased importance; positive numbers, decreased importance.

\* p < .05

2. NLS Job Motivation Values.

a. Table 14 shows the mean importance attributed to each job motivation item at each of the four surveys.

(1) The "chance to be a leader" was rated consistently high in importance, although there was a small statistically significant erosion over time. "The chance to be helpful to others or useful to society" was consistently rated relatively important, although a significant small erosion of this item also took place. "Opportunities to work with people rather than things" was consistently rated as relatively important, and did not change significantly over time.

(2) "Avoiding a high pressure job that takes too much out of you" was consistently rated relatively less important, and did not change significantly over the four years. "Freedom from supervision in my work" was rated relatively lower in importance also, but showed increased importance over time.

(3) There were no significant changes over time in the rated importance of "making a lot of money"; "opportunities for moderate but steady progress rather than the chance of extreme success or failure"; "having a position that is looked up to."

(4) There were also significant changes in the following values for the longitudinal group: opportunities to be original and creative; living and working in the world of ideas.

TABLE 14

NLS JOB MOTIVATION VALUES: MEAN IMPORTANCE TO YOU IN SELECTING A JOB OR CAREER

	Mean Score				F <sup>a</sup>
	1	2	3	4	
28. Making a lot of money	1.85	1.91	1.81	1.88	.62
29. Opportunities to be original & creative	2.23	2.44	2.06	2.10	9.11*
30. Opportunities to be helpful to others	2.54	2.55	2.22	2.24	10.56*
31. Avoiding a high pressure job	1.70	1.75	1.67	1.64	.47
32. Living and working in the world of ideas	2.28	2.33	2.03	1.95	8.17*
33. Freedom from supervision in my work	1.56	1.71	1.78	1.78	3.05*
34. Opportunities for moderate but steady progress rather than the chance of extreme success or failure	2.10	2.20	1.99	2.01	1.99
35. The chance to be a leader	2.70	2.69	2.51	2.42	5.13*
36. Opportunities to work with people	2.40	2.46	2.36	2.34	.66
37. Having a position that is looked up to	2.28	2.29	2.09	2.23	1.89

Scale: 3 = very important; 2 = somewhat important; 1 = not important.

<sup>a</sup>n = 87 \* p < .05

1 = July 1977

2 = August 1977

3 = August 1979

4 = Spring 1981

b. Table 15 shows a detailed analysis of the magnitude of change in the four periods identified earlier. This table shows when erosion or appreciation of values occurred; but since these have been discussed above, further analysis is not required. A turbulent value change pattern was found for the following items: "opportunities to be original and creative" became more important during CBT but less important during the later period; "living and working in the world of ideas" became more important in CBT, and less important during the early period, with a net decrease in importance over the four years. The same pattern of increase during CBT followed by decrease during the early period were found for "opportunities to work with people rather than with things" and "having a position this is looked up to by others" (although the latter two findings were not evident in the longitudinal group analysis of table 13).

TABLE 15  
NLS JOB MOTIVATION:  
STANDARDIZED CHANGES

	Time Interval			
	A	B	C	D
28. Making a lot of money	-.14*	.05	-.10	.00
29. Opportunities to be original & creative	-.15*	.24*	.06	.18
30. Opportunities to be helpful to others or useful to society	.00	.33*	.04	.42*
31. Avoiding a high pressure job that takes too much out of you	-.06	.06	.03	.09
32. Living and working in the world of ideas	-.08*	.36*	.09	.37*
33. Freedom from supervision in my work	-.16*	-.18*	.00	-.30*
34. Opportunities for moderate but steady progress rather than chance of extreme success or failure	.00	.25	-.03	.09
35. The chance to be a leader	.02	.28*	.12	.36*
36. Opportunities to work with people rather than things	-.11*	.19*	.03	.01
37. Having a position that is looked up to by others	-.07*	.21*	.15	.12

A = NCT to RWK 77 (CBT)  
B = RWK 77 to RWK 79 (1st two years)  
C = RWK 79 to FCQ 81 (last 2 years)  
D = NCT to FCQ 81 (Net)

Change = Cohen's  $d$ .

+ = Decrease

- = Increase

\* is significant at .05 level



3. NHS Adolescent Value Systems:

a. Table 16 shows 4 values that did not change significantly in the longitudinal group over the four years, and 7 that did. All the values in this list tended to be rated very high in importance.

(1) The values of being able to defend oneself, having self control, being happy, and facing life's problems calmly did not change significantly.

(2) "To be neat and clean" showed a turbulent pattern of value change, as did "to obey one's parents."

(3) The remaining items showed significant erosion: to be dependable, considerate of others, obey the law, be ambitious, know how to keep in good health.

TABLE 16

NHS ADOLESCENT VALUE SURVEY:  
MEANS AT 4 TIME PERIODS

	Time Interval				F <sup>a</sup>
	1	2	3	4	
38. To be neat and clean	3.37	3.61	3.22	3.26	9.85*
39. To be able to defend oneself	3.28	3.20	3.19	3.21	.65
40. To have self-control	3.71	3.67	3.56	3.62	1.69
41. To be happy	3.62	3.72	3.56	3.64	1.76
42. To obey ones parents	3.23	3.38	3.09	2.92	11.51*
43. To be dependable	3.77	3.67	3.58	3.69	2.71*
44. To be considerate of others	3.64	3.64	3.44	3.55	3.49*
45. To face life's problems calmly	3.37	3.29	3.36	3.23	1.20
46. To obey the law	3.52	3.45	3.17	3.03	18.66*
47. To be ambitious	3.27	3.19	3.08	2.99	3.41*
48. To know how to keep in good health	3.50	3.57	3.48	3.33	3.83*

Scale: 4 = extremely important; 3 = important; 2 = slightly important;  
1 = unimportant

<sup>a</sup>n = 87

1 = July 1977  
2 = August 1977  
3 = August 1979  
4 = Spring 1981

b. Table 17 shows the detailed pattern of change.

(1) Turbulent value change always means an increase in the value during CBT but a decrease during the early period, for this table. (Example: to be neat & clean, to obey one's parents.)

(2) All the changes were small in magnitude, except for the moderate net period erosion in "to obey the law."

TABLE 17  
NHS ADOLESCENT VALUE SURVEY:  
MAGNITUDE OF CHANGE IN 4 PERIODS  
(COHEN'S d)

	Time Interval			
	A	B	C	D
38. To be neat and clean	-.10*	.48*	-.06	.12*
39. To be able to defend oneself	.03	-.03	-.05	.03
40. To have self-control	.21*	.23*	-.07	.22*
41. To be happy	-.04	.28*	-.14	-.02
42. To obey one's parents	-.11*	.37*	.22*	.35*
43. To be dependable	.14*	.18*	-.16*	.17
44. To be considerate of others	.05	.27*	-.14	.05
45. To face life's problems calmly	.03	.14*	.16	.22*
46. To obey the law	.15*	.38*	.18	.60*
47. To be ambitious	-.01	.23*	.08	.36*
48. To know how to keep in good health	.00	.17*	.21	.17

A = During CBT

B = 1st two years (1977 to '79)

C = Last 2 years (79 to 81)

D = Net Change

\* Significant at .05 level

4. ACE Life Goals:

a. The ACE Life Goals Inventory was administered three times: at entrance, after CBT, and two years later in Reorganization Week 1979. A large number of cadets (N = 759) completed these three surveys, so the analysis of change is much more statistically powerful.

b. Table 18 shows the mean scores in each item at each time for this longitudinal sample. There are no items with means which are consistently in the "essential" range (3.5 and above). However, there are several items which were consistently between "somewhat important" and "not important" (2.0 and below): "becoming accomplished in one of the performing arts"; "making a theoretical contribution to science"; "writing original works"; and "creating artistic work." For each of these items, cadets entered the Academy with low values, and maintained a relatively low valuation over first year at USMA.

TABLE 18  
ACE LIFE GOALS  
MEANS FOR LONGITUDINAL GROUP

	Means			
	1	2	3	F
11. Becoming accomplished in one of the performing arts	1.50	1.48	1.54	1.86
12. Becoming an authority in my field	3.02	3.11	2.67	91.28*
13. Obtaining recognition from my colleagues	2.37	2.54	2.25	32.49*
14. Influencing the political structure	2.08	2.06	1.94	8.37*
15. Influencing social values	2.26	2.28	2.10	14.26*
16. Raising a family	2.85	3.13	3.03	36.49*
17. Having administrative responsibility	2.60	2.58	2.37	27.65*
18. Being very well-off financially	2.08	2.32	2.35	40.43*
19. Helping others who are in difficulty	3.01	2.96	2.62	91.40*
20. Making a theoretical contribution to science	1.86	1.79	1.76	4.22*
21. Writing original works	1.60	1.64	1.60	.87
22. Creating artistic work	1.46	1.53	1.55	3.92*
23. Being successful in a business of my own	2.28	2.34	2.25	2.63
24. Becoming involved in a business of my own	2.08	2.17	2.25	9.08*
25. Developing a meaningful philosophy of life	3.22	3.35	2.58	238.99*
26. Participating in a community action program	2.53	2.51	2.13	90.02*
27. Keeping up to date with political affairs	3.11	3.13	2.60	157.14*

Scale: 4 = essential; 3 = very important; 2 somewhat important; 1 = not important

<sup>a</sup>N=759

1 = July 1977

2 = August 1977

3 = August 1979

\* Significant at .05 level

c. Table 19 presents a detailed analysis of changes in three periods: during CBT; during the early period from the start of 4th class academics until Reorganization Week one year later; and net change over the two years from July '77 to August '79.

