

AN ABSTRACT OF THE THESIS OF

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(Name) (Degree)

in EDUCATION presented on October 9, 1970
(Major) (Date)

Title: THE SIGNIFICANCE OF PATERNAL EDUCATION AND OCCU-
PATION AS CONTRIBUTING FACTORS IN THE IDENTIFICA-
TION OF MANAGERIAL MOTIVATION IN THE HIGH SCHOOL
SENIOR BOY

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Abstract approved: _____

Franklin R. Zeran _____

In recent years the business community has become vitally concerned with problems of management development--particularly as an increased need for manpower in the management specialists fields becomes apparent.

The early identification of management potential, improved methods of training, and improved placement must be utilized if these demands for managerial personnel are to be met.

The primary emphasis of this study is to determine whether managerial motivation, or potential, can be predicted as early as the senior year on the high school level, and to identify the attitudes of this age group towards those characteristics that have been identified as managerial role requirements.

In addition, the study attempts to determine the significance that

the occupation and education of a boy's father has had on influencing the boy's attitudes towards these managerial role requirements.

All senior boys at Foothill High School in Sacramento, California, were tested with the Miner Sentence Completion Scale, an instrument designed to extract information that are characteristically managerial role requirements, and an Item Score and a Rare Score obtained.

The sample was categorized into experimental groups--by occupation of the respondent's father, and by the education of the respondent's father, and the resulting mean Item Scores, Rare Scores, and Subscale Scores from the Miner Sentence Completion Scale compared.

The following table compares the mean Item Scores, Rare Scores, and Subscale Scores of the eight occupational classifications in the Occupation Group. The occupational classifications were as follows:

Deceased or Unemployed Military or Law Enforcement Labor or Operatives Craftsman	Technical Sales Proprietorship, Managerial, or Supervisory Professional
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Subscales	D-E	M-LE	L-O	C	T	S	P-M-S	P
Item Score	2.14	2.38	1.92	3.58	-.53	2.43	5.24	.61
Rare Score	-.86	-1.62	-1.04	-.52	-1.20	-.50	.24	-1.17
Authority Figures	1.14	1.12	1.00	1.85	1.00	1.07	1.32	1.17
Competitive Games	.14	.88	.42	1.00	.40	.71	1.96	2.06
Competitive Situations	-.71	-.13	-.71	-.09	-1.47	-1.00	-.12	-.67
Masculine Role	1.00	0.00	.79	.73	-.47	.29	.96	-.33
Imposing Wishes	1.29	.75	.96	.70	1.40	1.57	1.00	.56
Standing Out from Group	.57	.50	.46	.15	0.00	1.07	1.08	.28
Routine Administrative Functions	-.71	-.38	-1.08	-.70	.27	-.43	0.00	-.39

As the table indicates, seven of the mean Item Scores were positive. However, seven of the Rare Scores scored negative. The subscales scored predominantly positive means in all classifications. Two subscales, Competitive Situations and Routine Administrative Functions, scored negative. This indicates that the high school age boy does not desire to compete and strive for success on occupational or work-related activities, nor does he react favorably to motivation in the area of routine administrative duties associated with managerial work.

The population categorized by formal education of the respondents fathers utilized the following educational classifications:

College Degree	High School Diploma
Less than College Degree	Less than High School Diploma

The following table compares the mean Item Scores, Rare Scores, and Subscale Scores of the four educational classifications in the Education Group.

Subscales	CD	-CD	HSD	-HSD
Item Score	2.43	1.20	3.75	2.38
Rare Score	-.81	1.33	-.02	-1.27
Authority Figures	1.83	1.00	1.26	1.58
Competitive Games	2.19	.75	1.28	.08
Competitive Situations	-.43	-1.00	-.02	-1.08
Masculine Role	0.00	.58	.32	1.15
Imposing Wishes	.86	1.18	.86	1.15
Standing Out from Group	.71	.55	.44	.46
Routine Administrative Functions	.24	-1.03	-.19	-.54

In the Education Group, all four classifications scored positive mean Item Scores, but only one of the four had a positive Rare Score. As with the Occupation Group, the Education Group scored predominantly negative means in the Competitive Situations and Routine Administrative Functions subscales.

For a final comparison, the subscales of each occupational and educational classification were compared with one another. Significance was indicated by the resulting "t" scores with a reliable comparison of $p < .10$. Within both the occupational and educational groups, the comparisons failed to achieve any degree of significance, indicating that neither the occupation of a boy's father nor the amount of his formal education any degree of influence on the boy's attitudes towards managerial role requirements.

The results of this study indicate that managerial motivation does develop prior to entry into a managerial career and that it is identifiable in the high school age boy. Since the Rare Score cuts through the more superficial content of responses to their real meaning, it was considered a more accurate predictor of potential managerial success than the Item Score. The results indicate, then, based on the Rare Scores, that the occupation of a boy's father and the amount of formal education the father has attained are no longer the significant factors in influencing a son's attitudes towards the role requirements necessary for a successful managerial career they once were.

The Significance of Paternal Education and Occupation as
Contributing Factors in the Identification of Managerial
Motivation in the High School Senior Boy

by

Lewis Albert Cain

A THESIS

submitted to

Oregon State University

in partial fulfillment of
the requirements for the
degree of

Doctor of Philosophy

June 1971

APPROVED:

Redacted for Privacy

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Date thesis is presented October 9, 1970

Typed by Gwendolyn Hansen for Lewis Albert Cain

To my committee for their time and effort, to Dr. Zeran for his guidance and direction, to my children, Jeff, Allison, and Derek for their understanding and patience, and particularly to my wife, Alice for her encouragement and three years as an "academic widow," I gratefully say "Thank You!"

Lew Cain

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CHAPTER I

INTRODUCTION

The Problem

In recent years the business community has become not only cognizant of, but vitally concerned with the problems associated with management development and the importance to the business community of leadership. Authorities (Thomas, Jerdee, and Nash, 1961) feel that the rapid growth in our business population and economy, trends toward decentralization, and technological advancement have all been influential factors in increasing an awareness of these problems. In Wolfbein's (1968) opinion, as enterprises grow larger an increased need for more manpower in the various areas of management specialists will be needed--particularly in the salaried managerial group and in the proprietary fields. These needs will also be experienced in the single proprietorship enterprise as the owner-operated franchises continue their rapid rate of growth.

