A STUDY OF ATTITUDES AND INTERESTS CONCERNING THE AIR FORCE AS EXPRESSED BY THE CADETS OF THE MICHIGAN STATE UNIVERSITY AIR FORCE ROTO DETACHMENT

> Thesis for the Degree of Ed. D. MICHIGAN STATE UNIVERSITY Robert W. Innis 1956



This is to certify that the

thesis entitled

A Study of Attitudes and Interests Concerning the Air Force as Expressed by the Cadets of the Michigan State University Air Force RCTC Detachment

presented by

Captain Robert W. Innis

has been accepted towards fulfillment of the requirements for

1

Ed. D. degree in <u>Guidance</u> and Counseling

alter 7. Johnson Major professor

Date Nay 4, 1956

O-169

A STUDY OF ATTITUDES AND INTERESTS CONCERNING THE AIR FORCE AS EXPRESSED BY THE CADETS OF THE MICHIGAN STATE UNIVERSITY AIR FORCE ROTC DETACHMENT

By

ROBERT W. INNIS Captain, USAF

A THESIS

1

Submitted to the School of Advanced Graduate Studies of Michigan State University of Agriculture and Applied Science in partial fulfillment of the requirements for the degree of

DOCTOR OF EDUCATION

Department of Administrative and Educational Services

Guidance and Counseling

1956

5/27/57 g. 1240

ABSTRACT

The problem. This survey concerning the attitudes and interests of Michigan State University Air Force ROTC cadets was undertaken to:

- 1. Determine some of the interests of Michigan State University Air Force ROTC cadets and their current attitudes toward the Air Force ROTC detachment, Air Force career planning, and Air Force flying training.
- 2. Identify any weak areas in the Air Force ROTC program at Michigan State University and make recommendations for improvement.
- 3. Determine to what extent attitude questions differentiated between basic and advanced cadets.

Methodology, techniques, and data. The opinion-attitude questionnaire method was employed as the technique most appropriate for the approach to this problem. Questionnaires were formulated and administered to all of the one thousand basic cadets and two hundred advanced cadets. The purpose of the questionnaire was to obtain basic data concerning current attitudes in both groups.

ii

The data used in the investigation were based on a stratified random sampling of three hundred of the one thousand basic cadets and a 100 percent response from the two hundred in the advanced group. Additional information was obtained from the junior summer camp rating forms, detachment records, and the results of the AFOQT battery administered by the 380th AFROTC detachment to all candidates for the advanced program during the academic year of 1955-1956.

The data were analyzed as recommended in Air Force Manual 40-1, Supplement 17, December, 1954, with the judgment analysis being made by the writer within the framework of what would be ''good'' or ''bad'' according to Air Force, AFROTC, and university regulations. A nomograph was used to assign discriminating values to individual alternatives and the chi square statistic was utilized to determine which questions differentiated between the basic and advanced cadets on the 5 percent level or better.

Findings and conclusions. The survey clearly indicated a large number of current attitudes of Michigan State University ROTC cadets. The questions concerning the military activities proved to be most valuable as they gave a definite indication of attitudes toward the Air Force in general, the Michigan State University Air Force ROTC detachment, Air Force career planning, and flying

iii

training. Many of the questions did tend to differentiate on the 5 percent level or better.

The general-attitude questions and physical considerations proved of little value, as about all they seemed to indicate was that the cadet corps as a whole was an exceptionally healthy group, and that they possessed many good air-age and American-type attitudes. These questions did not tend to differentiate between the two groups.

An analysis of the attitudes expressed indicated that many items were rated highly satisfactory, while others were rated weaker. The items rated weak definitely pointed the way for a program of improvement. Much of the improvement could be accomplished at the local level; however, some of the others would require action on an Air Force wide level.

Suggested improvements included increased emphasis on AFROTC instructor selection, in-service training, classroom procedures, academic grading, selection, attitude building, lesson planning, and motivation.

iv

ACKNOW LEDG MENTS

The writer wishes to acknowledge the guidance and timely assistance of a number of persons without whose aid this study would not have been possible. He wishes to express his appreciation to Dr. Irvin Sawin (Headquarters AFROTC) and Dr. Walter F. Johnson (Guidance Committee chairman) for their valuable assistance in the planning and completion of this thesis; to Dr. John A. Fuzak, Dr. Willa Norris, and Lt. Col. C. Dale Scott for their genuine cooperation and helpful suggestions; to Col. Graeme S. Bond, Col. Glendon V. Davis, Lt. Col. Oliver E. Fowler, and all of the other Michigan State University Air Force ROTC instructors for making data and information available and for personal assistance rendered; and to his wife, Mrs. Evangeline S. Innis, whose encouragement and constant assurance furnished an understanding and inspiration when most needed.

March 15, 1956

Robert W. Innis Captain, USAF Robert W. Innis candidate for the degree of Doctor of Education

Final examination, May 4, 1956, Room 17, Morrill Hall, Michigan State University, East Lansing, Michigan.

Dissertation: A Study of Attitudes and Interests Concerning the Air Force as Expressed by the Cadets of the Michigan State University Air Force ROTC Detachment.

Outline of Studies

Major subject: Guidance and Counseling Minor subjects: Education, Industrial Arts

Biographical Items

Born: October 23, 1919; Alden, Michigan.

High School: Mancelona, Michigan, 1932-1936.

Undergraduate Studies: Antrim County Normal, Mancelona, Michigan, 1936-1937, Rural Teacher's Certificate; Central Michigan College of Education, Mt. Pleasant, Michigan, 1939-1942, B.S. degree in Industrial Arts (also Secondary Provisional Teacher's Certificate).

Graduate Studies: The Stout Institute, Menomonie, Wisconsin, 1947-1948, M.S. degree in Industrial Education; nondegree status, Pennsylvania State College, State College, Pa., summers, 1949, 1950, 1951; Air Force ROTC instructor and part-time graduate student in Guidance and Counselor Training, Michigan State University, 1953 to date.

Air Command and Staff School: Academic Instructor Course, Maxwell AFB, Alabama, 1953.

Military Schools: Airplane Mechanics, Lincoln, Nebraska, 1943; Aircraft Engineering Officer Training, Yale University, New Haven, Conn., 1943; Pratt and Whitney Aircraft Engine School, Hartford, Conn., 1944; B-29 Maintenance, Clovis, New Mexico, 1944.

- Military awards: Medals for Korean Presidential Citation, Korean Theater, United Nations, National Defense, Armed Forces Reserve (10 years), Good Conduct, American Theater, and World War II Victory.
- Experience: Rural Teacher, Kalkaska County, Michigan, 1937-1940;
 Army Air Force Aircraft Engineering Officer, 1943-1946;
 Superintendent of Schools, Williamsburg, Michigan, 1946-1951;
 United States Air Force Officer, 1951-1956. Positions included: Director of Training for Kansas City Reserve Wing, 1951-1952; On-the-job training supervisor for Air Force personnel and Japanese employees, Miho AFB, Honshu, Japan;
 Assistant Professor of Air Science, Michigan State University, East Lansing, Michigan, 1953 to date.

Member of:

Masonic Lodge No. 264, East Bay, Michigan. DeWitt Clinton Consistory of 32° Masons, Grand Rapids, Mich. Central Michigan Scottish Rite Club, East Lansing, Michigan. Michigan State University Men's Club. American College Personnel Association. Pi Kappa Delta. Epsilon Pi Tau. National Vocational Guidance Association.

TABLE OF CONTENTS

CHAPTER		Page
I. INTRODUCTION	. .	1
Nature of the Problem	•	1
Importance of the Problem	•••	7
Statement of the Problem	• •	12
Limitations and Scope of the Study		13
Definition of Terms	· •	14
Plan of the Study	••	21
II. REVIEW OF THE LITERATURE	• •	23
General	•••	23
Importance of Attitudes and Interests of Air Force Personnel	•••	24
Importance of Understanding the Value of Attitudes and Interests to Operating Officials	• •	26
Summary	• •	31
III. PROCEDURES AND TECHNIQUES OF THE STUDY		32
Initial Activities		32
Constructing the Questionnaire		34
Machine Tabulating		37
Administering the Questionnaire	• •	37

•

-

•

	Drawing the Sample	41
	Desirable and Undesirable Responses	46
	Statistical Treatment of Responses	49
IV.	STATE UNIVERSITY AIR FORCE ROTC	
	CADETS	57
	Kinds of Attitudes Expressed	57
	Cadet Attitudes Toward the Michigan State University Air Force ROTC Detachment and the Air Force in General	58
	and the AIF Force in General	20
	Cadet Attitudes Toward the Air Force	4 –
	as a Career	67
	Cadet Attitudes Toward Flying	71
	General Attitudes	73
	Some Physical Considerations	81
V.	INTERESTS EXPRESSED BY MICHIGAN STATE UNIVERSITY AIR FORCE ROTC	
	CADE TS	86
	The Air Force Officer Qualifying Test	0.(
	Battery (and Interest Stanines)	86
	Reasons for Cadet Disqualification at	
	Michigan State University	102
	Summer Camp Interest and Attitude	10/
	Ratings	106
	Tactical Officer Remarks Concerning	
	Summer Camp Attitudes and Interests	111

.

VI.	SUMMARY, FINDINGS, CONCLUSIONS, RECOMMENDATIONS, AND IMPLICATIONS	
	FOR FURTHER RESEARCH	114
	Summary	114
	Findings	115
	Conclusions	119
	Recommendations	126
	Implications for Further Research	134
SELEC	TED BIBLIOGRAPHY	136
APPEN	DIXES	
Α.	Correspondence	150
В.	Number of questions in each category on questionnaire	157
C.	Announcement of proposed attitude survey	159
D.	"Warm-up".introduction for questionnaire session	161
E.	Type of answer sheets used	163
F.	IBM frequency count record	165
G.	Nomograph	167
H.	Confidence limits	169
Ι.	Reference information concerning stanine effectiveness	172
J .	Discriminating values assigned to alternatives by use of a nomograph	178

APPENDIXES

К.	Statistical analysis of responses	197
L.	Copy of "The Listening Post"	254
м.	Attitude questionnaire	259

Page

ŗ

•

LIST OF TABLES

TABLE		Page
I.	Attitude Survey Arrangement Check List	42
II.	Timetable for Collection of Data	43
III.	Suggested Sampling Ratios and Sample Sizes for General Surveys of Employee Attitudes	45
IV.	Stanine Grouping of Michigan State Univer- sity Air Science II Cadets Desiring to Enter Category I (Pilot), Air Science III, During Academic Year 1955-56	90
v.	Stanine Grouping of Michigan State Univer- sity Air Science II Cadets Desiring to Enter Category IA (Observer), Air Science III, During Academic Year 1955-56	91
VI.	Stanine Grouping of Michigan State Univer- sity Air Science II Cadets Desiring to Enter Category II (Technical Nonflying), Air Science III, During Academic Year 1955-56	92
VII.	Stanine Grouping of Michigan State Univer- sity Air Science II Cadets Desiring to Enter Category III (Nontechnical Nonflying) During Academic Year 1955-56	93
VIII.	Stanine Grouping of Michigan State Univer- sity Air Science IV Cadets (Category I, Pilot), 1955-56	94
1X.	Stanine Grouping of Michigan State Univer- sity Air Science IV Cadets (Category IA, Observer), 1955-56	95

TABLE

Χ.	Stanine Grouping of Michigan State Univer- sity Air Science IV Cadets (Technical Nonflying), 1955-56	96
XI.	Air Force ROTC Academic Grades for Michigan State University Seniors En- rolled in Air Science IV, Academic Year 1955-56	99
XII.	Total Number of Disqualified Cadets at Michigan State University, by Term	
	(1954-55)	103
XIII.	Advanced AFROTC at Michigan State	
	University, by Term (1954-55)	104
XIV.	Distribution of Summer Camp Numerical Ratings Received by Michigan State Uni- versity Advanced AFROTC Cadets,	
	Summer 1955 \ldots	107
x v.	Number of Question in Each Category	158
XVI.	Discriminating Values Assigned to Alternatives by Use of a Nomograph	179
XVII.	Percentage of Basic and Advanced Cadets Responding to Each Alternative	198

Page

LIST OF FIGURES

FIGURE		Page
1.	Type of Answer Sheets Used	164
2.	IBM Frequency Count Record	166
3.	Using a Nomograph to Assign Discriminating Values to Test Items	168
	Illustrating How to Read Confidence Limits Chart for Sampling Ratio 1 out of 3	170
	Estimating Confidence Limits from Sample Percentages	171
	Distribution of 1955 AFOQT Aptitude Stanines in the Draft-Eligible Population	173
	Distribution of Pilot Aptitude in a Sample of Physically Qualified AFROTC Air Science II Students Willing to Apply for Pilot Training	174
	Cost of Eliminees for Every One Hundred AFROTC Graduates of Primary Pilot Training by ACB Pilot Stanine	175
	Effectiveness of AFOQT Pilot Stanine in Predicting Elimination of 1954 AFROTC Graduates in Primary Pilot Training	175
	Effectiveness of Various Selection Criteria in Predicting Graduation of an Unscreened Experimental Sample from Advanced Pilot Training	176
	Graduation of an Unselected Experimental Group from Advanced Pilot Training, by Pilot Stanine Category	176

..

.

FIGURE										Pag	e
12.	Elimination	Rate	by	Pilot	Stanine	•	 	 	 	177	

,

CHAPTER I

INTRODUCTION

Nature of the Problem¹

The United States, it is now obvious, must maintain indefinitely a large military establishment emphasizing airpower. Like it or not, thousands of Americans will be forced each year into military service to man this establishment. Yet, simply because they are Americans, the average citizens do not take easily to military life. Traditionally, Americans have never been a whole-heartedly militaristic nation. Except in the extreme crisis of war, most Americans have stoutly resisted anything that sounds directly like military regimentation of any kind. How, then, is it possible to take the products of a culture with a proud, individualistic tradition of democratic ideals and turn them into rugged, disciplined fighters in a military structure that must be basically regimented if national security is to be maintained, if survival itself is to be assured? How can young potential

1

¹This problem and its Air Force implications are discussed in detail in the AFROTC textbook "Principles of Leadership and Management," AS IV, Vol. II, Air University, Maxwell AFB, Montgomery, Alabama, June, 1954, pp. 3-8.

officers be imbued with proper attitudes which, along with their normal interest patterns, will make it possible for the outstanding ones to plan an interesting, wholesome, and professional career in the United States Air Force?

Unfortunately, today's Air Force leadership is still lumped together in the mythology of the American mind with a hazy, illinformed concept of military leadership in general. It is not easy to loosen the grip which the heavy hand of history has laid on the American attitude toward the military and military leadership. However erroneous such attitudes are, they still exist. Most thinking Americans are ready to admit that, by the very nature of war, the military must practice authoritarian leadership; but, except in time of war, the vast majority of them prefer to keep out of the armed forces. Prior to World War II, the American peacetime soldier was not particularly representative of the American adult population. Pay and prestige of officers and enlisted personnel were low, and the type of duty seemed to appeal to the adventurer, the economically depressed, the alien, and the first-generation American who had been raised in the authoritarian tradition of his parents' native land. The peacetime services prior to World War II were small volunteer forces which could easily accept the dictates of the traditional military leadership. There was no direct conflict with the rest of the

population. Civilians could go about their business one way, the military another.

The collision--and it was very real--came during the periods of all-out mobilization, somewhat mildly during World War I, but much more sharply during World War II. The broad cross section of Americans thrown under military influence in World War II resented the military leadership with great intensity. A population reared to love freedom and individual dignity reacted strongly to what it saw of authoritarian rule. American fighting men were actively hostile to the American version of the aristocrat-serf relationship they felt existed in the armed forces. Realistic largescale research studies conducted by the Army during World War II, and since published in "American Soldier" series, amply document the nature and depth of this resentment.

The blunt fact is that during these periods of all-out mobilization the civilian-turned-soldier became more and more critical of military leadership. He fought gloriously and willingly, but he resented the leadership under which he served, particularly in a

¹<u>Studies in Social Psychology in World War II.</u> Prepared and edited under the auspices of the Social Science Research Council from data collected by the Research Branch, Information and Education Division, War Department. Princeton, N.J.: Princeton University Press, 1949.

noncombat situation. After the war, the resentment seething under the surface broke out in a clamor for an overhaul of American leadership policy.

The war fiction reflected this attitude, too. In the novels which flowed out of two world wars, the brutal and/or stupid officer with special unearned privileges of rank is an indispensible individual, with an occasional "Mr. Roberts" as a startling exception. Though the fictional officer has been a stereotype, he represents an important and widespread attitude. He is a symbol of regimented military authority and serves as a conventional scapegoat for the hostility and frustration the average American feels in the hands of the military system. For many Americans, military leadership still means tough, callous sergeants; haughty, arrogant officers; and humiliated, chastised enlisted men. Americans resent being pushed around, and they have a hazy picture of military life in which tough sergeants and privileged officers spend all their time aimlessly pushing around hapless enlisted men.

If all-out mobilization occurred only occasionally, this attitude in itself would not be too dangerous. But today the United States

Robert C. Healey. "A Bunch of Disposed," <u>Fifty Years of</u> American Novel, New York: Scribner's, 1951.

government is continually mobilizing a large segment of the civilian population without the impetus of all-out war. Most Americans still believe that military leadership is in conflict with some of the ideals of the American way of life. To avoid the hostility, frustration, and resentment that could easily impair the effectiveness of the Air Force fighting machine, particularly during peacetime conditions, today's Air Force is re-examining the traditional character of military leadership and attempting to find the best way to make leadership serve the demands of war and yet meet the demands of a democratic American culture.

Required military service for many Americans on a continuing basis is bound to have an impact on both the military service and the culture. Under a new set of conditions, the traditional "rule of military thumb" may not apply. Until recently, there has been no attempt to use the immense resources of social sciences to create a fighting machine that reflects American culture, not contradicts it. That is what the Air Force is now attempting to do.

It is granted that national security structure has been successfully maintained for more than 150 years. It is granted that the United States government has always been able to expand the existing military machine with civilians-turned-soldiers in time of war and successfully resolve the crisis of the moment. The fact still remains that the American method of winning two world wars has resulted in an immediate hangover of bitterness toward the military and a long-range lack of respect for military service and what it stands for.

Today's Air Force leaders, seeking to capitalize upon the social sciences, realize that the problem of the civilian-turnedsoldier in time of crisis is too deeply rooted to be solved arbitrarily. Washington often found his armies melting away. Lincoln faced bloody draft riots. Two world wars spawned a dangerous legacy of bitterness and resentment against the military. The challenge has always been present, but is probably being met more adequately now than ever before.

Today the AFROTC program is charged with the responsibility of training and commissioning approximately 80 percent of all Air Force officers. This fact makes it imperative that the AFROTC program take aggressive leadership in trying to minimize and abolish the outmoded attitudes discussed above and try to produce outstanding young officers with proper American attitudes who can take their just place among future American leaders.

This latter idea was clearly emphasized by General Twining when he stated:

6

Deficient as the Air Force is at this moment in bases and up-to-date equipment, it is even more deficient in young men who possess the courage, the determination, the high intelligence, and proper attitudes necessary to make these things work toward victory against a resourceful enemy. . . . For the Air Force to lack such men today is one of the potential tragedies of our time.¹

The same thought was expressed by General Vandenberg when he stated:

We are desperately in need of good minds, young and flexible minds eager to meet the rising challenge of our times, anxious to grasp the evolving meaning of airpower as it is related to the mid-twentieth century world, and good of the nation and, let us hope, of all mankind. So send us your men of character and resolution, and the nation need have no fear.²

General Fairchild expressed it this way:

Should the Air Force succeed in educating and producing such planners and such future leaders that they may design an Air Force so adequate that it never be used, we shall have completely fulfilled our mission.³

Importance of the Problem

The AFROTC is now the major officer-procurement program of the Air Force, and the quality and type of future junior officers

¹Guide to AFROTC. Air University, Headquarters AFROTC, 435 Bell Street, Montgomery, Alabama, 1953, p. 2.

²Speech by General Hoyt Vandenberg, USAF Chief of Staff, Maxwell AFB, Alabama, 1952.

³Speech by General Muir S. Fairchild, Commanding General of the Air University, Maxwell AFB, Alabama, 1946.

is dependent upon its high standards and effectiveness. How well the Air Force selects, educates, and motivates its cadets now will determine the effectiveness of the Air Force ten to fifteen years hence, for on the college campuses today are the leaders of the Air Force of tomorrow. In effect the cadets are being exposed to a comprehensive briefing on the Air Force and its problems, not to overwhelm them with facts about the Air Force, but to develop in them an attitude toward serving their country, an attitude which is intellectual and emotional, both involved and detached, an attitude that alone can give constructive meaning to the period of life they are going to spend in the Air Force. All of the subjects in the curriculum are relatively useless unless they produce a sense of mission, proper attitudes, and a conception of service that will guide each individual throughout his Air Force career, insuring that each period of active duty, whether it be for a few years or for life, will be productive and useful for himself, for the Air Force, and for the nation.

Colonel E. W. Napier emphasized the importance of attitudes in all AFROTC units recently when he included the following in a letter to the professors of air science:

It is desired that each Professor of Air Science review his present procedures for motivating cadets toward service in the Air Force and developing favorable attitudes toward the Air Force and toward flying training. The motivational area of the AFROTC mission is an essential part of the total mission responsibility and its effectiveness will be directly related to the understanding, enthusiasm, and ideas demonstrated by you and your staff.¹

Lieutenant General Brett went one step further when he very clearly wrote his opinion of the importance of attitudes to individuals in his "Guide for Air Force Officers":

Your attitude toward your job and your fellow officers and your airmen from the beginning is of prime importance. ''I don't like your attitude'' is the first warning of a downcheck in flight school, a sour effectiveness report, or a row with your superiors. If you hear about it, react as you would to a rattle of a rattle snake--WATCH OUT. The highest secondary compliment to a junior officer (a primary compliment is a first rate effectiveness report and/or a good medal) is to overhear an officer or airman say, ''I like Joe Blow's attitude, he works like a fiend," or "He used his head in such-and-such situation.'' Your attitude should be devotion (loyalty is almost too weak a word) to your squadron or organization, its officers and airmen, and its purpose. A good attitude does not necessarily mean you are blind to an institution's faults; rather it is a quiet religion on your part that you are working for the best of all squadrons, for the best of all commanding officers, for the best of all airmen in the best service on the globe; and if it is not the best, you are striving to make it the best. The important point is that it does not matter if you think your squadron is poorly run, the CO incompetent, and your fellow officers something less than useful; you by your attitude can go a long way to correct a bad situation. A good attitude certainly is not flag waving, which, if it must be known in the quiet business of being an officer, is not welcomed day in and day out by your peers. The miricale of a good attitude is that, applied to a poisonous situation, it invariably works like penicillin on pneumonia--it is almost a specific cure. Contrariwise,

¹Letter to the professors of air science by Colonel E. W. Napier, Deputy Commandant of AFROTC, Headquarters AFROTC, Montgomery, Alabama, April 29, 1953.

if you are ever warned that you have a bad attitude--particularly by a superior officer--instantly find out what is wrong and take steps to correct yourself.¹

Attitude and interest motivation has far-reaching implications for AFROTC instructors. The objective and responsibility of the instructor is clear and unequivocal: to produce an officer-citizen who is dedicated to airpower. The sum of the AFROTC course of study does not by any means equal this objective; the instructor, therefore, is the sole method of superimposing on this static course material the dynamic influences that transform American college youth into responsible Air Force leaders. Headquarters AFROTC included this idea in a recent official letter to AFROTC instructors:

Above all else, desirable attitudes toward commissioned service and airpower are formed and re-evaluated by the deliberate influence of the instructor. . . Attitude and interest surveys have far reaching implications for AFROTC instructors. . . A mere willingness to fly and continue in the AFROTC does not necessarily indicate a wholesome attitude. The cadet must see flying and aviation as a worthwhile goal and promising great satisfaction. He must get flying into his blood, just as other professions take hold of a person, absorbing all his interest and enthusiasm.²

¹George H. Brett (Lt. Gen.) and Albert Douglas. <u>The Air</u> <u>Force Officers Guide</u>. New York: McGraw-Hill Book Company, Inc., 1952, p. 8.

²AFROTC Guidance Brochure. Headquarters AFROTC, Montgomery, Alabama, December 14, 1953. Still another indication of the importance of the problem is the fact that the evaluation branch of the AFROTC headquarters has made tentative plans to construct and administer an attitude opinionaire to a representative sampling of all of the 209 units in the United 'States, Puerto Rico, and Hawaii during the coming year.¹ It is hoped that the analysis of the findings of this study might contribute in a small way some information of value to those who conduct the larger and longer-range survey.

The analysis of the findings should serve as a guide to help Michigan State University AFROTC instructors locate some weak points in the program and make constructive efforts for improvement beginning with the fall term. It should also give the cadet wing organization much information that will help them perform in a more acceptable manner. In addition, it should help make it possible for the unit personnel to actively establish ways of building more favorable cadet attitudes toward flying, Air Force careers, and the armed services in general. This is of prime importance as it is part of the responsibility delegated directly to instructors.

¹ This statement of tentative plans was based on information given verbally to the writer by members of the AFROTC Headquarters Evaluation Staff.

The AFROTC Guidance Brochure made this fact clear with the following statement:

The educator in the AFROTC program not only offers academic instruction, he is also in the business of selecting and motivating the student for service as an Air Force officer. In the case of AFROTC instructors, advisory responsibilities are almost the same as the primary mission. Their reason for being is to select, educate, and to motivate cadets. In this scheme of things classroom instructing is only the vehicle for going about the real job of selecting, educating, and motivating. In essence, this is guiding the cadet to wholesome living and helping to develop interests, attitudes, and skill essential in an effective Air Force officer. Like it or not, AFROTC instructors are overwhelmingly involved in guidance.¹

Statement of the Problem

The purpose of this investigation is threefold: (1) to determine some of the interests of Michigan State University AFROTC cadets and their current attitudes toward the AFROTC detachment, Air Force career planning, and Air Force flying training; (2) to identify any weak areas in the AFROTC program at Michigan State University and make recommendations for improvement; and (3) to determine to what extent attitude questions differentiate between basic cadets and advanced cadets.

¹<u>Ibid</u>., p. 3.

Limitations and Scope of the Study

During the early planning stages of the study it was realized that the topic of "Attitudes of Air Force Cadets" definitely had national implications. The writer, however, limited the survey to cadets of the Michigan State University AFROTC detachment as it was felt that an intensive study of the attitudes in one detachment would be more meaningful than the attitudes of any combination of detachments; also, Air Force regulation indicates that attitude studies for school and general improvement purposes have the most value when all respondents are supervised by the same local military commander.

The information in the survey was limited to the composite thinking of all of the two hundred advanced cadets and a stratified random sampling of three hundred of the one thousand basic cadets.¹ The opinion-attitude questionnaire method was employed for the purpose of collecting the data. The limitations inherent in this type of instrument were found; namely, the difficulty of validating the questionnaire, the possibility that some individuals might not have felt completely secure in respect to their responses being

Sample sizes were based on official Air Force suggestions as shown in Table III.

confidential and anonymous, the difficulty of procuring the desired cooperation from the cadets and from the officer proctors, the degree to which cadets were able to apply the instrument to their own particular situations, the difficulty of wording all questions so as not to influence replies, the difficulty of obtaining a random sampling that was truly representative of the entire group, and possible misrepresentation through poor processing either by computational errors or poor judgment.

Definition of Terms

The following definitions were provided for the purpose of clarifying the meaning of words and phrases in this study that might be interpreted differently from their connotation.

"AFOQT": Air Force Officer Qualifying Test.

"<u>Air Force Times</u>": A civilian weekly newspaper which is widely circulated throughout the Air Force. It is nonofficial but is very informative concerning Air Force activities, plans, proposed legislation, et cetera. This paper is widely read by both active-duty and reserve personnel. It is available in nearly all Air Force units, many libraries, news stands, and through private subscription.

"AFROTC": Air Force Reserve Officer Training Corps. The AFROTC program is composed of two separate and distinct phases, a two-year basic course and a two-year advanced course. Completion of the basic course does not guarantee acceptance into the advanced course; however, it is usually a prerequisite.

"<u>Army-Navy-Air Force Journal</u>": This newspaper is similar to the <u>Air Force Times</u> above except that this paper contains information of interest to all three of the services--Army, Navy, and Air Force.

"Aptitude": A basic trait or characteristic which has proved to be important in learning more complex and advanced activities.¹ Thus a measure of pilot aptitude is used to predict potential flying ability.

"Attitude": The concept of "attitude" was used in this study to denote the sum total of a man's inclinations and feelings, prejudices or bias, preconceived notions, ideas, threats, and convictions about any specific topic. Thus a man's attitude about the Air Force means all that he feels and thinks about the Air Force. An interpretation of an expressed opinion is an individual's attitude. An opinion symbolizes an attitude.²

²L. L. Thurstone and E. J. Chave. <u>The Measurement of At-</u> titude. Chicago: The University of Chicago Press, 1937, p. 32.

¹ The Webster Dictionary.

"Cadet". A student who has been admitted to full membership in the AFROTC and is entitled to all benefits authorized by law and regulation.¹

"Category I": A cadet medically qualified as Class I by an Air Force flight surgeon has an acceptable pilot aptitude stamine rating (AFOQT) and has signed a statement of intent to apply for flight training at or before the time he applies for a commission.²

"Category IA": A cadet medically qualified as Class I or IA by an Air Force flight surgeon has an acceptable observer aptitude stanine and has signed a statement of intent to apply for observer training at or before the time he applies for commission.³

¹The provisions of the Morrill Act of 1862 made it possible for all land-grant colleges to require military training of all students who enrolled in their institutions. At Michigan State University students could choose between Army military science and air science. Those who chose the air science had to take the basic course (Air Science I and II) during the freshman and sophomore years. At this level the major emphasis was on air-age citizenship and long-range benefits in the form of an understanding of the current world situation and the effect of airpower on their daily lives. Only those cadets who had demonstrated the abilities and characteristics desired in Air Force officers were selected for admittance to the advanced course (Air Science III and IV). This advanced program normally began with the individual's junior year. This meant that nearly all boys took a basic course in air or military science, while only a relatively few highly qualified and highly motivated individuals were allowed to enroll in the advanced courses.

²Introduction to AFROTC. Cadet Guide I, Headquarters AFROTC, Air University, Maxwell AFB, Alabama, 1955, p. 48. "Category II": A cadet medically qualified by an Air Force flight surgeon to receive a reserve commission, but may also be medically qualified for flight training. The cadet must be enrolled as a scientific, technical, or engineering major.¹

"Category III": A cadet medically qualified by an Air Force flight surgeon to receive a reserve commission, and not medically or aptitudinally qualified to pursue flight training. The cadet is not pursuing an academic major which will qualify him for Category II.²

"Category IV": A cadet medically qualified by an Air Force flight surgeon to receive a reserve commission. He may have any type of academic major but must have had sufficient prior military service to qualify as a veteran. (Veterans may also be entered in Category I or IA if otherwise qualified.)³

"Interest": Interests are the reflections of attractions and aversions in individual behavior, of individual feelings of pleasantness, unpleasantness, likes, and dislikes. In terms of action they are characterized by seeking acceptance at one end of the scale and by avoidance-rejection at the other. They are closely related to attitudes, and the distinction may be made between attitudes and interests in that the latter merely indicate the degree to which the individual

17

³Ibid.



•

prefers to hold an object before his consciousness, whether he acts approvingly or disapprovingly toward the subject; while attitudes merely indicate his desire in terms of direction, pleasantness or unpleasantness, agreement or disagreement. For general purposes attitudes and interests are identical.¹

"Loaded question": A question which may suggest one answer, or present one side of the question more strongly than it presents the other. Actually nearly every question is "loaded." The problem is to try to "load" it evenly on both sides of the issue.²

"Motivation": Inner feelings which cause a person to act or reason. Example: Hunger might motivate a man to steal. Extrinsic motivation includes those factors, external in source, that arouse a man to action. Rewards and punishments are examples. Intrinsic motivation are attitudes and interests that arouse a man to do something because it is pleasant to him.³

"Military discipline": Military discipline is proficiency in those things that insure victory in battle. Air Force discipline

¹H. H. Remmers. Introduction to Opinion and Attitude Measurement. New York: Harper and Brothers, 1954, p. 163.

²Air Force Manual 40-1, Supplement 17, December, 1954.

³L. A. Pennington and Hough Romegyn. <u>The Psychology of</u> Military Leadership. New York: Prentice Hall Inc., p. 270.

involves high standards of conduct and skill that are necessary for victory in air battle. The central idea pivots around the term "necessary." And, usually, if something is necessary in the military it has something to do with staying alive or keeping others alive in combat. Above all else, discipline should never be arbitrary; it must always serve a purpose. Unless a purpose is served, the term "discipline" does not apply. Discipline must serve to satisfy some clearly understood needs of the individual. The airman must believe in this purpose, or again the term "discipline" does not apply. This means that the only acceptable disciplinarian is the individual who disciplines himself. No person is disciplined unless he demands high standards of conduct and performance of himself. By definition, the officer who must enforce high standards on his subordinates has failed to discipline them.

"Military morale": Mental state which enables men to sustain courage, zest, hope, et cetera, in the face of danger or discouragement.²

"Opinion": An opinion is what one thinks about any subject. An opinion symbolizes an attitude. An interpretation of an expressed

¹Principles of Leadership and Management. Air University, AFROTC, AS IV, Vol. II, Montgomery, Alabama, 1954, p. 132.

²Webster Dictionary, op. cit.

opinion is an individual's attitude. In this study it was the attitude that was of interest. The opinion had pertinence only in so far as it was interpreted as a symbol of an attitude. Opinions are often used as the means for measuring attitudes.

"Stanines": The AFOQT battery was designed to evaluate the personal characteristics (aptitudes and interests) which have been found by research to be important for officer performance and success of aviation cadets, officer candidates, advanced AFROTC cadets, and cadets in the Air Force Academy. The test battery scores can be reliably converted to standardized scores or "stanines." Stanines can be grouped into a profile which will help reveal the various aptitudes in relation to one another for each individual tested. The stanines range from a low of one to a high of nine, and are pertinent to the following areas: officer aptitude, pilot aptitude, observertechnical aptitude, verbal aptitude, quantitative aptitude, flying interest, quantitative interest, technical interest, and administrative interest. This study concerned only the interest stanines and an explanation of the aptitude stanines was not included. The interest tests are designed to yield indicators of interest for participation in the activities involved in training or duty in the various officer career areas. Interest stanines are valuable tools in an effective counseling and guidance project. However, interest stanines must be considered

only after aptitude stanines and medical qualifications have been determined and studied and found to be sufficiently high to make favorable counseling worth while.¹

"Summer camp": All advanced cadets are required to attend one summer camp before they are eligible for a commission. This summer camp is normally scheduled during the summer between the junior and senior years of college.

"Summer training evaluation form": AFROTC Form 73 was used to record ratings for cadets attending summer camp during the summer of 1955. This was the first time this form had been used.

Plan of the Study

This thesis is divided into seven chapters. Chapter I includes the nature of the problem, the importance of the problem, a statement of the problem, the limitations and scope of the study, and a definition of terms. Chapter II is a review of pertinent literature concerning attitudes and interests of Air Force personnel. Chapter III deals with the procedures and techniques of the study, sampling techniques, construction and administration of the questionnaire, and machine tabulation. Chapter IV explains the method of analysis used,

¹AFROTC Regulation 30-5, August 22, 1955.

how the management judgments of responses were made, how the sample was drawn, and discusses questions and alternatives which differentiated between the basic and advanced cadets. Chapter V contains a discussion of the advanced cadet interest stanine scores derived from the AFOQT; also included are comments concerning the attitude and interest ratings received by the junior cadets in summer camp. Chapter VII presents the findings, conclusions, recommendations, and some implications for further research.

CHAPTER II

REVIEW OF THE LITERATURE

General

An exhaustive search of all available literature concerning attitudes and interests of Air Force officers and cadets revealed considerable information which had a direct bearing on the investigation conducted in the present study. For the most part, this information was found in Air Force manuals and letters; however, some doctoral dissertations, masters theses, and special reports were reviewed also.

Most of the information concerning attitudes and interests appears in the literature written since World War II. Literature before World War II mentions the terms occasionally, but places very little emphasis on their importance. Most of the articles of interest to this investigation were written during and since the Korean operation.

The review of literature has been subdivided under two major headings in order to simplify the classification of the related literature used in this study. Under the first heading studies and items

were included which focus attention on the importance of attitudes and interests to the individual who is a member of the United States Air Force. Under the second heading information was included which explores the importance of attitudes and interest surveys to operating officials.

Importance of Attitudes and Interests of Air Force Personnel

."

A number of articles were found which strongly indicated that attitudes and interests were of prime importance to individuals in the Air Force who wanted to succeed or advance professionally. Numerous articles were available describing these attitudes, and all seemed to agree that Air Force officers should: (1) be dedicated to airpower, (2) be cooperative, (3) be able to effectively exercise command ability, (4) have a deep-rooted sense of mission, (5) have initiative and the will to work hard when necessary, and (6) have a degree of aptitude for their desired specialty.

This idea was quite adequately expressed in a recent AFROTC Guidance Brochure which states:

Any effort to define or describe an Air Force officer with a good attitude is impossible. However for our purposes there are four essentials this product of AFROTC must possess: (1) he must be dedicated to airpower as the primary means of insuring the security of our way of life (2) he must have a deep-rooted sense of mission (3) with few exceptions, he must have a strong desire to fly and (4) he must be capable of exercising effective leadership skills and of applying management principles.¹

Mr. Freeman, of the Air Training Command, emphasized the same points in a slightly different manner when he wrote:

Certain attitudes are desirable in well adapted airmen. The airman must understand the mission of the Air Force, and his place in the military organization. He must adjust his thinking to accept the leadership of his superiors and to cooperate readily with his colleagues. . . The airman must learn to accept his responsibilities in the Air Force community. . . The airman must understand the necessity for military responsibility, spiritual values, and self discipline.²

The Leadership and Training Guide develops the same ideas in considerable detail.³ The main points presented are summarized as follows:

1. Attitudes toward the Air Force are of prime importance to all individuals in the Air Force who wish to succeed and advance professionally.

2. Air Force personnel with poor attitudes do serve successful tours of duty; however, their professional advancement is usually slow and their mission accomplishment rating very low.

> 1 Guidance Brochure, op. cit., p. 13.

²Wm. F. Freeman, ''Use of Attitude Surveys as a Teaching Device,'' <u>ATRC Instructor's Journal</u>, Scott AFB, Ill., No. 4, Vol. 5 (Summer, 1952), p. 28.