(1) There were five variables with the same pattern of turbulent value change, characterized by an increase in value during CBT followed by a decrease afterwards. These are; "becoming an authority in my field"; "obtaining recognition from my colleagues"; "raising a family"; "being successful in a business of my own"; and "developing a meaningful philosophy of life." During the early period, "developing a meaningful philosophy of life" showed a large decrease in importance.

(2) Seven variables show erosion of importance value: "influencing the political structure"; "influencing social values"; "having administrative responsibility"; "helping others who are in difficulty"; "making a theoretical contribution to science"; "participating in a community action program"; "keeping up to date with political affairs." The latter showed a medium sized decrease in importance.

(3) Four variables showed appreciation of value importance over the first year: "being very well-off financially"; "creating artistic work"; "becoming involved in a business of my own"; "writing original works." All of these changes were small.

TABLE 19  
ACE LIFE GOALS  
MEAN CHANGES OVER THREE PERIODS  
(COHEN'S  $d$ )

	Change		
	A	B	E
11. Becoming accomplished in one of the performing arts	.00	-.06	-.03
12. Becoming an authority in my field	-.12*	.44*	.35*
13. Obtaining recognition from my colleagues	-.19*	.28*	.11*
14. Influencing the political structure	.05	.12*	.13*
15. Influencing social values	.02	.18*	.15*
16. Raising a family	-.39*	.11*	-.17*
17. Having administrative responsibility	.03	.22*	.23*
18. Being very well-off financially	-.34*	-.03	-.28*
19. Helping others who are in difficulty	.05	.37*	.43*
20. Making a theoretical contribution to science	.11*	.02	.10*
21. Writing original works	-.09*	.04	.00
22. Creating artistic work	-.16*	-.02	-.09*
23. Being successful in a business of my own	-.09*	.08*	.03
24. Becoming involved in a business of my own	-.13*	-.08*	-.14*
25. Developing a meaningful philosophy of life	-.13*	.70*	.55*
26. Participating in a community action program	.00	.40*	.40*
27. Keeping up to date with political affairs	.03	.54*	.51*

A = NCT to RWK 77

B = RWK 77 to RWK 79

E = NCT to RWK 79

+ = Decrease

- = Increase

\* Significant at .05 level

5. Appendix B, Tables 2.1 and 2.2 shows test-retest reliabilities for the importance inventory scales, corresponding to the detailed changes described above.

6. Tables 12-19 have shown how values developed among cadets who remained at the U.S. Military Academy, but do not identify values which differentiate those who remained from those who leave. Table 20 shows selected values for two groups: graduates and leavers. There were 18 items (out of 48) which differentiated the two groups in one or more test.

a. Certain items were consistently more important to those who graduated at all three test times: "being a leader in my community"; "keeping up to date with political affairs"; "the chance to be a leader."

b. Other items differentiated the two groups only at certain times. For example, only 7 items given at entrance differentiated; but 13 items given at Reorganization Week 1977 differentiated. It appears that values a cadet held immediately after CBT were more predictive of attrition among cadets retained at least temporarily, than were values held before CBT. The following items did not differentiate before CBT, but did after: "being successful in my line of work"; "opportunities to be helpful to others or helpful to society"; "opportunities to be with people"; "to have self-control"; "getting away from this part of the country" (ranked higher by non-graduates); "creating artistic works"; "freedom from supervision in my work." It is as if these items only became critical for potential leavers after CBT.

TABLE 20

VALUES DIFFERENTIATING CADETS WHO GRADUATE ("G")  
USMA FROM THOSE WHO DO NOT GRADUATE ("NG")

Importance Inventory Values	NCT 77		Mean Values In			
	G	NG	RWK 77		RWK 79	
			G	NG	G	NG
<u>Values More Important To Those Who Graduated</u>						
1. Being Successful in my line of work <sup>b</sup>	2.9	2.9	2.9	2.8*	2.7	2.5
6. Being a leader in my community <sup>b</sup>	2.4	2.3*	2.3	2.1*	2.0	1.7*
17. Having administrative responsibility <sup>a</sup>	2.6	2.5*	2.6	2.4*	2.4	2.2
19. Helping others who are in difficulty <sup>a</sup>	3.0	3.0	3.0	3.0	2.6	2.3*
26. Participating in a community action program <sup>a</sup>	2.5	2.4*	2.5	2.5	2.1	1.9
27. Keeping up to date with political affairs <sup>a</sup>	3.1	3.0*	3.1	3.0*	2.6	2.2*
30. Opportunities to be helpful to others or useful to society <sup>b</sup>	2.5	2.5	2.5	2.5*	2.3	2.0*
35. The chance to be a leader <sup>b</sup>	2.7	2.6*	2.7	2.6*	2.5	2.2*
36. Opportunities to work with people <sup>b</sup>	2.4	2.4	2.5	2.4*	2.4	2.3
37. Having a position that is looked up to <sup>b</sup>	2.3	2.2*	2.4	2.3*	2.2	2.0
38. To be neat and clean <sup>a</sup>	3.5	3.4	3.6	3.5	3.2	2.9*
40. To have self-control <sup>a</sup>	3.8	3.8	3.7	3.6*	3.5	3.5
44. To be considerate of others <sup>a</sup>	3.7	3.7	3.7	3.6	3.5	3.1*
46. To obey the law <sup>a</sup>	3.6	3.6	3.5	3.5	3.3	2.9*
<u>Values More Important To Those Who Did Not Graduate</u>						
9. Getting away from this part of the country <sup>b</sup>	1.2	1.2	1.4	1.5*	1.6	1.8
21. Writing original works <sup>a</sup>	1.6	1.7*	1.6	1.8*	1.6	1.8
22. Creating artistic works <sup>a</sup>	1.4	1.4	1.5	1.7*	1.5	1.8
33. Freedom from supervision in my work <sup>b</sup>	1.6	1.6	1.7	1.8*	1.8	2.0
N	918	466	895	356	738	39

<sup>a</sup> 4 = Extremely important to 1 = unimportant

<sup>b</sup> 3 = Very important to 1 = not important

\* Significant at .05 level

c. There were four items which did not emerge as critical issues for the leavers until after over two years at the Academy (Reorganization Week 1979). Cadets who left after this time gave lower importance ratings to "helping others who are in difficulty"; "to be neat and clean," "to be considerate of others," "to obey the law."

d. There was one item which differentiated at CBT but not later. Cadets who left after entrance testing gave lower importance to "participating in a community action program."

### C. DEFINING ISSUES TEST.

1. The preceding analyses have focused on the content of cadet values when structured and measured in three different ways. In contrast, this section focuses on the cognitive factors cadets use to analyze moral dilemmas, on the types of considerations used to make decisions on moral problems, using the Defining Issues Test (DIT). The P% score reflects the use of "principled moral reasoning" in complex moral dilemmas. The higher the P%, the greater the individual's use of such reasoning.

a. Some groups of cadets were tested only once on the DIT, whereas others were tested two, three or four times. Each subgroup in these tables includes the same individuals, but different subgroups include different sets of people. Table 21 shows the P% scores for those who were tested three or four times. For example, group 234 was tested at time 2, 3, and 4: it showed increases from 38.8 to 39.8 to 41.5%. Table 22 shows the pattern of results for those who were tested two times. For each subgroup, the mean P% increased consistently over time, 17 increases out of 17 possible. The overall pattern of increasing P% scores is statistically highly significant.

b. Table 23 shows that cadets who were tested only once show a pattern of increasing DIT scores over time: those tested later in their careers have higher P% scores.

c. For the most part, cadets were assigned to different testing subgroups either at random or by factors outside the researcher's control. One would expect then, that cadets in different testing subgroups would have roughly equal P% scores at the same point in time. We conducted a series of analyses of variance to test this hypothesis at times 1, 2, 3, and 4. At times two and four, the subgroup means given in Tables 21-23 did not differ significantly. At times one and three, there were statistically significant differences ( $F=2.1$  and  $2.8$ , respectively,  $p < .05$ ). For example, at 1, P% scores were higher in group 1-2 than in group 1-2-4. There is no simple or logical explanation for these differences. At time 3, P% scores were lowest for the group tested first at time 3 (Table 23), highest for group 1-3. There seems to be a trend for the groups which had been tested more often before time 3 to have higher P% scores at time 3. This trend was not found at either time 2 or time 4, however, and we conclude that P% scores were not influenced much, if at all, by prior testing.

TABLE 21  
 CHANGES IN DIT P% SCORES  
 CADETS TESTED THREE OR FOUR TIMES

Group Tested At Times	N	Time				Repeated Measures F Test
		1	2	3	4	
234	24	-	38.8	39.8	41.5	0.6
134	37	33.0	-	37.8	41.8	5.8*
124	17	32.6	36.2	-	41.4	2.5
123	113	36.7	38.5	41.3	-	9.2*
1234	27	34.9	35.3	40.8	45.9	5.8*

NOTE: Groups are non-overlapping.

\*p <.05

- 1 = July 77
- 2 = August 77
- 3 = August 78
- 4 = Spring 81

TABLE 22  
 CHANGES IN DIT P% SCORES  
 FOR CADETS TESTED TWO TIMES ONLY

Group Tested At Times	N	Times			
		1	2	3	4
12	91	38.7	39.4	-	-
13	141	37.5	-	42.3	-
14	23	37.2	-	-	42.4
23	148	-	38.5	40.3	-
24	22	-	36.8	-	44.2
34	43	-	-	40.4	43.5

Note: Within a group the same people were tested twice, with no attrition; there is no overlap between groups.