The U. S. Department of Labor indicates a dearth of people in the 35-44 year age bracket. These usually were the ages where were found our young executives. Subsequently, the management trainees

were found in the 25-34 age group. Now with this impending dearth in the 35-44 year range, it means that junior or young executives must come from the 25-34 age level. This means the trainees will need to come from the 20-24 age level. Hence, the importance of early identification.

The Labor Force of the United States
Actual 1965/Estimated 1975 by Age, Color (In millions)

	White			Non-white		
	Male			Male		
	1965	1975	% Change 1965-75	1965	1975	% Change 1965-75
14 years and over	46.5	53.7	15%	5.2	6.5	26%
14 - 19	4.1	4.8	19	.5	.8	46
20 - 24	5.2	7.3	39	.7	1.0	50
25 - 34	9.5	13.3	40	1.2	1.7	48
35 - 44	10.4	9.5	--8	1.1	1.1	1
45 - 54	9.2	9.8	6	.9	1.0	12
55 - 64	6.2	7.1	15	.6	.7	18
65 years and over	1.9	1.9	--2	.2	.2	--

Source: Based on U. S. Department of Labor, Bureau of Labor Statistics, Special Labor Force Report, "Labor Force Projections, by Color 1970-80," Monthly Labor Review, September 1966.

In the past, the institutions of higher learning had been charged with a major responsibility for educating enough manpower to meet the demands for managerial personnel. For the most part they were able to meet this challenge. However, the Schools of Business and

Technology, today, are falling behind in meeting these demands. The problem becomes, then, one of utilization of manpower potential. Only through the improved identification of this potential, through improved methods of training in its development, and through improved placement for more effective performance can management potential be utilized to its fullest capacity. Young people with the potential for a successful managerial career will have to be identified at an early age--before they reach the graduate level. They will have to be identified and informed of their potential and the opportunities available to individuals with this potential, so that their decision-making can be based on as complete occupational information as possible.

Statement of the Problem

According to Maslow (1969, p. 123).

It is possible to study in fruitful ways the values of human beings. This is true in the most obvious way: e. g., we have the Allport-Vernon-Lindzey test for values which enables us to say crudely that a person prefers religious values, for instance, to political or esthetic ones. It is equally true, though less obvious, that the many studies of the food preferences of monkeys, for example, can be considered to be descriptions of what is valuable to the animal. So also for the free-choice and self-choice experiments that have been done in many areas. Any studies of choice or preference or selection may be considered to be, in a particular and useful sense, the study of values, either instrumental or final.

While the primary emphasis of this study is on the ability of the Miner Sentence Completion Scale to predict managerial motivation as

early as the senior year on the high school level, this instrument should serve to identify the expressed attitudes of this age group towards those characteristics that can be identified as managerial role requirements.

Miner (1968a) hypothesizes six general types of managerial role requirements.

1. A manager should have a positive relationship with his superiors.
2. A manager should compete actively with other managers at his own level.
3. A manager should behave in accordance with the prescriptions of the masculine role as defined in our society.
4. A manager should impose his wishes upon and direct his subordinates; he should exercise power.
5. A manager should stand out from the group and assume a unique position.
6. A manager should carry out such routine administrative duties as his job may require.

In matching these role requirements, the successful manager, according to Miner, should possess strong motives toward:

1. A favorable attitude toward authority.
2. A desire to compete.
3. A desire to follow basically masculine behavior patterns.
4. A desire to impose his wishes on others.
5. A desire to stand out from the group.
6. A desire to perform routine administrative functions.

Hence, this inquiry, specifically seeks answers to the questions:

1. Does the high school senior boy have a favorable attitude towards authority?
2. What are his reactions to competition--on both an athletic and occupation-oriented basis?
3. How important to him is the concept of masculinity--the male-role model?
4. Is he typically a leader or a follower?
5. How individualistic is he? What are his attitudes towards being a member of the group--or does he prefer standing out from the group?
6. What does he think of routine types of functions?

In addition, the study attempts to determine the significance that the occupation and education of a boy's father has had on influencing the boy's attitudes towards managerial role requirements.

Thus, if a boy could be tested at an early age, and if the instrument could suggest or indicate that he has the characteristics to potentially function successfully in a managerial career, then the school counselor could use this information as a basis to present further educational and training opportunities in the areas of management, and the boy could begin exploring occupational opportunities in management at a much earlier age.

Dr. John B. Miner at the University of Maryland has been investigating in the area of the identification of managerial motivation. He has designed an instrument that purports to measure management

potential. Dr. Miner has employed his instrument in a variety of disciplines, all with apparent success. While investigating the level of power motivation in various occupational groups (Miner, 1963a), he found that his results were consistent with the supervisory interest measure developed from the Kuder Preference Record. Test results in his studies in the Research and Development Department and Marketing Department of a large corporation, in a Department Store Study, in a Bank Management Study, and in a School Administrator Study, established comparative norms as well as identifying certain traits that a successful manager should possess (Miner, 1961, 1964, 1968a).

For a person to succeed in managerial work, it is assumed that he possesses the necessary motivation appropriate to the requirements for successful managing (Miner, 1965b, p. 226).

A favorable attitude toward supervisory work is an important factor in managerial performance. People who enjoy supervising others, who find pleasure in organizing and directing the work of subordinates, are more likely to be good managers than those who dislike such activities or find them emotionally disturbing.

Miner's findings led him later to reconceptualize his results. To study the determinants of managerial success, he studied groups of students preparing for managerial positions rather than actual managers (Miner, 1968b). His study was carried out on the graduate and undergraduate levels in the School of Business at the University of Oregon. His results indicated that early identification of managerial

talent is possible.

This investigation, then, is based on Miner's assumptions that there are particular types of people who characteristically respond with increased motivation to meet managerial role requirements and that these individuals can be identified in advance so that a maximum return from the investment in training may be obtained.