³Leadership and Training Guide, Air University, AFROTC, Montgomery, Alabama, 1953, p. 109. 3. Everyone's approach to life is determined by his attitude.

4. Some sort of attitude lies behind all human activity.

5. The attitudes of individuals are the key to their success as individual members of a larger unit.

6. Consciously or unconsciously, people give an impression of their attitudes in everything they do.

7. Development of proper attitudes is especially important for leaders.

8. The person with a good attitude will be able to handle his men so that they will do what he wants done. This is a prime quality of good leadership.

9. A good military leader is always on the watch for causes of undesirable attitudes within the unit as a group or within the personalities of the individual unit members. So far as possible within his control, he must promote a healthy, constructive attitude if he is to be an effective leader.

Importance of Understanding the Value of Attitudes and Interests to Operating Officials

During the past few decades both industrial and military experience have shown that establishment and maintenance of freeflowing lines of communication between employees and management

are necessities in the development of good employee-management or officer-airman relationships. This teamwork is essential if the productive efficiency of the work force is to be maintained. Maintaining fair grievance procedures, emphasizing a suggestion and cash awards program, orientation meetings, cooperative group consultations, and attitude surveys are examples of the forward steps which the Air Force has taken to improve management communications and teamwork. However, the size of the Air Force organization, even at the installation level, makes it necessary to seek additional means for increasing the free exchange of information between employees and management, officers and airmen. The use of newspapers, bulletin board announcements, training programs, and special conferences are but a few of the means whereby management can communicate with employees. Less attention has been given to the need for channels by which employees and enlisted men can communicate with management. The attitude survey provides a technique by which employees or airmen can communicate with management their ideas, opinions, attitudes, and suggestions; and by so doing participate more fully in policy decisions which affect their work and welfare. There is much that can be done with attitude surveys in the Air Force, and their increased use would undoubtedly reduce the number of complaints, decrease absenteeism

and AWOL's, improve good will, and help develop more-valuable training techniques.

The official Air Force policy generally agrees with this, evidenced by the statement:

With proper administration, analysis, interpretation, and followup action, attitude surveys can be a most valuable management tool.¹

Dr. H. H. Remmers seemed thoroughly convinced of the importance of attitudes in his recent book when he wrote:

The measurement of attitudes and opinions has become a vital part of the educational system. . . . If progressive education has made no other contributions, its insistence on learning the needs and feelings of the students would be a notable addition to educational methods. . . . The American conception of "best government" is the government with their wishes and desires. The expression of their wishes, attitudes, biases, feelings, etc. is certainly an integral part of a functioning democracy, and the recording and making known of such feelings can be done, in part, through attitude and opinion surveys.²

In another study, Dr. Remmers further states:

The generalized attitude scale has a validity and a reliability high enough to make it a reasonably accurate instrument for measuring attitudes of a given group toward any institution and for comparison of groups to mean attitude and spread of attitude.³

¹Air Force Manual 40-1, <u>op. cit.</u>, p. 52. ²Remmers, <u>op. cit.</u>, p. 35. ³Remmers, op. cit., p. 35. Dr. Thurstone's writings were somewhat outdated, but he was an outstanding authority in this area in the early 1900's, and it was quite evident at that early date that he agreed with many authorities whose writings appeared years later. He stated:

We shall assume that it is of interest to know what people say they believe even if their conduct turns out to be inconsistent with their professional opinions. Even if they are intentionally distorting their attitudes, we are at least measuring the attitude which they are trying to make people believe they have.¹

Dr. Bingham further substantiates the above views in his

psychology text:

Although the results of attitude surveys are difficult to validate, the research available indicates that when such surveys are adapted to feasible objectives, are carefully planned, the techniques well designed, and questions skillfully prepared, they yield findings that agree with all other evidence.²

Tupes and Yarold³ obtained results which seem significant, while working with attitude scales accomplished by flying cadets in the Air Training Command. Their work is not yet finished, but the preliminary research to date has yielded results of interest to this study. These are:

¹Thurstone and Chave, <u>op. cit.</u>, p. 9.

²Walter V. Bingham. <u>Applications of Psychology</u>. New York: Harper and Brothers, 1952, p. 56.

³ATRC Instructor's Journal, op. cit., p. 52.

1. There were no pronounced trends indicating that persons with high morale scores on attitude surveys do better in Air Force technical schools than do persons with low scores, although there was a suggestion that airmen with high attitude survey scores do better on the job. In this regard, a rather tentative conclusion was drawn that military attitude may be relatively unimportant for jobs requiring a degree of mental concentration, but that military attitude may be somewhat more important for jobs where such concentration is not so necessary.

2. With reference to flight training, attitude survey scores did not predict elimination for reasons of flying deficiency, but showed considerable promise in predicting elimination for motivational reasons. An interesting related finding was that the attitude survey also predicted elimination for "administrative" reasons, most of which resulted from physical deficiencies. Since all cadets had passed a rigorous physical examination, it seems quite likely that this prediction covered cadets who maximized their physical difficulties rather than resigning for more obvious "motivational reasons."

3. Airmen with low attitude survey scores were more likely to wind up in the neuropsychiatric ward of an Air Force hospital than were airmen with high attitude survey scores.

4. The fact was definitely proven that the findings of attitude surveys did provide insight into the relationships between military attitude and effectiveness in the Air Force.

Summary

It seems quite clear that little attention was given to attitudes of personnel and attitude surveys in the military establishment prior. to World War II. Studies made during the war years and later Korean action clearly pointed out that the public was not satisfied with the attitudes exhibited by military personnel and that more attention to attitude surveys was to become a necessity if the public and civilians-turned-soldiers were to be better satisfied. Many leading educators highly recommend the attitude survey as a diagnostic tool for both educational and work situations in both military and civilian situations. A wide variety of statements were found which recommend wide use of attitude surveys; however, each writer qualified his statements by indicating the importance of good questionnaire construction, administration, and interpretation.

All authorities seem to agree that attitudes are of prime importance to Air Force personnel and that there is much that can be done with attitude surveys during the next few years. This seems to apply to both military and civilian personnel.

CHAPTER III

PROCEDURES AND TECHNIQUES OF THE STUDY

Initial Activities

The planning phase of this study was begun by discussing the desirability of and the need for procuring information concerning cadet attitudes and interests. Various members of the Michigan State University AFROTC staff and a number of professors in the College of Education and in the guidance area in particular were contacted concerning the feasibility of such an undertaking. The subject was also discussed with the writer's guidance committee. Each person with whom the matter was discussed was of the opinion that the findings should be a valuable addition to AFROTC research and the Air Force educational program.

The second step included a somewhat exhaustive search for information concerning similar studies which might have been reported. Materials reviewed included unpublished theses, documents, pamphlets, bulletins, monographs, leaflets, periodicals, lectures, textbooks, military regulations, and military publications. It was found that very little published information existed which pertained

to this particular area. A few brochures and letters were found which had been published as advice and guides for professors of air science.

A letter requesting information from AFROTC headquarters resulted in an invitation to visit Dr. I. Sawin, the official AFROTC evaluation specialist for the nationwide AFROTC program.

The third step consisted of arranging for and making a flight to Maxwell AFB, Alabama, where the problem was discussed in detail with Dr. Sawin and his assistant, Mr. R. McIntoch. Both individuals indicated considerable interest, and supplied several hundred questions concerning attitudes and interests of Air Force personnel. They felt that a large number of the questions were appropriate and that the writer could construct a more valid questionnaire if some of the questions were used. The questions had been formulated by guidance specialists and psychologists on a contract basis, and some had been used previously in experimental situations.

Dr. Sawin also furnished a list of twenty different individuals who had started attitude studies in different AFROTC units. All of these persons were contacted later, but no one had carried a

significant study to completion, and no information of value was received from any of the sources.¹

Constructing the Questionnaire

The questions received from headquarters AFROTC were all well worded and seemed satisfactory in every way. An attempt was made to identify each question with a topic pertinent to the study as shown in Table I. No attempt was made to validate the questions, as they had been written by a committee of highly trained specialists who were paid for their work on a professional basis. A few additional questions were needed in order to obtain all necessary information. These were formulated by the writer, approved by a committee of "experts," and included as an integral part of the questionnaire. The committee of experts included the Michigan State University AFROTC director of training, two AFROTC instructors, and a Michigan State University graduate student in the guidance area.

The first 142 questions focused attention toward attitudes concerning three areas of Air Force activity which were of interest to this study. These areas were (1) the Michigan State University

See Appendix A for letter containing names and addresses.

AFROTC detachment and the military in general, (2) Air Force career planning, and (3) flying training in the Air Force. Following these are questions, which are seemingly important, concerning attitudes in general, and then others covering some pertinent physical considerations.¹

The questions overlapped each other to some extent, and it was not necessary to draw fine lines concerning the appropriate category for any particular question.

An effort was made to keep the total number of questions to a minimum, since extremely long questionnaires could result in cadet fatigue which might reduce the confidence one might place in the responses.

It was considered inappropriate to include questions which were already a matter of record or to include questions covering situations known to exist.

Considerable effort was made to assure that all questions , fulfilled the following criteria:

Were questions formulated to yield exactly the informa tion desired?

2. Was straightforward, easy to understand language used?

¹See Appendix B for the number of questions in each group.

3. Are the words those which will mean the same to all cadets?

4. Do all of the questions present both sides of the issue? Will any of the questions lead the cadets to answer in any certain way?

5. Do alternatives overlap each other?

.

A number of questions concerning physical and psychological factors were included for experimentation purposes, since it would seem important to know how these factors related to cadet attitudes. It would also seem important to determine if any of these questions tended to differentiate between the basic and advanced cadet groups.

The objective in constructing the questionnaire was to produce a tool, as objective as possible, which would determine the attitudes of the detachment cadets. The writer had no interest in any implication that one score might be better than some other score in any moral sense or in any sense of relative achievement. These considerations, important for the unbiased construction of an attitude scale, leave any user of such a scale free to make his own moral or value-interpretation of the scores. These interpretations, however, must be made within the framework of what is considered ''good'' or ''bad'' according to Air Force regulations.

Machine Tabulating

Prior to reproducing the questionnaire, plans were made with the IBM department of the university to tabulate the results. The simplest and easiest tabulating procedure seemed to be the frequencycount method. The kind of answer sheets to be used and a numbering system most convenient to the IBM operators were devised. This planning made it possible to have the 276 responses of each individual recorded on two answer sheets.

Administering the Questionnaire

The administration of the questionnaire was discussed in detail with the AFROTC instructional staff at the May 15, 1955, staff meeting. The fifteen instructors present thought it would facilitate matters if all the instructors administered the questionnaire to all cadets and included it as an integral part of the classwork. The respondents to be included in the study were to be drawn later by utilizing answer sheets selected randomly through use of a table of random numbers.¹

¹Several of the instructors indicated plans to conduct a classroom discussion concerning the importance of "attitudes and interests" on the day following the administration of the questionnaire.

The instructors decided to use their regular classrooms to accomplish the work. They felt that by so doing the physical conditions would be more natural to everyday classwork and that they could establish a higher degree of confidence and freedom of response than would be possible in a theater or auditorium.

Good advance publicity was considered necessary if the enthusiastic cooperation of all people concerned was to be obtained. In order to insure that the information reached all cadets, it was considered advisable to begin publicity about ten days before the sessions were to be conducted. The publicity was to contain the answers to such questions as:

- 1. Why is the survey being conducted?
- 2. How will the results be used?
- 3. How will participating cadets be chosen?
- 4. What kinds of questions will be asked?
- 5. How long will it take to answer the questions?
- 6. Will all replies be confidential?

It was felt that the publicity would be more effective and more likely to reach everyone if it were carried out in several communications media.

The following publicity schedule was formulated to meet the above criteria:

1. On May 9 and 10 each instructor was to make a verbal announcement to each of his classes concerning the nature of the survey, its purpose, and expected results.

2. On May 11 and 12 a handout containing a brief announcement of survey plans and expected results would be distributed to all classrooms with an individual copy for each cadet.¹

3. On May 13 (Friday) a copy of the same information was to be published in the cadet paper, "Listening Post." Five hundred extra copies were to be reproduced and circulated as widely as possible throughout the cadet wing organization.

4. During the week of May 16 to 20 the cadet group commanders were to give orally a brief announcement of survey plans to each drill group. All cadets are enrolled in one of eight drill sessions, and the announcement should be heard by nearly every cadet.

Plans were made for each instructor to administer the questionnaire to the first meeting of each class during the week of May 16 to 20, 1955. Each was furnished with a short "warm-up" talk to give before starting the survey session.² After the warm-up talk each proctor was to:

¹See Appendix C for copy of announcement of survey plans. ²See Appendix D for copy of warm-up talk. 1. Make sure each cadet had a questionnaire, a sharpened black IBM pencil, and two answer sheets.

2. Remind cadets to take sufficient time to do a good job, and to answer every question.

3. Urge cadets to ask for assistance if there were any questions which they did not understand.

4. Remind all cadets that they were not to sign their names to the answer sheets.

5. Suggest that all individuals provide their "neighbors" with complete freedom of expression by refraining from looking at another's responses to the questions.

After the survey started each proctor was to move slowly and quietly around the room in order to make sure that everyone understood the instructions and was accomplishing the work correctly. It was felt that anyone who had a question would be more likely to request assistance when a proctor was in his immediate vicinity. This was to be done in such a manner that no cadet could feel that the proctor was checking on his responses.

Cadets were to be allowed to leave the room when they finished. Each was to place his questionnaire, answer sheet, and pencil on a table near the door on his way out. The proctor was to avoid giving any impression that he was interested in the specific content of any answer sheet. Proctors were asked to thank participants for their cooperation in taking part in the survey.

The arrangement check list and time table used by the writer to record details and check progress are shown in Tables I and II.

Drawing the Sample

It seemed important early in the planning stages of the study to determine the approximate number of cadets to survey. Generally a well-drawn sample will provide information as reliable as that obtained from using the total number of individuals. It was recognized that the degree of confidence that could be placed in the survey findings would depend to a considerable extent on the size of the participating group, the percentage of the total group it represented, and the manner in which the sample was selected. To obtain the highest possible degree of confidence in results, it would be necessary to include all individuals in the survey; the smaller the installation or activity to be surveyed, the more desirable this approach becomes. There seemed to be no hard and fast rules concerning the required sample size since the scope of the questionnaire, the purpose of the survey, the method of analysis of the data, and the desired speed to be accomplished were additional points to be considered.

ΤÆ	łΒ	L	E	Ι
----	----	---	---	---

Name of Officer		Job ^a						
		В	С	D	E	F	G	
Col. G. S. Bond	×	×	×	×	×	×	×	
Lt. Col. O. E. Fowler	×	×	×	×	×	×	×	
Lt. Col. C. D. Scott	×	×	×	×	×	×	×	
Maj. F. C. Libuse		×	×	×	×	×	×	
Maj. R. W. Mendrop		×	×	×	×	×	×	
Maj. W. R. Smith		×	×	×	×	×	×	
Capt. W. L. Baldwin		×	×	×	×	×	×	
Capt. B. J. Davis		×	×	×	×	×	×	
Capt. M. R. Humphrey		×	×	×	×	×	×	
Capt. R. W. Innis		×	×	×	×	×	×	
Capt. E. J. Reeves		×	×	×	×	×	×	
Capt. S. C. Savage		×	×	×	×	×	×	
Capt. R. M. Wemmer		×	×	×	×	×	×	
Capt. P. V. Yaggy		×	×	×	×	×	×	
Lt. C. L. Hunt		×	×	×	×	×	×	

ATTITUDE SURVEY ARRANGEMENT CHECK LIST

^aKey to jobs: A = interview for permission to conduct survey (February 18); B = staff discussion (May 5); C = verbal announcement to each class (May 10); D = handouts distributed (May 11-12); E = materials distributed (May 16); F = materials and answers returned (May 20); G = thank-you letter read to all classes and posted on bulletin board (May 25).

TABLE II

TIMETABLE FOR COLLECTION OF DATA

Activity	Date Accomplished
Approval by college guidance committee	February 15, 1955
Make IBM arrangements with the college IBM department	April 25, 1955
Reproduce questionnaires	April 26 - May 10, 1955
Announcement published in "The Listening Post"	May 13, 1955
Oral announcements to all eight drill sections	May 20, 1955
Advance responses sent to IBM for tabulation	May 25, 1955
Advance responses returned from IBM	June 9, 1955
Basic responses sent to IBM for tabulation	June 9, 1955
Basic responses returned from IBM	June 17, 1955

.

For the purposes of this study the writer decided to survey all of the two hundred cadets in the advanced group and a stratified random sampling of three hundred of the one thousand basic cadets. This plan was based on the official Air Force suggestion as shown in Table III.

The sampling ratios in Table III were selected by the Air Force to provide convenience in furnishing a sufficiently large number to provide confidence in the findings. At the same time the sample groups of this size are not too cumbersome to handle when processing the questionnaires and analyzing the data. These figures are only suggestions, and can be varied within reasonable limits to meet local requirements.

The AFROTC instructor staff desired to administer the questionnaire to all cadets and incorporate it as part of the classwork, and hence a random sampling was needed. The table of random numbers in Cochran and Cox^1 was used, and a stratified random sampling of answer sheets were selected from both freshman and sophomore groups. This made a total of three hundred answer sheets to be processed for the basic group and two hundred for the advanced group.

¹William G. Cochran and Gertrude M. Cox. Experimental Designs. New York: John Wiley and Sons, Inc., 1953, p. 422.

TABLE III

SUGGESTED SAMPLING RATIOS AND SAMPLE SIZES FOR GENERAL SURVEYS OF EMPLOYEE ATTITUDES^a

Number of Employees at Installation	Sampling Ratio	Approximate Number to Survey
Under 400	A11	A11
400 to 600	3 out of 4	300 to 450
600 to 900	l out of 2	300 to 450
900 to 1,200	l out of 3	300 to 400
1,200 to 2,000	l out of 4	300 to 500
2,000 to 4,000	l out of 5	400 to 800
4,000 to 8,000	l out of 8	500 to 1,000
8,000 to 12,000	l out of 10	800 to 1,200
Over 12,000	l out of 15	800 and up

^aAir Force Manual 40-1, <u>op. cit.</u>, p. 9.

The college IBM operators expressed a firm opinion that the samplings should be kept to a minimum as it would take them approximately fifteen hours to tabulate each group.

The sample sizes agreed with the suggestions in Table III, and this was considered adequate for the purposes of the study.

Desirable and Undesirable Responses

One of the first questions that may be asked about statistical findings in attitude studies of this kind is "How good is this figure?" To evaluate a percentage figures as "good" or "bad" does not involve a statistical determination. It is entirely a matter of judgment by management. In this study the writer made an effort to interpret the data within the framework of what would be considered "good" or "bad" according to Air Force, AFROTC, and college regulations.

Suppose for example that the responses are distributed as follows:

1. What is your attitude toward having to take military training at the Michigan State University?

6% Very favorable
40% Somewhat favorable
40% Indifferent
9% Somewhat unfavorable
5% Very unfavorable

Is this a desirable response or is it an undesirable one? The answer depends on the goals of the professor of air science and the operating officials. If the responsible officials want all cadets to be in the "favorable" area, then this response is undesirable, as it indicates that about 54 percent are in the "indifferent" and "unfavorable" area. On the other hand, if the operating officials feel that the above reflects satisfactory standards or standards which have been previously set, then this distribution may be considered an acceptable set of responses.

Air Force Manual 40-1 stresses the importance of management judgment decisions as follows:

Although the statistical finding tells us the observed difference is a reflection of an actual difference between groups sampled, whether or not this difference is important is a management judgement which is independent of derived values.¹

Remmers expressed the same line of thought:

Attitude rating scales and rating systems, after all, are only processes of systematizing judgements, and are not measuring instruments in themselves. The results of the ratings can be no better than the ability and inclination of the rater to make accurately discriminatory judgements. Thus the training of the rater is an integral part of a system of rating.²

¹Air Force Manual 40-1, op. cit., p. 45.

²Remmers, op. cit., p. 233.

This thinking was further substantiated in a recent Air Force newsletter:

Attitude surveys are only as effective as we make them. They require the commander's and top management's full support. Benefits can be realized only if management carries out its part by informing employees of survey results at the earliest possible date. Adjunctively, any corrective action indicated by the survey should be made immediately or else inform the employees why such action cannot be taken. By experience, we know that attitude surveys, if properly administered, prove very effective management devices for diagnostic, preventative, and remedial purposes. When properly used, they contribute greatly toward increased productivity and morale of Air Force employees.¹

The objective criterion used to eliminate the faulty and carelessly completed responses might be questioned. The writer does not believe the criterion used to be in any sense infallible; however, it undoubtedly served to eliminate a number of responses which clearly were of little value. In the entire group of one thousand basic cadets, only seventeen answer sheets were discarded. All responses from the advanced group were considered acceptable.

Justification for eliminating the responses was based on Thurstone's statement:

Concerning attitude surveys. . . It seems desirable to set up some criterion to identify those individual records that should be eliminated from our tabulations. The labor of

¹<u>Attitude Surveys.</u> Air Force Personnel Newsletter, No. 5-6, Vol. VIII (May-June, 1955), p. 9.

tabulating is considerable, and we are justified in eliminating those individual subjects who have not responded with sufficient care and interest.¹

As a criterion for eliminating undesirable and faulty responses the plan was adopted to destroy all answer sheets which clearly indicated a pattern of responses unrelated to the questions.

Statistical Treatment of Responses

A statistical analysis of the responses on the answer sheets selected for purposes of this investigation made it possible to treat the data in four different ways:

1. The statistical analyses for each individual question were carefully analyzed and appraised according to the method previously explained in this chapter. Judgment decisions were made by the writer, and the attitude patterns indicated were recorded in Chapter IV.

2. The percentage of basic and advanced cadets responding to each alternative were computed and recorded in Table XVII. This table made it possible to quickly and easily compare the percentage of basic cadets with the percentage of advanced cadets responding to each alternative.

¹Thurstone and Chave, op. cit., p. 32.

3. An analysis of variance technique was used to determine which questions tended to differentiate significantly between the basic and advanced groups. These results were included in Table XVII by placing an asterisk by the number of each question which differentiated at the 5 percent level or better. Degrees of significance smaller than 5 percent were considered too minor to be of any interest, and were not computed. Further attempts to refine the data using the chi square statistic were considered impractical for the purposes of this investigation.¹ The technique used involved the use of contingency tables and the chi square statistic as discussed by Dixon and Massey.² The calculations for all of the questions were too lengthy to be included in the study; however, each question was treated in the following manner:

Example explaining how the chi square statistic was used to determine if the responses to the alternatives of the attitude questions did differentiate between the basic and advanced cadets on the 5 percent level or better:

¹These statements concerning the use of the chi square statistic in this investigation were based on advice given the writer by Dr. James F. Hannan of the Michigan State University Statistics Department.

²Wilfred J. Dixon and Frank J. Massey, Jr. <u>Introduction to</u> <u>Statistical Analysis</u>. New York: McGraw-Hill Book Company, 1951, pp. 184-200.

Alternatives	Number Responding to Each Alternative		
	Basic Cadets	Advanced Cadets	
l. It raises my spirit a great deal	15	40	
2. It raises my spirit a little	72	84	
3. It has no effect on my spirit	114	44	
4. It lowers my spirit a little	72	20	
5. It lowers my spirit a great deal	27	12	

Question: What effect, if any, does drill have on you?

The problem will test the hypothesis that the two groups are independent in respect to the category of response to this question. The hypothesis will be rejected if the obtained answer is greater than $\chi^2_{.95} \sim (4 \text{ d.f.})$ which, according to Dixon and Massey,¹ is 9.49 for questions with five alternatives and 11.07 for questions with six alternatives. Five degrees of freedom were used for questions with six alternatives. The hypothesis will be accepted if the answer obtained is smaller than 9.49 or 11.07. This will mean that the question does not discriminate between the two groups.

Contingency tables were used, and the problems computed according to the following formula:

$$\chi^2$$
 Statistic = $\frac{\Sigma(M_{ij} - EM_{ij})}{EM_{ij}} \sim \chi^2 (4 \text{ d.f.}).$

¹Dixon and Massey, ibid., p. 308.

Number Deserved

$$EM_{ij} = \frac{M_i \times M_{ij}}{M}$$

The number of cadets responding to each alternative were charted and totaled as follows (these are observed values):

Basic	Advanced	Total	
15	40	55	
72	84	156	
114	44	158	
72	20	92	
27	12	39	
300	200	500	

The chart of observed values above was converted to a chart of expected values according to the basic formula given at the top of this page:

Basic Values	Advanced Values
$(55 \times 300)/500 = 33.0$	$(55 \times 200)/500 = 22.0$
$(156 \times 300)/500 = 93.6$	$(156 \times 200)/500 = 62.4$
$(158 \times 300)/500 = 94.8$	$(158 \times 200)/500 = 63.2$
$(92 \times 300)/500 = 55.2$	$(92 \times 200)/500 = 36.8$
$(39 \times 300)/500 = 23.4$	$(39 \times 200)/500 = 15.6$

The values obtained were charted and totaled to form a table

.

of expected values:

.

Basic	Advanced	Total
33.0	22.0	55
93.6	64.2	156
94.8	63.2	158
55.2	36.8	92
23.4	15.6	39
300.0	200.0	500

The next step consisted of subtracting each figure in the expected-value table from its counterpart in the observed-value table. This difference was then squared and divided by the expected-value figure: 15 - 33 = -18. Squaring this figure and dividing by 33 equals $(-18)^2/33$. All values were treated in an identical manner, and the sum computed (this sum was the desired chi square statistic):

$$[(-18)^{2}/33] + [(-21.6)^{2}/93.6] + [(19.2)^{2}/94.8] + [(16.8)^{2}/55.2] + [(3.6)^{2}/23.4] + [(18)^{2}/22] + [(21.6)^{2}/62.4] + [(-19.2)^{2}/63.2] + [(-16.8)^{2}/36.8] + [(-3.6)^{2}/15.6] = chi square statistic.$$

$$324/33 + 466.56/93.6 + 368.64/94.8 + 282.24/55.2 + 12.96/23.4 + 324/22 + 466.56/62.4 + 368.64/63.2 + 282.24/36.8 + 12.96/15.6 = 61.17 (chi square).$$

For four degrees of freedom, $\chi^2_{.95} = 9.49$.

The obtained result of 61.17 was greater than the chi square of 9.49, so the hypothesis of independence was rejected at the 5 percent level of significance. This meant that the response definitely did differentiate between basic and advanced cadets at the 5 percent level.

4. A nomograph was used as suggested in Air Force Manual 40-1¹ to assign a discriminating value to each individual alternative.

Air Force Manual 40-1, op. cit., p. 44.

·

These data were included in Table XVI as interesting and additional information, but were not discussed in detail. The figures obtained did not add materially to the investigation; however, they did serve as an additional source of information and aid to the writer at the time the attitude patterns in Chapter IV were being analyzed. These comparisons would be extremely valuable to individuals desiring to refine this questionnaire or construct a similar one. The same kind of information could be obtained by use of analysis of variance techniques, but the lengthy computations make it impractical for large numbers of questions. For purposes of this study it was decided that the less accurate but more practical method would suffice as suggested in Air Force Manual 40-1:

Calculations based on mathematical formulas worked out by statisticians can be used to test sample percentages that are being compared. However, when many such comparisons are to be made use of, formulas are very time consuming. This process can be eliminated by use of the charts in the appendix¹ which produce sufficiently close approximations to the more precise mathematical formulas.²

From a reading of the nomograph in Appendix G, determination is made as to whether the observed sample indicates a real

¹ The nomograph and instructions for using are included in Appendix G.

Air Force Manual 40-1, op. cit., p. 44.

difference between groups and to what extent or whether the differ-

The figures representing the discriminating values are read directly from the nomograph. Values range from a low of ''0'' to a high of ''100,'' with the larger numbers indicating a greater discriminating value. In the example below the figures compare the 10 percent response of the basic cadets and the 80 percent response of the advanced cadets; the 40 percent against the 9 percent, et cetera.

All of the alternatives in all of the questions were treated in the following manner, and the results were recorded in Table XVI.¹

Question: What is your attitude toward having to take military training at the Michigan State University?

Alternatives	Number Responding to Each Alternative		
Alternatives	Basic Cadets	Advanced Cadets	
1. Very favorable	10	80	
2. Somewhat favorable	40	9	
3. Indifferent	30	5	
4. Somewhat unfavorable	12	5	
5. Very unfavorable	8	1	

¹See Appendix J for record of readings taken from nomograph.

Nomograph recording:

No. of Question	Alterna	Nomographic Discriminating Values of Alternatives (values range from a low of ''0'' to a high of ''100''; the larger numbers indicate a greater discriminating value)			
	1	2	3	4	5
1.	80	10	14	11	60

.

,

CHAPTER IV

ATTITUDES EXPRESSED BY MICHIGAN STATE UNIVERSITY AIR FORCE ROTC CADETS

Kinds of Attitudes Expressed

The attitudes expressed by the Michigan State University Air Force ROTC cadets are discussed under five headings: (1) attitudes toward the Michigan State University Air Force ROTC detachment and military training in general, (2) attitudes toward Air Force career planning, (3) attitudes toward flying training, (4) general attitudes, and (5) some physical considerations.

A complete copy of the questionnaire was included in Table XVII,¹ along with percentage figures which compare the percentage of basic cadets and percentage of advanced cadets responding to each alternative. An asterisk was placed by the number of each question which tended to differentiate significantly between the two groups. Table XVI contains numbers ranging from a low of zero to a high of one hundred which show the degree of differentiation by the different alternatives as indicated by the nomograph.²

¹See Appendix K for Table XVII.

²See Appendix G for nomograph.

Cadet Attitudes Toward the Michigan State University Air Force ROTC Detachment and the Air Force in General

An analysis of the questions indicated that the following cadet attitudes existed toward the Michigan State University Air Force ROTC detachment and the Air Force in general:

1. The demerit system being used was considered excellent by nearly all cadets. Cadets who received the demerits nearly always felt that they deserved them.

2. College classes were generally considered somewhat better than Air Force ROTC classes. Advanced cadets believed Air Force ROTC classes to be of much higher caliber than did the basic cadets.

3. The leadership training laboratory was considered quite helpful as far as training for future careers was concerned.

4. Most cadets felt that their girl friends liked having boy friends who were taking AFROTC. They also thought that most of the girls favored the work, but that very few were very deeply impressed.

5. Most cadets tended to frown upon classmates who disregarded the ethical, moral, and social conventions that were generally acceptable to the military establishment. 6. Cadets who had taken several courses in the department exhibited more favorable attitudes toward AFROTC than did the cadets who had taken only a few.

7. Approximately 50 percent of the cadet corps had an indifferent attitude toward attending AFROTC classes; 25 percent indicated that they usually looked forward to attending. The advanced cadets expressed a much more favorable attitude toward attending the classes than did the basic cadets.

8. Basic cadets seldom wore their uniform unless it was required. This situation reversed with the advanced group.

9. The attitude toward having to take ROTC at Michigan State University was generally quite favorable. Advanced cadets favored it much more than did the basic cadets.

10. The AFROTC unit was doing a fairly good job training cadets for future service in the Air Force; however, there was room for improvement.

11. Detachment officers have had very strong favorable influence on cadets concerning Air Force career attractiveness.

12. The military discipline exercised in the detachment was very satisfactory.

13. Basic cadets tended to dislike drill more than did the advanced cadets.

14. Drill did not seem to affect cadets unfavorably. The feeling toward drill was either neutral or somewhat favorable.

15. Approximately 50 percent of the cadet corps desired more drill, while the other 50 percent desired less.

16. Nearly 60 percent of the cadets felt that AFROTC did not give a true picture of military life.

17. Most cadets felt that orders should not necessarily be obeyed without question. Subordinates should be allowed to ask questions and give suggestions.

18. Few cadets would make an important decision without consulting others first.

19. The majority of the cadet corps would rather be in charge of an organization than be a technical advisor to the person in charge. Most would rather supervise men than work with technical problems.

20. AFROTC cadets thought that they were much better informed concerning the military and modern warfare than were the non-AFROTC students.

21. Approximately 56 percent of the cadet corps thought that current world tensions could probably best be settled by negotiations through the United Nations. 22. Nearly 48 percent of the cadet corps thought that servicemen should not necessarily be stationed near their homes.

23. Generally, the cadets did not desire to be assigned to a permanent station for their three-year tour of duty.

24. Individuals in the AFROTC could probably serve their country best in time of war as members of the armed forces.

25. If war should break out, very few cadets would be more valuable to their country as civilians in defense industries than they would be as members of the armed forces on combat duty.

26. Nearly all advanced cadets and 76 percent of basic cadets were proud of being in the AFROTC.

27. Approximately 75 percent of the cadet corps tended to feel somewhat angered when derogatory remarks were made about the Air Force.

28. Individuals do not usually feel 'lost' in the Air Force due to the fact that it is such a large organization.

29. Most cadets would join the AFROTC again if it were ever possible for them to have another choice.

30. Nearly 83 percent of the basic cadets and 76 percent of the advanced cadets thought that the United States was fully justified in initiating the police action in Korea. 31. Air Force officers should always keep their word. Quite a number of basic cadets felt that officers should keep their word unless the situation demanded otherwise.

32. Nearly 85 percent of the basic cadets and 70 percent of the advanced cadets thought that Air Force officers could learn a vocation which could be carried over into civilian life after retirement from the Air Force.

33. Air Force officers rated average in culture and refinement.

34. "Learning by doing" was considered very effective in the cadet wing organization.

35. Demerits given out by student officers were nearly always justified.

36. Material presented in AFROTC classes was quite up to date.

37. Approximately 44 percent of the basic cadets and 74 percent of the advanced cadets thought that the Air Force did tend to have personnel of higher intelligence and education than the other services.

38. A few more movies should be shown in AFROTC classes.¹

An unpublished study by the writer has indicated that many Air Force films are popular and that cadet classes will invariably ask for more movies than the instructor can justifiably present. 39. Good officers seldom tell white lies.

40. Nearly 70 percent of the advanced cadet corps thought that officers who wrote bad checks should be severely reprimanded or court-martialed.

41. Michigan State University AFROTC officers set an excellent example as far as dress, appearance, neatness, and order were concerned.

42. The public appearance of the cadet corps did tend to create a distinctly favorable impression on the rest of the students on the campus.

43. AFROTC textbooks were considered 'good' and 'excellent,' but not 'superior.'

44. The average Air Force officer rated favorably when compared to the average college instructor. About 48 percent rated this comparison "good," 24 percent rated it "excellent," and 5 percent rated it "superior."

45. AFROTC classes required about the same amount of work per credit hour as did other college classes.

46. Very few veterans were enrolled in AFROTC. This was partially due to the fact that veterans must be under twenty-three years of age in order to be eligible to enroll. 47. The majority of the cadet corps thought that Air Force officers had more prestige than did officers in the other services.

48. The Air Force was considered the safest of the three services.

49. Modern air developments and the trend toward the air age has very definitely made the Air Force the most important of the three armed services.

50. The Air Force was not filled with officers who were too young to accomplish their work adequately.

51. The Air Force should appeal to every college man to some extent because of its requirements of high intelligence and education.

52. Almost all Michigan State University Air Force ROTC cadets thought that our freedoms were definitely worth fighting for.

53. Communism was considered a definite threat to world peace.

54. No cadet felt that communism was as good as most other forms of government.

55. About 28 percent of the basic cadets and 38 percent of the advanced cadets felt that individuals who had to spend four or five years in the Air Force because of the international situation should stay in. 56. A few cadets felt that communism was misunderstood by many Americans.

57. Cadets seldom experienced trouble talking with AFROTC instructors about personal troubles.

58. Advanced cadets were very well satisfied with the tailoring and fit of their uniforms.

59. Approximately 50 percent of the basic cadets were satisfied with the tailoring and fit of their uniforms; the other 50 percent were somewhat dissatisfied.

60. Thirty-four percent of the advanced corps and 94 percent of the basic corps did not have membership in any extracurricular military activity.

61. Air Force ROTC instructors did make some effort to correct the weak points of students; however, much more could have been done.

62. Cadet officers rated fellow cadet officers very high as far as demonstrated ability was concerned. Basic cadets rated the same cadet officers as weak or unsatisfactory.

63. The majority of the Air Force cadet corps were fully satisfied with their adjustment to college life.

64. Occasionally cadets rebelled inwardly toward AFROTC rules and regulations; however, most of the time the attitude was

quite favorable. Basic cadets resented military authority more than did the advanced.

65. AFROTC instructors could and should do more to assist students with difficulties and problems encountered in AFROTC work.

66. Academic grades were generally satisfactory. Only a few individuals were extremely dissatisfied.

67. The AFRONews should definitely be continued and distributed free to all. Nearly all cadets read the paper. A few basic cadets were doubtful of its value, and a few others had never seen a copy.

68. Detachment standards concerning wearing of the uniform were satisfactory--perhaps a little low at times.

69. Cadets were reporting to instructors' offices most of the time in a military manner; however, there was room for improvement.

70. The AFROTC program definitely would be a worth-while part of the college curriculum even if there were assurance that there would never be another armed conflict.

71. Cadets seldom wore the uniform to college social functions unless it was required.

72. The AFROTC program, to some extent, did motivate cadets to read books about Air Force activities.

73. The instructor counseling system used in the detachment was not nearly as effective as would seem desirable.

74. Most cadets felt that a pilot's job was definitely a glamorous one.

75. AFROTC instruction did have considerable value as far as training for American citizenship was concerned.

76. Fifty percent of the cadet corps thought that instructors should check the spelling and punctuation on all papers accomplished for AFROTC classroom work. The others felt that this should not be done.

Cadet Attitudes Toward the Air Force as a Career

The cadets of Michigan State University expressed the following attitudes toward the Air Force as a career:

1. Nearly all AFROTC cadets thought that Air Force careers were definitely more attractive than army careers.

2. The majority of the cadet corps felt that chances for promotion in the Air Force were fairly good.

3. Travel definitely appealed to nearly all cadets as an attractive feature of an Air Force career.

4. The Air Force retirement plan was considered quite attractive.

5. Most cadets felt that they did take considerable pride in the way they wore their uniforms.

6. Most cadets liked to talk to Air Force officers.

7. Most cadets would recommend that younger brothers and friends join the AFROTC ahead of the other service ROTC organizations.

8. Twenty percent of the cadet corps would never join any military service if it were not compulsory. Sixteen percent would volunteer in case of war, and the remainder would volunteer willingly in case they were needed.

9. Very few cadets worried about assuming command positions.

10. Twenty percent of the cadet corps felt that serving in the Air Force was a duty with some advantages, while the remainder thought it an opportunity with many advantages.