- 1 = July 77
- 2 = August 77
- 3 = August 78
- 4 = Spring 81



TABLE 23

DIT P% SCORES OF CADETS TESTED ONLY ONCE

	CBT	Time		
		RW77	RW78	SPG 81
N	167	113	183	47
X	34.4	35.4	37.1	42.6
SD	11.5	12.2	11.8	12.6

2. Tables 21 to 23 provide rigorous identification of the differences that are statistically significant.

a. The combination of these data in Table 24 presents the most representative P% score made by cadets at entrance in 1977 (Time 1: NCT 77), those tested almost two months later during Reorganization Week 1977 (Time 2: RW 77), those tested more than a year later (Time 3: RW 78), and those tested almost four years later in the spring of 1981 (Time 4: SPG 81). The standardized differences shown in Table 24 (Cohen's  $d$ ) depict more clearly the trends and magnitude of the changes in cadet's tendency to give primacy to principles of fairness and justice when evaluating relevance and importance of basic considerations for choosing alternative actions in decisions that involve general moral components.

TABLE 24

MEAN DIT P% SCORES FOR CADETS  
AT GIVEN TIMES AND MAGNITUDE OF  
EFFECT (COHEN'S  $d$ ) FOR DIFFERENCE  
BETWEEN EACH PAIR OF MEANS

	Time 1 July 77	Time 2 RW 77	Time 3 RW 78	Time 4 SPG 81
N	616	555	715	240
Mean	36.16	37.76	39.93	42.96
SD	11.83	11.77	11.72	12.68
Cohen's $d$ Time 1 vs	-	.14	.32*	.55*
Time 2 vs	-	-	.19*	.43*
Time 3 vs	-	-	-	.25*
Cohen's $d$ : Cadets Vs DIT Scaling Population	0.10	0.21	0.32	0.56

b. Some additional insight into the meaning of these average P% scores and changes while at West Point is provided by the data for various groups given in Table 25.

(1) At entrance cadets are about average for adults. By the time they graduate they typically are one-half standard deviation above general adult population and about the same as adults in general with a college education.

(2) These data also clearly reveal one aspect of the validity of the DIT. The mean P% scores made by groups differ in close agreement with the common judgment of our society as to their typical level of morality. This does not prove that an individual with a relatively high P% score will consistently make a more morally conforming action decision than an individual with a lower P% score. However the data shown in Table 25 do demonstrate two generalizations. First, groups of individuals whose behavior has led to their being separated from society tend to have much lower mean DIT scores than do unselected groups. Second, among groups matched on socioeconomic status, geographic area, and active participation in their church, the mean P% scores varied directly with the level of conventionalism in churches; that is, to the extent that church dogma gave primacy to conformance with authority based teachings. To some extent, scores on the DIT may be influenced by an unintended ideological bias against authoritarian morality in Kohlberg's theory.

TABLE 25  
MEAN P% SCORES FOR SELECTED CRITERION GROUPS

<u>Group</u>	<u>Mean</u>
Predelinquents (Mean Age 14.1)	17.2
Matched non-delinquents group (Mean Age 14.2)	23.6
Institutionalized delinquents (boys, White, Mean Age 16.1)	18.9
High School Juniors (Same City)	36.0
Prison Inmates (N=78)	23.5
Fundamentalist Seminary Students (11 Conformers to Institutional Orthodoxy)	22.5
Registered Voters (N=185, Random Sample, Majority Two or More Years College, Eugene, OR)	36.3
(Republicans)	(30.9)
(Democrats)	(40.1)
(Independents)	(47.5)
Adults Active in 1 of 4 Churches (169 in High SES Area)	41.4
(Conservative Baptist Church)	(30.1)
(Lutheran church)	(34.9)
(United Methodist Church)	(46.6)
(Unitarian-Universalists)	(52.6)
Adults in Religious Education Classes of Liberal Catholic Churches (N=87, Age 24-50)	45.3
Catholic Priests (261 in rural & small towns of 6 dioceses)	46.3
(47 Priests in a Southern diocese)	(42.0)

Source: Rest (1979).

### 3. Individual Change Patterns.

a. The data in the preceding Tables 21-24 show the over-all trends in changes from year to year by the group of cadets in the Class of 1981. They show clearly that the class as a whole tends to increase its P% score as a direct function of the time at West Point, but to do so at a constantly decreasing rate. In fact, the standardized increase per month (Cohen's  $d$ ) during New Cadet Training (.065) was about four times that during their next 12 months (.015) and more than 8 times that during their next 33 months (.008). That the class average P% score increased from 36 at entrance to 43 during their last term does not show change pattern details for individuals. Cadets with scores of different magnitudes may have quite different trends. Individuals with large scores at Cadet Basic Training might have remained about the same (a possible plateau effect) or they may have undergone decreases. Occasionally, this occurs among college students and members of the medical and legal profession (Rest, 1979). Thus the increased class mean could come solely from the cadets who had the lower scores initially, or the magnitude and direction of change could have nothing to do with the initial magnitude. To describe individual change patterns, we examine correlations between DIT scores at different times. Table 26 shows these correlations.

b. Most of the correlations in Table 26 are positive. This means that a cadet with a high P% score at one time also tends to have a relatively high P% score at another time. Thus we can reject the idea that the observed pattern of group change may be due to changes by just a few high scoring or low scoring cadets.

c. Table 26 shows that the shorter the interval between the pair of testing times, the higher the correlation (with the possible exception of subgroups 124 which had only 17 cadets tested only at these three times). Note especially the data for individual pair groups in the top portion of the table, and that for subgroups 123 and 234.

TABLE 26

Correlations Between DIT Scores of the Different  
Sub-groups by Pairs of Testing Times

Testing Time	1	Testing Time 2	3	4
A. For All Cadets Tested Twice (N's = 90 to 318)				
1: 7/77	-----	.51	.45	-.02
2: 9/77	-----	-----	.47	.16
3: 9/78	-----	-----	-----	.09
4: 4/81	-----	-----	-----	-----
B. For Cadets Tested Only Three Times (N = 113)				
1:	-----	.58	.44	X
2:	-----	-----	.51	X
The 124 Sub-groups (N = 17)				
1:	-----	-.23	X	-.67
2:	-----	-----	X	.37
The 134 Sub-group (N = 37)				
1:	-----	X	.30	.14
3:	-----	-----	-----	.05
The 234 Sub-group (N = 24)				
2:	-----	-----	.52	.21
3:	-----	-----	-----	.33
C. For Cadets Tested All Four Times (N= 27)				
1:	-----	.34	.37	-.16
2:	-----	-----	.57	.02
3:	-----	-----	-----	-.03
4:	-----	-----	-----	-----

d. Table 26 also shows that correlations between P% scores in 1977 and 1981 are essentially zero. That is, a cadet's score in the 1981 testing can not be predicted by the cadet's score from the earlier testing.

(1) The most reasonable explanation is that the final administration under changed conditions (as homework in connection with a Leadership Class, just prior to an instructional unit on moral leadership) and handing them in (even though made voluntary) caused cadets to react differently to the tasks posed by the DIT. They obviously had a somewhat better understanding of the task. Only twelve percent of their DIT's failed to meet the consistency check criterion, whereas about 15% at the first two testing and 31% at the larger third (whole class) testing date failed to meet the consistency check standards that were designed to identify groups of protocols which as a whole were likely to be composed of individuals who misunderstood the directions, were not taking the test seriously, etc. (Rest, 1979).

(2) Another part of the explanation was almost total dependence in the three large group administrations on the printed directions to convey exactly the task set by the DIT. General explanation was given and proctors were available for any requested assistance; but checks could not be made during the large group administration to be sure that the cadets understood correctly what they were requested to do in taking the DIT. The protocols containing misunderstandings and lack of cooperation were

eliminated by Dr. Rest's standard DIT checking procedures, but more subtle discrepancies in perception of and reaction to the task were not thus identified or controlled in these data.

#### 4. Reliability and Stability of DIT Scores.

a. The correlations for subgroup 123 when used in equations developed by Heise (1969) show that the test-retest measure of reliability corrected for temporal change effects is .68 for P% scores. Using the correlations for the whole group (given in the top section of Table 26) gives reliability of .54 for P% scores. The reliability freed from temporal change effects for the first three testings of subgroups 1234 (given in the bottom section of Table 26) is .52 for P% score.

b. Having the reliability coefficient in this situation permits correcting the test-retest correlations for attenuation and obtaining stability coefficients that occurred during a given interval. The correlations of true P% scores at one testing time with true P% scores at another time are as follows:

T1 - T2 (7/77 - 9/77): .85 (73% of variance shared)  
T2 - T3 (9/77 - 9/78): .75 (57% of variance shared)  
T1 - T3 (7/77 - 9/78): .64 (41% of variance shared)

c. These reliability and stability coefficients indicate two important points:

(1) Although the group as a whole increased its average P% scores, a sizable proportion of the flux in individual scores is due to ambiguity in measurement rather than to actual differences in individual changes.

(2) As might be expected logically, although as discussed previously the rate of increase per month was much greater for the class during NCT, the patterns of moral judgment bases changed more in the following year as shown by the drop in stability index from .85 to .75.

## IV DISCUSSION

### A. VALUES.

1. General. This discussion summarizes and highlights the main findings from all three different value instruments, offers interpretations of the results, as well as conclusions and recommendations for future research.