In addition, it will be the broad purpose of this study to investigate whether managerial motivation can be identified in a boy as early as the senior year at the high school level, and the significance of the education and occupation of the boy's father on this managerial motivation.

In their study of social mobility in industrial society, Lipset and Bendix (1959) found a close relationship between the type of job a son enters in the labor market and the type of job in which his father is employed. They also found that only through a college education was upward mobility achieved as the parent's social status was related both to the son's first job and to the pattern of his later career.

Scope and Delimitation

This study is delimited to data gathered from the Miner Sentence Completion Scale submitted to the senior boys of the 1970 graduating class of Foothill High School in Sacramento, California. There were 144 subjects in the sample. With the exception of a few who insisted on "retaining their rights to individuality" and refused to participate

in the experiment, all boys of this class were used as subjects. All were between the ages of 17 and 19 and all were full-time students. There was no attempt to differentiate between Caucasian and minority races. By including all boys in the senior class, the sample is, in itself, a specific population. As such, in the writer's opinion, the data collected, after being analyzed and interpreted, will produce correct inferences as to all high school boys as an aggregate or population.

Foothill Senior High School is the local high school for the Foothill Farms subdivision, a suburb of Greater Sacramento. The homes in this area have been appraised around \$20,000, so it can be said that from a parental income, the majority of the boys are from typically middleclass background. However, since a good portion of the total school population is bussed to the campus, the sample also included some students from outside the immediate area.

Definition of Terms

Miner Sentence Completion Scale: The Miner Sentence Completion Scale is a 40 stem (open-ended) sentence completion test covering all aspects of human motivation considered to be of importance in meeting generalized managerial role requirements. Thus, those obtaining high scores on the test would be expected to perform at equally high levels of various indexes of managerial success.

Rare Score: The Rare Score is that score obtained on the Miner Sentence Completion Scale which has a basic assumption that only a pattern of responses which is rare or unusual in the group of which the subject is a member is really indicative of the presence of a characteristic. For purposes of this study, a pattern was considered rare if it occurred no more than five percent of the time.

Item Score: The Item Score is that score obtained on the Miner Sentence Completion Scale that requires no collection of normative data as a prerequisite to scoring. It was computed by obtaining the differences between the number of positive and negative responses under the seven subscales of the Miner Sentence Completion Scale.

Response: A response represents the positive, neutral, or negative emotion or motivation that a subject experienced in association with the content of an item on the Miner Sentence Completion Scale.

Authority Figure Subscale: That subscale of the Miner Sentence Completion Scale that provides information regarding a subject's capacity to meet role requirements in the area of relationships with his superiors.

Competitive Games Subscale: That subscale of the Miner Sentence Completion Scale that provides information regarding the desire to compete and strive for success--dealing with activities which are essentially extra-occupational and largely recreational for business managers.

Competitive Situations Subscale: That subscale of the Miner Sentence Completion Scale that also provides information regarding the desire to compete and strive for success, but tends to focus generally on occupational or work-related activities.

Masculine Role Subscale: That subscale of the Miner Sentence Completion Scale that, though a large degree symbolic in content, designates activities of a type in our society which are considered predominantly masculine. Subjects who give positively toned responses to these items reflect a desire to behave in accordance with the masculine model and to meet managerial job prescriptions in this area.

Imposing Wishes Subscale: That subscale of the Miner Sentence Completion Scale that refers to the directing or controlling the behavior of others. This subscale attempts to get at the degree of willingness, or desire, to tell others what to do and to utilize sanctions in influencing others.

Standing Out from Group Subscale: That subscale of the Miner Sentence Completion Scale that describes instances where an individual is placed in a unique and highly visible position relative to a homogeneous group.

Routine Administrative Functions Subscale: That subscale of the Miner Sentence Completion Scale that refers to different activities which are often associated with managerial work, the reactions to which provide information regarding motivation in the area of routine

administrative duties and on characteristic behavior patterns.

Experimental Groups: The experimental groups are the three major categories that the subjects have been classified into for purposes of comparative analysis--the Population Group, the Education of Father Group, and the Occupation of Father Group--in order to ascertain whether the education or occupation of the subject's fathers have been significant factors in influencing the attitudes the subjects have towards the role requirements for a successful managerial career.

Population Group: An array of the 144 subjects with no specific criteria other than being arranged alphabetically as members of the sample.

Occupation of Father Group: An array of the 144 subjects categorized into eight specific classifications--by the occupation of the subject's fathers:

1. Fathers who were deceased or unemployed.
2. Fathers engaged in military or law enforcement occupations.
3. Fathers engaged in laborer or operative occupations.
4. Fathers engaged in craftsman occupations.
5. Fathers engaged in technical occupations.
6. Fathers engaged in sales occupations.
7. Fathers engaged in proprietary, managerial, or supervisory occupations.
8. Fathers engaged in professional occupations.

Education of Father Group: An array of the 144 subjects categorized into four specific classifications--by the education of the subject's father:

1. Fathers who held a four-year college degree.
2. Fathers who had attended college but had terminated their education before earning a four-year degree.
3. Fathers who had attended high school and had earned a diploma.
4. Fathers who had not completed the requirements for a high school diploma.

Sample: A small collection from some larger aggregate--the population--about which information is desired.

Population: The whole number, or a specific portion thereof, being studied by statistical methods.

Comparative Significance: A test of significance, in general terms, is a calculation by which the sample results are used to throw light on the truth or falsity of a null hypothesis (Snedecor and Cochran, 1968). A quantity called a test criterion is computed: it measures the extent to which the sample departs from the null hypothesis in some relevant aspect. If the value of the test criterion falls beyond certain limits into a region of rejection, the departure is said to be statistically significant, or more concisely, significant. Tests of significance have the property that if the null hypothesis is true, the probability of obtaining a significant result has a known value, most commonly 0.05

or 0.01. This probability is the significance level of the test.

Mean Score: In a series of values, the mean score is the sum of the values divided by the number of values.

T-Score: That score obtained when making tests of significance for the difference between the means of two independent samples and whose value lies primarily in the comparison of small samples.

Statistical Comparison: Referring to statistical inference, that is, an attempt to make quantitative statements about properties of a population from a knowledge of the results given by a sample.