11. Esprit de corps in the Air Force officer ranks was thought to be very high.

12. Esprit de corps was thought to be higher in the Air Force officer ranks than in the ranks of the officers of the other services.

13. Adjustment to Air Force life would not be any more difficult for a newcomer than the adjustment to other new situations. 14. Men who have Air Force careers probably do not accomplish as much important work as they would if they had a civilian career.

15. Military reserve forces should be as small as possible and still be completely adequate.

16. Thirty-three percent of the cadet corps felt that individuals who spend four or five years in the service because of the international situation should stay in and make a career of it.

17. Very few veterans planned careers as Air Force officers.

18. Competition in a career field is normal and expected.

19. Very few cadets read the Army-Navy-Air Force Journal.

20. In the advanced corps, 4 percent had already decided to have an Air Force career, 30 percent had decided not to have an Air Force career, and 53 percent were delaying their decision until they got more information concerning Air Force career opportunities. The remainder were delaying their decision for other reasons.

21. Most cadets felt that Air Force officers could make more as civilians than they could in the Air Force.

22. Nearly all cadets thought they would rather be officers than sergeants.

23. Most of the cadets thought they were fairly well informed concerning their reserve obligations.

24. Very few cadets ever wore their uniforms to home-town social functions.

25. Chances for promotion in the Air Force were considered good for those officers who were willing to work hard and produce results.

26. Most cadets thought it quite important for Air Force officers to be considered cultured and refined.

27. The people who were attracted by Air Force commissions were the kind who were looked up to by people in their home-town communities.

28. Most cadets considered it very important to have community respect for the type of people attracted to an individual's line of work.

29. The Air Force could and probably would make use of each individual's particular abilities and capacities.

30. Fifty percent of the cadet corps felt that people tended to look down on the commissioned ranks as a career. The remainder 'felt that this was not true.

31. The Air Force program possibly has been "undersold" to the public to some extent.

32. A universal military training act should definitely be passed.

33. An Air Force career could justifiably be considered as beneficial to humanity.

34. If the international situation should ease up and military service should not be compulsory nearly 50 percent of the advanced cadet corps would still want to go on active duty in the Air Force. Thirty-three percent would stay in the reserve but not go on active duty, and the remainder would sever all connections with the Air Force as soon as possible. Few basic cadets desired active duty in this situation--most would either stay in the reserve or get out of the Air Force.

Cadet Attitudes Toward Flying

The Michigan State University AFROTC cadets expressed the following attitudes toward flying in the United States Air Force:

1. AFROTC work was extremely effective as far as increasing interest in flying was concerned.

2. Fighter pilot duty was considered to be the most desirable type of pilot duty.

3. Observer duty was thought to be undesirable for all individuals who could make the grade as pilot.

4. Forty-one percent of the advanced cadets thought that their girl friends were opposed to their having a flying career in the Air Force. Thirty-three percent thought that their girl friends were somewhat indifferent, and 26 percent felt that their girl friends definitely favored their having a flying career.

5. People did tend to respect Air Force officers just by virtue of the kind of job they held.

6. Most cadets believed that the average civilian thought a pilot's job to be quite glamorous.

7. Airplane rides were very effective to help motivate good potential pilots to try for advanced AFROTC and commissions in the Air Force.

8. Fifty-six percent of the advanced group felt that their mothers would be opposed to their son having a flying career in the Air Force. Fifteen percent felt that their mothers favored their having a flying career, and it would be about a fifty-fifty proposition with about 30 percent of the mothers.

9. Fifty percent of the cadet corps would like to go on the first rocket trip to the moon; the other half would not want to go.

10. Twenty percent of the advanced cadet corps did not plan to enter flight training.

11. Fifty percent of the cadets built model airplanes as a hobby; the other half did not.

12. Sixty-six percent of the basic cadets and 85 percent of the advanced cadets had flown two or more hours as a passenger in an airplane. Thirty-four percent of the basic cadets and 15 percent of the advanced had never flown in an airplane.

13. Very few cadets had an inherent fear of flying which would prevent them from ever performing satisfactorily as a pilot.

14. Seventy-five percent of the cadet corps had never flown at the controls of an airplane.

15. Nearly 66 percent of the advanced cadets had flown at the controls of an airplane on one or more occasions.

16. Fifty percent of the cadet corps thought they would enjoy buzzing the ground and hedgehopping in a high-speed airplane; the others would not enjoy the ride.

General Attitudes

The following statements seem to indicate the general attitude pattern that was expressed by the cadets of the Michigan State University AFROTC detachment. The responses clearly indicated a pattern of existing attitudes for the cadet corps as a whole; however, the responses in this category did not tend to differentiate between the basic and advanced cadets. 1. Far too many people do try to take as much as they can and give as little as possible back to society.

2. Most people are not stupid.

3. Most people do learn quickly to avoid making the same mistake twice.

4. Most people can probably fulfill the duties of their job without being watched.

5. Cadets nearly always keep cool and think clearly in exciting situations.

- 6. Cadets are divided equally on the following attitudes:
 - a. Some people deliberately try to make things hard for them.
 - b. People higher up tend to leave their dirty work for others to do.
 - c. Every person should have faith in some supernatural power whom he obeys without question.
 - d. Group leaders should be more concerned with the needs of their followers than with the obligation to their superiors.
 - e. Familiarity between officers and airmen tends to breed contempt.

- f. A leader can drive his men as hard as he wants to,
 as long as he drives himself harder.
- g. Close-order drill provides the essential basis for efficient performance in any Air Force job.
- h. The men in the Air Force have a security which is more valuable than they could get in civilian life.
- i. There is a purpose which we don't understand behind natural disasters like floods and earthquakes.
- j. Houses of prostitution are not as bad as commonly believed.
- k. A person who has bad manners, habits, and breeding can be expected to get along with decent people.
- If a man disagrees with the regulations of a group, he should get out of it.
- 7. As a rule cadet interests do not tend to change quickly

from one thing to another.

- 8. Cadets do daydream to some extent.
- 9. Spirits are normally fairly uniform.

10. Some people do sometimes feel "just miserable" for no reason at all; however, the majority of the people seldom experience this.

11. The number of useless laws which hamper individual freedom are very few in number.

12. Sometimes groups of people do behave like sheep and blindly follow their leader. This is not general, however.

13. There are very few "two-faced" individuals.

14. A person who wants things done right may have to do them himself, but generally he can rely on others.

15. Very few experience feelings of things or situations that they know they should not fear.

16. Suspiciousness does not exist to any great extent in the cadet corps.

17. Criticism does not tend to disturb.

18. People do not usually blame cadets for things they did not do.

19. Most cadets feel that at times they are a little too touchy about some things, but this feeling exists only once in a great while.

20. Very few cadets tend to get ideas in their minds which they can't seem to get rid of.

21. Seldom do cadets get into scrapes which they did not seek to stir up.

22. There is a strong tendency to get over humiliated feelings very quickly. 23. People do not say things just to annoy you.

24. Generally people do not criticize cadets unjustly; however, sometimes this does happen.

25. Sometimes cadets are too sensitive for their own good.

26. Nearly all seek advice from others occasionally.

27. Obedience and respect for authority are important virtues for children, but it is doubtful if they are the most important.

28. Weaknesses and difficulties usually will not hold people back if they have enough will power.

29. There are definitely many things that can never possibly be understood by man.

30. People cannot be divided into two separate classes: the weak and the strong.

31. Possibly nowadays more and more people are prying into matters that should be personal and private. A strong minority feel that this situation does not exist at all.

32. America is definitely not getting so far away from the true American way of life that force may be necessary to restore it.

33. Human nature being what it is, will probably make it impossible to do away entirely with war and conflict.

34. Rank should definitely have its privileges.

35. Men who cannot use their authority properly should lose it.

36. A sense of duty is probably one of the most important virtues that distinguishes the true leader from the clock-punching employee.

37. A display of temper is generally out of place in the Air Force.

38. Officers should definitely be true Americans and men of character.

39. Parades definitely help develop unit pride.

40. It is quite probable that men who salute proudly and smartly will perform their duties in the same manner.

41. The rank insignia of a commissioned officer is probably the mark of a well-trained man, capable of doing any job. A fairly large minority would disagree with this.

42. It is not considered proper for officers to lose their tempers.

43. The amount of respect accorded a man should very definitely depend upon his ability, and not his rank.

44. You can usually tell a good officer by his appearance.

45. It's 50-50 as to whether or not men in the Air Force learn to like military life as well as they like civilian life. 46. Air Force officers should usually make it a practice to remain on formal terms with their men off duty as well as on. Many would be a little lax with this.

47. Performance of patriotic duty rates high, but there are times when things might come ahead of it.

48. It is not necessary to suffer in order to learn important things.

49. Lynchings are probably never justified, even when they are for rape. A few felt that there were some cases when they might be fully justified.

50. There are times when men might be expected to work for women bosses.

51. People should not necessarily follow the policies set by elected officials without question.

52. People who are outstanding in one kind of work will not necessarily be outstanding in all kinds of work done.

53. It is doubtful if there are many areas in our country where discrimination is necessary to keep minority groups from getting out of line.

54. It is doubtful if many of the country's problems would be solved if we could somehow get rid of all the immoral, crooked, and feeble-minded. 55. Businessmen and manufacturers are no more important than are artists and professors.

56. It's about 50-50 as to whether or not everybody would be better off if people would talk less and work more.

57. Homosexuals should not be severely punished as criminals.

58. People should definitely talk about their problems; also they should worry to some extent.

59. Strict discipline and the will to work and fight for one's country are desirable, but they are not necessarily the things that youth needs most.

60. Most agree that in times of trouble a man can turn to the supreme power for help.

61. Men are definitely not able to develop their intellectual abilities better at all-male schools and colleges.

62. It is quite true that some men are born to lead and others born to follow.

63. It is somewhat old fashioned to think that husbands should , not help with the housework.

64. It is not necessary to always punish as a result of an insult to our honor.

65. It's about 50-50 as to whether or not it would be a waste of money to allow girls to take AFROTC.

66. There is nothing wrong with men who do not desire to do everything better than the next fellow.

67. If you help a man up the ladder of success, you should be able to count on him for something in return. A strong minority disagree with this.

Some Physical Considerations

A large variety of physical considerations and the degree to which they exist are shown in Table XVII.¹ These factors do show numerous physical conditions which are very pronounced; however, the questions did not tend to differentiate between basic and advanced cadets.

These questions were included because it does seem reasonable to suppose that the characteristic pattern of biological motivation might provide an illuminating clue to the nature of all human behavior and attitudes. There is no doubt but that everything that man does is made possible through the functioning of his biological systems. The human machinery goes into action for all behavior,

¹See Appendix K for Table XVII.

whether it be for yawning or for flying an airplane, but it does have very definite capacities and limitations. This machinery is continuously active and all parts are dependent upon all other parts. So long as man lives, he is continuously doing something. He may be sleeping, flying, playing tennis, or just resting, but he is doing something, and this means that his entire body is somehow involved in this action.

Physical and psychological casualties are certain to occur in any large and diversified group, and it would seem that a thorough understanding of the individual factors involved could assist immeasurably in reducing the number of such casualties. Breakdowns in mental and physical health of soldiers are often noted in action and response to orders, sloppy appearance, disobedience, habitual use of alcohol or drugs, disinterest, numerous sick calls, bitterness, negativism, active belligerency, and many others. These factors are only indicative, and often lead to something more serious.

If some of the factors which cause the above symptoms could be identified in advance it would be a big help to individuals responsible for making selections for advanced AFROTC.

An examination of Table XVII shows that most cadets rate nearly all of the physical factors in Column 4 or 5, which is "once in a great while'' or ''never.'' Ratings in Column 1 and 2 (''almost always'' and ''often'') seem undesirable.

The following statements seem to represent the physical factors expressed by the Michigan State University Air Force ROTC cadets:

1. Restlessness occurs only occasionally.

2. Grouchiness does exist at times, but not to any great extent.

3. Decisions are usually easy to make.

4. Cadets seldom feel upset and anxious.

5. Tired and worn-out feelings are experienced only occa-

sionally.

6. Nervous movements and twitches are almost nonexistent.

7. Most cadets never have nightmares. A very few have them once in a great while.

8. Only a few ever experience dizzy feelings without apparent reasons.

9. Listless and unenergetic feelings exist sometimes, but not often.

10. Cadets do not tend to feel helpless in the face of problems.

11. Seldom does anyone ever feel like throwing up.

12. Nearly all sometimes feel like they are bubbling over with energy, and at other times they feel very sluggish.

13. Daytime happenings seldom keep cadets awake at night.

14. To some extent, moods do change from happiness to sadness and vice versa, without the individual knowing why.

15. Rapid breathing occurs only after exercise.

16. Cadet moods are influenced to some extent by the people around them. This is limited, and few felt they were easily influenced.

17. There is very little tendency to have guilty feelings without reason.

18. The tendency to sweat easily even when it is not hot exists only to a very limited degree.

19. Mouths do not tend to get dry.

20. Most do not blush easily.

21. None have a tendency to get pale easily.

22. Feet do not get cold when it is warm.

23. Very few individuals ever have a tendency to 'get a lump in their throat.''

24. Unexpected choking is seldom experienced.

25. There is a general feeling of happiness present, and also the feeling that things are going wonderfully.

26. Diarrhea is almost nonexistent. (It is present to a very limited extent.)

27. Cadets seldom become constipated.

28. Sometimes the feeling of being sleepy even after getting enough sleep is present, but this is not general.

29. There is very little doubt as to future success.

30. Headaches are few in number, but are experienced once in a great while.

31. The sensation of feeling hungry and not being able to eat much is seldom experienced.

32. None cry easily.

33. All tend to be self-conscious and embarrassed once ina great while.

34. Only a small minority feel that things aren't going too well this term and that something terrible is about to happen.

35. Seldom does anyone have any troubleholding his attention on any one thing for any length of time.

36. Very few tend to totally forget things that have happened to them.

37. Nearly all tend to feel tired and energyless at times.

38. Normally all cadets are quite healthy and seldom expe-

CHAPTER V

INTERESTS EXPRESSED BY MICHIGAN STATE UNIVERSITY AIR FORCE ROTC CADETS

The Air Force Officer Qualifying Test Battery (and Interest Stanines)

In order that a valid and reliable measure of the potential of each cadet may be afforded to selection officials and screening boards, the Air Force Officer Qualifying Test (AFOQT) battery was administered to all Air Science II cadets (nationwide) desiring to compete for entry into Air Science III (Advanced). The tests of this battery provided five aptitude scores which measured a cadet's aptitude for flying training, aerial observer and technical training, activities involving arithmetic reasoning, communications, and officer activities. They also provided four interest scores which provided a measure of the interest a cadet had for and in flying and flying training, technical training and education, activities requiring quantitative reasoning or interpretation, and communicative studies and activities.

The four interest scores had a direct bearing on this investigation in as much as these interest tests were a highly reliable

86

instrument measuring many of the same kinds of things that were measured with the attitude questionnaire. The same type of questions were used and the results were quite similar. Remmer's conclusion which stated "for practical purposes attitudes and interests are identical" ¹ was accepted at face value and no further discussion of the relationship between the two terms was considered necessary.

The AFOQT battery has been designed and validated to give an effective measure of potential, within specified areas, for any individual tested. The battery raw scores were reliably converted to standardized scores or "stanines." Stanines ranged from a low of one to a high of nine and could be grouped into a profile which would help reveal the various aptitudes and interests in relation to one another for the individual tested. For example: A candidate for selection could possibly have had the following stanine profile:

	Flying Interest	Pilot	Obser- Technical	Quan	Verbal Adm	Officer Potential
Aptitude:		4	6	7	7	6
Interest:	9		8	8	6	

From this profile, one might have concluded that the candidate was moderately above average in many respects except pilot aptitude, and should have been considered for observer training if

Remmers, op. cit., p. 163.

medically qualified. This was based on the fact that the pilot stanine of 4 was lowest acceptable for pilots, while the stanine of 6 for observer was considerably above the cutoff stanine of 3 for observers. The interest stanine of 8 was very high for observer, and also the stanine of 9 for flying was very high. This individual also had fairly good aptitude and interest stanines in verbal, administrative, and quantitative, which might have meant that he had considerable potential for command or staff capacity after his combat flying was on the wane.

It must be remembered that the results of such tests should not be used alone. Selections were best made when the results of these tests were used as major aids to selection boards and in conjunction with other selection devices. The interest stanines had value only when compared to the aptitude stanines. Interest stanines should not have been used unless medical qualifications and aptitude stanines were sufficiently high to make favorable counseling worth while. In order to make intelligent comparisons of interest and aptitude stanine scores it was necessary to have some additional information concerning the aptitude stanines. This information was charted and included in Figures 6 to 12.¹

See Appendix I for tables concerning the pilot aptitude stanine.

Tables IV to X reflect the stanine scores of all Michigan State University Air Science II cadets who were desirous of competing for entry into the advanced program (Air Science III) during the academic year 1955-56. Also included were the stanines of the Air Science IV senior group, who planned to graduate during the academic year. Note that stanines 6, 7, 8, and 9 were the interest scores which were pertinent to this investigation.

Super¹ has stated that there is no way that selection officials can appraise stanine scores such as those charted and be positively sure that the interest scores along with the aptitude scores will positively predict success or failure. One can only examine the scores and make judgments. For example: In a test case 81 percent of sixty-seven who made a stanine of 1 were sent to pilot training nevertheless, failed to complete pilot training, and were eliminated for fear, or at their own request. The odds may therefore be said to be four to one against a person with a stanine of 1 succeeding in flying school. This is a statement of probability which is rather impressive, and, when other candidates are available, is certainly evidence in favor of not selecting those with low

Donald E. Super. Appraising Vocational Fitness by Means of Psychological Tests. New York: Harper and Brothers, 1949, p. 660.

TABLE IV

STANINE GROUPING OF MICHIGAN STATE UNIVERSITY AIR SCIENCE II CADETS DESIRING TO ENTER CATEGORY I (PILOT), AIR SCIENCE III, DURING ACADEMIC YEAR 1955-56

Name of]	Numbe	r of a	Stanin	e			Total No. of
Test	1	2	3	4	5	6	7	8	9	Candi- dates
(1) PA ^a	0	0	0	18	41	11	8	5	3	86
(2) OTA	0	0	0	5	20	22	26	8	5	86
(3) OA	0	0	0	7	22	21	20	7	9	86
(4) QA	0	0	4	11	19	28	9	8	7	86
(5) VA	0	6	11	13	16	15	10	11	4	86
(6) FI	0	6	5	18	17	10	12	14	4	86
(7) QI	3	5	3	7	25	22	12	5	4	86
(8) AI	4	2	9	18	25	9	6	7	6	86
(9) TI	2	4	10	22	11	11	13	9	4	86
Totals	9	23	42	119	196	149	116	74	46	774

^aPA = Pilot Aptitude; OTA = Observer Technical Aptitude; OA = Officer Aptitude; QA = Quantitative Aptitude; VA = Verbal Aptitude; FI = Flying Interest; QI = Quantitative Interest; AI = Administrative Interest; TI = Technical Interest.

Note: Present Air Force policy states that cadets with stanines of 4 or less in pilot aptitude will not be accepted for advanced AFROTC. Cadets with a stanine of 3 or less in observer-technical will not be accepted for observer training.

TABLE V

STANINE GROUPING OF MICHIGAN STATE UNIVERSITY AIR SCIENCE II CADETS DESIRING TO ENTER CATEGORY IA (OBSERVER), AIR SCIENCE III, DURING ACADEMIC YEAR 1955-56

Name of			N	umbe:	r of S	tanine				Total No. of
Test	1	2	3	4	5	6	7	8	9	Candi- dates
(1) PA ^a	0	2	17	3	2	0	0	0	2	26
(2) OTA	0	0	0	11	5	6	2	1	1	26
(3) OA	0	0	0	2	8	5	7	3	1	26
(4) QA	0	0	0	7	5	8	3	1	2	26
(5) VA	0	1	6	3	2	3	7	4	0	26
(6) FI	2	0	2	1	6	6	1	7	1	26
(7) QI	2	0	2	1	6	6	1	7	1	26
(8) AI	3	1	0	7	6	3	3	3	0	26
(9) TI	0	1	4	4	4	2	6	3	2	26
Totals	6	6	32	45	41	38	32	24	10	234

TABLE VI

STANINE GROUPING OF MICHIGAN STATE UNIVERSITY AIR SCIENCE II CADETS DESIRING TO ENTER CATEGORY II (TECHNICAL NONFLYING), AIR SCIENCE III, DURING ACADEMIC YEAR 1955-56

Name of			N	umber	r of S	tanine				Total No. of
Test	1	2	3	4	5	6	7	8	9	Candi- dates
(1) PA ^a	0	0	0	1	2	4	2	1	2	12
(2) OTA	0	0	0	0	1	1	3	2	5	12
(3) OA	0	0	0	0	1	1	3	2	5	12
(4) QA	0	0	0	1	1	1	1	5	3	12
(5) VA	1	0	1	0	1	2	1	4	2	12
(6) FI	0	2	2	2	4	1	0	1	0	12
(7) QI	0	0	0	0	0	4	3	4	1	12
(8) AI	2	4	0	4	1	1	0	0	0	12
(9) TI	0	0	0	0	0	3	5	2	2	12
Totals	3	6	3	8	11	18	18	21	20	108

^aPA = Pilot Aptitude; OTA = Observer Technical Aptitude; OA = Officer Aptitude; QA = Quantitative Aptitude; VA = Verbal Aptitude; FI = Flying Interest; QI = Quantitative Interest; AI = Administrative Interest; TI = Technical Interest.

Note: Cadets making above scores were all pursuing a baccalaureate degree in one of the following areas: meteorology, electrical, aeronautical, civil, mechanical, or ceramic engineering, or nuclear science.

TABLE VII

STANINE GROUPING OF MICHIGAN STATE UNIVERSITY AIR SCIENCE II CADETS DESIRING TO ENTER CATEGORY III (NONTECHNICAL NONFLYING) DURING ACADEMIC YEAR 1955-56

Name of			N	umber	r of S	tanine				Total No. of
Test	1	2	3	4	5	6	7	8	9	Candi- dates
(1) PA ^a	0	0	0	2	5	3	1	1	0	12
(2) OTA	0	0	1	1	1	4	• 3	2	0	12
(3) OA	0	0	0	2	2	2	2	2	2	12
(4) QA	0	0	1	1	2	4	2	0	2	12
(5) VA	0	0	1	2	0	1	5	2	1	12
(6) FI	0	0	1	4	1	1	3	2	0	12
(7) QI	0	1	0	3	3	3	1	1	0	12
(8) AI	0	1	2	5	2	1	0	1	0	12
(9) TI	1	0	5	1	2	0	0	2	1	12
Totals	1	2	11	21	18	19	17	13	6	108

TABLE VIII

Name of			N	lumbe	r of S	tanine	e			Total
Test	1	2	3	4	5	6	7	8	9	No. of Cadets
(1) PA ^a	0	0	4	19	19	8	6	4	2	62
(2) OTA	0	1	4	7	12	10	14	7	7	62
(3) OA	0	0	2	7	11	8	17	4	12	62
(4) QA	1	4	5	8	8	16	6	9	5	62
(5) VA	0	2	3	11	10	10	18	7	1	62
(6) FI	1	2	5	10	13	11	9	5	5	62
(7) QI	8	4	11	5	11	13	10	4	5	62
(8) AI	3	8	7	5	11	12	5	4	8	62
(9) TI	1	2	10	9	7	9	16	5	4	62
Totals	14	23	42	81	102	97	101	49	49	558

STANINE GROUPING OF MICHIGAN STATE UNIVERSITY AIR SCIENCE IV CADETS (CATEGORY I, PILOT), 1955-56

TABLE IX

Name of			N	umber	r of S	tanine				Total No. of
Test	1	2	3	4	5	6	7	8	9	Cadets
(1) PA ^a	0	1	16	5	8	3	2	0	0	35
(2) OTA	0	0	2	8	8	7	8	3	1	35
(3) OA	0	0	1	4	6	8	8	3	5	35
(4) QA	0	0	1	5	7	13	3	4	2	35
(5) VA	0	2	3	4	8	7	8	3	1	35
(6) FI	0	2	6	10	6	4	4	1	3	35
(7) QI	3	0	3	1	9	5	7	5	3	35
(8) AI	2	0	0	5	7	5	6	4	6	35
(9) TI	0	1	7	4	6	9	5	3	0	35
Totals	5	6	39	47	65	61	51	26	21	315

STANINE GROUPING OF MICHIGAN STATE UNIVERSITY AIR SCIENCE IV CADETS (CATEGORY IA, OBSERVER), 1955-56

TABLE X

Name	r		N	umbei	of S	tanine				Total
of Test	1	2	3	4	5	6	7	8	9	No. of Cadets
(1) PA ^a	1	2	4	1	4	2	0	0	3	17
(2) OTA	2	1	0	0	2	2	4	2	4	17
(3) OA	0	1	1	1	0	1	3	2	8	17
(4) QA	0	0	1	1	1	3	3	3	5	17
(5) VA	1	0	0	3	3	1	3	5	1	17
(6) FI	2	2	5	2	1	0	5	0	0	17
(7) QI	0	1	1	1	3	1	6	2	2	17
(8) AI	2	2	2	6	2	1	0	1	1	17
(9) TI	0	0	3	1	2	3	3	4	1	17
Totals	8	9	17	16	18	14	27	19	25	153

STANINE GROUPING OF MICHIGAN STATE UNIVERSITY AIR SCIENCE IV CADETS (TECHNICAL NONFLYING), 1955-56

scores. But suppose one is concerned, not with the selection of large numbers of men from a larger pool, but rather with the evaluation of the chances that a particular individual John Doe, who made a stanine of 1, will make good as an Air Force flier. The odds are still four to one against him; but there is, conversely, one chance in five that he will succeed. These are not hopeless odds, and John Doe will certainly argue that, if given the opportunity, he is the one poor risk in five who will succeed. Officers, personnel workers, counselors, and psychologists cannot deny this contention. All they can do is point out that each of the poor risks invariably feels this same way, and that approximately four-fifths of them still fail. Only experience can show whether John Doe will be one of the eighty-one failures or one of the nineteen successes in every one hundred men like him. The same can be said of highstanine men. Of those who made a stanine of 9 in test cases, only about thirteen in each one hundred failed in flying training. The odds therefore are overwhelmingly in favor of the cadet who makes a score of 9; they are about seven to one. But thirteen in every one hundred such cases did fail, and cadet Bob Smith, who made a stanine of 9, has no way of knowing whether he is one of the eighty-seven or one of the thirteen. Neither have the selection officials, personnel workers, psychologists, or counselors.

The above extreme examples are clear cut, for they were selected from the extremes of the distribution. Consider, however, the average man, Tom White for example, who made a score of 5. Statistics give him about a 50-50 chance for success, but there is no way of knowing whether he will be in the group that passes or the group that fails. He may be considered a fairly good risk in cases of manpower shortage, but when more promising candidates are available selection officials could legitimately reject him in favor of others. In either case there is still only a statement of probability as to whether Tom will succeed or fail.¹ Figure 12 compares stanine scores with percentage of cadets who successfully complete basic flying training.²

The test items used in the AFOQT battery were restricted, and Air Force regulations did not permit a copy to be published with this study. The results of the interest scores were being currently studied by USAF on a nationwide basis, but as of this date the results were not available. However, an analysis of the stanines

²See Appendix I for further information concerning stanines.

Adapted from Donald E. Super Appraising Vocational Fitness by Means of Psychological Tests. New York: Harper and Brothers, 1949, p. 660.

TABLE XI

AIR FORCE ROTC ACADEMIC GRADES FOR MICHIGAN STATE UNIVERSITY SENIORS ENROLLED IN AIR SCIENCE IV, ACADEMIC YEAR 1955-56

			Tern	n		
Class	Fal	1	Wint	er	Spri	ng
	Grade	No.	Grade	No.	Grade	No.
Air Science I	А	19	А	16	А	16
	в	39	В	38	В	26
	С	20	С	23	С	25
	D	1	D	2	D	6
	F	0	F	0	F	0
Air Science II	А	20	А	29	А	25
	В	47	В	35	В	31
	С	11	С	14	С	19
	D	1	D	1	D	5
	F	0	F	0	F	0
Air Science III	Α	16	А	13	А	12
	В	32	В	38	В	44
	С	26	С	26	С	24
	D	5	D	2	D	3
	F	0	F	0	F	0
Note: Total ave	erage = '	'B.''				
						· .

in Tables IV to X revealed several interesting facts. These comments were limited to interest stanines only:

1. Thirteen percent of the present Air Science IV group desiring pilot training and 25 percent of those desiring observer training had flying interest stanines of 3 or less. It seemed to the writer that these percentage figures were much too large and were due to the fact that several detachment officers were of the firm personal opinion that the flying interest stanines were of little value for selection purposes.

2. Sixty-two seniors were enrolled in Category I (Pilot). In this group, (a) 64 percent had administrative interest stanines above 3, and (b) 63 percent had quantitative stanines above 3. These two facts tended to indicate that Michigan State University AFROTC graduates might be valuable to the Air Force in administrative and command positions after their combat flying years have passed.

3. Seventeen seniors were enrolled in Category II (Technical nonflying). In this group, (a) 30 percent had technical interest stanines of 3 or lower, (b) 66 percent had administrative interest stanines above 3, and (c) 89 percent had quantitative stanines above 3. These facts also indicate that these individuals have considerable potential in the Air Force other than flying.

100

4. Twelve percent of the Air Science II cadets desiring advanced and pilot training had very low interest scores (3 or lower).

5. Seventy-one percent of the Air Science II group desiring advanced and pilot training also had administrative stanines of 4 and above. This would tend to indicate that many pilot trainees had considerable potential for command and administrative positions in the Air Force.

6. Fifteen percent of the Air Science II group desiring advanced and observer training had very low flying interest stanines(3 or lower).

7. Cadets desiring engineering commissions tended to rate low on administrative interest stanines but very high on the technical interest stanine.

8. Nearly all who desired nontechnical nonflying commissions did obtain a flying interest stanine above 3.

9. Eighty-five percent of the Air Science II group desiring advanced and observer training failed to qualify aptitudinally for pilot training; of this group, 16 percent had unsatisfactory flying interest scores.

10. All cadets desiring engineering commissions had very high stanine scores. This same group had qualifying stanines for pilot aptitude, observer aptitude, officer aptitude, quantitative aptitude, and interest. Only twelve cadets were involved in this category, but it would seem that these individuals should be above average as potential Air Force officers.

11. Analysis of Tables XII and XIII indicates that a considerable number of individuals fail to qualify for enrollment in the advanced program and commissions in the Air Force. The average cost to the Air Force for each individual who is eliminated from flight training is six thousand dollars, and hence it was clear that the detailed and comprehensive testing program conducted by the Air Force must represent a considerable saving to the Defense Department budget.

Reasons for Cadet Disqualification at Michigan State University

A study of detachment records revealed that there were fifteen official reasons why students failed to qualify for advanced AFROTC training at Michigan State University. The terms "attitudes" and "interest" were not mentioned in any of these official reasons; however, they were undoubtedly an important influence on many of them.

The starred reasons are those that might have been strongly influenced by the attitude or interest of the individual.

TABLE XII

Reason Code		Number of Cad	lets Disqualified	1
Number ^b	Fall	Winter	Spring	Total
1.	40	1	1	42
2.	9	0	1	10
3.	0	0	1	1
4.	5	0	0	5
5.	39	1	2	42
6.	112	7	8	127
7.	7	9	3	19
8.	8	0	0	8
9.	84	6	6	96
10.	1	0	0	1
11.	31	1	3	35
12.	40	3	0	43
13.	39	0	0	39
14.	6	0	0	6
15.	7	0	2	9
Totals	428	28	27	483

TOTAL NUMBER OF DISQUALIFIED CADETS AT MICHIGAN STATE UNIVERSITY, BY TERM (1954-55)^a

^aDetachment records.

^bThe code is given on page 105.

.

TABLE XIII

TOTAL NUMBER OF CADETS ACCEPTED FOR ADVANCED AFROTC AT MICHIGAN STATE UNIVERSITY, BY TERM (1954-55)^a

Catal		Number of Ca	adets Accepted	
Category	Fall	Winter	Spring	Total
I	48	1	4	54
IA	22	0	0	22
II	10	0	0	10
Ш	1	0	0	1
Totals	81	1	4	87

^aDetachment records.

1. Physically disqualified.

*2. Unfavorable selection board action.

3. Basic course incomplete and schedule does not allow six terms for advanced AFROTC before graduation.

4. Academic course or major does not allow individual to participate in advanced AFROTC.

5. Though basically qualified, the individual's over-all standing was not high enough for selection within the limited vacancies available.

6. Not academically qualified under present Air Force policies.

*7. Substandard AFROTC academic grades.

8. Did not meet the minimum requirements on aptitude test for advanced AFROTC.

*9. Did not desire advanced AFROTC.

*10. Qualified for flight training but does not desire it.

*11. Failed to meet interview board.

*12. Failed to take aptitude test.

13. Disqualified due to limited quota.

*14. Failed to take physical examination as directed.

*15. Eligible for advanced AFROTC but withdrew or failed to enroll in college. Table XII shows the number of cadets who disqualified for each of the above reasons, and Table XIII shows the number who were accepted.

Summer Camp Interest and Attitude Ratings

All advanced cadets were required to attend summer camp for four weeks before they were eligible for an Air Force commission. The work accomplished was evaluated and recorded on AFROTC Form 73. A considerable portion of this form concerned attitude and interest ratings, and hence was pertinent to this investigation.

A statistical summary of all ratings received by Michigan State University cadets in summer camp during the summer of 1955-56 was compiled and recorded in Table XIV.

An analysis of the summer camp ratings indicated the following.

1. The "halo" effect was clearly evident, as nearly 95 percent of the numerical ratings were either a 3 or a 4.

2. Summer camp tactical officers appeared very reluctant to rate anyone in the 5 (high) area. Michigan State University had

¹ The rating scale ranged from a low of 1 to a high of 5; however, only ratings of 3 and 4 were given.

TABLE XIV

DISTRIBUTION OF SUMMER CAMP NUMERICAL RATINGS RECEIVED BY MICHIGAN STATE UNIVERSITY ADVANCED AFROTC CADETS, SUMMER 1955

Key:	5 - Very strongclearly indicative of unusually high officer potential.
	4 - Strongdefinitely indicative of officer potential.
	3 - Neither strong nor weakstrengths and weaknesses balance out.
	2 - A little weaksome deficiencies exist, but not dis- qualifying.
	 Very weakmust improve in order to be acceptable for commissioning.
	0 - Unknown or not observed.

Item	Number of Cadets Receiving Each Rating						
	0	1	2	3	4	5	

I. Military Characteristics

1.	Appearance (uniform neat, clean, and properly worn, clean-shaven, shoes shined, hair cut, proper military bearing)	0	1	2	31	18	3
2.	Courtesy (respects customs, tra- ditions, uses good manners)	0	0	2	33	19	1
3.	Drills and ceremonies (executes movements correctly, effective in direct movements, command voice, confident)	0	0	11	32	11	1

	Item					of Cadets Each Rating			
		0	1	2	3	4	5		
4.	Adjustment to military life (re- spects authority, obeys orders, and follows STU rules and reg- ulations completely and willingly). II. Attitudes	0	0	2	37	16	C		
5.	Attitude toward summer training (takes duties seriously, attentive to instructions, does his best, tries to improve)	0	0	4	26	25	0		
6.	Interest in flying (flies every chance he gets, eager to learn more about flying and associated activities)								
7.	Attitude toward Air Force service (proud to be a cadet, wants to learn more about the AF, eagerly anticipates service as an AF pilot)	1	0	4	33	17	0		
	III. Leadership								
8.	Effectiveness in handling men (has respect and support of men, leads instead of drives, tactful, takes lead in informal situations).	0	0	7	39	9	0		
9.	Influence over others (looked to for advice, stimulates others to greater effort, suggestions often acted upon)	0	0	8	40	7	0		

TABLE XIV (Continued)

_ _

	Item		Number of Cadets Receiving Each Rating						
		0	1	2	3	4	5		
10.	Effectiveness in communicating (makes his ideas clear to his listeners, persuasive, logical, composed)	1	0	2	35	16	0		
11.	Initiative (performs duties with a minimum of instructions, re- sourceful, possesses drive)	0	0	8	33	14	0		
12.	Dependability (prompt, accurate, thorough, can be counted on to do a good job)	0	0	4	33	18	0		
13.	Working with others (mixes well with a group, cooperative, good team worker)	0	2	0	43	10	0		

TABLE XIV (Continued)

.

fifty-five cadets in summer camp, and each was rated on thirteen items. Of the total of 815 ratings given, only six were in the 5 (high) area. Failure of responsible officers to observe cadets closely enough so as to be able to grant a number of high ratings is somewhat an injustice to cadets concerned. The writer realized that numerous camp commanders felt that there should be few or no outstanding ratings; however, this attitude also tended to defeat the purpose of the form.

3. Twenty-one of the fifty-five records examined contained no comment in the "remarks" section concerning attitudes and interests. This also appeared to be an injustice to the cadets concerned, as it would be virtually impossible for a cadet to spend four weeks in a summer camp and not exhibit some attitudes of some kind to observing officers.

4. It appeared that the summer camp ratings might be used by selection personnel as additional evidence to consider when selecting cadets for commissioning; however, the form has so many limitations that it is doubtful if the ratings should be given much weight.

5. The rating form was being used for the first time this year, and will undoubtedly be improved before being used again.

Tactical Officer Remarks Concerning Summer Camp Attitudes and Interests

The following comments were placed in the remarks sections of the AFROTC Evaluation Form 73 (these comments were used to help clarify the ratings summarized in Table XIV; note that some were good, but many were meaningless and very poorly written):

- 1. Is serious about summer camp.
- 2. Tries to improve himself.
- 3. Wants to be called to active duty.
- 4. Attitude varies.
- 5. Is seriously interested in flying and always does his best.
- 6. Takes assigned duties seriously but dozes in class.
- 7. Tries to improve on the drill field.
- 8. Is interested in flying and eager to enter the Air Force.
- 9. Likes military life but does not try as hard as he could.
- 10. Showed most improvement of any cadet.
- 11. Difficult to assess attitude--not enthusiastic but not neg-

ative.

- 12. Very attentive and always striving to do better.
- 13. Interest in flying was high.
- 14. Is undetermined about the Air Force.
- 15. Would take any position offered and do a good job.

16. Admits trying to swing stanine scores so he would qualify for observer instead of pilot. He still likes flying well enough so he might try it.