2. Stable Values. The results show that in a number of areas investigated, cadets do not change the values they entered with. The fact that the Academy permits cadets to maintain certain values is itself a form of impact, often neglected as too obvious to mention, but important nonetheless. While it is arduous to make comparisons among the three different value surveys (Rokeach, Scott, and Importance Inventory), because each uses a different scale of measurement, we have made a rough comparison.

a. Table 27 shows values that cadets considered to be of relatively high importance throughout the four years. Cadets enter the Academy with these values, and they maintain that approval throughout their four years. Integrity, duty, and career success are important at entrance, and continue to be so over the four years; this is indicated by the high rank given to "honest" as an instrumental value. It shows in the importance given to being "responsible" or "to be dependable"; and it shows in the importance of "capable," "ambitious," and "being successful in my line of work." In addition to the traditional military values of integrity, duty, and career success, the table shows cadets also brought to the Academy and maintained other values as well: true friendships (close companionship), having strong friendships, the development of social skills (defined as being charming, popular, well mannered and getting along with all kinds of people), family security (taking care of loved ones), and "finding the right person to marry and have a happy family life." The latter values appear to be social in nature.

TABLE 27  
VALUES THAT WERE CONSISTENTLY HIGH FROM ENTRANCE TO GRADUATION

Rokeach <sup>a</sup>	Scott <sup>b</sup>	Importance Inventory <sup>c</sup>
Freedom		Being successful in my line of work*
Self-respect*	Social skills*	
True friendship	Physical development	Finding right person to marry & have a happy family life*
Family security		Having strong friendships*
Honest*		To have self control*
Capable*		To be happy*
Ambitious*		To be dependable*
Courageous*		
Responsible*		

Definition of "high"

<sup>a</sup> top 1/3 of importance rank.

<sup>b</sup> mean > 13.00, all 3 times.

<sup>c</sup> mean closer to maximum importance than next most important.  
(2.5/3 or 3.5/4.0)

\* Some small changes in detailed analysis.

Note: This table excludes some variables which were consistently high but changed moderately in the detailed analysis.

b. Table 28 shows values that cadets considered relatively less important at entrance and throughout the four years. Clearly, things like beauty, comfort, pleasure, money, and artistic achievement were not as important to cadets as other qualities.

TABLE 28

VALUES THAT WERE CONSISTENTLY LOW FROM ENTRANCE TILL GRADUATION

Rokeach <sup>a</sup>	Scott <sup>b</sup>	Importance Inventory <sup>c</sup>
A comfortable life	Self-control*	Having lots of money*
A world of beauty	Independence*	Getting away from this part of the country*
Pleasure*		Making a lot of money*
Social Recognition		Avoiding high pressure job*
Cheerful*		Freedom from supervision in my work*
Clean*		
Imaginative*		
Polite*		

\* Some small changes in detailed analysis

<sup>a</sup> Lowest 1/3 in importance rank

<sup>b</sup> Mean < 10.00, all 3 times

<sup>c</sup> Mean Score < 2.00 all 3 times

Note: This table excludes some variables which were consistently low, but also showed moderate change in detailed analysis.

c. In interpreting the results in these two tables, one must be careful to consider the complete definition of the variable, not just the brief descriptive phrase given in the table. There are some interesting apparent contradictions in the tables, which lead to a clearer understanding of the exact nature of the values.

(1) Take the apparent contradiction between freedom and independence. One might expect that persons who value freedom would also value independence. When cadets evaluated "freedom" (independence, free choice) among 17 other terminal values on the Rokeach they ranked it first throughout the four years. When they evaluated "independent" (self-reliant, self-sufficient) among 17 other instrumental values on the Rokeach, they initially ranked it 13th, then 10th, then 7th and finally 4th, just before graduation. Possibly cadets value freedom as a political ideal for nations more than they value it as personal goals for themselves. When independence is defined as "being independent, outspoken, free-thinking, unhampered by the bounds of social restraint," as it is on the Scott, cadets consistently gave it the lowest relative admiration throughout the four years. One can have too little regard for independence, however, for his own good; cadets separated for honor had very low independence scores on the Scott (Priest, 1982, p 11). Furthermore, cadets do not value all kinds of freedom; they consistently

attributed relatively low importance to "freedom from supervision in my work" on the Importance Inventory, over the four years. Thus, though cadets value freedom in the abstract, they do not value it in all its particular manifestations.

(2) Then, one must be careful how "self-control" is defined. Among the instrumental values, cadets ranked "self-controlled" (restrained, self-disciplined), 3rd for their first two years, and 8th by graduation. This is a relatively high rating on the Rokeach. But a slightly different definition of self-control leads to different results. On the Scott, it is defined as "always being patient and self-controlled, never losing one's temper no matter what the provocation." Using this definition, cadets had a relatively low valuation of self-control throughout their four years. In absolute terms "to have self-control" was rated as very important on the Importance Inventory throughout the four years. It appears as if cadets value "self-control" in the abstract, but not at the cost of controlling their anger under provocation. Further research is needed to clarify the exact point at which "self-control" becomes excessive or dysfunctional for a military officer.

(3) Cadets entered with a relatively low evaluation of "polite" (courteous, well mannered) in comparison to other instrumental values on the Rokeach. They never gave it more than 15th place in the four years. By civilian standards, cadet behavior (as distinct from their stated values) is generally very polite, courteous and well mannered. The Rokeach measure of politeness as a value may be misleading, because it reflects only relative priorities. The Scott value measure of social skills ("being charming, popular, well mannered, and getting along with all kinds of people") is a broader concept, but it permits an absolute measure. Cadets entered with high scores in admiration for social skills (15 out of 20 possible points), and maintained nearly the same high throughout their four years (Priest, 1982, p 14). Thus we conclude that cadets do value the broader concept of social skills which includes good manners, even though they do not give politeness high priority among their stated values. It may be that politeness and cheerfulness are perceived as relatively superficial qualities, even a little insincere, rather than as fundamentally necessary to officer life.

(4) Some apparent contradictions may be a result of the particular methods used to assess values on each scale. For example, the Rokeach scales require rank ordering items in importance, whereas the Importance Inventory allows a direct (absolute) rating of importance. "Clean" is ranked consistently low in comparison with other values by cadets on the Rokeach. However, Table 16 shows that "to be neat and clean" is consistently rated above 3.0 (important) over four years.

(5) The cadets ranked "honest" (sincere, truthful) first among the instrumental values on the Rokeach throughout their four years. They were also asked about their admiration for 20 specific examples of honesty on the Scott values scales, but the results there were more complex. They tended to admire 13 (out of 20) examples at entrance, 14 after CBT, and 12 at graduation (Priest, 1982, p 14). Clearly honesty is valued in the abstract, but becomes more difficult to admire in some "gray" areas of behavior. A detailed discussion of this threshold phenomenon has been presented in several previous reports (Priest, 1979a, p 26-28; Priest 1979b, p 10). The findings from the Scott value scales have been corroborated by surveys conducted by the Superintendent's Honor Review Committee; in general cadets believe in honesty as a value, but have difficulty when honesty seems to conflict with other strong values such as friendship. There is reason to believe that USMA cadets have much higher Scott honesty scores than civilian youth samples (Priest, 1980, p 14). In contrast, there is practically no difference between the way honesty is ranked on the Rokeach by cadets and outside groups (Bridges, 1972, Table III-4). Thus, the two tests of honesty (Rokeach and Scott) provide a slightly different portrait of cadet values.

(6) Each of the three tests have their own unique properties. Thus, the definition of what constitutes a "high" score or a "low" score is somewhat arbitrary. A more extensive correlational analysis of the relationships among the Scott, the Rokeach, and the Importance Inventory is needed to more fully integrate the results and more sharply depict the basic structure.



### 3. Value Change.

a. General. Although many particular values were unchanged after four years at the Academy, there were a few which changed to such an extent that they warrant discussion. The discussion is relatively balanced; it tries to include both positive and negative evaluations of the change, so the readers can decide for themselves which actions may be called for. The discussion focuses only on changes which were "moderate," or "large" as identified by our magnitude of change statistic, Cohen's d. Table 29 presents the variables to be discussed. Since the preceding discussion has illustrated the fact that each value scale has its own measurement properties, this discussion will focus on each instrument separately.

#### b. Rokeach Value Scales.

(1) At entrance, cadets ranked "equality" (brotherhood, equal opportunity for all) 14th out of the 18 terminal values. By the end of 2nd class summer training they ranked it 16th, and continued to do so at graduation. Thus, they decreased in adherence to "equality" as a guiding principle. Academy authorities have pointed to "equality" as an important value to be upheld in cadet training (Basic Concepts for USMA 1979, Incl 3, p 1), USMA officers rank "equality" 12th (Bridges, 1972). It seems fairly clear that cadets do not value "equality" as much as officers, relative to other ends. Perhaps cadets believe that brotherhood and equality of opportunity is no longer the critical issue that it once was at USMA. Possibly, human relations training for cadets has not had the impact that it should have in inculcating the proper adherence to "equality" as a value. We know from other surveys that cadets consider racial problems in the Corps to be relatively minor in importance (Houston, 1982, p 7). This could be either because there really is no problem, or that cadets are insensitive to racial problems that occur. Cadets might increase the priority they give to "equality" as a value when they encounter the more difficult race problems which occur in the field Army, particularly overseas. In case these results do reflect insensitivity, we would advise those responsible for human relations training at USMA to consider ways to give cadets recent factual information about the extent of racial problems in the Army, in such a way as to increase their priority for "equality" as a value.