CHAPTER II

REVIEW OF RELATED LITERATURE

While researching designs for the study of change, Miner (1965b) reported on several studies undertaken that utilized specific instruments as measures of managerial characteristics. These studies indicated that not only are managerial role requirements identifiable, but they are measurable.

Guetzkow, Forehand, and James (1962) utilized the Position Performance Inventory, a 40 item rating form that provided information on decision making skills, policy-making abilities, policy executing abilities, analytic decision-making abilities, consciousness and self-confidence--measures of job effectiveness.

Miles (1960) used an Ohio State University developed instrument, the Leader Behavior Description Questionnaire, as well as the Group Participation Scale and an Open-ended Perceived Change Measure in his study of the ability of subjects to function in relation to groups and organizations.

In the McGehee and Gardner study (1955), production supervisors were measured with three instruments--the Time Study Knowledge Test, the Time Study Rating Scale, and the Time Study Attitude Scale. The instruments were used to measure the specific performance of the supervisors in terms of the company's goals and objectives.

The Levine and Butler study (1952) concentrated on the specific components of managerial work using the Ohio State Leadership Opinion Questionnaire, measuring the subject's attitudes in the area of Consideration and Initiating Structures.

Fleishman, Harris, and Burt (1955) followed up the Levine and Butler study (1952) using both the Leadership Opinion Questionnaire and the Leader Behavior Description test to also measure Consideration and Initiating Structures and other various indexes of performance effectiveness.

DiVesta (1954) used the Personnel Relations Test, an index of knowledge in the area of superior-subordinate relations developed by the Air Force to measure Air Force personnel being trained as medical administrative supervisors.

Mosel and Tsacnaris (1959) utilized the How Supervise? test to measure knowledge and attitude change of Air Force officers and non-commissioned officers performing supervisory duties at the base level.

Bell Telephone executives were measured by Viteles (1959) using the Graduate Record Examination, the Cooperative General Culture Test, the Kuder Preference Record, the Allport-Vernon-Lindzey Study of Values, the Conservatism-Radicalism Opinionnaire and the Significant Issues Questionnaire to determine change in attitudes resulting from the subjects being involved in a ten-month university program covering business, humanities, and the social sciences.

Meadow and Parnes (1959) used the AC Test of Creative Ability-- Part V: Other Uses, and Guilford Plot Titles Low; the Guilford Apparatus, Unusual Uses, and Plot Titles High; the Thematic Apperception Test and the California Personality Inventory to measure whether University of Buffalo School of Business Administration students were capable of producing a greater quantity of ideas after completing a creative problem-solving course.

The Mahoney, Jerdee, and Korman (1960) study utilized the Management Practices Quiz, a Case Analysis Test, and an Attitude Scale to measure the degree of appreciation for management development objectives and the extent of responsibility for self-development of managers of a single firm.

House and Tosi (1963) also concentrated on managers of a single firm in measuring managerial objectives, communication, performance standards, counseling subordinates and participative management using the Responsibility, Authority, and Delegation Scales of the Ralph Stogdill's Satisfaction Scales.

The G. A. Kelly's Role Repertory Measure was used by Harrison (1962) to measure whether primary emphasis is placed on emotional and interpersonal characteristics or on features of an intellectual, physical, or similar nature of upper levels of management in a single company.

Measures of Sensitivity and Employee Orientation were obtained by Lawshe, Bolda, and Brune (1959) using a film strip and questionnaire

as a measuring device in their study of social cues and skills in coping with human problems.

A questionnaire was also used by Buchanan and Brunstetter (1959) to measure the various functions of integration of organizational units, knowledge of company policies, leadership effectiveness, problem-solving skills, communication, meeting effectiveness and delegation of responsibility.

Interpersonal factors in management were measured by Kight and Smith (1959) using an adaption of the parlor game Twenty Questions and a Self-Sight Index.

The Consideration Scale of the Ohio State University Leader Behavior Description was used by Stroud (1959) to also measure personal factors in management.

Industrial personnel, primarily first line supervisors and middle-level managers were measured by Maier (1953) using a Multiple Role-Playing Problem to test the nature of group decision methods and the various ways in which they may be adapted to deal with job problems.

Spector (1958) used the Attitudes Test in Human Relations to measure leadership and management of ROTC officers from ten different schools.

Katzell (1948) measured supervisory job, and the nature of people and leadership using different forms of How Supervise?

administered to intermediate-level supervisors of the Illinois Central Railroad.

Different forms of How Supervise? was also used by Lindholm (1953) in measuring human elements in supervision of all members of management in the home office of a small insurance company.

The Supervisory Inventory on Human Relations and the Human Relations Questionnaire was used by Soik (1959) in measuring human relations attitudes of first line supervisors of the Allen-Bradley Company.

Burke and Bennis (1961) used the Group Semantic Differential to obtain indexes of Perceived Self, Ideal Self and Self as Perceived by Others in measuring Friendliness--Evaluation, Dominance--Potency, and Participation--Activity.

An index of social sensitivity was obtained by Bass (1962) using an eight item Sentence Completion Scale administered to supervisors and executives in a single plant.

Miner (1961) used the Gallup-Thorndike Test to measure managerial interest of 160 members of management in a single large corporation. The results of this research contributed in part to his designing of the Miner Sentence Completion Scale. Miner (1963) also used the Tomkins-Horn Picture Arrangement Test to measure managerial interest of University of Oregon Business School students. The results of this study also contributed to the designing of the Miner

Sentence Completion Scale.

Actual application of the Miner Sentence Completion Scale was reported by Miner (1965a) after administering the instrument to 100 managers in the Research and Development Department of a large corporation. The resulting scores were correlated with various indexes of managerial success. The relationships established were positive and confidence in their stability justified. Those who scored high on the Miner Sentence Completion Scale revealed strong motivation to meet managerial role requirements and also performed at higher levels on the success indexes.

A follow up study of the Research and Development study was conducted by Miner (1965a) a few years after the initial study. When the correlation was actually computed, the results were inconclusive. The original Miner Sentence Completion Scale scores did correlate positively with grade change over the follow-up period, but the relationship was not pronounced.