17. Good attitude developed by conscientious hard work.

- 18. Attitudes were good.
- 19. Performance of duty was done in an excellent manner.
- 20. Very interested in the Air Force.
- 21. Flew as much as he could.
- 22. Takes his job seriously.
- 23. Enjoyed flying.
- 24. Excellent housekeeper.

25. He felt that the conduct of the camp was reasonable and educational.

26. Attitude toward summer camp showed improvement.

27. Arrogant attitude--very outspoken in criticism of most

phases of summer camp as well as fellow cadets--is unable to determine how he feels about the Air Force.

- 28. Favorable attitude displayed by his conscientious work.
- 29. Very eager.
- 30. Very intent on success--sometimes too much so.

31. Has overcome unpleasant family background by hard work and will power and is inclined to drive very hard to the degree of being autocratic.

32. Likes to fly but not interested in a military career.

33. Anxious to do a good job.

34. Would make the service a career if given a commission.

35. Enthusiastic about flying and an Air Force career.

36. Really eager to get along.

37. Reserves comment on the Air Force until he finds out how it will fit into his personal life.

38. Showed little interest in flying.

39. Will make an excellent officer.

40. This cadet has continually exhibited interest in training, flying, and the Air Force.

CHAPTER VI

SUMMARY, FINDINGS, CONCLUSIONS, RECOMMENDATIONS, AND IMPLICATIONS FOR FURTHER RESEARCH

Summary

This investigation was concerned with determining some of the current attitudes and interests of the cadets of the Michigan State University Air Force ROTC detachment. These attitudes and interests focused attention on five areas of Air Force activity; namely, attitudes toward (1) the Michigan State University Air Force ROTC detachment and military training in general, (2) Air Force career planning, (3) Air Force flying training, (4) general attitudes, and (5) some physical considerations. In addition, attempts were made to (1) determine the extent to which attitude questions tended to differentiate between the basic and advanced cadets, (2) identify any weak areas in the Air Force ROTC program at Michigan State University, and (3) make recommendations for improvement.

The evidence gathered during the investigation was analyzed in considerable detail. It seemed to agree with considerable other evidence collected by the writer, and definitely gave direction to the planning of a program of improvement. The improvement program

114

was formulated so as to be a constructive plan to strengthen areas which the survey results rated weak or unsatisfactory.

The cooperation of the Michigan State University Guidance Department, Headquarters AFROTC Chief of Evaluation, the professor of air science, the AFROTC director of training, and all of the other AFROTC instructors was invaluable. The questions obtained from headquarters made the questionnaire a much better instrument than would have been possible for any one individual to construct, and the writer used a stratified random sampling as a basis for selection of the data.

The results of the AFOQT test battery and the summer camp ratings provided an additional source of pertinent information.

Findings

In arriving at the findings, conclusions, and recommendations of this investigation it was not the writer's intent to pass judgment upon the Air Force ROTC program at Michigan State University. The findings, conclusions, and recommendations represented a summarization of the analysis and an effort to apply the analysis to the operation of the Air Force ROTC program. In these sections both strengths and weaknesses of the program were identified and recommendations were made for improvement. It was of no consequence to this investigation whether the strengths outweighed, or vice versa. The critical factor to this investigation was the implication of the cadets' attitudes toward the Air Force and the AFROTC program.

The following specific points of information concerning the attitudes and interests of Michigan State University cadets were revealed to be true by the results of this investigation:

1. The Michigan State University Air Force ROTC detachment was definitely selecting high caliber cadets who had an excellent chance for success in the Air Force. This was evidenced by (a) very favorable attitudes expressed toward the Air Force and military training, (b) average academic grades of slightly less than "B," (c) favorable summer camp ratings, (d) expressions of favorable American and air-age attitudes, (e) highly acceptable stanine scores, and (f) the fact that the physical factors considered indicated that the group as a whole were exceptionally healthy.

2. There were many attitude questions which tended to differentiate between basic and advanced cadets. The questions concerning the military tended to differentiate much more than the general attitude questions and the questions concerning the physical considerations.

3. There were a number of AFROTC and Air Force activities that were highly satisfactory and also a number which were weak or unsatisfactory. No really undesirable conditions were indicated. The activities which were rated highly satisfactory included:

- a. Demerit system.
- b. Leadership and management laboratory.
- c. Cadet wing organization.
- d. Motivation for flight training.
- e. Airplane orientation rides.
- f. Position and prestige of Air Force officers.
- g. Tailoring and fit of advanced cadet uniforms.
- h. Character, appearance, etc., of the Michigan State University AFROTC instructor staff.
- i. AFROTC textbooks.
- j. Air Force pay and retirement.
- k. Compulsory ROTC at Michigan State University.
- 1. General military discipline.
- m. Public appearance of the cadet corps.
- n. Air Force officer esprit de corps.
- o. Importance of the Air Force.
- p. Cadets proud to wear the uniform.
- q. Cadet adjustment to college life.
- r. Ease with which cadets could discuss problems with instructors.

4. The activities which were rated weak or unsatisfactory included:

- a. AFROTC classes were considered generally inferior to regular college classes.
- b. Fifty percent of the basic cadets were somewhat dissatisfied with the tailoring and fit of their uniforms.
- c. AFROTC classes were not as popular as would seem desirable.
- d. Very few veterans were enrolled in AFROTC.
- e. Cadet standards concerning wearing of the uniform were a little low at times.
- f. The uniform was seldom worn unless it was required.
- g. Very few cadets read the <u>Air Force Times</u> or the Army-Navy-Air Force Journal.
- h. Most cadets felt that observer training was undesirable for any individual who could make the grade as pilot.
- i. Nearly all cadets desired training as fighter pilots, and none was seriously considering flight training in any other type of aircraft.¹

¹ The writer has received numerous criticisms to the effect that this attitude should be considered highly desirable and encouraged.

- j. Summer camp evaluations had such a decided "halo" effect as to be clearly of little value. Many of the additional comments in the remarks section of this form were meaningless and of little value.
- k. It appeared virtually impossible for a cadet to get an outstanding rating in summer camp. The few who did succeed in getting one of these rarely granted ratings got them for appearance, drill, or military courtesy. No Michigan State University cadet received an outstanding rating in any of the other ten areas which were rated.

5. The general attitudes and physical factors did not generally tend to differentiate between the basic and advanced cadets; however, they did form a very definite pattern for the cadet group as a whole. There was every indication that the cadet corps as a whole were an exceptionally healthy group with many genuine American and air-age attitudes.

Conclusions

The following conclusions may be drawn from the results of this investigation. These conclusions concern the expressed attitudes and interests of Michigan State University AFROTC cadets: 1. The attitude and interest patterns of the advanced and basic cadets were very similar; however, there were a large number of attitude questions which did tend to differentiate between the two groups at the 5 percent level.

2. Attitude surveys very definitely identify strong and weak points in AFROTC organizations.

3. Programs of improvement based on the results of attitude surveys are definitely worth while in AFROTC situations.

4. Many hazy, erroneous, and antagonistic attitudes existed toward the military establishment. These attitudes existed to a much greater extent in the basic group than in the advanced.

5. No really undesirable situations existed in the Michigan State University AFROTC organization; however, there were several areas which were weaker than others and which could undoubtedly be improved.

6. There is much that must be done if the summer camp rating form (AFROTC Evaluation Form 73) is to become a worthwhile instrument of real value. This was the first summer it was used, and it is undoubtedly a step in the right direction.

7. A greater percentage of the advanced cadets than basic cadets indicated favorable attitudes toward the Air Force ROTC in general. This result was expected; however, it was significant that, as these cadets progressed in the program, their attitudes remained favorable. The implication was that the operation of the program was of such nature as to contribute to the maintenance of favorable attitudes.

8. A critical point for any military program from an attitudinal standpoint is the regulations and policies which serve as controls and direction for the persons participating in that program. The generally favorable attitude of the cadets toward the regulations and policies was evidence that they respected these as one of the strong points of the AFROTC program.

9. The cadets' feelings toward the officer instructors as being persons they could respect and look to for an example were ones which could be expected. Nevertheless, they were of note as a strength of the program.

10. The cadets' attitudes toward military service were generally favorable. The Air Force ROTC program, being a military training type unit, through its operation necessarily has contributed to the forming of this attitude, or at least to its continuation. The writer considered that the program has had a satisfactory influence in this respect.

11. Throughout the study cadets seemed to express generally a favorable attitude toward the Air Force. The importance of this was not that the Air Force was popular, but that the cadets had a favorable impression of the service and its mission. All of those who are now cadets in the Air Force ROTC will soon be taxpaying citizens living in communities throughout the country. Many of them will hold positions of leadership and responsibility, and will exercise a considerable amount of influence. Therefore, the cadets' favorable attitude toward the Air Force is important to its maintenance in such a manner as to provide the maximum of national security. It is fundamental to the accomplishment of a part of the Air Force ROTC program's mission that this favorable attitude continue to exist.

12. Career motivation was another of the program's objectives. A strength of the program was represented by the cadets' recognition of the value of a career in the Air Force, and in their response indicating that the program has influenced them to look upon an Air Force career with more favor.

13. Another of the program's objectives was to motivate the cadets to desire flying training. The high degree of success of the program in reaching this objective was evidenced by the cadets' responding that, during the time they were enrolled in Air Force ROTC, their interest in flying greatly increased.

14. The classroom held little appeal to AFROTC cadets. This attitude was definitely detrimental to the over-all effectiveness of the program. Since the classroom represented a major percentage of the contacts with the cadets, it was considered desirable that they should have looked forward to attending class with interest. Such an unfavorable attitude surely interfered with the efforts to motivate the cadets to become career minded.

15. The Air Force ROTC program had not impressed the cadets with its character development advantages. The failure of the cadets to relate the character development attributes of the Air Force ROTC training to self-improvement pointed out a distinct weakness. It should be noted that the Air Force regarded its desired leadership, not as some peculiar brand useful only to itself, but as being basically like the leadership to be desired in any occupational area. If cadets had not grasped this relationship, their attitudes toward the Air Force and the Air Force ROTC program were in that respect unrealistic.

16. Careful thought and consideration was given to the unfavorable response in respect to the caliber of Air Force ROTC classes. When 50 percent of the cadets reported that the caliber of the Air Force ROTC classes was lower than that of their other college classes, it was evident that a weakness existed. Again, motivation was perhaps primarily involved. It was doubtful whether motivation in the proper direction could be accomplished in an environment that was considered as being substandard by those who were being rated.

17. In view of the large number of training films which were used in the Air Force ROTC instruction, it was undesirable that approximately 75 percent of the cadets expressed a need for more films to be used. One could only estimate the cause for such a reaction. It might have been related to the over-all undesirable attitude toward the Air Force ROTC classes. That is, the expressed need for more films was another way of indicating that the classes were of low caliber, and that the films would serve to dress them up a bit, or at least make them somewhat entertaining instead of boring. Also, it might be due to the fact that the flying and combat films were popular, and cadets enjoyed them for entertainment.

18. About one-half of the cadets felt that the grades they received were not commensurate with their abilities, or with the effort they put forth. Grades have had a significant importance attached to them by our society. A reaction such as this one will tend to contribute to the forming of an undesirable attitude toward the program.

19. An unfavorable attitude existed toward reporting to officer instructors in a military manner. This one factor detracted from the generally favorable attitudes toward military training as measured by other items in the questionnaire.

20. Probably the greatest weakness of the Air Force ROTC program was represented by the cadets' attitudes toward the officer instructors when regarded as counselors. Effective performance of the counselor function could lend great strength to the program. Failing in this, the program suffers the loss of additional opportunity to gain the interest of the cadets and to motivate them properly.

21. The cadets did not feel that the program gave a true picture of military life, and one had to agree that to some extent this is true. However, the Michigan State University cadet wing was well organized and supervised by a very competent officer, and the writer felt that the organization did give the cadets a much better picture of military life than most of them realized.

22. Experiences of the writer during the conduct of this investigation indicated that the approval and cooperation of the professor of air science must be obtained if surveys of this type are to have any value. Department head approval alone is insufficient. He must be actively involved and provide leadership from start to finish. Other experiences indicated that the survey results and action toward improvement should be made available to groups concerned as soon as possible. 23. The writer concluded that the general-attitude questions and physical considerations were not worthy of time and effort required to include them in attitude studies of this type. The most valuable part of the questionnaire proved to be the first 142 questions, which focused attention on the Air Force and military training.

Recommendations

It seemed meaningless to make recommendations concerning those conditions which were rated highly satisfactory.

The following recommendations were aimed at improving those conditions which were rated in the low or unsatisfactory area:

1. A program needs to be developed which will increase the effectiveness of the Air Force officer in the counselor function. This program definitely needs more emphasis, and this emphasis, if effective, must come from the department head or the director of training.

2. Officers concerned should place more emphasis on the fit and tailoring of the uniforms in the basic group. All common sizes of uniforms are available, and minor tailoring is authorized; hence, with few exceptions, this unsatisfactory condition existed only to the extent that the responsible officers allowed it to exist. 3. The detachment regulation authorizing all officers to give demerits for improper wearing of the uniform should be rigidly followed. This is a responsibility of every Air Force officer instructor, and the Michigan State University AFROTC detachment is much too large for an effective job to be done if this responsibility is left for the commandant of cadets to accomplish.

4. All instructors should encourage cadets to wear the uniform more; both to college functions and to home-town activities. This must be kept within limits, however, as too much pressure would undoubtedly do more harm than good. The attitude expressed indicated that most cadets wear the uniform only when it is required, and the writer did not consider this to be an entirely satisfactory attitude.

5. Recommend that an effort be made to have the <u>Air Force</u> <u>Times</u> and the <u>Army-Navy-Air Force Journal</u> more widely read. Some ways of doing this include:

- a. Making the papers available in the college library reading room.
- b. Instructors recommend articles to be read or special reports to be taken from the papers.
- c. Encourage individual subscriptions on the "group rate" plan. This makes the paper available at seven cents

per copy. This would probably be more successful in the advanced corps than in the basic corps.

d. All instructors encourage reading of the papers, and also orient classes concerning their availability and purpose.

6. Recommend that a pamphlet be reproduced in color to more adequately explain the objectives and activities of the AFROTC at Michigan State University.

7. Recommend that magazines pertaining to the Air Force be made available to cadets in the college library reading room.

8. Recommend that class size be limited to a maximum of thirty cadets in the basic course, and to twenty in the advanced course.

9. In so far as possible, instructors should be assigned to teach in the field or fields for which their background and education have equipped them.

10. The instructor in-service training program needs revitalizing. This program should be broad in scope, conduct regularly scheduled meetings, and give positive assistance to help instructors locate, analyze, and solve their problems. The following basic guides are recommended for officials responsible for organizing the program. In order to be effective, AFROTC in-service education should:

- a. Come from AFROTC unit examination of its own special needs; and should grow out of and supplement the regular program of the unit and college.
- b. Concentrate on problems on which real progress can be made.
- c. Be a cooperative process and pursued in accordance with the principles of democracy.
- d. Be based on currently functional philosophy and highly flexible so that the group and individuals are free to modify the goals and procedures in the light of experience.
- e. Be recognized by the PAS and staff as an integral part of each person's job, not something extra.
- f. Include general participation in the making of over-all policies. These should not be made by the PAS, but by the entire staff.
- g. Recognize that AFROTC instructors (and all teachers) are never fully prepared for teaching, and if they are worthy members of the Air Force and the university, they are always making preparation--growing as individuals, as teachers, and as citizens.

- h. Assist AFROTC instructors in recognizing changes in themselves and in their students, and in fulfilling their obligation with respect to new attitudes developed.
- i. Allow instructors to work with PAS and director of training as friends and equals.
- j. Planned in terms of principles which govern human efficiency and learning.
- k. Call for continuous planning, continuous experimentation, and continuous evaluation.

1. Involve all AFROTC personnel.

- m. Be organized so that thought can be converted into action with reasonable ease. The PAS should not indorse an in-service program unless he is ready to act on the cooperative thinking which results from it.
- n. See that individuals work on jobs for which they are best fitted and can make positive contributions.
- o. Help build unit morale.
- p. Increase cooperative thinking together by representatives of various interests within the unit and the institution, and to assist in integrating the AFROTC and university programs.

- q. Come through stimulation rather than compulsion; it must recognize that before it can succeed there must be created, on the part of each individual, the desire to grow professionally.
- r. Provide opportunities for experimental activities in the AFROTC program.
- s. Provide opportunities for AFROTC instructors to make increased use of the local resources in the university and community in solving their problems.
- t. Provide for new-instructor orientation.
- u. Utilize intervisitation programs.
- v. Provide for regular briefings on new and possible training aids.

11. The teaching schedule should be organized so the professor of air science and the director of training both teach part- or full-time. This enables them to give more positive leadership to the program. Nonteaching professors of air science and directors of training often conduct staff and conference meetings and discuss minor military topics in great detail, and then pass over the more

Adapted from Charles Todd. "The Improvement of Instruction for the Air Force Reserve Officers Training Corps." Unpublished Ed.D. Thesis, Columbia University, 1953.

important educational problems hurriedly and leave the instructor to solve his own classroom problems.

12. An "Air Force Career" bulletin board might prove helpful. All information on such a bulletin board should give helpful career information as well as help glamorize the Air Force and the AFROTC. This bulletin board should be attractive and kept up to date on all phases of Air Force opportunities and careers.

13. Increased instructor participation in university activities would be highly desirable. The university pays each instructor \$200 per year extra to encourage this, so there should be little objection.

14. More officer instructors should either audit or enroll in regular university classes. It is possible that the AFROTC instructor staff might request the university to offer a graduate course in AFROTC in-service training, and all of the AFROTC instructors enroll.

15. Methods need to be devised whereby cadets' understanding and appreciation of the character development attributes of the AFROTC program will be increased.

16. Steps should be taken to increase the appeal of AFROTC classes.

17. Care needs to be exercised in the proper selection and use of training film in order that the cadets will recognize them readily as aids to learning, and not as sources of entertainment.

18. All instructors should attend the academic instructors course at the Air University before being assigned to an Air Force ROTC unit. (Note: This has been done in most cases during the past two years.)

19. Continuous emphasis must be placed on methods used for selection of cadets for the advanced program. New and better techniques are badly needed.

20. New and additional ways need to be devised to help motivate cadets to decide in favor of Air Force careers.

21. Plans should be made to perpetuate the favorable attitude toward drill.

22. The military environment is absent, and hence instructors must make an effort to present as true a picture of military life as possible.

23. Action should be initiated to standardize the manner in which cadets report to officers in accordance with detachment policies.

24. Recommend attempts be made to improve rapport between officers and cadets. 25. AFROTC officers must make a continuous effort to take a professional interest in the problems of cadets.

26. Officer instructors should be continuously encouraged to work toward improving their teaching skill and the type of instruction used aimed toward standards of high quality and a professional level comparable to that of university classes.

Implications for Further Research

Attitude and interest measurements for Air Force officers open up an important area of personality assessment that is urgently needed if an integrated officer personnel program is to be developed to the fullest possible extent. Further research in this area holds out the promise of rich rewards in bringing about economy and efficiency in the career guidance of potential officers.

The following approaches to the problems of attitudes and interests of Michigan State University AFROTC cadets would seem to offer areas in which further research could be carried out profitably:

1. Further experimentation with questions which differentiate between the basic and advanced cadets would undoubtedly lead to the development of an instrument which would be a valuable aid in helping to select individuals for advanced training and Air Force commissions.

2. Another area which would seem to lend itself to research would be the comparison of the detachment instructors' scores and cadet scores on the same attitude questions.

3. An investigation concerning ways to improve those areas rated weak in this study would be a valuable contribution to AFROTC research and educational program. Several of the problems are deep-rooted and as yet the Air Force does not have solutions which are fully satisfactory to everyone.

4. A fourth area of research which would seem of interest would be to use the same type of questions and measure the differences in attitudes before and after the junior summer camp, or before and after the first term of Air Science I.

5. Further research is suggested in the area of refining some of the questionnaire items as well as in experimenting with new ones.

6. Still another possible area of research would be the use of the attitude inventory as regular procedure upon entrance into AFROTC and then rechecking with the same individuals upon completion of basic to determine change in attitude, if any. This might eventually lead to the localization of effective methods of changing attitudes.

SELECTED BIBLIOGRAPHY

Books

- Bell, Howard. Matching Youth and Jobs. Washington, D.C.: American Council on Education, 1940.
- Bingham, Walter V. Applications of Psychology. Harper and Brothers, 1952.
- Cantril, Hadley. Gauging Public Opinion. Princeton, N.J.: Princeton University Press, 1944.
- Chave, E. J., and Thurstone, L. L. The Measurement of Social Attitudes. Chicago: University of Chicago Press, 1931.
- Copeland, Norman. <u>Psychology and the Soldier</u>. Harrisburg, Pennsylvania: Military Service Publishing Company, 1951. Pp. 111-112.
- Fryer, Douglas. The Measurement of Interests. New York: Henry Holt and Company, 1931.
- Fuller, J. F. C. (Major General). <u>Generalship</u>: Its Diseases and <u>Their Cure</u>. Harrisburg: Military Service Publishing Company, 1944.
- Good, Carter V., Barr, A. S., and Seates, R. D. <u>The Methodology</u> of Educational Research. New York: D. Appleton Century Company, 1941. Pp. 324-337.
- Grinker, R. R., and Speigel, J. F. <u>Men under Stress</u>. Philadelphia: The Blakiston Company, 1945.
- Johnson, Palmer O. Statistical Methods in Research. New York: Prentice-Hall Inc., 1949.

Hoppock, R. Job Satisfaction. New York: Harpers, 1935.

- Kingsley, Howard L. The Nature and Conditions of Learning. New York: Prentice-Hall, Inc., 1946.
- Katz, Daniel, and Allport, Henry F. Student Attitudes. New York: Craftsman Press, Inc., 1930.
- Kitson, H. D. Psychology of Vocational Adjustment. Philadelphia: J. B. Lippincott Company, 1925.
- Koos, Leonard V. <u>The Questionnaire in Education</u>. New York: Macmillan Company, 1928.
- McNemar, Quinn. <u>Psychological Statistics</u>. New York: John Wiley and Sons, Inc., 1949.
- Parten, Mildred. Surveys, Polls, and Samples. New York: Harper and Brothers, 1950.
- Payne, S. L. The Art of Asking Questions. Princeton, N.J. Princeton University Press, 1951.
- Pennington, L. A., Hough, Romeyn B., Jr., and Case, H. W. The Psychology of Military Leadership. New York: Prentice-Hall, Inc., 1943.
- Portway, Lt. Col. D. R. E. Talks to Young Officers. Cambridge: W. Heffer and Sons, Ltd., 1942.
- Remmers, H. H. Introduction to Opinion and Attitude Measurement. New York: Harper and Brothers, 1954.
- Schell, Erwin H. The Technique of Executive Control. New York: McGraw-Hill Book Company, 1946.
- Strong, E. K. Vocational Interests of Men and Women. Stanford. Stanford University Press, 1943.
- Super, Donald E. Appraising Vocational Fitness. New York: Harper and Brothers, 1949.
- Symonds, Percival M. Diagnosing Personality and Conduct. New York: D. Appleton Century Company, 1931. Pp. 233.

- Thurstone, L. L., and Chave, E. J. The Measurement of Attitude <u>Toward the Church</u>. Chicago: University of Chicago Press, 1929.
- Thurstone, L. L., and Chave, E. J. <u>The Measurement of Attitude</u>. Chicago: University of Chicago Press, 1937.

Articles

- Air Force Personnel Newsletter. Employee Attitudes. Vol. VIII, No. 5-6 (May-June, 1955). Washington, D.C. Pp. 9.
- Allport, Gordon W. "Attitudes," <u>Handbook of Social Psychology</u>. Edited by Carl Murchinson. Worcester, Mass.: Clark University Press, 1935, 798-844.
- Baier, Donald E. "Selection and Evaluation of West Point Cadets," American Psychologist, Vol. 2, No. 8 (August, 1947), 325-326.
- Bain, R. "Theory and Measurement of Attitudes and Opinion," Psychological Bulletin, Vol. 27 (May, 1930), 357-379.
- Ballin, M. R., and Farnsworth, P. R. "A Graphic Rating Method for Determining the Scale Values of Statements in Measuring Social Attitudes," Journal of Social Psychology, 1941, 13: 323-327.
- Bayroff, A. G., and Machlin, C. T. "Development of Criteria of Leadership in ROTC," American Psychologist, Vol. 5, No. 7 (July, 1950), 338.
- Bernays, E. L. "Attitude Polls--Servants or Masters?" Public Opinion Quarterly, 1945, 9:264-268.
- Buck, W. "A Measurement of Changes in Attitudes and Interests of University Students over a Ten Year Period," Journal of Abnormal Social Psychology, 1936, 31:12-19.
- Case, George S. "Use and Results of Attitude Surveys," <u>American</u> <u>Management Association Production, Series No. 3</u>. New York, 1948, 1-35.

- Chart, S. N. F. "Measuring the Factors that Make a Job Interesting," Personnel Journal, Vol. XI, No. 1 (1935), 1-4.
- Chave, E. J. ''A New Type of Scale for Measuring Attitude,'' Religious Education, Vol. 23 (1928), 364-369.
- Clark, K. E. ''Differences in Vocational Interests of Men in Seven Navy Rates,'' Minneapolis: University of Minnesota, Department of Psychology, 1950. Technical Reproduction No. 4.
- Corey, Stephen M ''Professional Attitudes and Actual Behavior,'' Journal of Educational Psychology, 28:271-280, 1937.
- Cottle, W. C., Lewis, W. W., and Penny, M. M. ''An Experimental Attitude Scale,'' Journal of Counseling Psychology, January, 1955, 74-77.
- Cowdery, K. M. "The Interest Inventory in College Vocational Guidance," Psychological Clinic, Vol. 19 (1930), 59-62.
- Crespi, L. P. '''Opinion-Attitude Methodology' and the Polls--A Rejoiner,'' Psychological Bulletin, 1946, 43:562-569.
- Day, Daniel. "Methods in Attitude Research," American Sociological Review, Vol. V (June, 1940), 395-410.
- Deri, Susan, Dinnerstein, Dorothy, Harding, John, and Pepitone, Albert D. "Techniques for the Diagnosis and Measurement of Intergroup Attitudes and Behavior," <u>Psychological Bulletin</u>, 1948, 35:248-271.
- Dressel, P. L. ''Interests--Stable or Unstable,'' Journal of Educational Research, No. 4 (1954), 95-102.
- Drolice, D. V. "Methods of Measuring Attitudes," <u>Psychological</u> Bulletin, XXIX (May, 1932), 309-323.
- Edwards, A. L., and Kilpatrick, Franklin P. "Scale Analysis and the Measurement of Social Attitudes," <u>Psychometrika</u>, 1948, 13:99-114.

- Eysenk, H. J., and Crown, S. "An Experimental Study in Opinion-Attitude Methodology," International Journal of Opinion and Attitude Research, 3:47-86, Spring, 1941.
- Farnsworth, P. R., "Shifts in the Value of Opinion Stems," Journal of Psychology, 1943, 16:125-128.
- Ferguson, L. W. "A Study of the Likert Technique of Attitude Scale Construction," Journal of Social Psychology, 1941, 13:51-57.
- Ferguson, L. W. "The Influence of Individual Attitudes on Construction of an Attitude Scale," Journal of Social Psychology, 1935, 6.115-117.
- Ferguson, L. W. "The Requirements of an Adequate Attitude Scale," Psychological Bulletin, 1939, 36:665-673.
- Flanagan, John C. "Defining the Requirements of the Military Executive Job," Personnel, No. 1, Vol. 28 July, 1951), 28-35.
- Garsforth, F. I. "War Office Selection Board Procedures," Occupational Psychology, Vol. 19 (1945), 96-108.
- Gaylord, Richard H., and Russel, Eva. "West Point Evaluative Measures in the Prediction of Officer Prediction," <u>Educa-</u> <u>tional and Psychological Measurement</u>, No. 4, Vol. 2 (Winter, 1951), 605-611.
- Grice, H. H. "The Construction and Evaluation of a Scale to Measure Attitudes Toward Defined Groups," <u>Bulletin of Purdue</u> University, No. 4, Vol. XXXV (December, 1934), 37-46.
- Guttman, Louis. "The Cornell Technique for Scale and Intensity Analysis," <u>Educational and Psychological Measurement</u>, 7: 247-279. 1947.
- Hahn, M. E., and Williams, C. T. "The Measured Interests of Marine Corps Women Reservists," Journal of Applied Psychology, 29:198-211, 1945.
- Hancock, John. "Reliability of Generalized Attitude Scales as Related to Length of Scale," Purdue University Studies in Higher Education, No. 31, Series II. Pp. 291-295.

- Havighurst, R. J., and Russel, Mary. 'Promotion in the Armed Services in Relation to School Achievement and Social Status,' School Review, No. 4, Vol. 53 (April, 1945), 202-211.
- Heath, C. W., and Gregory, L. W. "What it Takes to Be an Officer," Infantry Journal, No. 3, Vol. 58 (March, 1946), 44-45.
- Hinckley, E. D. ''Influence of Individual Opinion on Construction of an Attitude Scale,'' Journal of Social Psychology, 1932, 3:283-296.
- Hubbard, R. M. ''Interests Studied Quantitatively; Measurement of Differences between Socially and Mechanically Inclined in Relation to Vocational Selection,'' Journal of Personnel Research, Vol. 4 (1925), 365-378.
- Hyman, Herbert. "Problems in the Collection of Opinion Research Data," American Journal of Sociology, No. 4 (1950), 55:362-370.
- Jensen, M. B., and Rotter, J. B. "The Validity of the Multiple Choice Rorschach Test in Officer Candidate Selection," No. 3, Vol. 42 (March, 1945), 182-185.
- Jensen, M. B., and Rotter, J. B. "The Value of Thirteen Psycological Tests in Officer Candidate Screening," Journal of Applied Psychology, No. 3, Vol. 31 (June, 1947), 312-322.
- Katz, Daniel. "Good and Bad Practices in Attitude Surveys in Industrial Surveys," Industrial Relations Research Association Proceedings of Second Annual Meeting, New York, 1949. 212-221.
- Katz, Daniel. 'Survey Research Center: An Overview of the Human Relations Program,' Edited by H. Geietzkow in Groups, Leadership, and Men. Pittsburg: Carnegie Press, 1951.
- Lawrence, D. H., and Leving, A. S. "The Psychological Problems in AAF Convalescent Hospitals," Washington, D.C., Government Printing Office, 1947, 79-91.
- Likert, R. "A Technique for the Measurement of Attitudes," Archives of Psychology, 1932, 1-55.

- Lundberg, G. A. "The Measurement of Attitudes," Social Research (Chapter IX), New York: Longmans, 1930.
- Mariott, R. ''Some Problems of Attitude Methodology,'' Occupational Psychology, Vol. 27 (1953), 117-127.
- McGahan, F. E. "Factors Associated with Leadership Ability," Texas Outlook, No. 7, Vol. 25 (July, 1941), 37-38.
- McNemar, Q. "General Review and Summary: Attitude Methodology," Psychological Bulletin, Vol. 43 (July, 1946), 289-374.
- Miller, Floyd D. ''The Validation of a Generalized Attitude Scaling Technique,'' Bulletin of Purdue University, No. 4, Vol. XXXV (December, 1934), 98-109.
- Miller, Harold E. "The Construction and Evaluation of Attitudes Toward Occupations," <u>Bulletin of Purdue University</u>, No. 4, Vol. XXXV (December, 1934), 68-76.
- Morris, Ben S. "Officer Selection in the British Army--1942-1945," Occupational Psychology, No. 4, Vol. 23 (October, 1949), 219-239.
- Nelson, Erland. "Attitudes," Journal of Genetic Psychology, 1949, 21:367-427.
- Pinter, R., and Forlano, G. "The Influence of Attitude upon Scaling of Attitude Items," Journal of Social Psychology, 1937, 8:39-45.
- Pockrass, Jack. "Performance Evaluation--Forms or Substance?" Personnel Administration, September, 1954, pp. 1-5.
- Research Problems and Techniques. "Problems in Determining an Adequate Criterion." Army Aviation Psychology Research Report, No. 3. Washington: U.S. Government Printing Office, 1947.
- Preston, Harley O. The Development of a Procedure for Evaluating Officers in the United States Air Force. Pamphlet. Pittsburgh: American Institute for Research, 1948.

- Prochanoky, Harold M. "A Projective Method for the Study of Attitudes," Journal of Abnormal and Social Psychology, 38: 393-395, 1943.
- Remmers, H. H., and Silance, Ella B. "An Experimental Generalized Master Scale: A Scale to Measure Attitude toward Any School Subject," Bulletin of Purdue University, No. 4 (December, 1934), 84-112.
- Remmers, H. H., and Silance, E. B. ''Generalized Attitude Scales,'' Journal of Social Psychology, No. 5, 1934, 298-312.
- Remmers, H. H. "Measuring Attitudes toward Vocations," Bulletin of Purdue University, No. 4 (December, 1934), 77-83.
- Remmers, H. H. "Studies in Attitudes," <u>Purdue University Studies</u> in Higher Education, No. 4, Vol. XXXV (December, 1934).
- Robinson, R. A. "Use of the Panel in Opinion and Attitude Research," International Journal of Opinion and Attitude Research, 1947, 1:83-86.
- Roff, Merrill. "A Study of Combat Leadership in the Air Force by Means of a Rating Scale," Journal of Psychology, Vol. 30 (1950), 229-239.
- Sherman, M. "Theories and Measurement of Attitudes," <u>Child De-</u>velopment, Vol. 3 (1932), 15-28.
- Shils, E. A. "A Note on Government Research on Attitude and Morale," American Journal of Sociology, 1941, 47:472-480.
- Southworth, A. E. "Attitude Favorable to Change," <u>National Asso-</u> ciation of Secondary School Principals Bulletin, Vol. XXXIV (December, 1950), 134-141.
- Stagner, Ross. "Attitudes," <u>Encyclopedia of Educational Research</u>. Edited by W. S. Monroe. New York: Macmillan Company, 1950, 77-84.
- Stodgill, R. M. "Personal Factors Associated with Leadership," <u>Leadership Study No. 1, Personnel Research Board</u>, Ohio State University, 1948.

- Strong, Edward K. "Predictive Value of Vocational Interest Test," Journal of Educational Psychology, 26:331-349, 1935.
- Strong, Edward K. ''Permanence of Interest Scores Over 22 Years,'' Journal of Applied Psychology, No. 35 (1951), 89-91.
- Super, D. E. 'Occupational Level and Job Satisfaction,' Journal of Applied Psychology, 1939. Pp. 547-564.
- Symonds, P. M. "A Social Attitude Questionnaire," Journal of Educational Psychology, 1925. Pp. 316-322.
- Terris, Fay. "Are Poll Questions Too Difficult?" Public Opinion Quarterly, 1949, 13:314-319.
- "The Forced Technique Rating Scales," <u>American Psychologist</u>, No. 7, Vol. 1 (1946), 267.
- Thurstone, L. L. "Attitudes Can Be Measured," American Journal of Sociology, Vol. 33 (May-July, 1927-28), 529-553.
- Thurstone, L. L. "Theory of Attitude Measures," <u>Psychological</u> Review, Vol. 36 (1929), 222-241.
- Thurstone, L. L. "The Measurement of Change in Social Attitude," Journal of Social Psychology, Vol. 2 (1931), 230-235.
- Uris, A. "How Good a Leader Are You at Shaping Attitudes?" <u>Factory Management and Maintenance</u>, No. 8, Vol. 109 (August, 1951), 104-106.
- Vetter, B. B. "What Makes Attitudes Liberal or Conservative?" Journal of Abnormal Psychology, 1947, 42:125-130.
- Wagner, C. E., and Sharon, M. I. "Defining Job Requirements in Terms of Behavior," Personnel Administration, No. 2, Vol. 14 (March, 1951), 18-25.
- Wrang, C. K. "Suggested Criteria for Writing Attitude Statements," Journal of Social Psychology, Vol. 3 (August, 1932), 367-373.

- Williams, S. B., and Leavitt, H. J. 'Group Opinion As a Predictor of Military Leadership,' Journal of Consulting Psychology, No. 6, Vol. 11 (November-December, 1947), 283-291.
- Wilks, S. S. "Representative Sampling and Poll Reliability," <u>Public</u> Opinion Quarterly, 1940, 4:261-270.
- Worthy, Joane C. ''Discovering and Evaluating Employee Attitudes,'' American Management Association Personnel Series, No. 113, 1947, pp. 13-22.
- Your Job. An Attitude Questionnaire Prepared by the Employee Research Section of the General Motors Corporation, Detroit, 1949.

Military Publications

- AFM 35-15, Air Force Leadership, Department of the Air Force, December, 1948.
- AFM 45-17, Attitude Surveys, Department of the Air Force, December, 1954.
- An Analysis of Existent Instruments Used to Select Reserve Officers for the Regular Air Force. Air Training Command, Human Resources Research Center, Research Note 52-35. Lackland AFB, November, 1952.
- An Analysis of Officer Candidate Failures. U. S. Army Adjutant General's Office, PRS Report 398. The Infantry Journal, Ft. Benning. May 20, 1952.
- Analysis of Officer Efficiency Reports, WD AGO Form 67-1's For Officers Relieved from Active Duty under Forced Reduction Plan, Phase 1. U.S. Army Adjutant's Office, PRS Report 864. Washington, October 17, 1950. Pp. 1-7.
- AFROTC Guidance. Brochure. Headquarters AFROTC, 435 Bell St., Montgomery, Alabama. December, 1953.

- A Methodological Study of Criterion Construction and Development. U.S. Army Adjutant's Office, PRS Report 875. Washington, D.C. March 30, 1951.
- Application of Management Principles to Air Force Functions. United States Air Force, Air University, Air Command and Staff School, Maxwell AFB, November, 1948.
- Aspects of Non-commissioned Officer Leadership, United States Air Force, Human Resources Research Center, Technical Report 52-3. Lackland AFB, 1952.
- Attitudes of Air Training Command Airmen Toward Various Aspects of Air Force Life. United States Air Force, Air Training Command, Human Resources Research Center. Research Bulletin 51-31. Lackland AFB, December, 1951.
- A Syllabus for Military Psychology and Leadership, First Class Cadets. U.S. Corps of Cadets, West Point, New York, 1946.
- Bullington, Richard E. "The New Instructor and the Setting for Learning," <u>ATRC Instructor's Journal</u>, Scott AFB, Ill., Training and Analysis Development Directorate, No. 2, Vol. 5 (Summer, 1954). Pp. 127-128.
- Characteristics of Successful and Unsuccessful Officers Studied for the Development of Officer Evaluation and Reporting Forms. U.S. Army Adjutant's Office, PRS Report 706. Washington. March 21, 1952.
- Fairchild, Muir S. United States Air Force Education, Air Affairs, Vol. 2 (Winter, 1948). Pp. 209-217.
- Fontanella, M. A. (Major). The Military Instructor Has a Role in Guidance. Headquarters, AFROTC, Montgomery, Alabama. September 9, 1954. Pp. 1-13.
- Freeman, William. "Use of Attitude Surveys as Teaching Devices," <u>ATRC Instructor's Journal</u>, Scott AFB, Ill., Analysis and Training Development Directorate, No. 4, Vol. 5 (Winter, 1954).