TABLE 29

#### VALUES WHICH SHOW MODERATE CHANGE IN DETAILED ANALYSIS

Rokeach	Importance Inventory
Equality, E	To obey the law, E
National security, E	
Independent, A	
Obedient, E	Being a leader in my community, E
	Living close to relatives and friends, T

CODE:

E = Erosion (decreased value importance)  
 A = Appreciation (increased value importance)  
 T = Turbulence (up and down change)

(2) At entrance, cadets ranked "obedient" (dutiful, respectful) 10th. Later they ranked it 13th, 16th, and 17th. Officers rank it 14th (Bridges, 1972, p 31). Thus, cadets over-valued obedience at entrance, relative to officers, and under-valued it at graduation. This decline in adherence to "obedience" as a value seems, on the surface, to reflect a declining adherence to duty as a value. The duty concept paper (24 March 1981) states how cadet concepts of duty should evolve: "the requirement for obedience continues, but the need for close supervision diminishes - - initiative and imagination take on special significance as cadets increasingly act from their own sense of duty, not merely according to the duties that are prescribed for them." (p. 5). Perhaps cadets interpreted "obedient" on the Rokeach as obedience to narrowly prescribed duties, rather than the broader concept described above. If so, the change has a positive, rather than a negative, interpretation. The USMA environment may be somewhat idealistic in relation to the field Army. If so, the tendency of senior cadets to over-emphasize initiative and imagination at the expense of the narrower concept of duty would be understandable, and self-correcting once the cadet graduates. There is a large literature on the experimental psychology of obedience, based on the work of Milgram (1965). To our knowledge there is no comparable literature using questionnaires to assess attitudes toward obedience to authority in various situations, or the scope of an individual's concept of duty, but such work would be of great value particularly in the military.

(3) We have already noted that cadets increased their evaluation of "independent" (self-reliant, self-sufficient) over the four years. Over the years, first class cadets have strongly endorsed the idea that "a cadet should be left more on his own to sink or swim" (Houston, 1981, p 7). Officers rank this independence 6th, in contrast to first class cadets ranking it 4th. Again the cadet value has changed in the direction of the officer value and then overshot the mark. Just as cadets under-value "obedience", relative to officers they over-value independence. National samples show that more educated groups value independence more highly; cadet trends are consistent with this.

(4) At entrance, cadets ranked "national security" (protection from attack) 8th among the terminal values, but after Cadet Basic Training, 12th - the rank they gave it at graduation. Officers ranked it 11th. On the basis of the mission of the Army, one might have expected officers and cadets to rank it more highly, but they did not. Cadets changed in the direction of officer values. There is a tendency for better educated groups of civilian adults to value "national security" less highly, in contrast to those with less education. Thus, cadet value change is consistent with trends based on amount of education. The trend for "national security" is paralleled by a small decrease in "a world at peace." Civilian groups give higher priority to both than do military groups, but the contrast is especially strong for "a world at peace," which civilians rank #1, and officers 13th. The latter finding is not consistent with Huntington's claim that officers are as interested in peace as civilians (1957). There are few, if any, comparable surveys of cadet attitudes to other aspects of "national security." Thus, we cannot determine whether the pattern on the Rokeach is representative of a broader and deeper antipathy to national security issues, or is simply an artifact of the way this particular item was worded in the context of all the other terminal values. If commitment to "national security" is indeed as low as it seems on the Rokeach, it may reflect a bias against ideology of any sort in the military. Is there a place for "national security" consciousness-raising in the education of cadets? Some countries place more emphasis on political-ideological indoctrination of the officer Corps. Apparently, cadets do not see "national security" as linked to their most important terminal values such as "freedom, self-respect, or mature love."

(5) The most general statement one can make about cadet values on the Rokeach is that they become more like officers, and less like civilian adults (Table 11). In part, this is due to selective attrition of cadets with values which are not congruent with the officer model, and in part it is due to changes in cadet values. Part of the change is due to the fact that cadets also come to resemble the more highly

educated civilian groups, as they themselves acquire more education. In broad outline, changes in cadet values are consistent with the mission of USMA - - to educate cadets so they have attributes similar to successful Army officers.

c. Scott Values Scale.

(1) Nearly one year has elapsed since we reported the changes in the Scott Values Scales (Priest, 1982). The Scott is a separate instrument from the Rokeach, with a different focus. A brief summary will add to the picture of value changes in the Class of 1981.

(2) During Cadet Basic Training, cadets increased their adherence to intellectualism, kindness, religiousness, and creativity to a moderate degree.

(3) During the next 46 months, values decreased on nearly all the scales to some extent. There were large decreases in academic achievement, moderate decreases in loyalty and religiousness.

(4) This up-and-down pattern of change in cadet values can be interpreted in terms of what Lovell (1976) has called the tension between "Athens" and "Sparta" in military education. One of the ethical imperatives of academic training is that students should not oversimplify complex situations. Thus it develops a critical attitude, which may account for a decrease in adherence to all values after CBT. In contrast, military training - - particularly CBT - - tends to emphasize unquestioning obedience. This may account for increased value adherence during CBT (Priest, 1980a, p 7). Other analysis shows that the USMA cadet pattern of decrease on Scott values over time would probably be found in civilian samples as well (Priest, 1980b, p 10).

(5) The earlier reports in this series recommended a continuing dialogue between academic instructors and tactical officers, in order to help identify and resolve potential value conflicts between academic vs military systems, and to help promote the moral-ethical development of cadets (Priest 1980a, p 1).

d. Importance Inventory.

(1) At entrance, and immediately after Cadet Basic Training, cadets rate "being a leader in my community" as relatively important (2.32 out of 3). One year later, and at graduation, they rated this value much lower in importance (1.80). A sample of civilian youth rated this value as rather unimportant (1.73), and two years later, even less important (1.60). Thus, cadets change in the same direction as the civilian youth sample. Even though cadets lower their evaluation of leadership more rapidly than civilian youth, they nevertheless value leadership more highly than civilian youth. Given the emphasis that the Academy puts on developing leadership abilities in cadets, it is surprising that cadets do not continue to regard leadership as important as they did at entrance. When one asks cadets about their leadership abilities, as distinguished from their values, they continue to rate themselves very highly at entrance and graduation (Bridges, 1978). Perhaps "being a leader in my community" is not fully representative of the full range of leadership opportunities. For example, cadets may have interpreted the former as leadership in their community of origin rather than in their current community (i.e., the Army community). Or cadets may have taken for granted that they would rise to a position of moderate leadership within the Army, and thus regarded its attainment as less critical or less desirable. In retrospect one wishes that there had been more questions on leadership on the survey, so as to be able to rule out false interpretations based on the wording of a single question. Without such data, one can only indicate that the strong decline in leadership motivation among cadets in this data is a potentially serious problem which should be investigated further. On the Scott Values Scale, the status value ("having strong leadership qualities, being respected by others, gaining recognition for one's

achievements") did not change much over the four years (Priest, 1982, p 14). On the Rokeach, "social recognition" (respect, admiration) was consistently ranked low throughout the four years. Both Scott status and Rokeach Social Recognition Scales are broader concepts that should logically include "being a leader in my community." Based on this information, we conclude cadets do not have a serious decline in leadership motivation in general, but only with respect to "being a leader in my community."

(2) At entrance, cadets rated "to obey the law" as very important (3.5; 4.=max); by graduation it was rated significantly lower (3.0). A national sample of 17 year olds had rated this value very important (3.5), about the same level as entering cadets (Scanlon, 1975, p 55). In the adolescent sample, there was a "trend for obedience to law to be less often regarded as extremely important as the youths grow older." (p.16). In absolute terms, however, cadets still rated "obedience to the law" as important at graduation. What changed was that many fewer cadets at graduation considered "obedience to the law" to be "extremely important," and more regarded it as "important," "slightly important," or "unimportant." Among cadets, there was a small decrease in the "extreme importance" rating of "to obey one's parents." Thus, cadets tended to regard "obedience" in general as less important, a trend which is consistent with data from the Rokeach Value Scales, noted above. It is disturbing that cadets showed any decrease at all in respect for the law. The public good requires that officers have great regard for constitutional legality. Nevertheless, it is not clear that a less positive response on this item would translate into a pattern of behavioral non-compliance. Perhaps all the cadets were really saying is "I still consider obedience to law as important, but not as important, as it once was." To find out what this finding really indicates, more research is required. Future work should focus on the conditions under which "obedience to the law" is considered important; the cadet's conception of why particular forms of obedience are important and attitudes to law at various levels of generality - State, Federal and Constitutional. Such follow-on research would not require a longitudinal study, or great numbers of cadet participants. It probably would, however, require the participation of officers in the Law Department to ensure a sufficiently broad coverage of legal topics.

(3) Cadets at entrance did not rate "living close to parents and relatives" very highly, they rated it between "not important" and "somewhat important." Immediately after Cadet Basic Training, however, they rated it much closer to "somewhat important." This change was only temporary, because at graduation they rated it at the original low level of importance. In other words, cadets become temporarily homesick after CBT. At entrance, cadets were at the same level as high school graduates in the national sample (Priest, 1980b, p. 12).

(4) Unfortunately, the ACE questions were not given to cadets at graduation. For these items, we can only report on changes in values over the first two years of the cadet's time at the Academy. There were two moderately large changes in this time that are worth discussing. At entrance cadets rated these two items between "essential" and "very important": "developing a meaningful philosophy of life" and "keeping up to date with political affairs." Two years later there was a notable drop in the importance attributed to these items. Astin (1978) reported the results of a four year study of value change in college students, using the ACE Life Goals items. He notes that "with few exceptions, the percentage of students who check each value as essential or very important declines during the four years after matriculation," (p.48). He attributes the decline to increasing realism in student value patterns. This explanation is consistent with observations in the present study, and may account for the erosion of values like "developing a meaningful philosophy of life" and "keeping up to date with political affairs," which were observed in cadets over a two-year period. We should like to know whether or not cadets actually found a meaningful philosophy of life, and thus rated it less important because a need had been satisfied; or whether they changed because they were continually under too much time pressure, giving up on this goal in discouragement. One might expect that the required course in philosophy would address this cadet need, at least partly. Future work should be undertaken to verify that the philosophy course does in fact meet the cadet need for a meaningful philosophy of life, or the extent to which the ethics and professionalism curriculum does.