During an earlier period Miner (1965b) had administered the Miner Sentence Completion Scale to the Marketing Department of this same corporation, making available the scores for a sizeable group of men. In a follow up study of these subjects it was found that correlations with Miner Sentence Completion Scale total scores ran somewhat higher than those in the Research and Development Department study.

A large department store located in a metropolitan area of around 100,000 population was the research site for administering the Miner Sentence Completion Scale to three levels of supervisors-- Department Supervisors, their line assistants, and Selling Supervisors (Miner 1965b). In all instances, reliable results in the prediction of managerial motivation was obtained.

In order to test whether managerial talent could be identified as early as the college age level, the Miner Sentence Completion Scale was administered to a sample of graduate students in the School of Business Administration at the University of Oregon (Miner, 1965b). The results indicated that those students with managerial goals scored much higher on both comprehensive measures obtained from the Miner Sentence Completion Scale--the Item Score and the Rare Score, thus suggesting that managerial motivation is developed at a relatively early age, and that this motivation influences the choice of a managerial career as well as the degree of success achieved in such a career.

Miner and Smith (1969) conducted a research effort to determine whether managerial motivation could be identified at an even earlier age than the graduate level. Their subjects were undergraduates at the University of Oregon in the School of Business Administration as were the graduate school subjects. As with the graduate school students, the undergraduates with managerial goals scored above those without these goals on both comprehensive measures. However, their

scores were significantly below those on the graduate level. The results do indicate, however, that managerial motivation is developed as early as age 20 and that it can be a determinant of career success and a determinant of career choice.

In an attempt to relate various motivational measures to organizational value and reward indexes, Miner (1968a) conducted a research study to determine the association between desire to assume managerial responsibilities and success in managerial work and that of educational organization. The Miner Sentence Completion Scale was administered to the administrative components of four school districts in the Pacific Northwest. No significant correlations were obtained as the test results indicated that reward, salary, grade level, or age were unrelated to the test indexes even though certain component variables represent valued characteristics in educational organizations. Thus, these test results indicate that the type of managerial motivation measured by the Miner Sentence Completion Scale is not typically apparent in school systems.

As previously mentioned, graduate students headed for managerial careers score higher on the Miner Sentence Completion Scale than those not considering management as their career objective. The same question can be asked regarding the field of school administration. Do graduate students in Educational Administration possess strong managerial motives? Miner (1968a) attempted to answer this with

research in graduate education classes at the University of Oregon. The results indicated that students with administrative objectives do not stand out from those with non administrative objectives, as did the business administration students. Even though it appears that the theory of managerial motivation does not at all apply in the field of education, the data does not necessarily support this generalization. Administrators who possess or lack the characteristics identified as managerial role requirements are considered outstanding or unsatisfactory accordingly.

The literature thus reveals that the question of managerial role requirements or characteristics have been in the minds of many researchers for a good many years, and that a variety of instruments have been employed in an attempt to measure these characteristics.

It is the opinion of this writer that although the utilization of the Miner Sentence Completion Scale as a measuring instrument of managerial motivation has been minimal, it is only because it is a relatively new instrument. As researchers become more cognizant of its effectiveness as a predictor of managerial success, its use will become more apparent in the literature.

CHAPTER III

METHODS OF RESEARCH AND SOURCE OF DATA

The research of Lipset and Bendix (1959), in the writer's opinion, has identified the two most contributing factors that could influence a boy's attitude towards a managerial career--a father's occupation and his social status based on the degree of his formal education, both of which relate to his son's first job and the pattern of his later career. On the assumption that the education and occupation of a boy's father are the two most important contributing factors, the sample has been classified into three experimental groups--the population according to the education of the boy's father, the population according to the occupation of the boy's father, and the population as an aggregate with no specific criteria other than alphabetical arrangement.

Norris, Zeran, and Hatch (1966) state that no occupational classification has been developed that meets the needs of all users, and that the type of classification will vary with the purpose of the grouping.

In order to gain a perspective of the educational attainment of all boys' fathers in the sample, the writer felt that four educational classifications would be necessary to systematically arrange the Education of Father Group for comparison. Thus, this population has been classified by (1) College Degree, (2) Less than College Degree,

(3) High School, and (4) Less than High School.

1. A College Degree. This group of fathers had a minimum of four years of college and had earned the bachelor degree. Several had masters degrees and a few, doctorates.

2. Those Fathers Who Attended College but Earned No Four-Year Degree. Many attended three to four years of college, but the majority had from one to two years. A few held associate degrees from junior or community colleges but none had earned a bachelor's degree.

3. Those Fathers Who Had a High School Diploma. This group was composed of those who attended four years of high school and graduated with a diploma. None had entered an institution of higher learning but a few had attended a trade or technical school after graduation or had entered an apprenticeship program of some type.

4. Those Fathers Who Had Less than a High School Education. Fathers who left school in the elementary grades, graduated from eighth grade, or entered high school but didn't finish, were classified in this group.

The classifications of the Occupation of Father Group have been selected so as to also include all father's occupations in this population. The eight categories selected represent an adaption of Edwards socio-economic classification as reported by Norris, Zeran, and Hatch (1966) and that of the U. S. Department of Labor. In order to compare

the occupational status of all represented fathers as contributing factors to the boy's attitudes towards managerial role requirements, two additional classifications other than those categorized by Edwards would be necessary. Thus, Deceased and Unemployed, and Military and Law Enforcement were added to those basically established by Edwards. In addition, a Sales classification was substituted for Edwards' Clerical and Kindred workers. The eight categories in the experimental group classified by the occupation of the father are:

1. Those Fathers Who Were Deceased or Unemployed. This category was established in an attempt to isolate the portion of the sample that would indicate no paternal occupational influence on the boy. The fathers in this group, if not deceased, were unemployed and had been so for sufficient time, in the writer's opinion, to render no occupational influence on the boy.

2. Those Fathers in the Military or Law Enforcement Occupations. Since Foothill High School is located near McClellan Air Force Base, many fathers were military personnel. In addition, as Sacramento is the capitol city of California with many state offices and agencies and also the headquarters for the California Highway Patrol, several fathers were employed as California Highway Patrol officers or as State Police. This category tended to group those fathers who were employed in a very regimented and highly structured occupation. This group could possibly be considered the uniformed worker

group.