- Guttman, Louis. Questions and Answers About Scale Construction. Washington, D.C.: Research Branch, Information and Education Division, Army Services, Report D-2, Mimeo., 1945.
- Hollingsworth, George H. (Colonel). Motivation to Fly. Headquarters AFROTC, Montgomery, Alabama. September, 1954. Pp. 1-13.
- Improved Method for Observing Officer Effectiveness. United States Air Force, Headquarters Command, Human Research Laboratories, HRRL Report 27. Washington, July, 1951.
- Leadership Training Guide. Air University, AFROTC Headquarters, Montgomery, Alabama. June, 1953.
- Maccoby, Dr. Nathan, and Hymovitch, Dr. B. "The Effect of Rank on Human Relations," Air University Quarterly Review, No. 4, Vol. 5 (Winter, 1952-1953). Pp. 40-48.
- McMillan, Col. A. R. Military Conduct Lecture in SSS 9-25B, AAF Special Staff School, Craig Field, Alabama, 1946.
- Methven, Harry G. "The Personality of the Instructor," ATRC Instructor's Journal, Scott AFB, Ill., Training and Development Directorate, No. 3, Vol. 5 (Fall, 1954).
- Military Attitude As a Predictor of Air Force Success; Preliminary Studies of the Attitude Survey, United States Air Force, Air Training Command, Human Resources Research Center, Research Bulletin 52-23. Lackland AFB, July, 1952.
- Principles of Leadership and Management. Air University, AFROTC Headquarters, Montgomery, Alabama. AS IV, Vol. II, 1954.
- Psychology for the Fighting Man. A report prepared by the National Research Council. Fifth printing. Infantry Penguin Books, 1944. Pp. 307.
- Report of the Secretary of War's Board on Officer-Enlisted Men Relationships. Washington, D.C.: Infantry Journal Press, June, 1946.

Research on the Evaluation and Prediction of Officer Qualities. United States Air Force, Air Training Command, Human Resources Research Center, Maxwell AFB, 1948. Pp. 1-13.

- Similarities and Differences between the Concept of Leadership Held by Leaders and Followers as a Criterion of Leadership. United States Air Force, Air Training Command, Human Resources Research Center. Compilation of papers presented by personnel of the technical training research directorate. Lackland AFB, August, 1950. Pp. 16-1 to 16-4.
- The Armed Forces Officer. Department of Defense, U.S. Government Printing Office, 1950. Pp. 1-267.
- The Officer's Guide. Harrisburg: The Military Service Publishing Company, 1950.
- Traxler, Arthur E. "Counseling as a Learning Function," <u>ATRC</u> <u>Instructor's Journal</u>, Scott AFB, Illinois; Training Analysis and Development Directorate, No. 2, Vol. 5 (Summer, 1954). P. 126.
- What the Soldier Thinks. A Digest of War Department Studies on the Attitudes of American Troops, Washington, D.C.: Research Branch, Information and Education Division, Army Service Forces, Periodicals Publications, December, 1942, to September, 1945.

Theses

- Barber, Col. E. "The Qualities of Military Leadership." Unpublished Thesis, Air War College, Maxwell AFB, Alabama, 1948, 62 pp.
- Bodycombe, Richard. "A Study of the Curricular and Recreational Interests of Two Groups of Selected U.S. Air Force ROTC Students at the University of Michigan, with Emphasis on Student Attitude Toward Future Flight Training." Unpublished Master's Thesis, University of Michigan, 1952, 76 pp.

- Kilpatrick, Albert R. "A Study of Attitudes and Personality Characteristics Related to the Selection of Flying Training by Air Force ROTC Cadets." Unpublished Master's Thesis, Ohio State University, 1953, 43 pp.
- Murray, John C. ''Estimating Military Success in Advanced AFROTC at Montana State College.'' Unpublished Master's Thesis, 1953, 64 pp.
- Oettel, Arnold M. "Leadership: A Psychological Study." Unpublished Ph.D. Dissertation, University of Southern California, 1953, 180 pp.
- Pankey, Russell G. "Recommendations for an Improved AFROTC Program." Unpublished Thesis, Air War College, Maxwell AFB, Alabama, May, 1955, 50 pp.
- Thompson, Kenneth. ''A Treatment of Industrial Attitude Data by Means of Factor Analysis.'' Unpublished Ph.D. Dissertation, Ohio State University, 1948, 210 pp.
- Todd, Charles. "The Improvement of Instruction for the Air Force Reserve Officers Training Corps." Unpublished Ed.D. Thesis, Columbia University, 1953, 190 pp.
- Triner, Edward G. ''An Investigation of the Development of Military Leadership Through Direct Instruction.'' Unpublished Ph.D. Dissertation, University of Southern California, 1955, 79 pp.

APPENDIX A

.

CORRESPONDENCE

DEPARTMENT OF AIR SCIENCE AFROTC DETACHMENT NO. 380 Michigan State College East Lansing, Michigan

7 January 1955

SUBJECT: Authorization for Official Study

TO: Captain Robert W. Innis Academic Training Officer 380th AFROTC Detachment Michigan State University East Lansing, Michigan

1. Your request to conduct an attitude survey among the cadets of this Detachment is approved.

2. I am interested in this study and want you to know that you will have the official cooperation of all detachment personnel. As you probably know the Air Force is presently very much concerned with the attitudes of American youth toward flying and toward making a career of the USAF. It has always been my feeling that each military instructor helps to mold many of these attitudes, both favorable and unfavorable, in his daily classes. No matter how good a cadet is in his school work and military training, he will not be successful if he has a poor or unsatisfactory attitude toward the Armed Services.

3. We would appreciate having a copy of the completed dissertation in our Unit library. Also may I suggest that you file a copy at the Air University Library, Maxwell Air Force Base, Alabama, and one at AFROTC Headquarters, Montgomery, Alabama. Headquarters will probably be interested in publishing an abstract for dissemination to the other AFROTC units throughout the United States.

CHARLES D. SCOTT Lt. Col., USAF Director of Training

31 January 1955

Captain Robert W. Innis AFROTC Detachment #380 Michigan State College East Lansing, Michigan

Dear Captain Innis:

Dr. Charles B. Todd passed your letter of inquiry on to me. He felt that since I am the consultant in evaluation and have served as project officer on the attitude survey project, I would be better prepared to answer your questions.

I would first like to say that I am very pleased that you are interested in doing a study on attitudes. We need new research in this area very much.

The following studies are now under way in the attitude area:

a. The Officer Education Research Laboratory at Maxwell Air Force Base is developing an instrument to measure attitudes in the AFROTC program. The instrument is of the self-report questionnaire type. As you probably know, one form of the questionnaire was administered at the beginning and at the end of the summer camp program in 1953 and another form again in 1954. A report is on file at this headquarters on the 1953 results. Results on the 1954 administration are not yet available. In addition to item analysis data for refining the instrument, the 1953 and 1954 administrations provided data which indicate changes in attitudes that occurred in cadets during the summer camp program.

b. A research project on attitudes is being conducted at the University of Michigan. It is being done in conjunction with the study by the Officer Education Research Laboratory reported above. I am sorry I don't know the name of the person conducting this study, but I am sure you could get this information without any difficulty by contacting the University. c. One of the stanines on the AFOQT is on interests. Tabulations on individual item responses might be of some value to your study. You might be able to secure this data from the Air Force Personnel Training and Research Center at Lackland Air Force Base.

d. The University of Vermont detachment is making a study of the changes in attitudes toward flying that occur during the first two years of the program. I gave them some help in preparing the questionnaire for this study.

e. A masters thesis by Captain A. R. Kilpatrick is on file at the Air University library. Part of this study had to do with attitudes. I believe you could get a copy of this thesis through interlibrary loan or by writing direct to the Air University Library, Attn: Mr. Frank Randell.

The persons listed below have submitted reports to this headquarters of research in progress in the area of attitudes. It is not known whether or not these studies are still in progress, have been completed, or have been dropped. A follow-up survey of research projects in process is planned, but has not yet been implemented.

a. Major A. Coffman, Detachment #55, University of California, in Los Angeles, Los Angeles 24, California.

b. Major Don S. Cosner, also of Detachment #55.

c. Lt. Col. K. P. Kelley, Detachment #85, University of California, Berkeley 4, California.

d. Captain E. G. Triner, also of Detachment #85. This is an Ed D thesis and may be obtained through inter-library loan. (Univ. of Southern California.)

e. Captain T. A. DuBoise, Detachment #205, Southern Illinois University, Carbondale, Illinois.

f. Major George L. Stanton, Detachment #250, Iowa State College, Ames, Iowa.

g. Lt. Myron Elliot, Detachment #285, Washburn University of Topeka, Topeka, Kansas. h. Captain Bernard Thompson, Detachment #470, Municipal University of Omaha, Omaha, Nebraska.

i. Lt. Francis R. Stokes, Detachment #630, Kent State University, Kent, Ohio.

j. Major G. R. Shrawder, Detachment #695, University of Portland, Portland, Oregon.

k. Colonel R. M. Gehrig, Detachment #750, St. Joseph's College, Philadelphia 31, Pennsylvania.

1. Major L. J. Westbrook, Detachment #805, A&M College of Texas, College Station, Texas.

m. Mr. J. R. Aponeck, (not an ROTC staff member), Detachment #140, George Washington University, Washington 6, D. C.

n. Lt. D. H. Gleason, Detachment #305, Louisiana Polytechnic Institute, Ruston, Louisiana.

I would like to suggest that as soon as you get a fairly firm statement of your dissertation proposal formulated that, if possible, you come to this headquarters to discuss it with us. Mr. McIntosh, the research coordinator for the headquarters could help you in terms of other similar studies that have been done, as well as suggestions concerning the design of the study. I am sure Dr. Aborn of the Officer Education Research Laboratory would be glad to sit down with us to discuss the proposal. Dr. Aborn is in charge of the ROTC attitude survey referred to above.

Cordially yours,

E. I. SAWIN Lycor.

E. I. SAWIN Consultant in Evaluation

EIS/rha

DEPARTMENT OF AIR SCIENCE AFROTC DETACHMENT NO. 380 Michigan State College East Lansing, Michigan

February 5, 1955

Name

Dear Sir,

Mr. E. I. Sawin, Headquarters Educational Consultant In Evaluation, has stated that you had submitted reports to headquarters concerning a research project you were conducting in the area of "ATTITUDES OF AFROTC CADETS". He also stated that he did not know the present status of your study but did plan to make a follow-up survey of research projects "in process" in the near future.

I am making a survey in this area for use as a basis for my doctoral dissertation and would sincrely appreciate any information I could obtain concerning your findings, opinionaires, bibliographies, conclusions, recommendations, etc.

I am enclosing a stamped self addressed envelope for reply and would be glad to send a personal check to cover any additional mailing costs in case you do have available information that cannot be mailed in the envelope.

Respectfully Yours,

Robert W. Innis

Address:

Capt. Robert W. Innis 647 Cherry Lane East Lansing, Michigan.

DEPARTMENT OF AIR SCIENCE AFROTC DETACHMENT NR. 380 Michigan State University of Agriculture and Applied Science East Lansing, Michigan

7 October 1955

SUBJECT: Results of Attitude Survey

TO: Captain Robert W. Innis Assistant Professor of Air Science 380th AFROTC Detachment Michigan State University East Lansing, Michigan

1. Now that your study concerning attitudes and interests of Michigan State University Cadets is nearing completion, I wish to express to you my congratulations and thank you for the valuable assistance you have given to our instructor improvement program. I feel that the study definitely reflects existing conditions in the Detachment and, as you already know, I have requested the assistance and cooperation of all of the Detachment Instructor Staff to help implement your recommendations.

2. I would like for you to reproduce a condensed version of your findings for immediate use by the Detachment Instructor Staff.

3. Recommend that you plan to place a completed copy of the dissertation in our unit library for future use and that you plan to send a copy to our Headquarters at Montgomery, Alabama for information and use as they see fit.

OLIVER E. FOWLER Lt. Col., USAF Director of Training

APPENDIX B

NUMBER OF QUESTIONS IN EACH CATEGORY

ON QUESTIONNAIRE

TABLE XV

Attitude	Number of Question								
Attitudes toward the Michigan State Uni- versity AFROTC de- tachment and the military in general.	1, 2, 3, 4, 6, 8, 9, 10, 11, 14, 15, 19, 20, 26, 35, 40, 41, 42, 53, 58, 59, 64, 67, 68, 69, 70, 73, 74, 75, 76, 77, 80, 83, 84, 90, 91, 98, 100, 101, 104, 106, 109, 113, 115, 116, 118, 119, 124, 125, 126, 128, 130, 132, 133, 135, 138, 139.								
Attitudes toward Air Force careers.	5, 7, 12, 13, 16, 17, 18, 21, 22, 24, 25, 28 29, 30, 31, 43, 44, 46, 47, 48, 49, 50, 51, 52, 55, 56, 57, 60, 61, 62, 63, 65, 66, 78, 81, 82, 85, 89, 92, 93, 95, 96, 97, 99, 102, 105, 107, 108, 110, 112, 120, 121, 127, 129 131, 134, 137, 140, 141, 142.								
Attitudes toward fly- ing training in the Air Force.	27, 36, 37, 38, 39, 45, 54, 79, 86, 87, 88, 94, 103, 111, 114, 117, 122, 123, 136.								
General attitudes.	22, 32, 33, 34, 143-168, 199-217, 1-56. (Questions 1-56 are additional questions with answers placed on answer sheet num- ber 2 for IBM convenience.)								
Physical factors.	169-198.								

,

NUMBER OF QUESTION IN EACH CATEGORY

APPENDIX C

ANNOUNCEMENT OF PROPOSED ATTITUDE SURVEY

ATTITUDE SURVEY

Captain R. W. Innis has announced his plans for administering a cadet attitude survey here in the 380th AFROTC Detachment at MSU. There are too many cadets for him to be able to talk to everyone concerning how they feel about many of the Air Force activities at this college, but by having a large part of the cadets participate in the attitude survey he hopes to gain the same information he would get if he talked to everyone in person.

The Air Force and the MSU AFROTC instructors are very much interested in knowing what you think about many different phases of Air Force activity. Experience has taught us that it is possible to make constructive changes based on the results of attitude surveys. If the administrative officials and the instructors can find out some of the things that cadets are thinking in regard to their classwork and the Air Force, they may be able to identify some weak points and work out a program of improvement to strengthen them. The whole purpose of the survey is directed toward that goal.

No attempt will be made to identify ideas expressed in the survey questionnaire with any individual. It's the ideas, attitudes, and opinions that are important in this survey program. It's what you think that is important to this survey and unless you are honest with yourself your responses will not contribute constructively to the results.

You will not need to sign your names.

Your cooperation will be sincerely appreciated.

Thank You,

APPENDIX D

"WARM-UP" INTRODUCTION FOR QUESTIONNAIRE SESSION

(For Use by Proctors)

,

"WARM-UP" INTRODUCTION FOR QUESTIONNAIRE SESSION (For use by Questionnaire Administrator in starting survey session)

The administrative officers and the AFROTC instructors of the MSU Detachment would like to know what you think about the 380th AFROTC Detachment, the Air Force, and a number of related items. It's impossible to interview everyone, but there is another way to find out what cadets are thinking and that's by making a cadet attitude survey. The detachment officers intend to use this survey in a search for ideas and suggestions for making the 380th detachment a better place for you to work and learn.

Your cooperation is needed if this survey is to be successful. It is going to depend largely upon you whether the survey analyst finds out from this survey how the cadets at MSU feel about the military. He wants to find out if he can so that ways and means of making improvements can be studied.

If you answer all the questions and take time to think of all the things you've been wanting to talk to somebody about, the results can really be put to work and a program of improvement can get underway.

The results of the survey will be available when you return to school next fall.

I will now read aloud the questionnaire instructions as reproduced on page 1 of your survey form. Please follow and ask questions if the instructions are not clearly understood.

APPENDIX E

TYPE OF ANSWER SHEETS USED

SC NAME___ ___DATE__ LAST FIRST MIDDLE 2_ CITY_____ SCHOOL_____ 3. _ 2. 1_ Printed by the International Business Machines IBM FORM I.T.S. 1100 A 151 1 2 3 4 ::::: **7** ::::::: ::::: 1:::: ::::: **2**² **7** ::.:: ::::: **3**² **4**¹²³ 6 7 1 **2 3 4 5 6 7 8 9** BE SURE YOUR MARKS ARE HEAVY AND BLACK. ERASE ($\frac{1}{1}$ $\frac{2}{1}$ $\frac{3}{1}$ 7 8 9 10 **4** ::.:: :.... ::::: ::::: ::::: **7**¹ **2 3 4 5 6 7 8** :::::

TYPE OF ANSWER SHEETS USED

		1	2	з	4	5		1	2	3	4	5		1	2	3	
N N		1					31						61				
ă I		1	2	3	4	5	•••	1	2	3	4	5	•.	1	2	3	
SEX		2					32						62				
	_	1	2	3	4	5		1	2	3	4	5		1	2	3	4
	ດ ເພື່ອ ເພື່ອ ເພື່ອ ເພື່ອ ເພື່ອ ເພື່ອ ເພື່ອ ເພື່ອ ເພື່ອ ເພື່ອ ເຫຼົອ เปิด เปิด เปิด เปิด เปิด เปิด เปิด เปิด	3				::	33					ii	63				
	لآ. ۱	1	2	3	4	5		1	2	з	4	5		1	2	3	4
AGE	<	4				::	34						64				
<	o	1	2	3	4	5		1	2	з	4	5		1	2	3	
		5		::			35				::		65	::		ij	
	N :::::	1	2	з	4	5		1	2	3	4	5		1	2	з	
	-	6					36						66				
	-	1	2	3	4	5		1	2	3	4	5		1	2	з	
l n n							27	::		H	ii		67		1		-

.

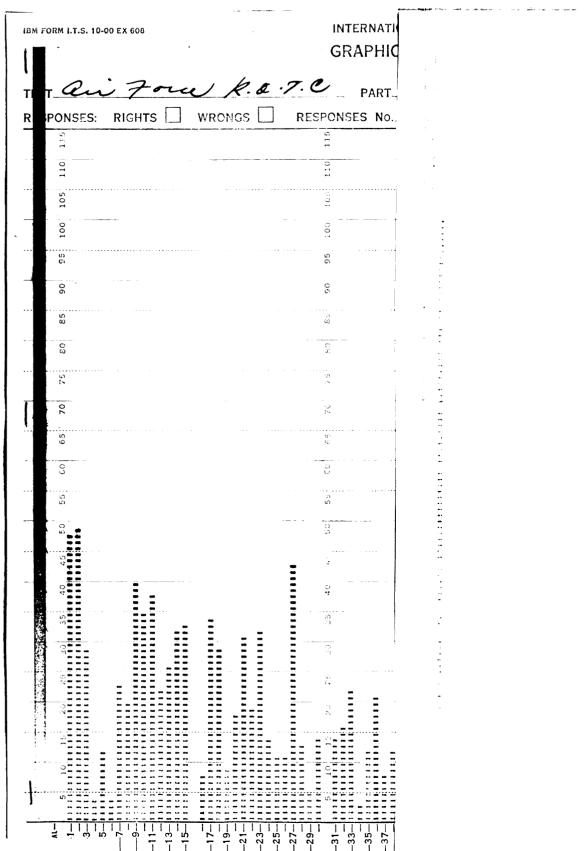
APPENDIX F

IBM FREQUENCY COUNT RECORD

,



IBM FREQUENCY COUNT RECORD



APPENDIX G

.

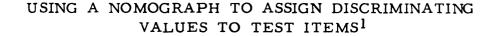
.

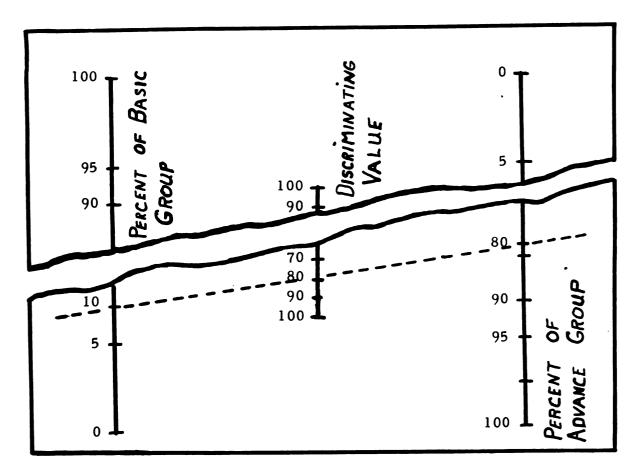
.

NOMOGRAPH

.

.

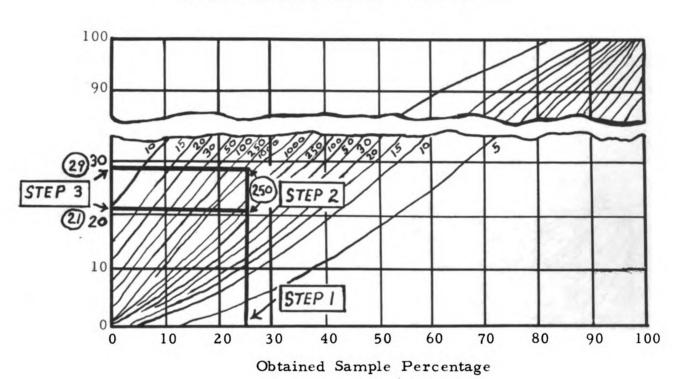




To determine a discriminating value, locate the percentage of basic cadets responding to the alternative on the left side and the percentage of advanced cadets responding to each alternative on the right side. Place a straight edge across the two points. The discriminating value will be found on the middle line where it is crossed by the straight edge. In the case illustrated 10 percent of the basic cadets and 80 percent of the advanced cadets responded to this particular alternative. By joining these two points with a straight edge it is possible to read off the discriminating value on the middle line. In this case it is -80.

¹ The complete nomograph and techniques for using it are found in Air Force Manual 40-1, Supplement 17, December, 1954. APPENDIX H

CONFIDENCE LIMITS



ILLUSTRATING HOW TO READ CONFIDENCE LIMITS CHART FOR SAMPLING RATIO 1 OUT OF 3¹

ILLUSTRATIVE PROBLEM: In a survey where the sampling ratio was one out of every three employees, the 250 employees surveyed responded that they considered their morale to be:

Very	good								57	percent
Good									25	percent
Poor	or ve	ry	po	01	•		•		16	percent
Not a	scerta	ine	d					•	2	percent

• Can we say confidently that 25 percent of the 750 employees at the installation would have said "good" had we surveyed the entire 750?

PROCEDURE: Step 1. On the above figure locate the obtained sample percentage, -25 in this problem.

1 Adapted from Air Force Manual 40-1, Supplement 17, December, 1954, p. 41.

1

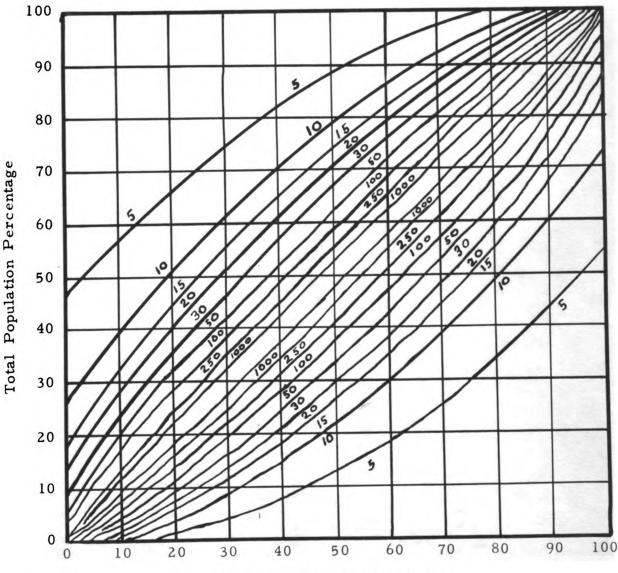
Step 2. Locate the two points where the obtained sample percentage line crosses the pair of curved lines which represent the number of persons in the sample, -250 in this instance.

Step 3. Directly to the left of the two points located in Step 2, read the population percentage limits, in this case approximately 21 percent and 29 percent.

ANSWER TO PROBLEM: We can expect that between 21 and 29 percent of the 750 employees of the installation would answer "good" to the question of morale.

FIGURE 5

ESTIMATING CONFIDENCE LIMITS FROM SAMPLE PERCENTAGES



Obtained Sample Percentage

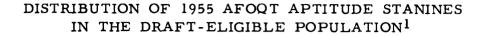
171

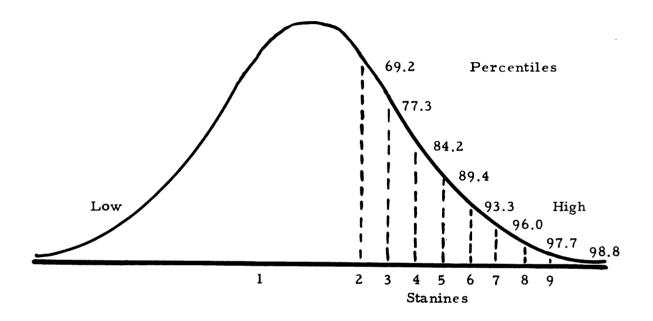
APPENDIX I

REFERENCE INFORMATION CONCERNING

STANINE EFFECTIVENESS



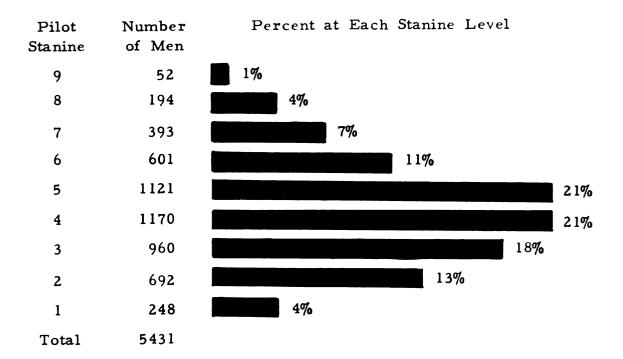




The AFOQT was standardized in a manner which makes the above figure equally applicable to all of the aptitude stanines.

¹Guidance Brochure, <u>op. cit.</u>

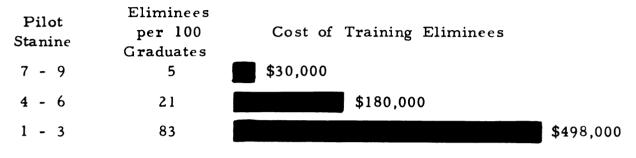
DISTRIBUTION OF PILOT APTITUDE IN A SAMPLE OF PHYSICALLY QUALIFIED AFROTC AIR SCIENCE II STUDENTS WILLING TO APPLY FOR PILOT TRAINING¹



Based on a sample of Air Science II students on the AFOQT (1953).

¹Ibid.

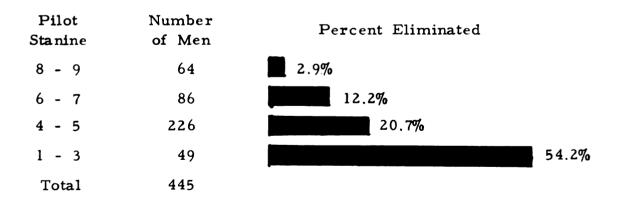
COST OF ELIMINEES FOR EVERY ONE HUNDRED AFROTC GRADUATES OF PRIMARY PILOT TRAINING BY ACB PILOT STANINE¹



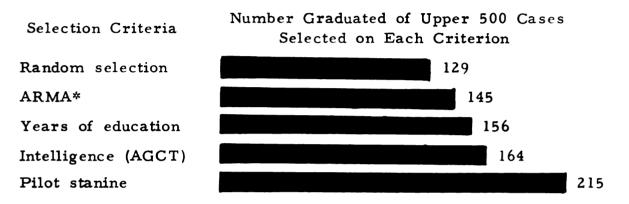
Estimated cost per eliminee equals \$6,000.

FIGURE 9

EFFECTIVENESS OF AFOQT PILOT STANINE IN PREDICTING ELIMINATION OF 1954 AFROTC GRADUATES IN PRIMARY PILOT TRAINING²



EFFECTIVENESS OF VARIOUS SELECTION CRITERIA IN PREDICTING GRADUATION OF AN UNSCREENED EXPERIMENTAL SAMPLE FROM ADVANCED PILOT TRAINING¹

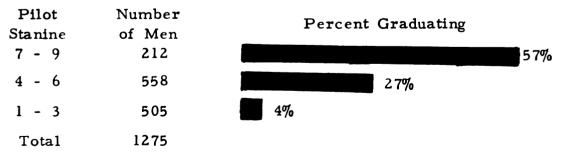


Using each criterion, the upper 500 cases were identified in a World War II sample which entered pilot training without screening on education or aptitude. Screening did occur for physical reasons.

*Aptitude Rating for Military Aeronautics.

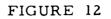
FIGURE 11

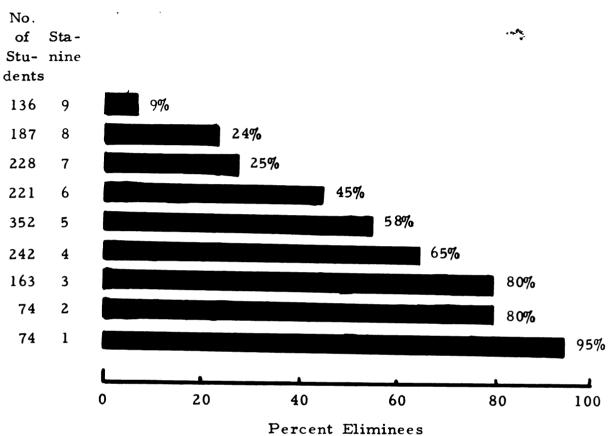
GRADUATION OF AN UNSELECTED EXPERIMENTAL GROUP FROM ADVANCED PILOT TRAINING, BY PILOT STANINE CATEGORY²



Based on a World War II sample which entered pilot training without screening on education or aptitude. Screening did occur for physical reasons.

176





-

ELIMINATION RATE BY PILOT STANINE¹

l Ibid.

APPENDIX J

DISCRIMINATING VALUES ASSIGNED TO ALTERNATIVES

BY USE OF A NOMOGRAPH

ł

TABLE XVI

DISCRIMINATING VALUES ASSIGNED TO ALTERNATIVES BY USE OF A NOMOGRAPH¹

No. of Question	Nomographic Discriminating Values of Alterna- tives (values range from a low of "0" to a high of "100"; the larger numbers indi- cate a greater discriminating value)							
	1	2	3	4	5			
1.	10	0	26	0	12			
2.	45	0	10	0	33			
3.	29	0	0	15	0			
4.	0	0	13	0	0			
5.	24	23	17	18	0			
6.	61	32	0	35	28			
7.	26	21	25	0	0			
8.	0	16	24	0	0			
9.	0	0	0	0	12			
10.	25	0	16	0	27			
11.	25	20	12	19	0			
12.	14	0	40	27	0			
13.	53	53	35	29	27			

¹ The nomograph and techniques for its use are described in Air Force Manual 40-1, Supplement 17, December, 1954.

No. of Question 14. 15. 16. 17. 18. 19. 20. 21. 20. 21. 22. 23. 24. 25. 26. 27.	Nomographic Discriminating Values of Alterna tives (values range from a low of ''0'' to a high of ''100''; the larger numbers indi- cate a greater discriminating value)						
	1	2	3	4	5		
14.	21	25	25	24	ç		
15.	0	0	0	19	19		
16.	0	0	8	8	(
17.	0	0	0	8	2(
18.	10	8	0	0	1		
19.	11	25	11	11	2		
20.	10	23	18	11	10		
21.	0	18	12	11	23		
22.	20	9	27	10	(
23.	0	0	0	20			
24.	9	0	15	0	13		
25.	8	0	16	17	1		
26.	10	15	0	17			
27.	18	0	15	0	l		
28.	14	10	0	10	1		
29.	25	10	15	8	(

-

TABLE XVI (Continued)

No. of Question	Nomographic Discriminating Values of Alterna- tives (values range from a low of ''0'' to a high of ''100''; the larger numbers indi- cate a greater discriminating value)						
	1	2	3	4	5		
30.	9	12	0	7	(
31.	31	14	20	8	8		
32.	0	0	15	37	63		
33.	0	14	35	12	3(
34.	0	0	25	0	49		
35.	15	0	20	32	(
36.	0	0	7	0	1		
37.	7	0	0	8			
38.	0	19	0	0	1		
39.	0	9	0	0	2		
40.	24	0	35	18	1		
41.	10	0	17	0	I		
42.	0	12	10	19	1		
43.	0	0	0	0	1		
44.	0	0	0	0	3		
45.	0	0	0	0	1		

TABLE XVI (Continued)

No. of Question	Nomographic Discriminating Values of Alterna tives (values range from a low of ''0'' to a high of ''100''; the larger numbers indi- cate a greater discriminating value)						
	1	2	3	4	Ē		
46.	22	15	0	48	1		
47.	0	12	10	11	1		
48.	0	0	0	16	1		
49.	21	15	38	0	2		
50.	9	18	16	9	3		
51.	22	8	0	0	2		
52.	0	7	0	11			
53.	38	16	17	39			
54.	34	12	18	18			
55.	0	0	12	16	3		
56.	8	8	10	0	1		
57.	0	7	7	0			
58.	0	9	19	0			
59.	15	0	57	63	1		
60.	16	0	12	0			
61.	0	0	0	0			

TABLE XVI (Continued)

No. of Question	tives hig	Nomographic Discriminating Values of Alterna- tives (values range from a low of "0" to a high of "100"; the larger numbers indi- cate a greater discriminating value)								
	1	2	3	4	5					
62.	8	0	15	0	16					
63.	0	0	0	0	11					
64.	20	10	10	10	9					
65.	0	21	43	12	34					
66.	8	15	10	15	9					
67.	25	0	14	10	9					
68.	0	18	7	12	14					
69.	0	16	7	11	15					
70.	20	0	0	11	0					
71.	0	0	0	24	26					
7 2.	9	0	9	10	0					
73.	12	7	21	0	0					
74.	29	26	15	0						
75.	25	9	0	8	3					
76.	25	19	0	19						
77.	0	0	21	12						

No. of Question	Nomographic Discriminating Values of Alterna- tives (values range from a low of ''0'' to a high of ''100''; the larger numbers indi- cate a greater discriminating value)						
	1	2	3	4	5		
78.	14	0	0	0	l		
79.	0	0	0	11	17		
80.	0	0	11	0	I		
81.	0	8	8	12	1		
82.	10	18	11	0	1		
83.	9	0	0	0			
84.	15	0	10	0			
85.	30	7	7	15			
86.	0	0	12	7			
87.	22	7	12	-			
88.	0	0	-	-			
89.	0	13	12	19			
90.	7	0	0	0			
91.	38	9	30	14			
92.	0	0	8	-			
93.	0	10	0	30	3		

TABLE XVI (Continued)

No. of Question	Nomographic Discriminating Values of Alterna- tives (values range from a low of ''0'' to a high of ''100''; the larger numbers indi- cate a greater discriminating value)							
	1	2	3	4	5			
94.	42	42	9	-				
95.	12	40	34	-				
96.	0	0	11	11				
97.	0	0	0	15				
98.	23	26	20	-				
99.	8	9	28	43				
100.	52	9	55	70				
101.	0	18	9	11				
102.	8	0	0	10				
103.	35	34	0	-				
104.	13	16	11	10				
105.	10	21	20	7				
106.	12	12	10	0				
107.	0	0	0	11				
108.	0	35	33	9				
109.	18	18	0	11				

TABLE XVI (Continued)

No. of Question	Nomographic Discriminating Values of Alterna- tives (values range from a low of ''0'' to a high of ''100''; the larger numbers indi- cate a greater discriminating value)						
	1	2	3	4	5		
110.	10	0	9	-	-		
111.	0	0	0	-			
112.	0	7	0	-			
113.	0	10	0	17			
114.	0	14	9	9			
115.	13	17	12	17			
116.	25	7	27	27			
117.	11	0	0	0			
118.	12	0	0	0			
119.	0	0	0	0			
120.	9	0	7	0			
121.	31	15	-	-			
122.	10	0		-			
123.	17	8	-	-			
124.	27	23	-	-			
125.	9	0	0	0			

TABLE XVI (Continued)

No. of Question	Nomographic Discriminating Values of Alterna- tives (values range from a low of ''0'' to a high of ''100''; the larger numbers indi- cate a greater discriminating value)							
	1	2	3	4	5			
126.	17	0	10	10	-			
127.	7	0	9	-	-			
128.	0	10	0	-	-			
129.	27	13	28	12	-			
130.	9	0	9	11	-			
131.	30	0	28	-	-			
132.	10	0	0	0	-			
133.	8	11	17	9	-			
134.	11	0	8	9				
135.	0	19	0	8				
136.	0	0	-	-				
137.	7	9	32	23	1'			
138.	60	38	42	41	6!			
139.	13	20	11	-				
140.	39	17	12	26				
141.	0	9	12	17				

TABLE XVI (Continued)

No. of Question	Nomographic Discriminating Values of Alterna- tives (values range from a low of ''0'' to a high of ''100''; the larger numbers indi- cate a greater discriminating value)							
	1	2	3	4	5			
142.	7	0	0	15	-			
143.	23	18	23	36	2			
144.	0	0	9	8				
145.	0	0	7	0	(
146.	20	0	0	0				
147.	0	0	12	0	(
148.	0	10	0	0				
149.	0	0	7	0				
150.	0	25	39	30	1			
151.	12	7	7	0				
152.	10	13	12	13	2			
153.	10	0	0	0	1			
154.	0	10	11	9	2			
155.	9	0	0	0				
156.	13	0	7	0	1			
157.	10	0	15	0	2			

TABLE XVI (Continued)