## B. MORAL DECISION MAKING PROCESS.

1. In contrast to the previous section which is focused on the content of cadet values, this section focuses on the process by which cadets apply their values to complex moral dilemmas. There is very little connection between the two.

2. Although our measure of moral decision making is complex and difficult to score, the resulting data analysis is fairly simple because one single number is used to summarize the moral maturity of each cadet at each time. To understand the results, it is well to review the meaning of the "P% Score" on the DIT. A cadet reads 5 moral dilemmas; after each dilemma, he decides on a course of action, and picks the 4 most important reasons which support his decision, out of a list of 12. Each of the 12 supporting reasons for decision can be graded in terms of its moral quality, according to Kohlberg's developmental stage theory. Some reasons reflect the more mature "principled moral reasoning" stage, others do not. The "P% Score" reflects the percent of principled reasons chosen by cadets over all 5 dilemmas.

3. At entrance, cadets average 36% in use of "principled reason" to justify their response to complex moral dilemmas. A large group of senior high school students scored 32% (Rest, 1979, p 110). A small group of college-bound high school seniors scored 36% (p 134). After four years, cadets scored 43%. The small group of college bound students, after two years scored 44%. College students in general scored 42%. Based on these figures it seems apparent that cadet use of principled moral reasoning develops in a pattern which is typical for college bound students generally. Given the very careful selection process for gaining admission to the U.S. Military Academy, and the high degree of Academy concern for fostering individual moral development in its ethics and professionalism curriculum, one might ask why cadets do not progress more rapidly and surpass other groups of college educated people. One possible response is that there is "no excuse" for cadets not scoring higher on the DIT, and that Academy officials should do everything in their power to improve the competitive position of cadets on the DIT. Such a response presupposes that the DIT is valid as a measure of officer ethics, and that higher scores are more desirable. A second line of response is to explain cadet "failure" to achieve higher DIT scores in terms of a possible ideological bias in the theory behind it. While institutionalized delinquents and prisoners score very low on the DIT, the scores of active church goers varies by as much as 20 points by denomination. The religious doctrines of certain churches apparently focus more on "principled moral reasoning" than doctrines of other churches. This indicates that the P% score may be influenced in its upper ranges by extraneous factors of religious ideology rather than moral factors. Wattendorf (1981) studied the DIT scores of a group of ROTC cadets and civilian students at the University of Idaho. In his sample, upper class ROTC cadets and civilians had comparable P% scores. ROTC cadet upperclassmen with prior service had lower P% scores than those without prior military service. Except for his data, and the present study, there is no other data on the P% scores of military cadets or officers. Since there is no adequate study of P% scores among military officers, it is difficult to decide whether or not 50% or 60% is really more functional than 43% for a military officer.

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APPENDIX A

TABLE 1.1  
 PERCENTAGE OF CASES WHO INCREASED  
 THE PRIORITY GIVEN TO EACH ROKEACH VALUE  
 (TERMINAL VALUES)

	Time Interval			Total <sup>d</sup>
	CBT-77 <sup>a</sup>	Two Years <sup>b</sup> Later	Two More <sup>c</sup> Years	
1. A comfortable life	53* (33)	53* (37)	48 (40)	59* (28)
2. An exciting life	44 (43)	56* (34)	47 (40)	51 (39)
3. Sense of accomplishment	33* (55)	51* (40)	48 (37)	42 (52)
4. A world at peace	42 (46)	35* (53)	44 (45)	39* (52)
5. A world of beauty	41 (40)	44* (40)	41 (47)	40 (34)
6. Equality	34* (51)	38* (48)	36* (56)	26* (61)
7. Family security	52* (33)	44 (45)	44 (47)	44 (48)
8. Freedom	41 (43)	46 (43)	48 (43)	48 (40)
9. Happiness	46* (40)	49* (39)	45 (44)	53 (41)
10. Inner harmony	49* (40)	39* (51)	51 (40)	56 (40)
11. Mature love	48* (37)	49* (37)	35 (49)	61* (30)
12. National security	32* (56)	36* (54)	47 (41)	28* (67)
13. Pleasure	47* (39)	58* (30)	32* (53)	50* (31)
14. Salvation	41* (21)	27* (42)	28 (41)	40 (30)
15. Self-respect	31* (55)	47 (41)	36 (51)	39 (52)
16. Social recognition	40 (41)	42 (42)	49 (37)	45 (45)
17. True friendship	42 (45)	41* (46)	44 (53)	47 (50)
18. Wisdom	36* (51)	34* (54)	47 (43)	38* (56)

a NCT - RWK 77

b RWK 77 - RWK 79

c RWK 79 - FLQ 81

d NCT - FCQ 81

Note: Percent decrease given in parenthesis.

\* p <.05 by Wilcoxon matched pairs signed rank test.



TABLE 1.2  
 PERCENTAGE OF CASES WHO INCREASED  
 THE PRIORITY GIVEN TO EACH ROKEACH VALUE  
 (INSTRUMENTAL VALUES)

	CBT-77 <sup>a</sup>	Time Interval		Total <sup>d</sup>
		Two Years <sup>b</sup> later	Two More <sup>c</sup> Years	
1. Ambitious	43 (43)	38* (51)	37 (55)	31* (62)
2. Broadminded	45 (45)	49* (41)	43 (48)	44 (48)
3. Capable	38* (51)	54* (38)	31 (63)	46 (46)
4. Cheerful	44 (43)	51* (38)	51* (37)	54* (36)
5. Clean	47 (41)	35* (55)	36 (45)	23* (63)
6. Courageous	38* (52)	51* (40)	52* (37)	52 (45)
7. Forgiving	40* (48)	48 (42)	55* (37)	63* (32)
8. Helpful	50* (40)	42* (49)	47 (40)	47 (44)
9. Honest	35* (40)	38 (41)	43 (35)	36 (40)
10. Imaginative	44* (39)	55* (32)	47 (45)	57* (29)
11. Independent	52* (38)	57* (34)	56* (36)	67* (30)
12. Intellectual	50* (36)	44 (47)	44 (51)	43 (48)
13. Logical	41* (49)	54* (38)	40 (51)	49 (44)
14. Loving	54* (33)	49 (41)	47 (45)	62* (29)
15. Obedient	34* (56)	37* (55)	41 (49)	23* (71)
16. Polite	42 (48)	36* (55)	44 (41)	33* (60)
17. Responsible	39* (45)	38* (51)	43 (44)	40 (47)
18. Self-controlled	45 (43)	36* (56)	35* (56)	30* (62)

a NCT - RWK 77

b RWK 77 - RWK 79

c RWK 79 - FLO 81

d NCT - FCO 81

Note: Percent decrease given in parenthesis.

\* p <.05 by Wilcoxon matched pairs signed rank test.

TABLE 1.3

ROKEACH TERMINAL VALUES  
TEST-RETEST RELIABILITY

	Correlation			
	A	B	C	D
1. A comfortable life	.57*	.40*	.59*	.47*
2. An exciting life	.57*	.45*	.50*	.43*
3. A sense of accomplishment	.52*	.35*	.43*	.37*
4. A world at peace	.56*	.41*	.33*	.26*
5. A world of beauty	.51*	.34*	.48*	.34*
6. Equality	.62*	.47*	.27*	.53*
7. Family security	.54*	.38*	.38*	.32*
8. Freedom	.50*	.34*	.50*	.32*
9. Happiness	.45*	.33*	.47*	.44*
10. Inner harmony	.52*	.38*	.28*	.31*
11. Mature love	.61*	.45*	.38*	.15
12. National security	.52*	.36*	.55*	.40*
13. Pleasure	.44*	.34*	.28*	.31*
14. Salvation	.81*	.68*	.78*	.74*
15. Self-respect	.45*	.39*	.49*	.30*
16. Social recognition	.51*	.40*	.30*	.31*
17. True friendship	.46*	.44*	.35*	.34*
18. Wisdom	.58*	.40*	.45*	.33*

A = NCT - RWK 77

C = RWK 79 - FLQ 81

B = RWK 77 - RWK 79

D = NCT - FCQ 81

\* p &lt; .05

TABLE 1.4

ROKEACH INSTRUMENTAL VALUES  
TEST-RETEST RELIABILITY

	Correlation			
	A	B	C	D
1. Ambitious	.53*	.41*	.37*	.29*
2. Broadminded	.46*	.33*	.42*	.46*
3. Capable	.42*	.30*	.32*	.32*
4. Cheerful	.51*	.39*	.43*	.39*
5. Clean	.50*	.38*	.51*	.48*
6. Courageous	.41*	.38*	.58*	.34*
7. Forgiving	.52*	.39*	.33*	.33*
8. Helpful	.43*	.27*	.43*	.23*
9. Honest	.43*	.20*	.20*	.35*
10. Imaginative	.54*	.38*	.50*	.48*
11. Independent	.48*	.35*	.36*	.12
12. Intellectual	.54*	.43*	.31*	.32*
13. Logical	.44*	.30*	.32*	.11
14. Loving	.58*	.42*	.40*	.17
15. Obedient	.44*	.28*	.42*	.37*
16. Polite	.41*	.27*	.40*	.43
17. Responsible	.34*	.23*	.21	.24*
18. Self-controlled	.40*	.28*	.19	.14