3. Those Fathers in Laborer or Operative Occupations. This classification included those fathers who were employed where no special training or skills were needed other than those learned on the job. They were the unskilled laborers--the blue-collar workers.

4. Those Fathers in Craftsman Occupations. These fathers held the semi-skilled laborer occupations such as plumbers, electricians, carpenters, machinests, etc., where somewhat extensive instruction, training, or apprenticeship had to be completed in order to qualify for the occupation. These were members of the trades, but also could be classified as blue-collar workers.

5. Those Fathers in Technical Occupations. This classification was composed of those fathers employed in the skilled occupations requiring either college or a technical education. Para-professionals, engineering and science technicians, and specialists in electronics are examples of occupations in this group. These fathers were considered white-collar workers.

6. Those Fathers in Sales Occupations. This group included those fathers not only engaged in selling at the retail level but those dealing in real and personal property. They, too, would be considered white-collar workers.

7. Those Fathers in Proprietary, Managerial, or Supervisory Occupations. This group included owners of single proprietorship

enterprises as well as the managerial and supervisory personnel of a company or organization. Fathers employed in supervisory positions in a civilian capacity at McClellan Air Force Base were also classified in this group. They are also white-collar workers.

8. Those Fathers Engaged in Professional Occupations.

Teachers, lawyers, doctors, and those occupations requiring at a minimum a bachelor's degree were included in this category.

Prior to administering the instrument, each boy had completed a simple questionnaire that answered not only pertinent information about himself, but the occupation of his father (job title), where the father was employed (company or agency name), and exactly what job duties he performed (job description). In addition, each boy had indicated how he classified his father's occupation--professional, managerial, sales, etc., including the last level of formal education completed by his father. This collected data was used by the writer to categorize subjectively each Miner Sentence Completion Scale response into one of the groupings within the Education by Father and Occupation of Father Groups.

The Instrument

The instrument used in this attempt to identify managerial motivation on the high school level was the Miner Sentence Completion Scale. This instrument contained 40 stems, selected to extract information

that are characteristically managerial role requirements as described in Chapter I, page 4.

These motives are categorized into seven subscales (competitive attitudes includes two subscales) which are measured by the Miner Sentence Completion Scale.

Each subscale may vary from +5 to -5, a range of ten. The +5 indicates strong positive motivation, and -5 strong negative reactions. These seven subscale scores are used to compute an overall index of managerial motivation called the Item Score (Miner, 1965b). A second overall measure, the Rare Score, is also obtained by removing those aspects of motivation that may have been established as a group norm (Miner, 1968b).

The value of the Rare Score is inherent in the fact that it cuts through the more superficial content of responses to their real meaning. It gets at motives which are so dominant that they are manifested repeatedly in response to a variety of similar stimuli. At the same time it minimizes the influence that more conventional completions, which are given largely because of their social desirability or conforming nature, might have on the interpretations made.

The array on the Rare Score may vary from +8 to -8, a range of 16.

Method of Analysis

The Miner Sentence Completion Scale was administered to the experimental group on November 21, 1969. After the instrument had

been completed by each boy, the first step was to categorize each response as either a +, ?, or -. A scoring sheet was used. The + designated a positive or favorable response, one that indicated that the subject was likely to experience positive emotion or motivation in association with the items. The ? was used when no information regarding the boy's own personal attitude or motivation was indicated, or when there was uncertainty regarding the classification of a response. The - was used to indicate negative emotion or motivation. If a response contained both positive and negative elements, it was scored -.

The following examples of responses taken from a sampling of instruments indicate the scope of response obtained. The wording and spelling is that of the boy completing the instrument.

Masculine Role

1. Shooting a rifle is fun because it releases my tension.
2. Wearing a necktie makes me feel like a big man.
- + 3. Country club dances are a great enjoyment and also let you relax.
4. Getting my shoes shined showed that I want to look nice in appearance.
5. When driving a car, I feel like A. J. Foyt.
1. Shooting a rifle, I hit the target.
2. Wearing a necktie is necessary for an office job.
- ? 3. Country club dances might be fun experiences to attend once or twice.

4. Getting my shoes shined is accomplished by paying my brother a quarter.
5. When driving a car, I often forget where I am going.
1. Shooting a rifle is animalistic when aiming at animals but courageous when defending your country.
2. Wearing a necktie makes me feel like I am choking.
- 3. Country club dances are too socially involved for me.
4. Getting my shoes shined embarrasses me.
5. When driving a car, I sometimes get scared.

Imposing Wishes

1. Giving orders is a job I enjoy.
2. When one of my men asks me for advice I'd give it to him to the best of my ability.
- + 3. Conducting a meeting is great fun.
4. Punishing children is for their own good.
5. Getting other people to do what I want comes easy for me because I treat my friends as friends should be treated.
1. Giving orders comes quite naturally.
2. When one of my men asks me for advice I'd try to base it on my own experience.
- ? 3. Conducting a meeting is easy if the participants are polite.
4. Punishing children is up to the children's parents only.
5. Getting other people to do what I want is important to my business.
1. Giving orders is stupid.

2. When one of my men asks me for advice I usually refer him to someone else.
- 3. Conducting a meeting No Thanks!
4. Punishing children has always seemed disgusting, but necessary.
5. Getting other people to do what I want is not a good idea.

Standing Out From Group

1. If I were running my own business I'd feel proud.
 2. Teaching a class would be very enjoyable.
 - + 3. If I am promoted I will strive for another one.
 4. Presenting a report at a staff meeting would be very much fun.
 5. Making introductions is a very joyable occasion.
-
1. If I were running my own business it would be a law firm.
 2. Teaching a class requires cooperation with the students.
 - ? 3. If I am promoted I would accept.
 4. Presenting a report at a staff meeting is something I have not experienced.
 5. Making introductions helps people to meet people.
-
1. If I were running my own business I'd quit!
 2. Teaching a class worries me because I don't like to talk in front of people.
 - 3. If I am promoted I'd feel unsure of the added responsibility.
 4. Presenting a report at a staff meeting would probably be a thing that would make me nervous.
 5. Making introductions usually entails making lies.