No: of Question	Nomographic Discriminating Values of Alterna- tives (values range from a low of ''0'' to a high of ''100''; the larger numbers indi- cate a greater discriminating value)						
	1	2	3	4	5		
158.	7	13	0	0	(
159.	20	8	10	11	(
160.	7	9	9	8	(
161.	7	0	8	0	(
162.	7	0	0	0			
163.	0	7	0	12	29		
164.	0	13	0	12	l		
165.	0	8	0	0	1		
166.	0	12	0	10	I		
167.	0	0	0	0			
168.	0	10	0	8	l		
169.	0	0	0	0			
170.	0	0	0	0			
171.	0	0	7	0			
172.	11	10	0	10	I		
173.	0	0	7	0			

TABLE XVI (Continued)

•

No. of Question	Nomographic Discriminating Values of Alterna- tives (values range from a low of ''0'' to a high of ''100''; the larger numbers indi- cate a greater discriminating value)						
	1	2	3	4	5		
174.	0	12	0	8			
175.	0	9	0	0			
176.	0	7	0	0	l		
177.	0	11	0	8	2		
178.	0	0	27	15	I		
179.	0	11	0	8	1		
180.	0	0	13	0			
181.	0	8	0	0	1		
182.	0	0	10	0	2		
183.	0	13	0	0			
184.	0	10	0	14	1		
185.	0	12	0	12	1		
186.	0	0	21	10	1		
187.	0	0	10	0			
188.	0	0	9	0			
189.	0	0	0	12			

No. of Que sti on	Nomographic Discriminating Values of Alterna- tives (values range from a low of "0" to a high of "100"; the larger numbers indi- cate a greater discriminating value)						
	1	2	3	4	5		
190.	0	9	8	0	(
191.	0	0	0	15	14		
192.	0	0	7	0	(
193.	0	0	0	0	(
194.	0	0	0	0			
195.	0	0	0	0			
196.	0	0	0	0			
197.	0	. 0	0	0	(
198.	0	0	7	12			
199.	0	0	0	9	(
200.	0	9	8	8	1		
201.	0	10	10	11	17		
202.	0	0	0	0	1.		
203.	0	0	11	43			
204.	0	0	0	0			

•

TABLE XVI (Continued)

No. of Question	tives hig	(values ra h of ''100''	riminating nge from a ; the larger :er discrimi	numbers i	to a ndi-
	1	2	3	4	Ē
205.	0	0	0	0	
206.	0	0	13	9	
207.	0	0	19	0	1
208.	0	0	0	0	
209.	0	0	0	0	
210.	0	0	27	9	1
211.	0	10	11	0	1
212.	25	0	12	60	4
213.	0	0	0	16	1
214.	0	7	0	10	
215.	0	12	21	11	6
216.	0	14	7	11	5
217.	9	10	0	0	

No. of Question	Nomographic Discriminating Values of Alternatives (values range from a low of ''0'' to a high of ''100''; the larger numbers indicate a greater discriminating value)							
	1	2	3	4	5	6		
1.	13	0	12	0	0	C		
2.	0	0	0	0	0	C		
3.	11	11	0	0	0	C		
4.	0	0	7	0	0	C		
5.	0	0	0	0	0	C		
6.	0	0	0	0	0	C		
7.	0	0	0	12	0	7		
8.	0	0	0	0	0	C		
9.	0	0	8	0	18	20		
10.	10	0	0	0	11	22		
11.	0	7	0	22	0	C		
12.	0	0	7	0	0	(
13.	0	17	0	7	22	15		
14.	23	15	0	0	0	(
15.	7	10	0	0	0	(
16.	8	9	0	0	0	11		

TABLE XVI (Continued)

No. of Question	Nomographic Discriminating Values of Alternatives (values range from a low of "0" to a high of "100"; the larger numbers indicate a greater discriminating value)							
	1	2	3	4	5	6		
17.	0	0	0	0	0	(
18.	0	0	0	0	0	(
19.	0	0	0	0	0	(
20.	10	0	13	0	10	1		
21.	0	0	0	0	0	(
22.	0	0	0	7	13	(
23.	0	13	0	7	0	2		
24.	0	0	0	0	7	(
25.	0	0	15	0	0	2		
26.	0	11	0	0	0	2		
27.	0	0	0	8	0			
28.	0	11	7	0	0			
29.	0	0	0	0	0			
30.	0	0	0	0	0	1		
31.	0	9	0	0	0	1		
32.	12	7	0	0	0	(

,

TABLE XVI (Continued)

No. of Question	Nomographic Discriminating Values of Alternatives (values range from a low of ''0'' to a high of ''100''; the larger numbers indicate a greater discriminating value)							
	1	2	3	4	5	(
33.	11	11	11	0	7	1		
34.	0	0	0	0	0			
35.	0	12	13	9	7	1		
36.	0	0	0	7	7			
37.	0	0	0	0	0			
38.	0	0	11	11	0	1		
39.	0	10	0	0	0	1		
40.	0	0	0	0	0			
41.	0	0	0	12	16	1		
42.	0	0	0	7	0	1		
43.	13	0	0	0	0			
44.	17	0	0	8	0	1		
45.	20	18	0	8	0	1		
46.	0	10	0	0	17	1		
47.	0	0	0	0	0	1		
48.	15	0	0	0	0			

TABLE XVI (Continued)

No. of Question		values r of ''10	ange f 01''; th	irom a le larg	ing Value low of ' er numbe iminating	"O" to ers ind	a higl icate	
	1	2		3	4		5	6
49.	9	13		13	0		0	0
50.	0	0		0	0		0	8
51.	7	10		0	7		0	0
52.	19	0		8	0		0	27
53.	0	0		10	11		0	23
54.	11	0		0	0	1	6	0
55.	0	0		18	0		0	0
56.	13	0		0	0		0	18
57.	40	40		-	-		-	-
No. of	Nom	ographic	Discr	iminat	ing Value	es of A	lterna	tives
Question	1	2	3	4	5	6	7	8
58.	0	0	0	0	11	0	0	-
59.	15	0	9	7	7	0	0	0
60.	12	0	0	7	20	0	-	-
61.	0	0	0	0	0	0	0	-

TABLE XVI (Continued)

APPENDIX K

STATISTICAL ANALYSIS OF RESPONSES

.

TABLE XVII

PERCENTAGE OF BASIC AND ADVANCED CADETS RESPONDING TO EACH ALTERNATIVE (confidence limits, page 170)

Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).

*1. How do you usually feel about going to your AFROTC classes?

9	7	1. I don't know.
1	0	2. I often skip class.
20	5	3. I usually don't like the prospect of attending.
50	49	4. I usually don't care much one way or the other.
20	29	5. I usually look forward to attending.

*2. How would you compare your college AFROTC courses with your regular college courses?

1	22	1. AFROTC courses are far superior.
8	10	2. AFROTC courses are a little better.
14	25	3. About the same caliber.
47	41	4. College courses are a little better.
30	2	5. College courses are far superior.

*3. While at college, how do you usually feel about wearing the uniform?

16	41	l. I am glad to have opportunities to wear it.
20	19	2. It doesn't make much difference to me whether
		I wear the uniform or not.
20	19	3. I would rather not wear the uniform.
40	19	4. I don't wear it unless I have to.
4	2	5. I don't know.

- Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
 - 4. In your opinion, how fair are your college AFROTC officers in giving out demerits?

21	23	l. They are always justified.
63	66	2. They are almost always justified.
5	1	3. They are usually not justified.
0	0	4. They are practically never justified.
11	10	5. I don't know.

5. Which of the armed forces would you enlist in if you knew you were to be drafted in the near future?

54	76	l. Air Force.
26	9	2. Navy.
3	0	3. Army.
- 5	1	4. Marines.
12	14	5. None. Would wait for the draft.

*6. What is your attitude toward having to take military training at Michigan State College?

17	74	1.	Very favorable.
34	9	2.	Somewhat favorable.
14	14	3.	Indifferent.
24	2	4.	Somewhat unfavorable.
11	1	5.	Very unfavorable.

- Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
 - *7. In your opinion, how attractive are Air Force careers compared with careers in the Army?
 - 66 87 1. Air Force careers are much more attractive than in the Army.
 - 27 122. Air Force careers are somewhat more attractive than in the Army.
 - 6 1 3. Air Force careers are about as attractive as those in the Army.
 - 1 0 4. Air Force careers are somewhat less attractive than in the Army.
 - 0 0 5. Air Force careers are considerably less attractive than in the Army.
 - 8. In your opinion, how well does AFROTC train cadets to become officers in the Air Force?

9	8	l. Very well.
50	68	2. Fairly well.
24	7	3. Not very well.
3	1	4. Not at all.
14	16	5. I don't know.

- *9. What effect have Air Force officers in the 380th AFROTC Detachment had on your judgment relative to an Air Force career?
 - 3 0 1. They have made an Air Force career much less attractive to me. 2. They have made an Air Force career somewhat 5 1 less attractive to me. 28 26 3. They have had little influence in my attitude toward making the Air Force a career. 4. They have made an Air Force career somewhat 44 36 more attractive to me. 5. They have made an Air Force career much 18 29 more attractive to me.

- Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
 - *10. Since entering AFROTC has your attitude toward an Air Force career become:

16	36	l. Much more favorable?
36	40	2. Somewhat more favorable?
36	21	3. Unchanged?
5	- 3	4. Somewhat less favorable?
7	0	5. Much less favorable?

*11. What effect, if any, does drill have on you?

5	20	l. It raises my spirit a great deal.
24	42	2. It raises my spirit a little.
38	22	3. It has no effect on my spirit.
24	10	4. It lowers my spirit a little.
9	6	5. It lowers my spirit a great deal.

*12. To what extent, if any, do you feel the leadership training the AFROTC provides will be of help in your future career?

20	32	l. To a great extent.
40	44	2. To a considerable extent.
24	22	3. To some extent.
16	2	4. To little or no extent.
0	0	5. I don't know.

*13. Would you recommend joining the AFROTC to a younger brother or friend?

14	64	l. Yes, definitely.
27	24	2. Yes, probably.
41	12	3. Probably not.
11	0	4. Definitely not.
7	0	5. I don't know.

Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).

*14. How do you feel about the amount of drill you have in AFROTC?
 5 18 1. There should be much more drill. 10 29 2. There should be a little more drill. 49 24 3. We have about the right amount now. 18 4 4. There should be a little less drill. 18 25 5. There should be much less drill.
15. What is your attitude toward cadets who often disregard the usual social, ethical, and moral conventions that are generally acceptable to the military establishment?
32 35 1. Dislike very much.
38 38 2. Dislike somewhat.
24 25 3. Neither like nor dislike.
6 2 4. Like somewhat.
0 0 5. Like very much.
16. How would you feel about military service if it were not com- pulsory?
20 22 l. I would not enter it.
53 51 2. I might enter if I were needed.
9 14 3. I would volunteer in any event.
6 2 4. I would wait until drafted.
12 11 5. I don't know.
*17. Concerning the promotion policy of the Air Forceit doesn't matter if you work toward a promotion or not.
3 4 1. Agree strongly.
10 9 2. Agree somewhat.
23 20 3. Disagree somewhat.

- 36 44 4. Disagree strongly.
- 38 23 5. Don't know.

- Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
 - 18. How do you feel about assuming a command position?

28	37	l. Confident.
39	31	2. Not bothered.
26	31	3. Somewhat worried.
1	1	4. Very worried.
6	0	5. I don't know.

19. AFROTC units don't give true pictures of military life.

23	15	1. Strong	gly agree.
37	52	2. Agree	•
14	22	3. Disage	ree.
2	2	4. Strong	ly disagree.
24	9	5. Don't	know.

*20. How do you feel about the discipline now exercised in your AFROTC unit?

12	. 6	1. It irritates me.
21	7	2. It bothers me somewhat.
20) 37	3. I don't mind it.
20) 31	4. I think it's fine.
27	, 19	5. I don't know.
51, 56	0	the Air Force is:
2		1. A personal sacrifice.
12	. 3	2. A duty with major inconveniences.
44	52	3. A duty with some advantages.
32	42	4. An opportunity with many advantages.
7	' 0	5. I don't know.

- Key: The first column is the percentage of basic cadets responding to each alternative. The second column is the percentage of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
- *22. If you were in a command position and had to give an order, would you: 34 17 1. Feel it should be carried out without question? 26 19 2. Allow questions by subordinates? 11 31 3. Explain the reasons for the questions beforehand? 21 31 4. Explain the reasons for the order and invite suggestions? 8 2 5. I don't know. 23. If you were a president of an organization, and a decision had to be made, would you rather: 7 12 1. Make the decision yourself, on the basis of your knowledge of the situation? 78 83 2. Talk to other members of the organization and make the decision after consideration of their opinions? 4 3. Appoint a committee to make the decision? 3 2 4. Hold a vote to make the decision? 10 0 5. I don't know. 1 *24. Would you rather be in charge of an organization, or be a technical advisor to the person in charge (assuming rank would be equal)? 1. I would much rather be in charge of the or-34 27 ganization. 29 32 2. I would rather be in charge of an organization.
 - 22 11 3. I would rather be a technical advisor to the person in charge.
 - 4 5 4. I would much rather be a technical advisor to the person in charge.
 - 11 25 5. I don't know.

- Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
- *25. Would you rather supervise men or work with technical problems and equipment?

8	13	l. I would much rather deal with equipment and
		technical problems.
21	19	2. I would rather deal with equipment and tech-
		nical problems.
38	23	3. I would rather supervise men.
15	30	4. I would much rather supervise men.
18	15	5. I don't know.

- 26. In your opinion, how does your information on the significance of military aviation in modern warfare compare with that of the average non-AFROTC student?
 - 31 45 1. I know a great deal more than he does.
 - 50 36 2. I know somewhat more than he does.
 - 16 19 3. I know about as much as he does.
 - 3 0 4. I know somewhat less than he does.
 - 0 0 5. I know a great deal less than he does.
- *27. How do you feel about flying now compared with when you first joined AFROTC?
 - 41 52 1. My interest in wanting to fly has increased greatly.
 - 28 29 2. My interest in wanting to fly has increased slightly.
 - 29 16 3. My interest in wanting to fly hasn't changed.
 - 2 3 4. My interest in wanting to fly has decreased slightly.
 - 0 0 5. My interest in wanting to fly has decreased greatly.

- Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
 - 28. An attractive feature of an Air Force career is that it provides more opportunity for travel than most civilian jobs.
 - 32 45 1. Yes, definitely.
 50 40 2. Yes.
 9 8 3. No.
 2 6 4. No, definitely not.
 7 1 5. Don't know.
 - *29. In your opinion should all servicemen be stationed as near their homes as possible?

18	23	l. No, definitely not.
34	51	2. No.
20	9	3. Yes.
9	5	4. Yes, definitely.
19	12	5. Don't know.

30. Does the thought of constantly moving about the world disturb you?

5	2	l. Yes, very much.
12	20	2. Yes, somewhat.
33	36	3. No, not very much
50	42	4. No, not at all.
0	0	5. Don't know.

31. Would you like to be assigned to a permanent station throughout your tour of duty in the armed forces?

43	51	l. No, not at all.
29	17	2. No, not very much.
12	27	3. Yes, somewhat.
5	2	4. Yes, very much.
1	3	5. Don't know.

,

- Key: The first column is the percentage of basic cadets responding to each alternative. The second column is the percentage of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
- *32. The current world tensions can be solved by:

5	4	l. All-out war only.
11	10	2. Standing armies only.
4	12	3. Alliances only.
38	73	4. Negotiations through the U.N.
42	1	5. Don't know.

*33. Suppose the United States were engaged in a police action, like, say, Indo-China, but you personally felt that we should stay out of it. How would you feel about being ordered to combat duty there?

1	0	1. Refuse to go.
2	1	2. Figure out some way of getting out of it.
54	21	3. Carry out orders, but against my wishes.
34	46	4. Carry out orders willingly.
9	32	5. I don't know.

*34. Suppose World War III were to break out, how do you think you could serve your country best?

2	2	l. As a civilian not in a defense industry.
5	4	2. As a civilian in a defense industry.
14	35	3. As a member of the armed forces on noncombat duty.
60	59	4. As a member of the armed forces on combat duty.
19	0	5. I don't know.
*35. Ho	w do th	e girls you know feel about you being in AFROTC?
19	8	1. I don't know.
7	8	2. They dislike my being in AFROTC.
42	24	3. They don't react to it one way or another.
24	53	4. They are somewhat impressed.

8 7 5. They are very much impressed.

- Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
 - *36. What would your girl friend think (or how do you feel she would think) about your having a flying career in the Air Force?

10	12	l. She would be strongly against it.
26	29	2. She would be more against it than in favor of
		it.
40	33	3. It would be about a fifty-fifty-proposition.
16	13	4. She would be more in favor of it than against it.
8	13	5. She would be strongly in favor of it.

*37. What would your mother think (or how do you feel she would think) about your having a flying career in the Air Force?

12	17	1. She would be strongly against it.
33	38	2. She would be more against it than in favor of
		it.
31	30	3. It would be about a fifty-fifty proposition.
17	11	4. She would be more in favor of it than against
		it.
7	4	5. She would be strongly in favor of it.

38. What would your father think (or how do you feel he would think) about your having a flying career in the Air Force?

7	6	l. He would be strongly against it.
14	29	2. He would be more against it than in favor of
		it.
38	33	3. It would be about a fifty-fifty proposition.
27	26	4. He would be more in favor of it than against
		it.
14	6	5. He would be strongly in favor of it.

- Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
- *39. What would your friends think (or what do you believe they would think) about your having a flying career in the Air Force?

18.	1. Most would be strongly in favor of it.
21	2. Most would be more in favor of it than against
	it.
32	3. It would be about a fifty-fifty-proposition.
15	4. More would be against it than in favor of it.
14	5. More would be strongly against it.
	21 32 15

*40. Are you proud of being in the AFROTC?

23	45	l. Yes, definitely.
53	53	2. Yes.
17	1	3. No.
5	0	4. No, definitely not.
2	0	5. Don't know.

*41. Does it anger you when derogatory remarks are made about the Air Force?

20	29	l. Yes, very much.
43	44	2. Yes, somewhat.
28	14	3. No, not very much.
8	10	4. No, not at all.
1	3	5. Don't know.

*42. Do you feel that you represent the Air Force only during duty hours?

10
 10
 1. Yes, definitely.
 36
 25
 2. Yes.
 43
 33
 3. No.
 9
 26
 4. No, not at all.
 2
 6
 5. I don't know.

- Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
 - 43. Do you think the vastness of the Air Force would make you feel "lost" or insignificant?

2	1	l. Yes, definitely.
15	17	2. Yes, somewhat.
51	50	3. No, not very much.
27	31	4. No, definitely not.
5	1	5. Don't know.

*44. Do you feel that esprit de corps (morale) in the Air Force officer ranks is very high?

23	22	l. Yes, very high.
53	66	2. Yes, fairly high.
7	10	3. No, not very high.
3	2	4. No, very low.
14	0	5. Don't know.

45. If you plan to enter flight training, which job do you prefer?

51	52	1. Pilot (fighter).
12	11	2. Pilot (bomber).
7	11	3. Pilot (transport).
9	8	4. Observer (navigator, bombardier, etc.).
21	18	5. Do not plan to enter flight training.

*46. Do you feel that esprit de corps in the Air Force is higher than in the other services?

51	31	l. Don't know.
12	4	2. No, much lower.
7	7	3. No, somewhat lower.
8	49	4. Yes, somewhat higher.
22	9	5. Yes, much higher.

- Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
 - *47. Do you feel that adjustment to Air Force life is more difficult for a newcomer than adjustment to other new situations?
 - 8 11 1. Yes, definitely.
 23 14 2. Yes.
 54 44 3. No.
 5 11 4. No, definitely.
 10 20 5. Don't know.
 - *48. A man who make a career in the Air Force is doing more important work than a man who makes a career in a civilian occupation.
 - 2 3 1. Strongly agree.
 - 11 9 2. Agree.
 - 52 49 3. Disagree.
 - 18 10 4. Strongly disagree.
 - 17 29 5. Don't know.

*49. What is your decision about an Air Force career?

16	4	l. I have already made up my mind to have a career in the Air Force.
26	13	2. I am delaying my decision for other reasons.
18		3. I am delaying my decision until I get more in-
		formation about Air Force opportunities.
34	30	4. I have made up my mind not to have a career
		in the Air Force.
6	0	5. I don't know.
*50. In	your opi	nion, is the Air Force the safest of all services?
3	7	l. Yes, definitely.
18	36	2. I think so.
47	31	3. They're about equal.
21	. 26	4. No.
11	0	5. Don't know.

- Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
- *51. Does being an Air Force officer carry as much prestige as being an officer in one of the other services?

35	53	l. It carries more.
52	43	2. About the same.
5	3	3. Somewhat less.
1	1	4. It carries much less.
7	0	5. Don't know.

- *52. The Air Force should appeal to every college man because of its requirements of high intelligence and education.
 - 11 10 1. Yes, very much so.
 46 53 2. Yes, somewhat.
 30 33 3. No.
 13 4 4. Not at all.
 0 5. Don't know.
- *53. If you were to choose a branch of ROTC over again, which one would you choose?
 - 19 2 1. I wouldn't join any.
 - 4 0 2. Army.
 - 25 12 3. Navy.
 - 52 86 4. Air Force.
 - 0 0 5. I don't know.
- *54. The trend toward the "Air Age" makes the Air Force the most important service.

38	63	1. Agree strongly.
47	35	2. Agree.
12	2	3. Disagree.
3	0	4. Disagree strongly.
0	0	5. Don't know.

- Key: The first column is the percentage of basic cadets responding to each alternative. The second column is the percentage of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
 - *55. The Air Force still has the old stigma attached to it that it is filled with officers who are too young.

2	4	l. This is quite true.
16	17	2. This is true in many cases.
38	49	3. This is false in most cases.
13	25	4. This is utterly false.
31	5	5. I don't know.

- *56. If a person were to spend 4 or 5 years in the Air Force because of the international situation, he might just as well stay in and make a career of it.
 - 3 6 1. Agree strongly.
 - 25 39 2. Agree somewhat.
 - 38 31 3. Disagree somewhat.
 - 24 20 4. Disagree strongly.
 - 10 4 5. Don't know.
 - 57. After having served in the military services, do you think reserve commitments should be:

5	6	l. Kept at a maximum?
40	46	2. Kept at moderate length?
44	36	3. Kept to a minimum?
6	5	4. Eliminated?
5	7	5. Don't know.

*58. In your opinion should the United States have begun the police action in Korea?

3	3	1. No, certainly not.
4	8	2. No, probably not.
36	26	3. Yes, probably.
47	48	4. Yes, definitely.
10	15	5. I don't know.

Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).

*59. In dealing with subordinates an officer must:

6	1	l. Keep his word if necessary.
1	0	2. Keep his word if subordinates keep theirs.
43	2	3. Keep his word unless the situation demands
		otherwise.
43	96	4. Always keep his word.
7	1	5. Don't know.

- *60. In your opinion, how attractive are Air Force careers compared with careers in civilian life?
 - 22 10 1. Air Force careers are considerably less attractive than in civilian life.
 - 30 34 2. Air Force careers are somewhat less attractive than civilian life.
 - 29 36 3. Air Force careers are about as attractive as those in civilian life.
 - 14 18 4. Air Force careers are somewhat more attractive than in civilian life.
 - 5 2 5. Air Force careers are much more attractive than in civilian life.
 - 61. In the Air Force one can make a career in the same areas of interest as in civilian life.
 - 11 10 1. Agree strongly.
 51 52 2. Agree somewhat.
 23 28 3. Disagree somewhat.
 9 6 4. Disagree strongly.
 6 4 5. Don't know.

- Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
 - *62. In the Air Force an officer can learn a vocation that can be carried over into civilian life after retirement from the Air force.

2	6	l. Disagree strongly.
8	9	2. Disagree somewhat.
55	40	3. Agree somewhat.
30	30	4. Agree strongly.
5	15	5. Don't know.

63. Do you think that people look upon Air Force officers as persons of culture and refinement?

3	2	1. They are looked upon as rather unrefined.
32	33	2. They are looked upon as average in culture and
		refinement.
39	39	3. They are looked upon as above average in cul-

- ture and refinement. 22 25 4. They are considered well-cultured and refined
- 22 25 4. They are considered well-cultured and refined persons.
- 4 1 5. They are sometimes considered to be too cultured and refined.
- *64. Cadet officers have their rank and responsibilities because they are supposed to be learning by doing. How effective do you consider this activity in the local MSU cadet wing?

3	13	1. Superior.
24	33	2. Excellent.
41	32	3. Good.
23	15	4. Fair.
9	7	5. Unsatisfactory.

- Key: The first column is the percentage of basic cadets responding to each alternative. The second column is the percentage of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
 - *65. Which of the following reserve organizations are you a member of?
 - 1 0 1. Army. 5 0 2. Navy. 3 33 3. Marines. 14 22 4. Air Force. 77 44 5. None of the above.
 - *66. Do you think the Air Force tends to have personnel of higher intelligence and education than the other services?

8	4	l. Not at all.
27	16	2. No.
41	50	3. Yes, somewhat.
13	24	4. Yes, very much so.
11	6	5. Don't know.

*67. How fair are your student officers in giving out demerits?

1	1	1. They are practically never justified.
6	4	2. They are usually not justified.
10	5	3. They are justified about half of the time; half
		they are not.
61	70	4. They ar e usually justified.
22	20	5. They are almost always justified.

*68. How up to date are most of the materials offered in AFROTC classes?

23	38	l. Very up to date.
58	54	2. Quite up to date.
16	7	3. Somewhat outdated.
3	1	4. Quite outdated.
0	0	5. Very outdated.

- Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
 - *69. Do you feel that too many movies are shown in AFROTC classes? 1 1 1. Yes, far too many movies are shown. 3 0 2. Yes, a few too many movies are shown. 21 26 3. The number shown is about right for best learning. 41 4. No, a few more movies should be shown. 52 34 21 5. No, many more movies should be shown.
 - *70. A ''good'' officer is capable of telling ''white lies'' when necessity demands.

6	0	l. Agree entirely.
20	22	2. Agree somewhat.
28	23	3. Disagree somewhat.
37	47	4. Disagree entirely.
9	8	5. Don't know.

*71. Do you feel that an officer who intentionally writes a bad check should be:

29	30	1. Court-martialed?
45	39	2. Severely reprimanded?
3	1	3. Expelled from the officers' club?
11	29	4. Informally warned by the commanding officer?
12	1	5. Don't know.

72. AFROTC instructors are supposed to set a good example as far as dress, appearance, and order are concerned. To what extent do they actually do this?

12	18	1. Officers set an outstanding example.
63	67	2. Officers set a good example.
21	14	3. Officers set an average example.
4	1	4. Officers set a poor example.
0	0	5. The example they set is unsatisfactory.

- Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
- *73. Do you think that the public appearance of the majority of the AFROTC cadets creates a distinctly favorable impression on the rest of the students on the campus?

9	17	l. Yes, definitely.
28	34	2. Yes.
37	18	3. To some extent.
21	23	4. Doubtful.
5	8	5. Definitely, no.

*74. Are you (check one):

87	62	1. Single?
4	20	2. Married?
7	17	3. Engaged?
1	0	4. Divorced?
1	1	5. Other?

*75. How do you rate the average AFROTC textbook?

1	12	1.	Superior.
18	25	2.	Excellent.
46	40	3.	Good.
30	23	4.	Fair.
5	0	5.	Unsatisfactory.

*76. What is your opinion of the average Air Force officer as a college AFROTC instructor?

4	6	1. Superior.
33	16	2. Excellent
46	49	3. Good.
14	29	4. Fair.
3	0	5. Unsatisfactory.

- Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
 - *77. How much work do you do per credit hour in your AFROTC classes as compared to your average for other college classes?

24	12	l. Much more.
14	18	2. A little more.
20	38	3. About the same.
20	30	4. A little less.
22	2	5. Much less.

78. Are you a veteran?

2	0	1.	Yes	(Army).
0	0	2.	Yes	(Navy).
1	0.5	3.	Yes	(Air Force).
1	0.5	4.	Yes	(Marines).
96	99	5.	No.	

79. Would you like to go on the first rocket trip to the moon?

24	22	l. No, not at all.
17	19	2. No, not very much.
26	29	3. Yes, somewhat.
26	17	4. Yes, very much.
7	13	5. Don't know.

80. Do you think that your associates consider you to be a wellinformed person?

15	15	1. I am considered to be well informed.
38	38	2. I am thought to be better informed than average.
45	34	3. People look upon me as average in this respect.
2	1	 People look upon me as being below average in this respect.
0	0	5. I am usually considered to be very poorly in- formed.

- Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
 - 81. How would you feel about a career in which there is strong competition for advancement?

6	4	1. I don't know.
2	1	2. Competition bothers me a great deal.
11	6	3. Competition bothers me somewhat.
42	53	4. I don't mind competition.
39	36	5. I enjoy competition.

*82. Air Force pay is:

22	14	1. Very adequate.
52	60	2. Adequate.
9	16	3. Barely adequate.
6	5	4. Inadequate.
11	5	5. I don't know.

83. Our freedoms:

93	87	1. Are worth fighting for.
1	3	2. Are many for maintenance of laws.
1	2	3. Are speech, press, etc.
5	8	4. Are sometimes overrated.
0	0	5. Are a farce.

84. Communism:

22	10	l. Has to go.
51	53	2. Is a threat to world peace.
15	21	3. Is a form of government.
12	16	4. Is often misunderstood.
0	0	5. Is as good as any form of government.

- Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
 - *85. After graduation, what are you plans for service in the Air force?

47 73 l. I plan to stay in for the minimum required period. 36 l4 2. I plan to stay in for longer than the minimum period but probably not as a career.

- 8 12 3. I plan to make the Air Force a career.
- 9 1 4. I do not plan on entering the Air Force at all.
- 86. Do you build model airplanes as a hobby?

8	11	l. Yes, many.
28	31	2. Yes, sometimes.
34	23	3. Seldom.
30	35	4. Never.

- *87. How much flying have you done as a passenger in an airplane?
 - 34 15 1. I have never flown as a passenger in an airplane.
 - 28 35 2. I have been up once or twice in an airplane but only for short periods of time.
 - 38 50 3. I have spent at least several hours as an airplane passenger.

88. Have you ever held a pilot's license?

5 3 1. Yes. 95 97 2. No.

- Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
 - *89. How often do you read the Army-Navy-Air Force Journal?
 - 2 1 1. Regularly.
 8 17 2. Sometimes.
 - 24 35 3. Seldom.
 - 66 47 4. Never.
 - 90. Do you find it difficult to talk to officer instructors about your lessons and personal problems?
 - 11 7 1. Yes, most of the time.
 - 19 18 2. Sometimes.
 - 31 34 3. Seldom.
 - 39 41 4. Never.
 - *91. Are you satisfied with the tailoring and fit of your uniform?
 - 11 43 1. Very well satisfied.
 - 37 46 2. Satisfied.
 - 38 6 3. Dissatisfied.
 - 14 5 4. Very much dissatisfied.
 - 92. Do you think that you could make more money in civilian life than you could as an Air Force officer?
 - 46 42 1. Yes, I'm sure I could.
 - 42 38 2. Yes, I think so, but I'm not sure.
 - 12 20 3. No, I don't think so.
 - *93. Have you have a close relative who has been in the military service in the past ten years?

20	19	l. Yes, Army.
12	6	2. Yes, Navy.
12	15	3. Yes, Air Force.
33	9	4. Yes, more than one of the above.
23	51	5. No.

- Key: The first column is the percentage of basic cadets responding to each alternative. The second column is the percentage of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
 - *94. How much flying have you done at the controls of an airplane?
 - 72 32 1. I have never flown at the controls of an airplane.
 - 14 52 2. I have flown at the controls of an airplane on one or two occasions.
 - 9 16 3. I have flown a number of times at the controls of an airplane.
 - *95. Some people say that they would rather be sergeants than officers in the Air Force. Is this true of you?

3	0	1. I would rather be a sergeant.	
75	98	2. I would rather be an officer.	
22	2	3. I don't know.	

96. Do you feel that you are sufficiently informed concerning the obligations of American youth in the armed forces reserve program?

21	26	l. I am well informed.
52	49	2. Ì am fairly well informed.
19	11	3. I am poorly informed.
5	14	4. I have little knowledge of reserve obligations.

97. How often do you wear your uniform in your home town or to home-town social functions?

1	0	1.	Many times.
1	2	2.	Sometimes.
15	11	3.	Seldom.
83	87	4.	Never.

- Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
- *98. Of what value is the drill and leadership class in the AFROTC program?

21	42	l. Great value.
48	53	2. Some value.
23	4	3. Little value.
8	1	4. No value.

*99. Some people say of the Air Force: "They paint a rosy picture for a young officer here, but real chances for promotion are very dismal." How true is this?

3	1	1. Extremely true.
10	5	2. Quite true.
48	20	3. Somewhat true.
39	74	4. Not true at all.

*100. Check the organizations in which you have membership:

0	24	1. Arnold Air Society.
1	0	2. Provost Corps.
1	37	3. Scabbard and Blade.
4	5	4. Spartan Guard.
94	34	5. None of the above.

- *101. What effort do AFROTC instructors usually make to correct the weak points in student knowledge or in skills being taught?
 - 19 22 1. Most of them make considerable effort to correct student weak points.
 - 53 61 2. Instructors usually make some effort to correct student weak points.
 - 22 15 3. Instructors seldom make any effort to correct student weak points.
 - 6 2 4. Instructors make no effort to correct student weak points.

- Key: The first column is the percentage of basic cadets responding to each alternative. The second column is the percentage of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
- 102. Do you feel that it is important for Air Force officers to be cultured and refined?

37	40	1. Very important.
38	39	2. Quite important.
22	20	3. Somewhat important.
4	1	4. Of little importance,

*103. Would you be interested in taking advanced AFROTC if you knew that you would not be required to fly?

36 66 1. Yes.
47 16 2. No.
17 18 3. Don't know.

*104. What is your opinion of the abilities of the average cadet officer as demonstrated on the drill field and in the leadership laboratory? (Cadet officers state opinion of fellow officers.)

3	9	1.	Excellent.
30	45	2.	Good.
37	2 2 [.]	3.	Satisfactory.
20	12	4.	Weak.
10	12	5.	Unsatisfactory.

*105. Are people who are attracted by Air Force commissions the kind that are looked up to by the people in their home communities?

13	18	l. Very much so.
38	56	2. More than most.
47	25	3. About average.
2	1	4. Considered below average.

- Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
- *106. Which of the following best describes your total adjustment to college life?

40	53	1. Very well satisfied.
49	46	2. Satisfied.
10	1	3. Dissatisfied.
1	0	4. Very much dissatisfied.

107. How important is it to you to have community respect of the type of people attracted to your line of work?

44	47	l. This means a great deal to me.
44	45	2. This means quite a lot to me.
9	7	3. This doesn't mean much to me.
4	1	4. This doesn't mean a thing to me.

*108. Do you find it quite annoying when you have to organize your work to suit the convenience of others?

4	2	1. Very annoying.
10	38	2. Quite annoying.
54	21	3. Somewhat annoying.
32	39	4. Not annoying at all.

*109. Do you ever inwardly rebel against AFROTC rules or regulations?

.

8	1	l. Very often.
10	2	2. Often.
35	38	3. Sometimes.
38	29	4. Seldom.
9	30	5. Never.

- Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
- *110. Do you think that if you were to become an Air Force officer that the Air Force could and would make use of your particular abilities and capacities?

16	9	l. Yes, fully.
60	64	2. For the most part it would.
18	26	3. Not to a great extent.
6	1	4. Not at all.

111. Do you feel that you have an inherent fear of flying which would probably prevent you from ever performing satisfactorily as a pilot?

4	2	l. Yes, I think so.
86	87	2. No, I don't think so.
9	11	3. I don't know.

112. Do some people "look down" on the Air Force commissioned ranks as a career?

16	16	l. Yes, I'm sure they do.
23	29	2. Yes, I think so, but I'm not sure.
57	55	3. No, I don't think so.

113. Do you feel that your AFROTC instructors could do more to assist you in meeting some of the difficulties or problems that you have with your military work?

9	11	l. Yes, they could usually help much more.
35	44	2. Yes, they could help some more.
46	44	3. I usually get all the additional help I need.
7	1	4. I always get all of the outside help I need.

- Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
 - 114. Some people are looked up to with a great deal of respect and esteem just by virtue of the kind of job they hold. To what extent is this true of Air Force officers?

15	18	l. Very true.
33	47	2. Quite true.
39	34	3. Somewhat true.
3	1	4. Not true at all.

*115. Do you feel that the grades you have received in your AFROTC classes and examinations are commensurate with your abilities and the effort you put forth?

38	53	l. Yes, usually.
37	21	2. Yes, sometimes.
12	21	3. Seldom.
13	5	4. No. not true at all.

- *116. The AFRO News is published locally and distributed free to all cadets. Do you feel that this publication has real value and should continue to be published?
 - 39 66 1. Yes.
 - 9 14 2. No.
 - 36 18 3. Doubtful.
 - 16 2 4. Don't know. I have never seen a copy.
 - 117. How effective are airplane orientation rides as far as helping to motivate good potential pilots to try for advanced AFROTC and commissions?

47	50	1. Very effective.
35	33	2. Quite effective.
15	15	3. Somewhat effective.
3	2	4. Ineffective.

- Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
- 118. Do you feel that the cadet corps maintains sufficient high standards as far as wearing of the uniform is concerned?

9	1	1. Cadet standards are too high to be practical.
57	63	2. Yes, the cadet standards are about right.
28	30	3. Sometimes cadet standards are a little low.
6	6	4. Cadet standards always seem to be low.

119. To what extent is the following statement true: "The leadership laboratory is one of the most important phases of the whole AFROTC curriculum."

18	22	1. Extremely true.
40	42	2. Quite true.

- 31 30 3. Somewhat true.
- 11 6 4. Not true at all.
- 120. Recently a prominent speaker stated that one of the reasons that the Air Force was having trouble to get well-qualified men in the commissioned ranks was because the Air Force had "undersold" their program and the youth of American did not on an average realize all the advantages of a career in the Air Force. To what extent is this true?

3	8	1. Extremely true.
26	22	2. Quite true.
50	44	3. Somewhat true.
21	26	4. Not true at all.

*121. Do you favor passage of a Universal Military Training Act?

 35
 65
 1. Yes.

 29
 15
 2. Indifferent.

 36
 20
 3. No.

- Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
 - 122. Would you like to own and fly your own plane?

87 93 1. Yes.
8 4 2. No.
5 3 3. Don't know.