A = NCT - RWK 77

C = RWK 79 - FLQ 81

B = RWK 77 - RWK 79

D = NCT - FCQ 81

\* p &lt; .05

APPENDIX B

TABLE 2.1  
 IMPORTANCE INVENTORY  
 TEST-RETEST RELIABILITY  
 NLS LIFE GOALS

	Correlations			
	A	B	C	D
Being successful in my line of work	.14*	.17*	.31*	.00
Find right person to marry	.38*	.27*	.27*	.23*
Having lots of money	.46*	.35*	.42*	.40*
Having strong friendships	.25*	.16*	.30*	.14
Being able to find steady work	.35*	.28*	.24*	.46*
Being a leader in my community	.42*	.36*	.40*	.38*
Being able to give my children better opportunities	.45*	.35*	.36*	.42*
Living close to parents and relatives	.44*	.34*	.34*	.13
Getting away from this area	.21*	.21*	.47*	.08
Working to correct social & economic inequalities	.44*	.31*	.30*	.22*

NLS JOB MOTIVATION VALUES

	Correlations			
	A	B	C	D
Making a lot of money	.48*	.34*	.61*	.31*
Opportunities to be original and creative	.33*	.30*	.20	.23*
Opportunities to be helpful to others or useful to society	.25*	.25*	.33*	.25*
Avoiding a high pressure job	.34*	.16*	.39*	.31*
Living and working in the world of ideas	.31*	.20*	.25*	.28*
Freedom from supervision in my work	.29*	.18*	.34*	.25*
Opportunities for moderate but steady progress	.38*	.22*	.28*	.25*
The chance to be a leader	.21*	.20*	.34*	.14
Opportunities to work with people rather than things	.27*	.23*	.36*	.25*
Having a position that is looked up to by others	.33*	.26*	.22*	.31*

A = During CBT  
 B = 1st Two Years (1977 to 79)  
 C = Last 3 Years (79 to 81)  
 D = Net Change  
 \* p <.05

TABLE 2.2

IMPORTANCE INVENTORY  
TEST-RETEST RELIABILITY  
NHS ADOLESCENT VALUE SYSTEM

	Correlations			
	A	B	C	D
To be neat and clean	.45*	.37*	.50*	.43*
To be able to defend oneself	.43*	.29*	.35*	.34*
To have self-control	.25*	.18*	.13	.45*
To be happy	.33*	.30*	.38*	.05
To obey one's parents	.51*	.44*	.30*	.31*
To be dependable	.25*	.23*	.18	.29*
To be considerate of others	.32*	.29*	.33*	.20*
To face life's problems calmly	.39*	.30*	.23*	.39*
To obey the law	.43*	.35*	.45*	.34*
To be ambitious	.48*	.34*	.43*	.29*
To know how to keep in good health	.36*	.24*	.31*	.17

ACE LIFE GOALS

	Correlations		
	A	B	E
Becoming accomplished in one of the performing arts	.34*	.28*	.20*
Becoming an authority in my field	.52*	.40*	.38*
Obtaining recognition from my colleagues	.40*	.30*	.29*
Influencing the political structure	.43*	.32*	.22*
Influencing social values	.41*	.33*	.25*
Raising a family	.62*	.42*	.39*
Having administrative responsibility	.39*	.33*	.22*
Being very well-off financially	.54*	.36*	.31*
Helping others who are in difficulty	.52*	.31*	.34*
Making a theoretical contribution to science	.56*	.32*	.28*
Writing original works	.56*	.30*	.27*
Creating artistic work	.44*	.31*	.26*
Being successful in a business of my own	.47*	.34*	.28*
Becoming involved in a business of my own	.50*	.32*	.26*
Developing a meaningful philosophy of life	.54*	.38*	.32*
Participating in a community action program	.45*	.33*	.28*
Keeping up to date with political affairs	.52*	.37*	.37*

A = During CBT

B = 1st Two Years (1977 to 79)

E = Net change July 77 to August 79

\* p &lt; .05

APPENDIX C

Chronological Listing of Events Related to VALUE SURVEY--Class of 1981

- 3 NOV 73 OIR's interest awakened by Dr. Lawrence Kohlberg's address on "The Uses and Abuses of Moral States" to Invitational Conference on Testing Problems.
- 12 NOV 73 Further information sought. OIR letter to Dr. Kohlberg.
- NOV 74 Harvard Center for Moral Education Responds. Dr. Richard Graham, telephones and discusses possibilities. States Dr. Rest's test of moral judgment is the best test, and might be suitable. Promises to send additional information.
- 17 DEC 74 OIR letter to Dr. James R. Rest, for information on his test.
- 1975 Dr. Rest provides numerous reprints. A copy of his Defining Issues Test manual and numerous relevant publications were obtained by OIR, and relevant information provided to several MP&L staff members. The possible desirability of research and of a special course on moral values were discussed.
- MAY 1976 EE304 Honor Incident (Class of 1977).
- Summer 1976 DF by MAJ Robert N. Seigle, from Director, OML, suggests values research possibilities for the Commandant's consideration.
- 5 NOV 76 Assessment of Values of Incoming Cadet Classes: Directed by BG W. F. Ulmer, Commandant of Cadets. Memorandum for Director, OML, subject above.
- 30 DEC 76 Tasking Request from Commandant. Memorandum for Chief of Staff, Subject: Value Assessment--Class of 1981, BG W. F. Ulmer, Jr., requesting that OIR be tasked to cooperate.
- 21 JAN 77 Tasking Memorandum, For: Commandant of Cadets and Director of Institutional Research, Subject: Value Assessment, Class of 1981.
- 2 FEB 77 OIR MFR, Called attention to National Sample Survey Data relevant to selected values.
- 14 JUN 77 Research Program Proposed. Research plan for "Value Assessment--Class of 1981" completed, with active participation of OIR staff and OML representative MAJ Robert N. Seigle, and submitted as Project Number 234, by Claude F. Bridges, to DIR.
- 27 JUN 77 Research Program Proposal. DIR's memorandum for Commandant of Cadets, thru Director of OML, Subject: Values Assessment--Class of 1981, transmitted research program plan for formal concurrence and comments on specifics.
- 11 JUL 77 Formal Approval for the Record by Commandant of Cadets. BG John C. Bard, Commandant of Cadets' Memorandum for OIR, Subject: Value Assessment--Class of 1981, stating:

"Agree that optimal testing program outlined in Table 1 of research proposal be followed."

"Agree that the values of Company Tactical Officers should be assessed." Suggested also assessing values of matched samples of other officers assigned to West Point: ". . . as they also serve as role models."

Chronological Listing of Events Related to VALUE SURVEY--Class of 1981

(continued)

JUL 77  
MAY 81

Data Collection. The Research Plan requested by BG Ulmer and approved by BG Bard (calling for the administration of the Rokeach Value Survey, the Scott Value Inventory, the Importance Inventory, and the Rest Defining Issues Test of Moral Judgment) was implemented essentially as planned: the one major omission was the proposed administration of the basic tests to a selected sample of officers assigned to West Point. The minor modifications of the approved plan were as follows:

1. In 1979 the sharp reduction of the time cadets were available during Reorganization Week for institutional research testing resulted in the omission of the administration of the DIT and of the Scott to the Class of 1981 at that time.

2. The difficulty involved in obtaining pre-graduation First Classmen for group testing sessions led to modification in testing First Classmen with the DIT and the Scott.

a. The Class of 1979 was not tested with these instruments in 1979. Hence, their changes in values during the last two years at West Point cannot be compared with these changes for the Class of 1981.

b. The Rest D.I.T. was given by the BS&L instructors in the Second Term of the First Class Military Leadership course as part of the Ethics Unit.

c. The Rokeach Value Scales and the Importance Inventory were included as part of the annual First Class Questionnaire which OIR sends via Message Center directly to half of the First Classmen. However, half of these cadets were directed to return their responses without identification, thus reducing the sample.

d. The Scott was given in small groups to a carefully selected random sample by OIR staff. The strength figures for the total Class of 1981 populations at the successive testing periods are as follows:

<u>DATE</u>	<u>TOTAL Class of 1981 Strength</u>	
1/7/77	1,470	Time 1. Entering Testing
9/77	1,346	Time 2. 4th Class Reorganization Week Testing
9/78	1,128	Time 3. 3rd Class Reorganization Week Testing
9/79	1,023	(Not Tested on Scott or DIT)
9/80	987	(Testing not Scheduled)
5/81	971	Time 4. 1st Class Testing
Graduates	960	

Chronological Listing of Events Related to VALUE SURVEY--Class of 1981

(continued)

- Fall 1979 Longitudinal DIT P% Score data, without I.D. information, provided by OIR to Cadet Tamara C. Kaseman for PL489 research paper.
- Spring 1980 Cadet Kaseman's report "A Longitudinal Study of Moral Development of the Class of 1981" awarded second place in Psychological Research by Eastern Science Conference.
- Fall 1982 The DIT P% Score means obtained by current analyses were found to be approximately .833 of the comparable P% Score means reported by Kaseman. These constant differences would have no effect on the interpretations relative to changes in moral development but they do modify interpretations from comparisons of cadets' DIT data with DIT data from other groups. Rigorous independent rescoring and checks showed the current data to be correct.

APPENDIX D

IMPORTANCE INVENTORY

This questionnaire and the Rokeach Value scales are being administered under the authority of 10 USC 4334. The principle purpose is to collect administrative, values, and attitudinal data relating to the Corps of Cadets. The routine uses to be made of the data are to analyze the characteristics of the class, develop trend data, and to analyze class attitudes pertinent to USMA programs. The information obtained will be used only in statistical reports and will not become a part of your official record. Identifying information is requested to correlate with information that has been and will be collected at various times during your cadet careers. Your providing the information is voluntary. However, any nonresponse will result in incomplete data and may bias the results by precluding their complete interpretation.

General Directions

1. With this booklet you should have received an answer sheet, titled GENERAL PURPOSE DATA SHEET (USMA Form 22-1).
2. Enter your last name and initials at the top of this answer sheet in the boxes indicated, and mark sense the matching letter boxes. Enter your cadet number at the top right of the answer sheet in columns 1-7, and mark sense the matching number boxes. In columns 8-10 enter "0" in the boxes, and mark sense the matching number boxes.