Authority Figures

1. My family doctor is a man who is dedicated to his work.
 2. Federal judges are educated men who are to be respected.
 - + 3. Top management takes a top person.
 4. My father is a real swell guy and he's proud of me.
 5. Policemen deserve recognition for the important work they perform.
-
1. My family doctor has a license to practice medicine.
 2. Federal judges should not have conflicts of interest.
 - ? 3. Top management is as high as you can go.
 4. My father is divorced and living in Minnesota.
 5. Policemen are needed more and more everyday in today's society.
-
1. My family doctor doesn't know what he is doing.
 2. Federal judges have entirely too much authority.
 - 3. Top management is very dictatorial and on a power-ego game.
 4. My father is intolerant of other people's happiness.
 5. Policemen are pigs.

Competitive Games

1. Athletic contests bring out the real man in every red or blue blooded American boy.
2. Playing golf is a great sport.
- + 3. When playing cards, I try to win.

4. When running a race, I try my damned hardest to win.
 5. Yacht racing is one of my great loves.
-
1. Athletic contests are necessary to develop the body competitively.
 2. Playing golf I tend to raise my shoulders on the backswing, causing the ball to slice on my drives.
- ?
3. When playing cards, I like to bet.
 4. When running a race, I save my best for last.
 5. Yacht racing looks like fun.
-
1. Athletic contests don't even excite me.
 2. Playing golf is for those who don't want to exercise.
-
3. When playing cards, I feel I'm wasting time.
 4. When running a race, I get tired.
 5. Yacht racing doesn't turn me on.

Competitive Situations

1. Being interviewed for a job is kind of exciting because you have to try and present your best side.
 2. Running for political office is an interesting experience.
- +
3. Getting ahead is one way to a better way of living.
 4. Arguing for a point of view is my way of having fun.
 5. Final examinations are necessary for a cumulative view of your learning.
-
1. Being interviewed for a job I would get a haircut and not wear tennis shoes.

- 2. Running for political office is something I've never done.
- ? 3. Getting ahead is in everyone's mind.
- 4. Arguing for a point of view is frustrating when the person refuses to listen to you.
- 5. Final examinations should be studied for diligently.
- 1. Being interviewed for a job is very nerve-racking.
- 2. Running for political office is one big publicity stunt.
- 3. Getting ahead is not as important as enjoying life.
- 4. Arguing for a point of view isn't worthwhile.
- 5. Final examinations are a real pain.

Routine Administrative Functions

- 1. Sitting behind a desk I feel somewhat more educated than working with my hands.
- 2. Decisions I like to make decisions.
- + 3. Dictating letters would be fun.
- 4. Making long distance telephone calls is great.
- 5. Writing memos are very easy.
- 1. Sitting behind a desk I usually have to work.
- 2. Decisions are important to life and deciding one should be carefully thought out.
- ? 3. Dictating letters is a pretty perplexing experience for the secretary.
- 4. Making long distance telephone calls should be brief, direct conversations, and generally for good news.
- 5. Writing memos keeps me from forgetting.

1. Sitting behind a desk I feel cooped up.
2. Decisions are always hard for me to make.
3. Dictating letters is lazy.
4. Making long distance telephone calls makes the telephone bill go sky-high.
5. Writing memos is a pain.

After each response had been categorized, a positive, neutral, or negative arithmetic total was calculated for each of the seven subscales. For example, if the Standing Out From Group subscale contained three positive responses, one neutral, and one negative, it would be scored a +2.

The next procedure was to determine the Supervisory Job Score (Miner, 1965b). This score is based upon the popularity of the positive and negative responses rather than the stem content of the items in the instrument. It is a measure that draws upon all items of the instrument, but it places them in combinations based on the frequency of a response within a specific normative group. Using Miner's (1965b) determined normative groups, an order of popularity within each of the seven subscales was established. High, high-medium, medium, low-medium, and low popularity indexes for both positive and negative measures were constructed. These measures were then used to obtain the actual + and - scores for the Supervisory Job Index.

After the Supervisory Job Index had been found, the Rare Score

was then computed. From Miner's (1965b, p. 53(SG)) Scoring Guide for the Miner Sentence Completion Scale, the assumption basic to this score

is:

that only a pattern of responses which is rare or unusual in the group of which the subject is a member is really indicative of the presence of a characteristic. A pattern is considered rare if it occurs no more than five per cent of the time. Within this framework, establishing those patterns which are rare becomes a purely empirical matter. Each of the seven subscales yields 31 patterns--5 derived from taking the items one at a time, 10 derived from pairs of items, 10 derived from sets of three items, 5 derived from taking the items four at a time, and finally the total group of five. When a normative group is matched against these patterns, it is possible to determine which combinations of +s and -s are rare in this group.

The rares were identified by comparing the particular combinations of + and - responses on the subscales of each instrument's scoring sheet with those previously established as rare in a given normative group (Miner, 1965b). By totaling the number of subscales including the Supervisory Job measure on which + rares and - rares were identified, and then finding the difference between the number of positive and negative rares, the Rare Score was obtained.

Though the Rare Score was considered a more valid index, an Item Score was then computed. It was found by totaling the number of +s and -s under the seven subscales on the scoring sheet and then finding the difference. This score could vary from a +35 to a minus 35, a range of 70, but because of ? scores, and the fact that +s cancel out -s and vice versa (Miner, 1965b), these extreme values were not

usually obtained.

After the scoring had been completed on each instrument, the sample was ready for arranging into experimental groups. The first grouping was by population--with no attempt to isolate by any pre-determined criteria. An array of the Rare Scores, Item Scores, and each subscale score from the Miner Sentence Completion Scale was established. An arithmetic total was obtained on each response on each of these scores and converted to a percentage of the total population of 144. Since the Rare Score could have a range of 16--8 to -8, the Item Score a range of 70--35 to -35, and each of the subscale scores a range of 10--5 to -5, the total positive and negative response of each score was also found and calculated as a percentage of the total population of 144.

This procedure was also carried out when the population grouping was rearranged into the other two experimental groups--by occupation of the boy's father and by the education of the boy's father.