- *123. Would it be fun to buzz the ground and hedge hop in a highspeed airplane?
 - 40 55 1. Yes.
 30 33 2. No.
 30 12 3. Don't know.
- *124. Do you ever discuss your personal problems with your AFROTC instructors?
 - 1 11 1. Very frequently.
 - 19 33 2. Occasionally.
 - 80 56 3. Almost never.
 - 125. According to detachment regulations all cadets are supposed to report in a military manner when visiting an instructor in his office. To what extent is this being done?
 - 23 29 1. Always.
 - 50 54 2. Sometimes.
 - 23 16 3. Seldom.
 - 4 1 4. Almost never.
- *126. To what degree is the following statement true? Even though we had the assurance that there would never be another armed conflict the character benefits of the AFROTC training would justify its inclusion in the curriculum of our colleges and universities.
 - 10 22 1. Extremely`true.
 38 40 2. Quite true.
 35 28 3. Somewhat true.
 17 10 4. Not true at all.

- Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
 - 127. Do you feel that men who choose an Air Force career can justifiably consider their job to be one which is beneficial to humanity?

32	37	l. Yes, very much so.
44	39	2. To a considerable extent.
20	23	3. To some extent.
4	1	4. Not to any degree.

128. How often do you wear the blue uniform to college social functions when it is not required?

1	0	1.	Many times.
4	1	2.	Sometimes.
8	17	3.	Seldom.
87	82	4.	Never.

*129. Do you like to talk to Air Force officers?

40	66	l. Yes.	
30	20	2. Usually.	
24	13	3. Sometimes	•
5	1	4. No.	

130. Has your AFROTC work motivated you to do any outside reading of books pertaining to the Air Force or its activities?

7 12 1. Yes, several.
34 36 2. Yes, a few.
24 28 3. Doubtful.
35 24 4. No.

- Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
- *131. If the international situation were to ease up considerably by the time you graduate, and the U.S. were to eliminate compulsory military service, what would you want to do about serving in the Air Force?
 - 26 51 1. I would want to go on active duty in the Air Force.
 32 34 2. I would want to stay in the reserve but not go on active duty.
 42 15 3. I would want to cut all connections with the Air Force as soon as possible.
 - 132. In addition to class instruction all AFROTC instructors have the additional duty of being military guidance counselor for students enrolled in their classes. This is done so that the instructors can help cadets with any military (or personal) problems that they might have. To what degree has this counseling system been effective as far as you are concerned?

5	10	1. Very effective.
23	24	2. Quite effective.
43	34	3. Somewhat effective.
29	32	4. Ineffective.

*133. Do your AFROTC instructors usually appear to have a definite, accurate, and consistent method of changing scores to grades?

32	19	l. Yes, alwaýs.
47	46	2. Usually.
14	32	3. Sometimes.
7	3	4. Seldom.

Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).

134.	-	u r o p s job	inion, how glamorous do other people think a is?
	30	42	l. They think it is a very glamorous job.
	46	47	2. They think it has some glamor.
	21	10	3. They think it has a little glamor.
	3	1	4. They think it has no glamor.
135.	What	is yo	our estimation of the value of AFROTC instruction
	as tr	aining	for American citizenship?
	31	34	1. Great value.
	49	57	2. Some value.
	17	8	3. Little value.
	3	1	4. No value.
136.		-	ever held an A and E (Airplane and Engine) me-
	chani	c's li	cense?
	1	1	l. Yes.
	99	99	2. No.
*137.	The 2	Air F	orce retirement program is:
	10	6	1. Very unattractive.
	7	3	2. Somewhat unattractive.
	37	10	3. Somewhat attractive.
	20	40	4. Very attractive.
	26	41	5. I don't know.
*138.	What	year	of college have you completed (up to the end of
	this s	spring	term, June 15, 1955)?
	52	0	1. 1st.
	42	0	2. 2nd.
	2	60	3. 3rd.
	4	40	4. 4th.

- Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
- *139. Do you think AFROTC instructors should check the spelling and punctuation of written papers and consider this when grading?

38	51	l. Yes.
36	18	2. Indifferent.
27	31	3. No.

*140. Do you take pride in the way you wear your uniform?

31	63	1. Very much so
43	26	2. Usually.
19	10	3. Sometimes.
7	1	4. No.

*141. How often do you read the Air Force Times?

3	4	l. Regularly.
13	21	2. Sometimes.
22	33	3. Seldom.
62	42	4. Never.

142. How glamorous do you think a pilot's job is?

21	26	l. It is a very glamorous job.
51	53	2. It has some glamor.
24	20	3. It has a little glamor.
4	1	4. It has no glamor.

Key: AC = Agree Completely; AS = Agree Somewhat; DS = Disagree Somewhat; DC = Disagree Completely; DK = Don't Know. Top number on the right is the percentage of advanced cadets responding to each alternative. Bottom number on the right is the percentage of basic cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).

Question	AC	AS	DS	DC	DK
*143. There are times when it seems	3	22	7	56	12
that everyone is against you	16	39	24	19	2
144. Most people are stupid	1	2	22	73	2
144, Most people ale stupid	1	3	14	80	2
145. Most people fulfill their duties	25	63	10	1	1
without being watched	28	56	14	2	0
146. Most people know what to do	8	45	29	10	8
without being told	1	48	35	6	10
147. Far too many people try to take					
as much as they can and give as	16	49	30	3	2
little as possible back to society	19	53	20	3	5
148. Most people learn quickly to avoid	15	57	26	2	2
making the same mistake twice	17	50	24	4	5
149. You generally keep cool and think	18	57	15	5	4
clearly in exciting situations	16	44	25	8	7
150. Some people deliberately make	10	38	30	16	4
things hard for you	10	35	33	14	8
151. Your interests change quickly	3	23	51	23	0
from one thing to another	8	29	43	19	1
*152. You daydream a great deal	22	40	27	7	0
· 152. Tou dayareann a great dear	9	38	34	20	4

Key. AC = Agree Completely; AS = Agree Somewhat; DS = Disagree Somewhat; DC = Disagree Completely; DK = Don't Know. Top number on the right is the <u>percentage</u> of advanced cadets responding to each alternative. Bottom number on the right is the <u>percentage</u> of basic cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).

Question	AC	AS	DS	DC	DK
153. You keep in fairly uniform	22	58	18	2	0
spirits	14	62	17	4	3
*154. You sometimes feel ''just miser-	6	22	42	30	0
able'' for no reason at all	8	32	32	24	4
155. There are far too many useless					
laws which hamper an individ-	2	16	41	39	2
ual's personal freedom	5	19	39	33	4
156. The number of ''two faced'' in-					
dividuals you have actually known	35	47	11	6	1
is very small	28	45	16	6	5
*157. Most groups of people behave					
like a bunch of sheep; that is they	7	48	36	9	0
blindly follow a leader	12	51	22	9	6
158. In general, people higher up tend to assume their share of					
dirty work, not leaving it for	5	51	33	8	3
others to do \ldots	9	38	38	10	5
*159. If you want a thing done right,	5	28	48	17	2
you must do it yourself	12	35	39	10	4
160. Most people use politeness to					
cover up what is really "cut-	4	27	47	17	5
throat''	7	36	39	11	7

Key: AC = Agree Completely; AS = Agree Somewhat; DS = Disagree Somewhat; DC = Disagree Completely; DK = Don't Know. Top number on the right is the <u>percentage</u> of advanced cadets responding to each alternative. Bottom number on the right is the <u>percentage</u> of basic cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).

Question	AC	AS	DS	DC	DK
161. Normally all people try to do the	39	54	6	1	0
right thing when given a chance	33	51	13	1	2
162. You are sometimes bubbling over					
with energy and sometimes very	21	46	26	7	0
sluggish	26	45	24	4	1
163. You often find it difficult to go					
to sleep at night because you					
keep thinking of what happened	7	18	36	39	0
during the day	9	24	32	27	8
164. Your moods often change from					
happiness to sadness, or vice	5	15	42	38	0
versa, without you knowing why	5	25	41	28	1
165. Your mood is very easily influ-	8	51	33	8	0
enced by people around you	11	42	34	8	3
	3	12	55	30	0
166. You often feel grouchy	4	22	52	22	0
167. There are times when you mind					
seems to work very slowly and					
other times when it works very	15	49	26	8	2
rapidly	18	50	23	6	3
168. You often feel guilty without a	2	10	45	42	1
very good reason for it	3	17	43	35	2

Question	AA	OF	ос	OW	NE
169. I sweat easily, even when it is	6	16	27	33	18
not hot	8	18	25	29	20
170. I am restless	5	18	49	25	3
170, 1 am resuess	5	23	44	22	6
171. I blush easily	4	13	42	33	8
	7	17	38	27	11
*172 Mer mouth gots days often	0	6	32	48	14
*172. My mouth gets dry often	3	12	38	37	10
173. My hands shake and tremble	0	1	6	44	49
when I try to do something	1	3	10	42	44
174. I have a tendency to get pale	0	0	5	38	57
174. I have a tendency to get pare	0	3	4	30	63
175. My feet get cold even when it	0	1	4	22	73
is warm	0	3	5	21	71
176. I breathe rapidly even when I	0	1	7	29	63
have not been exercising	1	3	9	25	62
*177. I tend to get a ''lump in my	0	0	20	46	34
throat"	1	3	17	38	59
	0	0	1	36	63
*178. I tend to choke unexpectedly	0	3	13	23	61
179. I have trouble holding my at-					
tention on one thing for any	0	7	32	44	16
length of time	0	14	31	37	18

Key.	AA = Almost Always; OF = Often; OC = Occasionally; OW =
	Once in a While; NE = Never. Top number on the right is the
	percentage of advanced cadets responding to each alternative.
	Bottom number on the right is the percentage of basic cadets
	responding to each alternative. The asterisk (*) indicates ques-
	tions which differentiated significantly between the basic and
	advanced cadets (5 percent level or better).

Question	AA	OF	ос	OW	NE
180. I feel that things aren't going well this term and that some-					
thing terrible is about to hap-	1	3	7	33	56
pen	1	4	9	34	52
181. I feel very happy this term and					
think that things are going won-	11	37	31	16	5
derfully for me	11	25	34	20	10
182. I have a tendency to become	0	12	46	39	3
irritated	1	10	37	38	14
183. I feel self-conscious and em-	1	4	30	48	17
barrassed many times	1	11	30	44	14
	0	3	20	60	17
184. I feel upset and anxious	1	8	21	45	25
185. I tend to feel listless and un-	0	1	24	58	17
energetic	2	7	22	44	25
186. I feel helpless in the face of a	0	0	8	51	41
pr oblem	2	2,	23	42	31
187. I get tired and worn out	0	5	12	48	35
easily	0	3	17	45	35
188. I often feel like throwing up	0	0	1	37	62
100, 1 often feet fike the owing up	0	1	4	35	60

Question	AA	OF	ос	ow	NE
190 I have many headaches	0	2	5	37	56
189. I have many headaches	2	4	9	30	55
190. I am often hungry and can't	1	5	14	44	36
seem to eat much	3	13	17	39	31
191. I get diarrhea (the runs) quite	0	1	3	45	51
often	1	2	2	31	64
192. I become constipated (don't					
move my bowels) for several	0	1	2	28	69
days at a time	1	2	5	28	64
193. I often become sleepy even	1	9	26	43	21
when I get enough sleep	2	11	22	41	24
194. Sometimes I get dizzy for no	0	0	11	23	66
apparent reason	1	6	9	26	58
	0	0	4	21	75
195. I cry easily	0	2	5	20	73
196. I get little nervous movements	0	1	8	39	52
and twitches, or tremors	2	6	8	35	49
197. I have frightening nightmares	0	0	1	21	78
·//. · mare regioning inglimites	1	2	3	21	73
198. I throw up often	0	0	2	44	54
1,0,1 mow up often	1	1	6	36	56

Question	AA	OF	ос	ow	NE
199. I have many doubts about how	0	6	21	48	25
successful I will be	3	9	25	40	23
200. I find it hard to make deci-	0	3	19	50	28
sions	1	8	26	42	23
201. I totally forget things that	1	2	10	47	40
have happened to me	1	6	17	38	38
*202. I feel that I can't keep myself					
from doing certain things I	0	9	8	43	43
don't want to do	2	6	17	39	36
*203. I become afraid of things or					
situations that I know I should	0	1	8	45	46
not fear	2	3	14	38	43
	0	4	18	40	38
*204. I'm very suspicious	0	18	20	35	21
205. I feel very guilty and de-					
pressed over things I have	1	4	17	43	35
done	2	10	16	40	32
206. I get very tired and energy-	1	1	11	54	33
less	0	5	18	46	31
*207. I think I am sick a great deal	0	0	1	17	82
of the time	0	2	4	22	71

Question	AA	OF	oc	ow	NE
208. I get certain ideas in my mind					
and can't seem to get rid of	0	6	16	43	35
them	2	12	18	37	31
209. Criticism disturbs you	1	5	25	45	24
209. Criticism disturbs you	2	7	23	41	27
*210. People blame you for things	0	2	6	65	27
you didn't do	0	2	24	57	17
211. You are too touchy about some	1	9	34	45	11
things	2	15	26	40	17
*212. You get into scrapes which you	0	4	27	49	20
did not seek to stir up	6	5	17	45	27
213. You get over humiliating ex-	19	33	20	9	19
perience very quickly	14	35	24	20	7
214. Certain people deliberately do	0	4	21	52	23
or say things to annoy you	1	8	25	43	23
*215. People criticize you unjustly to	0	9	27	64	0
others	2	3.	13	53	26
*216. You are too sensitive for your	6	17	28	49	0
own good	5	8	22	38	27
217. You seek the advice of other	4	19	42	15	20
people	8	28	39	15	10

Key: AC = Agree Completely; APM = Agree Pretty Much; AL = Agree a Little; DL = Disagree a Little; DPM = Disagree Pretty Much; DC = Disagree Completely. Top number on the right is the percentage of advanced cadets responding to each alternative. Bottom number on the right is the percentage of basic cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).

Question	AC	АРМ	AL	DL	DPM	DC
1. Obedience and respect for						
authority are the most						
important virtues a child	22	43	22	5	5	3
can learn	33	47	13	4	2	1
2. No weakness or difficulty						
c a n hold us back if we	21	47	15	10	6	1
have enough will power	18	54	16	6	4	2
*3. Science has its place, but						
there are many important						
things that can never pos-						
sibly be understood by the	24	25	16	13	15	7
human mind \ldots	16	27	21	12	13	11
4. People can be placed in						
two separate classes: the	0	4	16	22	26	32
weak and the strong	5	7	18	21	25	24
5. Nowadays more and more						
people are prying into mat-						
ters that should be per-	3	13	36	23	16	9
sonal and private	9	10	37	24	16	4
6. America is getting so far						
from the true American way						
of life that force may be	0	3	10	16	38	33
necessary to restore it	3	5	11	20	32	29

Key: AC = Agree Completely; APM = Agree Pretty Much; AL = Agree a Little; DL = Disagree a Little; DPM = Disagree Pretty Much; DC = Disagree Completely. Top number on the right is the percentage of advanced cadets responding to each alternative. Bottom number on the right is the percentage of basic cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).

Question	AC	APM	AL	DL	DPM	DC
7. Every person should have						
faith in some supernatural						
power whom he obeys	18	27	15	17	10	13
without question	20	26	19	15	8	12
8. Human nature being what						
it is, there will always be	11	24	31	9	14	11
war and conflict	12	25	42	7	12	2
*9. Rank should have its	19	56	19	3	2	1
privileges	23	37	27	8	3	2
*10. If a man can't use his						
authority properly, he	27	36	18	7	8	4
should lose.it	23	37	27	8	3	2
11. A sense of duty is the						
virtue that distinguishes						
the true leader from a	26	47	17	4	2	4
clock-punching employee	25	39	19	12	3	2
*12. There is no place in the						
Air Force for a display	15	28	18	27	7	5
of tempe r	13	26	26	23	9	3

Key: AC = Agree Completely; APM = Agree Pretty Much; AL = Agree a Little; DL = Disagree a Little; DPM = Disagree Pretty Much; DC = Disagree Completely. Top number on the right is the percentage of advanced cadets responding to each alternative. Bottom number on the right is the percentage of basic cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).

Question	AC	АРМ	AL	DL	DPM	DC
13. A leader of a group should						
be more concerned about						
the needs of his followers						
than with the obligations to	0	12	35	18	25	10
his superiors	7	25	35	24	6	3
14. An officer should be a man						
of character and a true	62	27	9	2	0	0
American	40	42	10	4	2	2
15. Parades develop unit	22	47	22	7	2	0
pride	17	37	25	9	8	3
16. It is a psychological fact						
that familiarity between						
officers and airmen breeds	9	18	27	22	18	16
contempt	5	10	26	23	20	16
17. An airman who salutes						
smartly and proudly can						
be counted on to perform	7	40	33	12	4	4
his duties in the same spirit.	9	38	28	13	8	4
18. The rank insignia of a						
commissioned officer is						
the mark of a well-trained						
man, capable of doing any	2	24	29	24	14	7
job	5	27	30	23	10	5

Key: AC = Agree Completely; APM = Agree Pretty Much; AL = Agree
a Little; DL = Disagree a Little; DPM = Disagree Pretty Much;
DC = Disagree Completely. Top number on the right is the percentage of advanced cadets responding to each alternative.
Bottom number on the right is the percentage of basic cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).

Question	AC	АРМ	AL	DL	DPM	DC
19. It is good discipline for						
an officer to lose his	0	5	16	31	24	24
temper occasionally	5	9	18	27	25	16
*20. A leader can drive his						
men as hard as he wants,						
as long as he drives	11	21	17	25	15	11
himself harder	19	22	28	20	8	3
21. The amount of respect						
accorded a man should						
depend upon his ability	19	28	32	14	7	0
and not his rank	23	29	26	16	4	2
*22. Men in the Air Force						
soon learn to like mili-						
tary life as well as they	5	22	22	32	19	0
like civilian life	6	19	33	26	10	6
23. You can usually tell a						
good officer by his ap-	4	36	36	12	6	2
pearance	7	29	33	18	7	6
24. Precision close-order						
drill provides the essen-						
tial basis for efficient						
performance in any Air	0	17	35	23	16	9
Force job \ldots	3	21	33	25	11	7

Key: AC = Agree Completely; APM = Agree Pretty Much; AL = Agree a Little; DL = Disagree a Little; DPM = Disagree Pretty Much; DC = Disagree Completely. Top number on the right is the <u>percentage</u> of advanced cadets responding to each alternative. Bottom number on the right is the <u>percentage</u> of basic cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).

Question	AC	АРМ	AL	DL	DPM	DC
*25. A good officer makes it						
a practice to remain on						
formal terms with his						
men off duty as well as	5	22	36	23	14	0
on ,	7	15	22	29	18	9
26. The kind of security						
which men in the Air						
Force have is more val-						
uable than anything you	2	4	45	27	12	10
can get in civilian life	5	10	46	23	15	1
27. To perform his patriotic						
duty to the limit of his						
ability should be what	12	24	42	17	4	1
every airman wants most	15	26	43	11	3	1
*28. Nobody ever learned						
anything really important	1	2	11	24	32	30
except by suffering	2	10	16	22	26	24
29. Lynchings are justified	2	2	11	16	14	55
when they are for rape	6	6	9	14	15	53
*30. Men should not be						
expected to work for	4	9	11	30	18	24
a woman boss	8	15	17	30	17	13

Key: AC = Agree Completely; APM = Agree Pretty Much; AL = Agree a Little; DL = Disagree a Little; DPM = Disagree Pretty Much; DC = Disagree Completely. Top number on the right is the percentage of advanced cadets responding to each alternative. Bottom number on the right is the percentage of basic cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).

Question	AC	АРМ	AL	DL	DPM	DC
*31. Though we don't understand						
it, there is a purpose behind						
natural disasters like floods	17	11	23	14	18	17
and earthquakes	14	17	22	18	13	26
32. Houses of prostitution						
aren't as bad as some	5	15	24	19	19	18
people think	15	11	25	21	14	14
*33. After the people have						
elected a man for public						
office, they should be						
willing to follow him	1	9	12	23	27	28
without question	5	16	20	23	17	19
34. A person who is outstanding						
in one kind of work will						
probably be outstanding in	1	9	16	25	30	19
all kinds of work done	2	7	16	27	25	23
*35. In some areas of our coun-					,	
try, discrimination is nec-						
essary to keep minority						
groups from getting out of	2	5	11	19	26	37
line	3	12	20	27	20	18
36. No sane, normal, decent per-						
son could think of hurting a	22	22	20	16	13	7
close relative or friend	19	26	20	21	8	6

Key. AC = Agree Completely; APM = Agree Pretty Much; AL = Agree
a Little; DL = Disagree a Little; DPM = Disagree Pretty Much;
DC = Disagree Completely. Top number on the right is the percentage of advanced cadets responding to each alternative.
Bottom number on the right is the percentage of basic cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).

Question	AC	АРМ	AL	DL	DPM	DC
37. Wars and other troubles						
may someday be ended by						
earthquake or flood that will	8	6	16	22	16	32
destroy the whole world	4	9	19	21	20	27
*38. Most of the country's prob-						
lems would be solved if we						
could somehow get rid of all						
the immoral, crooked, and	3	7	12	17	29	32
feeble-minded	5	9	20	26	23	17
*39. The businessman and the						
manufacturer are much						
more important than the ar-	2	3	9	20	24	42
tists and the professors	5	7	10	24	27	27
40. If people would talk less						
and work more, everybody	4	16	33	23	16	8
would be better off	8	18	31	23	12	8
*41. Homosexuals are hardly						
better than criminals and						
ought to be severely pun-	6	8	13	19	29	25
ished	9	12	18	29	16	16
*42. When a person has a prob-						
lem or a worry, it is best	2	6	13	19	29	31
for him not to think about it .	5	11	14	25	25	20

Key: AC = Agree Completely; APM = Agree Pretty Much; AL = Agree a Little; DL = Disagree a Little; DPM = Disagree Pretty Much; DC = Disagree Completely. Top number on the right is the percentage of advanced cadets responding to each alternative. Bottom number on the right is the percentage of basic cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).

Question	AC	АРМ	AL	DL	DPM	DC
43. A person who has bad manners, habits, and breeding can hardly ex-						
pect to get along with	3	15	33	26	14	9
decent people	9	16	39	26	12	1
44. What youth needs most is strict discipline and the						
will to work and fight for	1	16	32	28	13	10
his country	7	15	34	22	11	11
45. An insult to our honor should	0	4	29	37	19	11
always be punished	6	14	31	30	14	5
*46. It would be a waste of time						
and money to allow girls to	10	18	18	29	25	0
take AFROTC	11	11	18	30	12	18
47. There is something wrong with a man who doesn't want						
to do everything better than	5	17	26	23	17	12
the other fellow	6	18	28	27	15	6
48. A man should respect and	3	28	41	20	6	2
follow his father's advice	11	33	35	15	4	2
*49. If you helped a man up the ladder of success, you should be able to count on						
him for something in re-	3	13	44	22	14	4
turn	7	23	32	22	10	6

Key: AC = Agree Completely; APM = Agree Pretty Much; AL = Agree a Little; DL = Disagree a Little; DPM = Disagree Pretty Much; DC = Disagree Completely. Top number on the right is the percentage of advanced cadets responding to each alternative. Bottom number on the right is the percentage of basic cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).

Question	AC	АРМ	AL	DL	DPM	DC
50. Daydreaming never got any-						
, one anywhere; it's what a						
person does, not what he						
thinks about doing, that	16	16	17	23	19	9
counts	16	17	19	23	15	10
51. It is old-fashioned to think						
that husbands should not	12	32	30	12	8	16
help with the housework	18	24	25	17	8	8
*52. Some men are born to lead	4	22	23	15	12	24
and others to follow	15	24	31	16	8	6
53. Men are able to develop their intellectual abilities						
better at all-male schools	3	9	9	21	33	25
and colleges	5	8	16	32	31	8
*54. If a man disagrees with the						
regulations of a group, he	3	11	27	29	25	5
should get out of it	11	15	20	35	13	6
*55. In times of trouble, a man						
can always turn to the	31	27	15	11	10	6
supreme power for help	25	21	30	13	6	5
56. A man should respect and	4	30	39	13	6	8
follow his father's advice	11	35	34	16	3	1

Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).

*57. Have you ever been refused admission to advanced AFROTC?

15 0 1. Yes. 85 100 2. No.

58. About what would you estimate your father's yearly income to be?

4	3	l. Under \$3000.
27	21	2. Between \$3000 and \$5000.
28	29	3. Between \$5000 and \$7500.
19	22	4. Between \$7500 and \$10,000.
13	18	5. Between \$10,000 and \$25,000.
3	2	6. Over \$25,000.
6	3	7. Father deceased.

59. Where did you spend most of the first sixteen years of your life?

22	8	l. In a place of more than 500,000 people.
11	11	2. In a place of 100,000 to 500,000 people.
18	25	3. In a place of 25,000 to 100,000 people.
13	20	4. In a place of 5,000 to 25,000 people.
11	17	5. In a place of 2,000 to 5,000 people.
8	5	6. In a place of 1,000 to 2,500 people.
8	7	7. In a village of less than 1,000 people.
9	7	8. In a sparsely populated rural group.

- Key: The first column is the <u>percentage</u> of basic cadets responding to each alternative. The second column is the <u>percentage</u> of advanced cadets responding to each alternative. The asterisk (*) indicates questions which differentiated significantly between the basic and advanced cadets (5 percent level or better).
 - 60. Which one of the following has most increased your interest in wanting to fly?

33	18	l. Civilian sources (magazines, newspapers).
15	14	2. Friends.
2	1	3. Non-AFROTC courses.
39	44	4. AFROTC courses (lectures, discussions, films, etc.).
4	15	5. AFROTC instructors (outside of class).
7	8	6. Air Force publications (magazines, newspapers, etc.).

61. Which one of the following has decreased your interest in wanting to fly, the most?

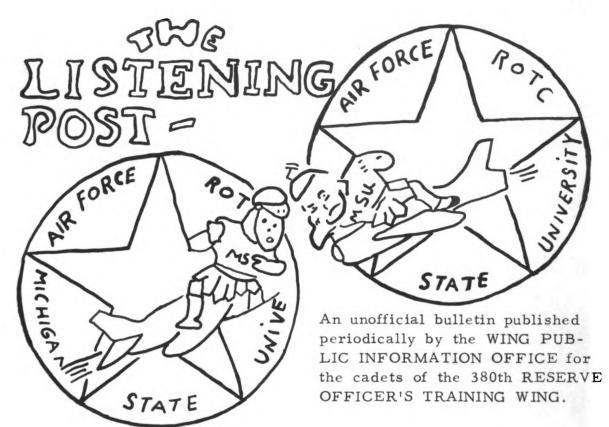
18	13	 Civilian publications (magazines, movies, news- papers, etc.).
17	24	2. Non-AFROTC courses.
36	37	3. Friends.
13	10	4. AFROTC courses (lectures, films, etc.).
3	8	5. AFROTC instructors (outside of class).
6	4	6. Former AFROTC students who have served on
		active duty.
7,	4	7. Air Force publications (magazines, newspapers, etc.).

APPENDIX L

COPY OF "THE LISTENING POST"

(Cadet Publication)

.



2 October 1955

Issue Number 1.

On behalf of the entire Wing Staff and the Wing Commander I would like to welcome the freshmen to AFROTC. A warm welcome is also extended to the returning sophomores. For those basics and advanced students who are interested there are some jobs open in the Wing Headquarters. If you are interested you may contact Cadet Captain K. R. Baird, Department of Personnel.

Cadet G. H. Paes

ATTITUDE SURVEY FINDINGS

Do you remember the attitude survey which all AFROTC cadets accomplished during the spring term of '55? Believe it or not, a compilation of the responses did produce some interesting facts. Listed here are some of the items which were rated highly favorably and also some which were rated low. It must be noted that no unsatisfactory conditions were identified, but at the same time the results seemed to give several leads which will aid both instructor and cadet staff to make some helpful and constructive improvements beginning with the fall term. Some of the things rated highly favorable included:

1. The MSU AFROTC Detachment is undoubtedly accomplishing its mission in a highly satisfactory manner. It has considerable prestige on the campus, and the instructor staff is considered excellent.

2. The MSU selection is definitely selecting high caliber cadets who have an excellent chance for a successful career in the Air Force. This is evidenced by:

- A. Highly acceptable stanine scores.
- B. Average academic grades of slightly less than "B."
- C. Very favorable attitudes expressed toward the military establishment and the Air Force.
- D. Expressions of favorable American and air-age attitudes.
- E. Favorable summer camp ratings.
- F. The physical factors considered indicated that the group as a whole are exceptionally healthy.

3. There are many attitude questions which definitely tend to differentiate between basic and advanced cadets. The questions concerning the military tended to differentiate much more than the general attitude questions and the questions concerning the physical considerations. Cadets who have taken several subjects in the program express many more favorable attitudes toward AFROTC than do those who are just beginning.

- 4. Very favorable attitudes were expressed toward:
 - A. Demerit system.
 - B. Leadership and management laboratory.
 - C. Cadet wing organization.
 - D. Motivation for flight training.
 - E. Airplane orientation rides.
 - F. Position and prestige of AF officers.
 - G. Tailoring and fit of advanced cadet uniforms.
 - H. Character, appearance, etc. of MSU AFROTC instructor staff.
 - I. AFROTC textbooks.
 - J. AF pay and retirement.

- K. Compulsory ROTC at MSU.
- L. General military discipline.
- M. Public appearance of cadet corps.
- N. AF officer esprit de corps.
- O. Importance of AF.
- P. Cadets proud to wear uniform.
- Q. Cadet adjustment to college life.
- R. Ease with which cadets could discuss problems with instructors.
- S. The AF an excellent place to learn a vocation.
- T. Our freedoms are worth fighting for.
- U. Continuing the AFRONews.
- V. Value of AFROTC as citizenship training.
- W. Chances for promotion in the AF.
- X. AF appealing to students because of high standards.
- Y. Fighter pilot duty is highly desirable.

The following items seem to indicate areas where some constructive work might be done. Please note that too much emphasis on these items might do more harm than good. The writer is fully cognizant of the fact that some officers and cadets do not fully agree that all of these items do warrant much attention.

- A. Very few veterans enroll in AFROTC at MSU; however, nearly all veterans do join a reserve unit. Also, many would be too old for commissioning by graduation time (age limit--27 years).
- B. Very few cadets read the AF Times or the Army-Navy-Air Force Journal. (This paper is widely read by both officers and airmen serving on active duty. Many reservists have private subscriptions.)
- C. Most cadets feel that observer training is undesirable for the individual who can make the grade as pilot.
- D. The uniform is seldom worn unless required.
- E. A large number of cadets feel that their mothers do not want them to take flying training. With the fathers it's about a 50-50 proposition.

- F. Cadets do not always live up to proper military standards concerning wearing of the uniform. Uniform violations reflect on the entire cadet corps.
- G. Basic cadet uniforms do not always fit as well as would seem desirable.
- H. Most basic cadets feel that their girl friends react favorably to AFROTC but they are not very deeply impressed. Most advanced cadets feel that their girl friends are strongly in favor of their boy friends having an AF career.
- I. There seems to be an insufficient number of up-to-date AF and aviation publications available in the college assigned reading room.

Wherever possible, steps have already been taken to improve those areas noted weak.

A more comprehensive copy of the findings will be available at a later date.

APPENDIX M

ATTITUDE QUESTIONNAIRE

.

A STUDY OF ATTITUDES AND INTERESTS CONCERNING THE AIR FORCE AS EXPRESSED BY THE CADETS OF THE MICHIGAN STATE AFROTC DETACHMENT

INSTRUCTIONS--READ CAREFULLY

This is not a test. It is a questionnaire in which you are being asked to record certain information about yourself and your thinking in regard to Air Force academic training, flying training, and career planning. The purpose of the questionnaire is to reveal some attitudes and interests of cadets enrolled in the Air Force ROTC. You, along with many of your fellow cadet classmates, are being asked to express your opinions to form part of the basis for the survey.

There are five parts to the questionnaire. Read directions carefully so that you understand just what information is required. There are no "right" or "wrong" answers. We are interested only in your opinion. Do not spend too much time in thinking about any one item. Work rapidly, letting your first reaction to the question be your guide in answering it. Please answer all questions, even though you may feel in some instances that your replies are simply "best guesses."

The first 217 questions may be answered by marking the answer sheet #1 with the number response which comes closest to expressing your feeling about the question asked. The remainder of the questions are answered by marking answer sheet #2 in a similar manner.

Do not mark the questionnaire in any way--it must be used again.

Your answers will be kept fully confidential and the survey results will in no way reflect on the individuals involved in it.

Should any question arise during the filling out of this questionnaire, raise your hand and the person in charge will help you.

NOTE: Any help that instructors can give to help clarify questions will be appreciated.

PART #I

Mark the answer sheet #1 with the number of the response which comes closest to expressing your feeling about the question asked.

- 1. How do you usually feel about going to your college AFROTC classes:
 - 1. I don't know.
 - 2. I often skip class.
 - 3. I usually don't like the prospect of attending.
 - 4. I usually don't care much one way or the other.
 - 5. I usually look forward to attending.
- 2. How would you compare your college AFROTC courses with your regular college courses:
 - 1. AFROTC courses are far superior.
 - 2. AFROTC courses are a little better.
 - 3. About the same caliber.
 - 4. College courses are a little better.
 - 5. College courses are far superior.
- 3. While at college, how do you usually feel about wearing the uniform?
 - 1. I am glad to have opportunities to wear it.
 - 2. It doesn't make much difference to me whether I wear the uniform or not.
 - 3. I would rather not wear the uniform.
 - 4. I don't wear it unless I have to.
 - 5. I don't know.
- 4. In your opinion how fair are your college AFROTC officers in giving out demerits:
 - 1. They are always justified.
 - 2. They are usually justified.
 - 3. They are usually not justified.
 - 4. They are practically never justified.
 - 5. I don't know.

- 5. Which of the armed forces would you enlist in if you knew you were to be drafted in the near future:
 - 1. Air Force.
 - 2. Navy.
 - 3. Army.
 - 4. Marines.
 - 5. None--would wait for draft.
- 6. What is your attitude toward having to take military training at Michigan State College:
 - 1. Very favorable.
 - 2. Somewhat favorable.
 - 3. Indifferent.
 - 4. Somewhat unfavorable.
 - 5. Very unfavorable.
- 7. In your opinion, how attractive are Air Force careers compared with careers in the Army:
 - 1. Air Force careers are much more attractive than in the Army.
 - 2. Air Force careers are somewhat more attractive than in the Army.
 - 3. Air Force careers are about as attractive as those in the Army.
 - 4. Air Force careers are somewhat less attractive than in the Army.
 - 5. Air Force careers are considerably less attractive than in the Army.
- 8. In your opinion, how well does AFROTC train cadets to become officers in the Air Force:
 - 1. Very well.
 - 2. Fairly well.
 - 3. Not very well.
 - 4. Not at all.
 - 5. I don't know.

- 9. What effect have the Air Force officers in the 380th AFROTC Detachment had on your judgment relative to an Air Force career:
 - 1. They have made an Air Force career much less attractive to me.
 - 2. They have made an Air Force career somewhat less attractive to me.
 - 3. They have had little influence on my attitude toward making the Air Force a career.
 - 4. They have made an Air Force career somewhat more attractive to me.
 - 5. They have made an Air Force career much more attractive to me.
- 10. Since entering AFROTC has your attitude toward an Air Force career become:
 - 1. Much more favorable.
 - 2. Somewhat more favorable.
 - 3. Unchanged.
 - 4. Somewhat less changed.
 - 5. Much less favorable.
- 11. What effect, if any, does drill have on you:
 - 1. It raises my spirit a great deal.
 - 2. It raises my spirit a little.
 - 3. It has no effect on my spirit.
 - 4. It lowers my spirit a little.
 - 5. It lowers my spirit a great deal.
- 12. To what extent, if any, do you feel the leadership training in the AFROTC provides will be of help in your future career:
 - 1. To a great extent.
 - 2. To a considerable extent.
 - 3. To some extent.
 - 4. To little or no extent.
 - 5. I don't know.

- 13. Would you recommend joining the AFROTC to a younger brother or friend:
 - 1. Yes, definitely.
 - 2. Yes, probably.
 - 3. Probably not.
 - 4. Definitely not.
 - 5. I don't know.
- 14. How do you feel about the amount of drill you have in AFROTC:
 - 1. There should be much more drill.
 - 2. There should be a little more drill.
 - 3. We have about the right amount now.
 - 4. There should be a little less drill.
 - 5. There should be much less drill.
- 15. What is your attitude toward cadets who often disregard the usual social, ethical, and moral conventions that are generally acceptable to the military establishment:
 - 1. Dislike very much.
 - 2. Dislike somewhat.
 - 3. Neither like nor dislike.
 - 4. Like somewhat.
 - 5. Like very much.
- 16. How would you feel about military service if it were not compulsory:
 - 1. I would not enter it.
 - 2. I might enter if I was needed.
 - 3. I would volunteer in any event.
 - 4. I would wait till drafted.
 - 5. I don't know.
- 17. Concerning the promotion policy of the Air Force--it doesn't matter if you work toward a promotion or not:
 - 1. Agree strongly.
 - 2. Agree somewhat.
 - 3. Disagree somewhat.
 - 4. Disagree strongly.
 - 5. Don't know.

- 18. How do you feel about assuming a command position:
 - 1. Confident.
 - 2. Not bothered.
 - 3. Somewhat worried.
 - 4. Very worried.
 - 5. I don't know.
- 19. AFROTC units don't give true pictures of military life:
 - 1. Strongly agree.
 - 2. Agree.
 - 3. Disagree.
 - 4. Strongly disagree.
 - 5. Don't know.
- 20. How do you feel about the discipline now exercised in your AFROTC unit:
 - 1. It irritates me.
 - 2. It bothers me somewhat.
 - 3. I don't mind it.
 - 4. I think it's fine.
 - 5. I don't know.
- 21. Serving in the Air Force is:
 - 1. A personal sacrifice.
 - 2. A duty with major inconveniences.
 - 3. A duty with some advantages.
 - 4. An opportunity with many advantages.
 - 5. I don't know.
- 22. If you were in a command position and had to give an order, would you:
 - 1. Feel it should be carried out without question.
 - 2. Allow questions by subordinates.
 - 3. Explain the reasons for the questions beforehand.
 - 4. Explain reasons for the order and invite suggestions.
 - 5. I don't know.