EXAMPLE: Cadet Robert J. Johnson, Cadet Number 8110234

LAST NAME	F	M							
(First Eight Letters)	I	J							
A B C D E F G H	J	O							
JOHNSON									
K L M N O P Q R S T U V W X Y Z									
1 2 3 4 5 6 7 8 9 10									
8110234									
0 0 0 0 0 0 0									



UNITED STATES  
MILITARY  
ACADEMY

USE ORDINARY PENCIL--NOT BALLPOINT PEN. MARK CLEARLY. ERASE COMPLETELY WHEN MAKING CHANGES OR CORRECTIONS.

3. Read each question and all its responses carefully before selecting your answer.
4. Mark your answers on the Answer Sheet. USE AN ORDINARY PENCIL--not a ballpoint pen nor an electrographic pencil.
5. Be sure that your answer marks are heavy and that you blacken the whole rectangle. Do not go outside the lines of the box. Look at the example below.
 

I I  
 1 0 0 0 0 0 0 0 0 0
6. If you decide to change an answer, erase the mark completely before entering a new one.
7. Check your answers once in a while to be sure that the number on the Answer Sheet is the same as the number of the question that you are answering. Note that the QUESTION NUMBERS GO ACROSS THE ANSWER SHEET IN ROWS, not down the Answer Sheet in columns
8. Do not tear or fold the Answer Sheet.



## IMPORTANCE INVENTORY

This inventory presents four groups of characteristics, behaviors, goals, or activities about the importance of which various people differ. You are asked to: (1) read each statement; (2) decide how important you consider it to be; (3) select the corresponding code letter; and (4) record your judgment on the separate answer sheet, by filling in the rectangle containing the corresponding letter for that item.

NOTICE THAT THE RESPONSE CODES DIFFER FOR EACH SERIES.

GROUP A. How important is each of the following to YOU in your life? Use this response code for items 1-10:

<u>Code</u>	<u>Response</u>
A	Not Important
B	Somewhat Important
C	Very Important

1. Being successful in my line of work.
2. Finding the right person to marry and having a happy family life.
3. Having lots of money.
4. Having strong friendships.
5. Being able to find steady work.
6. Being a leader in my community.
7. Being able to give my children better opportunities than I've had.
8. Living close to parents and relatives.
9. Getting away from this area of the country.
10. Working to correct social and economic inequalities.

GROUP B. Indicate the importance to YOU personally of each of the following. Use this response code for items 11-27:

<u>Code</u>	<u>Response</u>
A	Essential
B	Very Important
C	Somewhat Important
D	Not Important

11. Becoming accomplished in one of the performing arts (acting, dancing, etc.).
12. Becoming an authority in my field.
13. Obtaining recognition from my colleagues for contributions to my special field.
14. Influencing the political structure.
15. Influencing social values.
16. Raising a family.
17. Having administrative responsibility for the work of others.
18. Being very well-off financially.
19. Helping others who are in difficulty.
20. Making a theoretical contribution to science.
21. Writing original works (poems, novels, short stories, etc.).
22. Creating artistic work (painting, sculpture, decorating, etc.).
23. Being successful in a business of my own.
24. Becoming involved in a business of my own.
25. Developing a meaningful philosophy of life.
26. Participating in a community action program.
27. Keeping up to date with political affairs.

GROUP C. How important is each of the following to YOU in selecting a job or career? Use this response code for items 28-37:

<u>Code</u>	<u>Response</u>
A	Not Important
B	Somewhat Important
C	Very Important

- 28. Making a lot of money.
- 29. Opportunities to be original and creative.
- 30. Opportunities to be helpful to others or useful to society.
- 31. Avoiding a high-pressure job that takes too much out of you.
- 32. Living and working in the world of ideas.
- 33. Freedom from supervision in my work.
- 34. Opportunities for moderate but steady progress rather than the chance of extreme success or failure.
- 35. The chance to be a leader.
- 36. Opportunities to work with people rather than things.
- 37. Having a position that is looked up to by others.

GROUP D. How important do you think it is for A YOUNG PERSON to have each of the qualities or characteristics listed below? Use this response code for items 38-48:

<u>Code</u>	<u>Response</u>
A	Extremely Important
B	Important
C	Slightly Important
D	Unimportant

- 38. To be neat and clean.
- 39. To be able to defend oneself.
- 40. To have self-control.
- 41. To be happy.
- 42. To obey one's parents.
- 43. To be dependable.
- 44. To be considerate of others.
- 45. To face life's problems calmly.
- 46. To obey the law.
- 47. To be ambitious.
- 48. To know how to keep in good health.

49. What is your sex?

- A. Male
- E. Female

50. To what company are you assigned?

- |      |      |      |
|------|------|------|
| A. A | D. D | G. G |
| B. B | E. E | H. H |
| C. C | F. F | I. I |

51. To what regiment are you assigned?

- A. First
- B. Second
- C. Third
- D. Fourth

Name \_\_\_\_\_

Cadet Number

VALUE SURVEY SCALE T  
(To be completed first)

Below is a list of 18 values arranged in alphabetical order. We are interested in finding out how important each of these values is for YOU, as a guiding principle in YOUR life.

First, study the whole list carefully. Then pick out the six values which are most important to you, and check each of them in Column 1.

Next, pick out the six that are least important to you, and check each of them in Column 3.

Finally, check the six remaining values in Column 2. Be sure there is one and only one check for each value.

If you change your mind, feel free to change your answers, so that the choices you make truly reflect the way you feel about these values.

COL 1 6 most imp.	COL 2 6 middle	COL 3 6 least imp.	Let- ter Code	RANK
			A COMFORTABLE LIFE (a prosperous life)	a
			AN EXCITING LIFE (a stimulating, active life)	b
			A SENSE OF ACCOMPLISHMENT (lasting contribution)	c
			A WORLD AT PEACE (free of war and conflict)	d
			A WORLD OF BEAUTY (beauty of nature and the arts)	e
			EQUALITY (brotherhood, equal opportunity for all)	f
			FAMILY SECURITY (taking care of loved ones)	g
			FREEDOM (independence, free choice)	h
			HAPPINESS (contentedness)	i
			INNER HARMONY (freedom from inner conflict)	j
			MATURE LOVE (sexual and spiritual intimacy)	k
			NATIONAL SECURITY (protection from attack)	l
			PLEASURE (an enjoyable, leisurely life)	m
			SALVATION (saved, eternal life)	n
			SELF-RESPECT (self-esteem)	o
			SOCIAL RECOGNITION (respect, admiration)	p
			TRUE FRIENDSHIP (close companionship)	q
			WISDOM (a mature understanding of life)	r

Now study carefully the six values you have checked in Column 1. Place "01" (no tens and 1 unit) beside the check for the value which you feel is most important of these six values. Place an "02" beside the check for the value which is second most important to you. Continue in this way until you have ranked the six values checked in Column 1, from "01" to "06."

Then go to Column 2 and rank the six middle values from "07" to "12." Next, go to Col. 3 and rank the six least important values from "13" to "18."

When you have finished, go back and check over your rankings. When satisfied, copy the rank for each value in the Rank Box following it. Make sure that every value (row) has a ranking and that no rank number has been either left out or used twice. When completed, go on to next page.

VALUE SURVEY SCALE I  
(Complete Scale T first)

Below is a list of another 18 values. We are interested in finding out how important each of these values is for you, as a guiding principle in your life.

First, study the whole list carefully. Then check the six most important values in Column 1, as you did on the previous page.

Next, check the six least important values in Column 3.

Finally, check the six remaining values in Column 2.

Again, if you change your mind, feel free to change your answers, so that the choices you make truly reflect the way you feel about these values.

COL 1 6 most imp.	COL 2 6 middle	COL 3 6 least imp.		Let- ter Code	RANK
			AMBITIOUS (hard-working, aspiring)	aa	
			BROADMINDED (open-minded)	bb	
			CAPABLE (competent, effective)	cc	
			CHEERFUL (lighthearted, joyful)	dd	
			CLEAN (neat, tidy)	ee	
			COURAGEOUS (standing up for your beliefs)	ff	
			FORGIVING (willing to pardon others)	gg	
			HELPFUL (working for the welfare of others)	hh	
			HONEST (sincere, truthful)	ii	
			IMAGINATIVE (daring, creative)	jj	
			INDEPENDENT (self-reliant, self-sufficient)	kk	
			INTELLECTUAL (intelligent, reflective)	ll	
			LOGICAL (consistent, rational)	mm	
			LOVING (affectionate, tender)	nn	
			OBEDIENT (dutiful, respectful)	oo	
			POLITE (courteous, well-mannered)	pp	
			RESPONSIBLE (dependable, reliable)	qq	
			SELF-CONTROLLED (restrained, self-disciplined)	rr	

Now rank the six values you have checked in Column 1 from "01" to "06," those in Column 2 from "07" to "12," and those in Column 3 from "13" to "18," as you did on the previous page.

When you have finished, go back and check over your rankings. When satisfied, copy the rank for each value in the Rank Box following it. Please make sure that every value has a ranking, and that no number has been left out or used twice. When completed, go on to next page.

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20. Abstract

values which are characteristically strong and persistent throughout the four years, some which are characteristically given very low priority, some which cadets held strongly at entrance but eroded, and other values which increased in importance. Over the four years, cadets increased in use of principled moral reasoning as measured by the Defining Issues Test. The Discussion attempts to evaluate whether or not the changes are consistent with USMA's norms. The evaluation is mixed; some of the changes seem consistent with USMA norms, others do not.

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