- 23. If you were president of an organization, and a decision had to be made, would you rather:
 - 1. Make the decision yourself, on the basis of your knowledge of the situation.
 - 2. Talk to other members of the organization and make the decision after consideration of their opinions.
 - 3. Appoint a committee to make the decision.
 - 4. Hold a vote to make the decision.
 - 5. I don't know.
- 24. Would you rather be in charge of an organization, or be a technical advisor to the person in charge (assuming rank would be equal):
 - 1. I would much rather be in charge of an organization.
 - 2. I would rather be in charge of an organization.
 - 3. I would rather be a technical advisor to the person in charge.
 - 4. I would much rather be a technical advisor to the person in charge.
 - 5. I don't know.
- 25. Would you rather supervise men or work with technical problems and equipment:
 - 1. I would much rather deal with equipment and technical problems.
 - 2. I would rather deal with equipment and technical problems.
 - 3. I would rather supervise men.
 - 4. I would much rather supervise men.
 - 5. I don't know.
- 26. In your opinion, how does your information on the significance of military aviation in modern warfare compare with that of the average non-AFROTC student at this college:
 - 1. I know a great deal more than he does.
 - 2. I know somewhat more than he does.
 - 3. I know about as much as he does.
 - 4. I know somewhat less than he does.
 - 5. I know a great deal less than he does.

- 1. My interest in wanting to fly has increased greatly.
- 2. My interest in wanting to fly has increased slightly.
- 3. My interest in wanting to fly hasn't changed.
- 4. My interest in wanting to fly has decreased slightly.
- 5. My interest in wanting to fly has decreased greatly.
- 28. An attractive feature of an Air Force career is that it provides more opportunities for travel than most civilian jobs:
 - 1. Yes, definitely.
 - 2. Yes.
 - 3. No.
 - 4. No, definitely not.
 - 5. Don't know.
- 29. In your opinion should all servicemen be stationed as near their home as possible:
 - 1. No, definitely not.
 - 2. No.
 - 3. Yes.
 - 4. Yes, definitely.
 - 5. Don't know.
- 30. Does the thought of constantly moving about the world disturb you?
 - 1. Yes, very much.
 - 2. Yes, somewhat.
 - 3. No, not very much.
 - 4. No, not at all.
 - 5. Don't know.
- 31. Would you like to be assigned to a permanent station throughout your tour of duty in the armed forces:
 - 1. No, not at all.
 - 2. No, not very much.
 - 3. Yes, somewhat.
 - 4. Yes, very much.
 - 5. Don't know.

- 32. The current world tensions can be solved by:
 - 1. All-out war only.
 - 2. Standing armies only.
 - 3. Alliances only.
 - 4. Negotiations through the U.N.
 - 5. Don't know.
- 33. Suppose the United States were engaged in a police action, like, say Indo-China, but you personally felt we should stay out of it. How would you feel about being ordered to combat duty there:
 - 1. Refuse to go.
 - 2. Figure out some way of getting out of it.
 - 3. Carry out orders, but against my own wishes.
 - 4. Carry out orders willingly.
 - 5. I don't know.
- 34. Suppose World War III were to break out, how do you think you could serve your country best:
 - 1. As a civilian not in a defense industry.
 - 2. As a civilian working in a defense industry.
 - 3. As a member of the armed forces on noncombat duty.
 - 4. As a member of the armed forces on combat duty.
 - 5. I don't know.
- 35. How do the girls you know feel about you being in the AFROTC:
 - 1. I don't know.
 - 2. They dislike my being in the AFROTC.
 - 3. They don't react to it one way or another.
 - 4. They are somewhat impressed.
 - 5. They are very much impressed.
- 36. What would your girl friend think (or how do you feel she would think) about your having a flying career in the Air Force:
 - 1. She would be strongly against it.
 - 2. She would be more against it than in favor of it.
 - 3. It would be about a fifty-fifty proposition.
 - 4. She would be more in favor of it than against it.
 - 5. She would be strongly in favor of it.

- 37. What would your mother think (or how do you feel she would think) about your having a flying career in the Air Force:
 - 1. She would be strongly against it.
 - 2. She would be more against it than in favor of it.
 - 3. It would be about a fifty-fifty proposition.
 - 4. She would be more in favor of it than against it.
 - 5. She would be strongly in favor of it.
- 38. What would your father think (or how do you feel he would think) about your having a flying career in the Air Force:
 - 1. He would be strongly against it.
 - 2. He would be more against it than in favor of it.
 - 3. It would be about a fifty-fifty proposition.
 - 4. He would be more in favor of it than against it.
 - 5. He would be strongly in favor of it.
- 39. What would your friends think (or what do you believe they would think) about your having a flying career in the Air Force:
 - 1. Most would be strongly in favor of it.
 - 2. Most would be more in favor of it than against it.
 - 3. It would be about a fifty-fifty proposition.
 - 4. More would be against it than in favor of it.
 - 5. Most would be strongly against it.
- 40. Are you proud of being in the AFROTC:
 - 1. Yes, definitely.
 - 2. Yes.
 - 3. No.
 - 4. No, definitely not.
 - 5. Don't know.
- 41. Does it anger you when derogatory remarks are made about the Air Force:
 - 1. Yes, very much.
 - 2. Yes, somewhat.
 - 3. No, not much.
 - 4. No, not at all.
 - 5. Don't know.

- 42. Do you feel that you represent the Air Force only during duty hours.
 - 1. Yes, definitely.
 - 2. Yes.
 - 3. No.
 - 4. No, not at all.
 - 5. I don't know.
- 43. Do you think that the vastness of the Air Force would make you feel "lost" or insignificant:
 - 1. Yes, definitely.
 - 2. Yes, somewhat.
 - 3. No, not very much so.
 - 4. No, definitely not.
 - 5. Don't know.
- 44. Do you feel that esprit de corps (morale) in the Air Force officer ranks is very high:
 - 1. Yes, very high.
 - 2. Yes, fairly high.
 - 3. No, not very high.
 - 4. No, very low.
 - 5. Don't know.
- 45. If you plan to enter flight training, which job do you prefer:
 - 1. Pilot (fighter).
 - 2. Pilot (bomber).
 - 3. Pilot (transport).
 - 4. Observer (navigator, bombardier, etc.).
 - 5. Do not plan to enter flight training.
- 46. Do you feel that esprit de corps in the Air Force is higher than in the other services:
 - 1. Don't know.
 - 2. No, much lower.
 - 3. No, somewhat lower.
 - 4. Yes, somewhat higher.
 - 5. Yes, much higher.

- 47. Do you feel that adjustment to Air Force life is more difficult for a newcomer than adjustment to other new situations:
 - 1. Yes, definitely.
 - 2. Yes.
 - 3. No.
 - 4. No, definitely.
 - 5. Don't know.
- 48. A man who makes a career in the Air Force is doing more important work than a man who makes a career in a civilian occupation:
 - 1. Strongly agree.
 - 2. Agree.
 - 3. Disagree.
 - 4. Strongly disagree.
 - 5. Don't know.
- 49. What is your decision about an Air Force career:
 - 1. I have already made up my mind to have a career in the Air Force.
 - 2. I am delaying my decision for other reasons.
 - 3. I am delaying my decision until I get more information about Air Force opportunities.
 - 4. I have made up my mind not to have a career in the Air Force.
 - 5. I don't know.
- 50. In your opinion, is the Air Force the safest of all the services:
 - 1. Yes, definitely.
 - 2. I think so.
 - 3. They're about equal.
 - 4. No.
 - 5. Don't know.
- 51. Does being an Air Force officer carry as much prestige as being an officer in one of the other services:
 - l. It carries more.
 - 2. About the same.
 - 3. Somewhat less.
 - 4. It carries much less.
 - 5. Don't know.

- 1. Yes, very much so.
- 2. Yes, somewhat.
- 3. No.
- 4. Not at all.
- 5. Don't know.
- 53. If you were to choose a branch of ROTC over again, which one would you choose:
 - 1. I wouldn't join any.
 - 2. Army.
 - 3. Navy.
 - 4. Air Force.
 - 5. I don't know.
- 54. The trend toward the "Air Age" makes the Air Force the most important service:
 - 1. Agree strongly.
 - 2. Agree.
 - 3. Disagree.
 - 4. Disagree strongly.
 - 5. Don't know.
- 55. The Air Force still has the old stigma attached to it that it is filled with officers who are too young:
 - 1. This is quite true.
 - 2. This is true in many cases.
 - 3. This is false in most cases.
 - 4. This is utterly false.
 - 5. I don't know.
- 56. If a person has to spend 4 or 5 years in the Air Force because of the international situation, he might just as well stay in and make a career of it:
 - 1. Agree strongly.
 - 2. Agree somewhat.
 - 3. Disagree somewhat.
 - 4. Disagree strongly.
 - 5. Don't know.

- 57. After having served in the military services, do you think reserve commitments should be.
 - 1. Kept at a maximum.
 - 2. Kept at moderate length.
 - 3. Kept to a minimum.
 - 4. Eliminated.
 - 5. Don't know.
- 58. In your opinion should the U.S. have begun the police action in Korea:
 - 1. No, certainly not.
 - 2. No, probably not.
 - 3. Yes, probably.
 - 4. Yes, definitely.
 - 5. I don't know.
- 59. In dealing with subordinates an officer must:
 - 1. Keep his word if necessary.
 - 2. Keep his word if subordinates keep theirs.
 - 3. Keep his word unless the situation demands otherwise.
 - 4. Always keep his word.
 - 5. Don't know.
- 60. In your opinion, how attractive are Air Force careers compared with careers in civilian life:
 - 1. Air Force careers are considerably less attractive than in civilian life.
 - 2. Air Force careers are somewhat less attractive than civilian life.
 - 3. Air Force careers are about as attractive as those in civilian life.
 - 4. Air Force careers are somewhat more attractive than in civilian life.
 - 5. Air Force careers are much more attractive than in civilian life.

- 61. In the Air Force one can make a career in the same areas of interest as in civilian life:
 - 1. Agree strongly.
 - 2. Agree somewhat.
 - 3. Disagree somewhat.
 - 4. Disagree strongly.
 - 5. Don't know.
- 62. In the Air Force an officer can learn a vocation that can be carried over into civilian life after retirement from the Air Force:
 - 1. Disagree strongly.
 - 2. Disagree somewhat.
 - 3. Agree somewhat.
 - 4. Agree strongly.
 - 5. Don't know.
- 63. Do you think that people look upon Air Force officers as persons of culture and refinement:
 - 1. They are looked upon as rather unrefined.
 - 2. They are looked upon as average in culture and refinement.
 - 3. They are looked upon as above average in culture and refinement.
 - 4. They are considered well cultured and refined persons.
 - 5. They are sometimes considered to be too cultured and refined.
- 64. Cadet officers have their rank and responsibilities because they are supposed to be learning by doing. How effective do you consider this activity in the local MSC cadet wing:
 - 1. Superior.
 - 2. Excellent.
 - 3. Good.
 - 4. Fair.
 - 5. Unsatisfactory.

- 1. Army.
- 2. Navy.
- 3. Marines.
- 4. Air Force.
- 5. None of the above.
- 66. Do you think the Air Force tends to have personnel of higher intelligence and education than the other services:
 - 1. Not at all.
 - 2. No.
 - 3. Yes, somewhat.
 - 4. Yes, very much so.
 - 5. Don't know.
- 67. How fair are your student cadet officers in giving out demerits:
 - 1. They are practically never justified.
 - 2. They are usually not justified.
 - 3. They are justified about half of the time; half they are not.
 - 4. They are usually justified.
 - 5. They are almost always justified.
- 68. How up to date are most of the materials offered in AFROTC classes:
 - 1. Very up to date.
 - 2. Quite up to date.
 - 3. Somewhat outdated.
 - 4. Quite outdated.
 - 5. Very outdated.
- 69. Do you feel that too many movies are shown in AFROTC classes:
 - 1. Yes, far too many movies are shown.
 - 2. Yes, a few too many movies are shown.
 - 3. The number shown is about right for best learning.
 - 4. No, a few more movies should be shown.
 - 5. No, many more movies should be shown.

- 70. A ''good'' officer is capable of telling ''white lies'' when necessity demands:
 - 1. Agree entirely.
 - 2. Agree somewhat.
 - 3. Disagree somewhat.
 - 4. Disagree entirely.
 - 5. Don't know.
- 71. Do you feel that an officer who intentionally writes a bad check should be:
 - 1. Court-martialed.
 - 2. Severely reprimanded.
 - 3. Expelled from the officers' club.
 - 4. Informally warned by the commanding officer.
 - 5. Don't know.
- 72. AFROTC officers are supposed to set a good example as far as dress, appearance, neatness, and order are concerned. To what extent do they actually do this:
 - 1. Officers set an outstanding example.
 - 2. Officers set a good example.
 - 3. Officers set an average example.
 - 4. Officers set a poor example.
 - 5. The example they set is unsatisfactory.
- 73. Do you think that the public appearance of the majority of the AFROTC cadets creates a distinctly favorable impression on the rest of the students on the campus:
 - 1. Yes, definitely.
 - 2. Yes.
 - 3. To some extent.
 - 4. Doubtful.
 - 5. Definitely, no.
- 74. Are you (check one):
 - 1. Single.
 - 2. Married.
 - 3. Engaged.
 - 4. Divorced.
 - 5. Other.

- 75. How do you rate the average AFROTC textbook:
 - 1. Superior.
 - 2. Excellent.
 - 3. Good.
 - 4. Fair.
 - 5. Unsatisfactory.
- 76. What is your opinion of the average Air Force officer as a college AFROTC instructor:
 - 1. Superior.
 - 2. Excellent.
 - 3. Good.
 - 4. Fair.
 - 5. Unsatisfactory.
- 77. How much work do you do per credit hour in your AFROTC classes as compared to your average for other college classes:
 - 1. Much more.
 - 2. A little more.
 - 3. About the same.
 - 4. A little less.
 - 5. Much less.

78. Are you a veteran:

- 1. Yes (Army).
- 2. Yes (Navy).
- 3. Yes (Air Force).
- 4. Yes (Marines).
- 5. No.

79. Would you like to go on the first rocket expedition to the moon:

- 1. No, not at all.
- 2. No, not very much.
- 3. Yes, somewhat.
- 4. Yes, very much.
- 5. Don't know.

- 80. Do you think that your associates consider you to be a wellinformed person:
 - 1. I am considered to be well informed.
 - 2. I am thought to be better informed than average.
 - 3. People look upon me as average in this respect.
 - 4. People look upon me as being below average in this respect.
 - 5. I am usually considered to be very poorly informed.
- 81. How would you feel about a career in which there is strong competition for advancement:
 - 1. I don't know.
 - 2. Competition bothers me a great deal.
 - 3. Competition bothers me somewhat.
 - 4. I don't mind competition.
 - 5. I enjoy competition.
- 82. Air Force pay is:
 - 1. Very adequate.
 - 2. Adequate.
 - 3. Barely adequate.
 - 4. Inadequate.
 - 5. I don't know.
- 83. Our freedoms:
 - 1. Are worth fighting for.
 - 2. Are many for maintenance of laws.
 - 3. Are speech, press, etc.
 - 4. Are sometimes overrated.
 - 5. Are a farce.
- 84. Communism:
 - 1. Has to go.
 - 2. Is a threat to world peace.
 - 3. Is a form of a government.
 - 4. Is often misunderstood.
 - 5. Is as good as any other form of government.

- 85. After graduation, what are your plans for service in the Air Force:
 - 1. I plan to stay in the minimum required period.
 - 2. I plan to stay in for longer than the minimum period but probably not as a career.
 - 3. I plan to make the Air Force a career.
 - 4. I do not plan on entering the Air Force at all.
- 86. Do you build model airplanes as a hobby:
 - 1. Yes, many.
 - 2. Yes, sometimes.
 - 3. Seldom.
 - 4. Never.

87. How much flying have you done as a passenger in an airplane:

- 1. I have never flown as a passenger in an airplane.
- 2. I have been up once or twice in an airplane but only for short periods of time.
- 3. I have spent at least several hours as an airplane passenger.
- 88. Have you ever held a pilot's license:
 - 1. Yes.
 - 2. No.

89. How often do you read the Army-Navy-Air Force Journal:

- 1. Regularly.
- 2. Sometimes.
- 3. Seldom.
- 4. Never.
- 90. Do you find it difficult to talk to officer instructors about your lessons and personal problems:
 - 1. Yes, most of the time.
 - 2. Sometimes.
 - 3. Seldom.
 - 4. Never.

- 91. Are you satisfied with the tailoring and fit of your uniform:
 - 1. Very well satisfied.
 - 2. Satisfied.
 - 3. Dissatisfied.
 - 4. Very much dissatisfied.
- 92. Do you think that you could make more money in civilian life than you could as an Air Force officer:
 - 1. Yes, I'm sure I could.
 - 2. Yes, I think so, but I'm not sure.
 - 3. No, I don't think so.
- 93. Have you had a close relative who has been in the military service in the past 10 years:
 - Yes, Army.
 Yes, Navy (or Marines).
 Yes, Air Force.
 Yes, more than one of the above.
 No.
- 94. How much flying have you done at the controls of an airplane:
 - 1. I have never flown at the controls of an airplane.
 - 2. I have flown at the controls of an airplane on one or two occasions.
 - 3. I have flown a number of times at the controls of an airplane.
- 95. Some people say that they would rather be sergeants than officers in the Air Force. Is this true of you.
 - 1. I would rather be a sergeant.
 - 2. I would rather be an officer.
 - 3. I don't know.
- 96. Do you feel that you are sufficiently informed concerning the obligation of American youth in the armed forces reserve program:
 - 1. I am well informed.
 - 2. I am fairly well informed.
 - 3. I am poorly informed.
 - 4. I have little knowledge of reserve obligations.

- 97. How often do you wear your uniform in your home town or to home-town social functions:
 - 1. Many times.
 - 2. Sometimes.
 - 3. Seldom.
 - 4. Never.
- 98. Of what value is the drill and leadership class in the AFROTC program:
 - 1. Great value.
 - 2. Some value.
 - 3. Little value.
 - 4. No value.
- 99. Some people say of the Air Force: "They paint a rosy picture for a young officer here, but real chances for promotion are very dismal." How true is this:
 - 1. Extremely true.
 - 2. Quite true.
 - 3. Somewhat true.
 - 4. Not true at all.
- 100. Check the organizations in which you have membership:
 - 1. Arnold Air Society.
 - 2. Provost Corps.
 - 3. Scabbard and Blade.
 - 4. Spartan Guard.
 - 5. None of the above.
- 101. What effort do AFROTC instructors usually make to correct the weak points in student knowledge or in skills being taught:
 - 1. Most of them make considerable effort to correct student weak points.
 - 2. Instructors usually make some effort to correct student weak points.
 - 3. Instructors seldom make any effort to correct student weak points.
 - 4. Instructors make no effort to correct student weak points.

- 102. Do you feel that it is important for Air Force officers to be cultured and refined:
 - 1. Very important.
 - 2. Quite important.
 - 3. Somewhat important.
 - 4. Of little importance.
- 103. Would you be interested in taking advanced AFROTC if you knew that you would not be required to fly:
 - 1. Yes.
 - 2. No.
 - 3. Don't know.
- 104. What is your opinion of the abilities of the average cadet officer as demonstrated on the drill field and in the leadership laboratory (cadet officers state opinion of fellow officers):
 - 1. Excellent.
 - 2. Good.
 - 3. Satisfactory.
 - 4. Weak.
 - 5. Unsatisfactory.
- 105. Are the people that are attracted by Air Force commissions the kind that are looked up to by the people in their home communities:
 - 1. Very much so.
 - 2. More than most.
 - 3. About average.
 - 4. Considered below average.
- 106. Which of the following best describes your total adjustment to college life:
 - 1. Very well satisfied.
 - 2. Satisfied.
 - 3. Dissatisfied.
 - 4. Very much dissatisfied.

- 107. How important is it to you to have community respect of the type of people attracted to your line of work:
 - 1. This means a great deal to me.
 - 2. This means quite a lot to me.
 - 3. This doesn't mean much to me.
 - 4. This doesn't mean a thing to me.
- 108. Do you find it annoying when you have to organize your work to suit the convenience of others:
 - 1. Very annoying.
 - 2. Quite annoying.
 - 3. Somewhat annoying.
 - 4. Not annoying at all.
- 109. Do you ever inwardly rebel against AFROTC rules or regulations:
 - 1. Very often.
 - 2. Often.
 - 3. Sometimes.
 - 4. Seldom.
 - 5. Never.
- 110. Do you think that if you were to become an Air Force officer that the Air Force could and would make use of your particular abilities and capacities:
 - 1. Yes, fully.
 - 2. For the most part it would.
 - 3. Not to a great extent.
 - 4. Not at all.
- 111. Do you feel that you have an inherent fear of flying which would probably prevent you from ever performing satisfactorily as a pilot:
 - 1. Yes, I think so.
 - 2. No, I don't think so.
 - 3. I don't know.

- 112. Do some people ''look down'' on the Air Force commissioned ranks as a career:
 - 1. Yes, I'm sure they do.
 - 2. Yes, I think so, but I'm not sure.
 - 3. No, I don't think so.
- 113. Do you feel that your AFROTC instructors could do more to assist you in meeting some of the difficulties or problems that you have with your military work:
 - Yes, they could usually help much more.
 Yes, they could help some more.
 I usually get all the additional help I need.
 I always get all of the outside help I need.
- 114. Some people are looked upon with a great deal of respect and esteem just by virtue of the kind of job they hold. To what extent is this true of Air Force officers:
 - 1. Very true.
 - 2. Quite true.
 - 3. Somewhat true.
 - 4. Not true at all.
- 115. Do you feel that the grades you have received in your AFROTC classes and examinations are commensurate with your abilities and the effort you put forth:
 - 1. Yes, usually.
 - 2. Yes, sometimes.
 - 3. Seldom.
 - 4. No, not at all.
- 116. The AFRO News is published locally and distributed free to all cadets. Do you feel that this publication has real value and should continue to be published:
 - 1. Yes.
 - 2. No.
 - 3. Doubtful.
 - 4. Don't know. I have never seen a copy.

- 117. How effective are airplane orientation rides as far as helping to motivate good potential pilots to try for advanced AFROTC and commissions:
 - 1. Very effective.
 - 2. Quite effective.
 - 3. Somewhat effective.
 - 4. Ineffective.
- 118. Do you feel that the cadet corps maintains sufficiently high standards as far as wearing the uniform is concerned:
 - 1. Cadet standards are too high to be practical.
 - 2. Yes, the cadet standards are about right.
 - 3. Sometimes cadet standards are a little low.
 - 4. Cadet standards always seem to be low.
- 119. To what extent is the following statement true: "The leadership laboratory is one of the most important phases of the whole AFROTC curriculum":
 - 1. Extremely true.
 - 2. Quite true.
 - 3. Somewhat true.
 - 4. Not true at all.
- 120. Recently a prominent speaker stated that one of the reasons that the Air Force was having trouble to get well-qualified men in the commissioned ranks was because the Air Force had "undersold" their program and the youth of America did not on an average realize all the advantages of a career in the Air Force. To what extent is this true:
 - 1. Extremely true.
 - 2. Quite true.
 - 3. Somewhat true.
 - 4. Not true at all.
- 121. Do you favor passage of a Universal Military Training Act:
 - 1. Yes.
 - 2. Indifferent.
 - 3. No.

- l. Yes.
- 2. No.
- 3. Don't know.
- 123. Would it be fun to buzz the ground and hedge hop in a highspeed airplane:
 - l. Yes.
 - 2. No.
 - 3. Don't know.
- 124. Do you ever discuss your personal problems with your AFROTC instructors:
 - 1. Very frequently.
 - 2. Occasionally.
 - 3. Almost never.
- 125. According to detachment regulations all cadets are supposed to report in a military manner when visiting an instructor in his office. To what extent is this being done:
 - 1. Always.
 - 2. Sometimes.
 - 3. Seldom.
 - 4. Almost never.
- 126. To what degree is the following statement true: Even though we had the assurance that there would never be another armed conflict the character benefits of the AFROTC training would justify its inclusion in the curriculum of our colleges and universities:
 - 1. Extremely true.
 - 2. Quite true.
 - 3. Somewhat true.
 - 4. Not true at all.
- 127. Do you feel that men who choose an Air Force career can justifiably consider their job to be one which is beneficial to humanity:
 - 1. Yes, very much so.
 - 2. To a considerable extent.
 - 3. To some extent.
 - 4. Not to any degree.

- 128. How often do you wear the blue uniform to college social functions when it is not required:
 - 1. Many times.
 - 2. Sometimes.
 - 3. Seldom.
 - 4. Never.
- 129. Do you like to talk to Air Force officers:
 - 1. Yes.
 - 2. Usually.
 - 3. Sometimes.
 - 4. No.
- 130. Has your AFROTC work motivated you to do any outside reading of books pertaining to the Air Force or its activities:
 - 1. Yes, several.
 - 2. Yes, a few.
 - 3. Doubtful.
 - 4. No.
- 131. If the international situation were to ease up considerably by the time you graduate, and the U.S. were to eliminate compulsory military service, what would you want to do about serving in the Air Force:
 - 1. I would want to go on active duty in the Air Force.
 - 2. I would want to stay in the reserve but not go on active duty.
 - 3. I would want to cut all connections with the Air Force as soon as possible.
- 132. In addition to class instruction all AFROTC instructors have the additional duty of being military guidance counselor for students enrolled in their classes. This is done so that the instructors can help cadets with any military (or personal) problems that they might have. To what degree has this counseling system been effective as far as you are concerned:
 - 1. Very effective.
 - 2. Quite effective.
 - 3. Somewhat effective.
 - 4. Ineffective.

- 133. Do your AFROTC instructors usually appear to have a definite, accurate, and consistent method of changing scores to grades:
 - 1. Yes, always.
 - 2. Usually.
 - 3. Sometimes.
 - 4. Seldom.
- 134. In your opinion, how glamorous do other people think a pilot's job is:
 - 1. They think it is a very glamorous job.
 - 2. They think it has some glamor.
 - 3. They think it has a little glamor.
 - 4. They think it has no glamor.
- 135. What is your estimation of the value of AFROTC instruction as training for American citizenship:
 - 1. Great value.
 - 2. Some value.
 - 3. Little value.
 - 4. No value.
- 136. Have you ever held an A and E (Airplane and Engine) mechanic's license:
 - 1. Yes.
 - 2. No.
- 137. The Air Force retirement program is:
 - 1. Very unattractive.
 - 2. Somewhat unattractive.
 - 3. Somewhat attractive.
 - 4. Very attractive.
 - 5. I don't know.
- 138. What year of college have you completed (up to the end of this spring term, June 15, 1955):
 - 1. 1st.
 - 2. 2nd.
 - 3. 3rd.
 - 4. 4th.

- 139. Do you think AFROTC instructors should check the spelling and punctuation of written papers and consider this when grading:
 - 1. Yes.
 - 2. Indifferent.
 - 3. No.

140. Do you take pride in the way you wear your uniform:

- 1. Very much so.
- 2. Usually.
- 3. Sometimes.
- 4. No.

141. How often do you read the Air Force Times:

- 1. Regularly.
- 2. Sometimes.
- 3. Seldom.
- 4. Never.

142. How glamorous do you think a pilot's job is:

- 1. It is a very glamorous job.
- 2. It has some glamor.
- 3. It has a little glamor.
- 4. It has no glamor.

PART II

Select one of the following answers to each question in this section:

- 1. Agree completely.
- 2. Agree somewhat.
- 3. Disagree somewhat.
- 4. Disagree completely.
- 5. Don't know.

143. There are times when it seems that everyone is against you.

ì

144. Most people are stupid.

- 145. Most people fulfill their duties even when being watched.
- 146. Most people know what to do without being told.
- 147. Far too many people try to take as much as they can and give as little as possible back to society.
- 148. Most people learn quickly to avoid making the same mistake twice.
- 149. You generally keep cool and think clearly in exciting situations.
- 150. Some people deliberately make things hard for you.

TURN ANSWER SHEET OVER AND CONTINUE WORKING

- 151. Your interests change quickly from one thing to another.
- 152. You daydream a great deal.
- 153. You keep in fairly uniform spirits.
- 154. You sometimes feel "just miserable" for no reason at all.
- 155. There are far too many useless laws which hamper an individual's personal freedom.
- 156. The number of "two-faced" individuals you have known is actually very small.
- 157. Most groups of people behave like a bunch of sheep; that is, they blindly follow a leader.
- 158. In general, people higher up tend to assume their share of dirty work, not leaving it for others to do.
- 159. If you want a thing done right, you must do it yourself.
- 160. Most people use politeness to cover up what is really "cutthroat" competition.
- 161. Nearly all people try to do the right thing when given a chance.

- 162. You are sometimes bubbling over with energy and sometimes very sluggish.
- 163. You often find it difficult to go to sleep at night because you keep thinking of what happened during the day.
- 164. Your moods often change from happiness to sadness, or vice versa, without you knowing why.
- 165. Your mood is very easily influenced by people around you.
- 166. You often feel grouchy.
- 167. There are times when your mind seems to work very slowly and other times when it works very rapidly.
- 168. You often feel guilty without a very good reason for it.

PART III

In this section, read each sentence carefully and consider how it describes your own experience. Then insert the number of the answer given below which is most nearly correct in your case, beside the number of the question on the answer sheet:

- 1. Almost always.
- 2. Often.
- 3. Occasionally.
- 4. Once in a great while.
- 5. Never.

169. I sweat easily, even when it is not hot.

170. I am restless.

171. I blush easily.

172. My mouth gets dry.

173. My hands shake and tremble whenever I try to do something.

174. I have a tendency to get pale.

- 175. My feet get cold, even when it is warm.
- 176. I breathe rapidly even when I have not been exercising.
- 177. I tend to get a "lump in my throat."
- 178. I tend to choke unexpectedly.
- 179. I have trouble holding my attention on one thing for any length of time.
- 180. I feel that things aren't going well this term and that something terrible is about to happen.
- 181. I feel very happy this term and think that things are going wonderfully for me.
- 182. I have a tendency to become irritated.
- 183. I feel self-conscious and embarrassed many times.
- 184. I feel upset and anxious.
- 185. I tend to feel listless and unenergetic.
- 186. I feel helpless in the face of a problem.
- 187. I get tired and worn out easily.
- 188. I feel like throwing up.
- 189. I have many headaches.
- 190. I am often hungry and can't seem to eat enough.
- 191. I get diarrhea (the runs) quite often.
- 192. I become constipated (don't move my bowels) for several days at a time.
- 193. I often become sleepy even when I get enough sleep.
- 194. Sometimes I get dizzy for no apparent reason.

- 195. I cry easily.
- 196. I get little nervous movements and twitches, or tremors.
- 197. I have frightening nightmares.
- 198. I throw up.
- 199. I have many doubts about how successful I will be.
- 200. I find it hard to make decisions.
- 201. I totally forget things that have happened to me.
- 202. I feel that I can't keep myself from doing certain things I don't want to do.
- 203. I become afraid of things or situations that I know I should not fear.
- 204. I'm very suspicious.
- 205. I feel very guilty and depressed over things I have done.
- 206. I get very tired and energyless.
- 207. I think I am sick a great deal of the time.

208. I get certain ideas in my mind and can't seem to get rid of them.

- 209. Criticism disturbs you.
- 210. People blame you for things you didn't do.
- 211. You are too touchy about some things.
- 212. You get into scrapes which you did not seek to stir up.
- 213. You get over a humiliating experience very quickly.
- 214. Certain people deliberately say or do things to annoy you.
- 215. People criticize you unjustly to others.

216. You are too sensitive for your own good.

217. You seek the advice of other people.

STOP STOP STOP

Do not put any more answers on answer sheet #1. Finish questionnaire using answer sheet #2.

PART IV

GIVE ONE OF THE FOLLOWING ANSWERS TO EACH QUESTION IN THIS SECTION:

- 1. Agree completely.
- 2. Agree pretty much.
- 3. Agree a little.
- 4. Disagree a little.
- 5. Disagree pretty much.
- 6. Disagree completely.
- 1. Obedience and respect for authority are the most important virtues children can learn.
- 2. No weakness or difficulty can hold us back if we have enough will power.
- 3. Science has its place, but there are many important things that can never possibly be understood by the human mind.
- 4. People can be placed in two separate classes: the weak and the strong.
- 5. Nowadays more and more people are prying into matters that should be personal and private.
- 6. America is getting so far from the true American way of life that force may be necessary to restore it.
- 7. Every person should have faith in some supernatural power whom he obeys without question.

- 8. Human nature being what it is, there will always be war and conflict.
- 9. Rank should have its privileges.
- 10. If a man can't use his authority properly, he should lose it.
- 11. A sense of duty is the virtue that distinguishes the true leader from a clock-punching employee.
- 12. There is no place in the Air Force for a display of temper.
- 13. A leader of a group should be more concerned about the needs of his followers than with the obligations to his superiors.
- 14. An officer should be a man of character and a true American.
- 15. Parades develop unit pride.
- 16. It is a psychological fact that familiarity between officers and airmen breeds contempt.
- 17. An airman who salutes smartly and proudly can be counted on to perform his duties in the same spirit.
- 18. The rank insignia of a commissioned officer is the mark of a well-trined man, capable of doing any job.
- 19. It is good discipline for an officer to lose his temper occasionally.
- 20. A leader can drive his men as hard as he wants, as long as he drives himself harder.
- 21. The amount of respect accorded a man should depend upon his ability and not his rank.
- 22. Men in the Air Force soon learn to like military life as well as they like civilian life.
- 23. You can usually tell a good officer by his appearance.

- 24. Precision close-order drill provides the essential basis for efficient performance in any Air Force job.
- 25. A good officer makes it a practice to remain on formal terms with his men off duty as well as on.
- 26. The kind of security which men in the Air Force have is more valuable than anything you can get in civilian life.
- 27. To perform his patriotic duty to the limit of his ability should be what every airman wants most.
- 28. Nobody ever learned anything really important except by suffering.
- 29. Lynchings are justified when they are for rape.
- 30. Men should not be expected to work for a woman boss.
- 31. Though we don't understand it, there is a purpose behind natural disasters like floods and earthquakes.
- 32. Houses of prostitution aren't as bad as some people think.
- 33. After the people have elected a man for public office, they should be willing to follow him without question.
- 34. A person who is outstanding in one kind of work will probably be outstanding in all kinds of work done.
- 35. In some areas of our country, discrimination is necessary to keep minority groups from getting out of line.
- 36. No sane, normal, decent person could think of hurting a close relative or friend.
- 37. Wars and other troubles may someday be ended by an earthquake or flood that will destroy the whole world.
- 38. Most of the country's problems would be solved if we could somehow get rid of all the immoral, crooked, and feebleminded people.

- 39. The businessman and the manufacturer are much more important than the artist and the professor.
- 40. If people would talk less and work more, everybody would be better off.
- 41. Homosexuals are hardly better than criminals and ought to be severely punished.
- 42. When a person has a problem or a worry, it is best for him not to think about it.
- 43. A person who has bad manners, habits, and breeding can hardly expect to get along with decent people.
- 44. What youth needs most is strict discipline and the will to work and fight for his country.
- 45. An insult to our honor should always be punished.
- 46. It would be a waste of time and money to allow girls to take AFROTC.
- 47. There is something wrong with the man who doesn't want to do everything better than the other fellow.
- 48. A man should respect and follow his father's advice.
- 49. If you helped a man up the ladder of success, you should be able to count on him for something in return.
- 50. Daydreaming never got anyone anywhere; it's what a person does, not what he thinks about doing, that counts.
- 51. It is old-fashioned to think that husbands should not help with the housework.
- 52. Some men are born to lead and others to follow.
- 53. Men are able to develop their intellectual abilities better at all-male schools and colleges.

- 54. If a man disagrees with the regulations of a group, he should get out of it.
- 55. In times of trouble, a man can always turn to the Supreme power for help.
- 56. A man should respect and follow his father's advice.

PART V

Place the number on the answer sheet which comes closest to expressing your feeling about the question asked:

57. Have you ever been refused admission to advanced AFROTC:

1. Yes. 2. No.

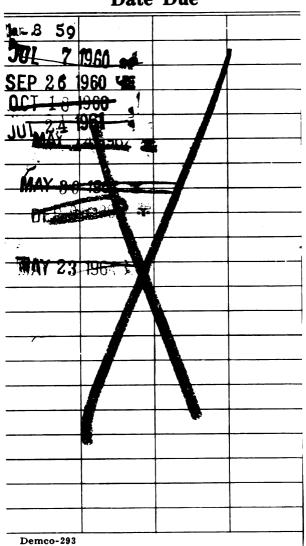
- 58. About what would you estimate your father's yearly income to be:
 - Under \$3,000.
 Between \$3,000 and \$5,000.
 Between \$5,000 and \$7,500.
 Between \$7,500 and \$10,000.
 Between \$10,000 and \$25,000.
 Over \$25,000.
 - 7. Father deceased.

59. Where did you spend most of the first 16 years of your life:

In a place of more than 500,000 people.
 In a place of 100,000 to 500,000 people.
 In a place of 25,000 to 100,000 people.
 In a place of 5,000 to 25,000 people.
 In a place of 2,500 to 5,000 people.
 In a place of 1,000 to 2,500 people.
 In a village of less than 1,000 people.
 In a sparsely populated rural group.

- 60. Which one of the following has most increased your interest in wanting to fly:
 - 1. Civilian sources (magazines, newspapers, movies).
 - 2. Friends.
 - 3. Non-AFROTC college courses.
 - 4. AFROTC courses (lectures, discussions, films, etc.).
 - 5. AFROTC instructors (outside of class).
 - 6. Air Force publications (magazines, newspapers, etc.).
- 61. Which one of the following has decreased your interest in wanting to fly, the most:
 - 1. Civilian publications (magazines, newspapers, movies, etc.).
 - 2. Non-AFROTC courses.
 - 3. Friends.
 - 4. AFROTC courses (lectures, films, discussions, etc.).
 - 5. AFROTC instructors (outside of class).
 - 6. Former AFROTC students who have served on active duty.
 - 7. Air Force publications (magazines, newspapers, etc.).
- 62. How many terms of college work have you completed (up to the end of this term, June, 1955):
 - l. One.
 - 2. Two.
 - 3. Three.
 - 4. Four.
 - 5. Five.
 - 6. Six.
 - 7. Seven.
 - 8. Eight.
 - 9. Nine.
 - 10. Ten.
 - 11. Eleven.
 - 12. Twelve.

ROOM USE ONLY

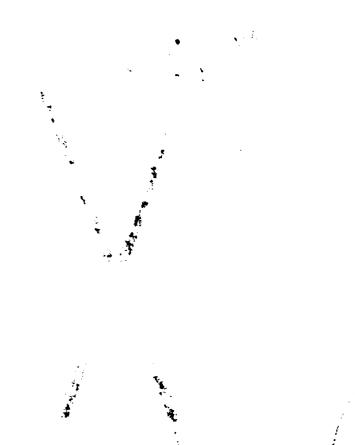


Date Due

. .

. .

.



.