In order to compare the subscales of the Miner Sentence Completion Scale in relation to the Occupation of Father Experimental Group and Education of Father Experimental Group, the mean scores for the Item Scores, Rare Scores, and each subscale were found. These mean scores identified the subscales as well as the Rare Score and Item Score as either positive or negative.

For further comparison, the significance of the Miner Sentence

Completion Scale subscale scores by Occupation of Father Group and Education of Father Group was also computed. The formula used for testing the difference of two samples of unequal size was:

$$\frac{\sigma^2}{n_1} + \frac{\sigma^2}{n_2} = \sigma^2(1/n_1 + 1/n_2) = \sigma^2\left(\frac{n_1+n_2}{n_1n_2}\right)$$

(Snedecor and Cochran, 1967)

In order to form a pooled estimate of σ^2 , the sums of the squares of deviations in the numerators of s_1^2 and s_2^2 were added and then divided by the sum of their degrees of freedom--pooled s^2 . Each occupational classification was statistically compared with one another as were each educational classification. Significance was indicated by the resulting "t" scores with a reliable comparison of $p < .10$.

The percentage of positive and negative responses, positive and negative Rare Scores, and positive and negative Item Scores on each subscale of the Miner Sentence Completion Scale were also calculated as an additional comparison. This was done in both the Occupation of Father Group and Education of Father Group as an indication of favorable or unfavorable relations to the role requirements of each subscale.

It was felt that by comparing the means of the experimental groups, by comparing the positive and negative responses of the three groups, by comparing the Rare Scores and the Item Scores and by

converting each to percentages, by comparing each subscale within the Education of Father Group and Occupation of Father Group by percentage, and by statistically computing a "t" score for comparative significance, the investigation was thorough and comprehensive.

CHAPTER IV

FINDINGS OF THE STUDY

This chapter is devoted to an analysis of the responses to the survey instrument. Each of the three experimental groups is presented as a section and appears in the following order in this chapter:

1. The Population Group
2. The Occupation of Father Group
3. The Education of Father Group

The Population Group has been examined by the Rare Score and the Item Score and of a comparison of the positive and negative responses on the various subscales of the Miner Sentence Completion Scale.

A response represents the positive, neutral, or negative emotion or motivation that a subject experienced in association with the content of an item on the Miner Sentence Completion Scale. For comparative purposes, only the positive and negative responses have been itemized. The difference between their sum and 100 percent represents neutral reactions, indicating that the subject had neither positive nor negative feelings towards that particular item on the instrument.

Six comparisons were undertaken in both the Occupation of Father Group and the Education of Father Group and appear in the following order:

1. Comparison of Positive and Negative Responses on Miner Sentence Completion Scale Subscales
2. Rare Scores by Occupation
3. Rare Scores by Subscales
4. Item Score
5. Comparison of Mean Scores
6. Significance of Mean Scores

In those comparisons where the various subscales of the Miner Sentence Scale are utilized, they appear in the following order:

1. Authority Figures
2. Competitive Games
3. Competitive Situations
4. Masculine Role
5. Imposing Wishes
6. Standing Out from Group
7. Routine Administrative Functions

The Experimental Group as a Population

The Rare Score

As a total population with emphasis on no particular criteria, the results were extremely interesting. The array on the computed Rare Score ran from +7 to a -7 with the greatest response at 0. This would indicate no particular motivation for or against managerial role

requirements, yet the mean was $-.74$, small, but a definite negative overall reaction as measured by the Rare Score. As a percentage, the Rare Scores were 35 percent positive and 49 percent negative.

The Item Score

The Item Score, however, revealed the opposite. A definite favorable response was obtained on this score--56 percent positive and 34 percent negative. Though the range could have been 70--from +35 to -35, the array ranged from +22 to -15 with the greatest number of responses at +2.

Since the Rare Score was considered the more reliable measure, the results tend to indicate that overall, as a population, the experimental group at the high school age does not favor the role requirements for a successful managerial career. Yet this is somewhat doubtful when the percent of the total experimental group giving positive and negative responses on the various subscales of the Miner Sentence Completion Scale is examined. This can be seen in Table 4 in the appendix.

Miner Sentence Completion Scale Subscale Responses

The positive responses in a comparison of the various subscales of the Miner Sentence Completion Scale reveal that Authority Figures scored 70 percent, Competitive Games 64 percent, Competitive

Situations 32 percent, Masculine Role 49 percent, Imposing Wishes 62 percent, Standing Out from Group 49 percent, and Routine Administrative Functions 33 percent.

The negative responses on these subscales were Authority Figures 15 percent, Competitive Games 28 percent, Competitive Situations 51 percent, Masculine Role 32 percent, Imposing Wishes 27 percent, Standing Out from Group 30 percent, and Routine Administrative Functions 52 percent.

These results indicate that the subjects have a strong preference to get along with supervisors, to compete with their peers in various games and sports, and to be manly--to appear of the masculine model. In addition, they desire to direct or control the interests of others, and to lead--to be individualistic and stand away from the group--to be in a position that attracts attention. Though the subjects indicated a preference for competing athletically, they do not desire competition in occupational and work-related activities, nor do they indicate motivation for the day to day administrative duties that a manager must perform.

As a total population, the results appear somewhat misleading. Five of the seven subscales and the Item Score indicate positive responses towards the managerial role requirements, yet the Rare Score, which is theoretically a more reliable index, indicates a lack of motivation towards the same requirements.

The Experimental Group by Paternal Occupation

Comparison of Positive and Negative Responses on Miner Sentence Completion Scale Subscales

Deceased or Unemployed Experimental Group

In a comparison of the positive and negative responses of the subscales of the Deceased or Unemployed Experimental Group, four of the seven subscales had greater positive responses than negative (Table 2, Appendix). Collectively, these responses were Authority Figures 71 percent, Competitive Games 43 percent, Competitive Situations 28 percent, Masculine Role 57 percent, Imposing Wishes 71 percent, Standing Out from Group 72 percent, and Routine Administrative Functions 29 percent.

In a comparison of the negative responses, Authority Figures had 14 percent, Competitive Games 43 percent, Competitive Situations 57 percent, Masculine Role 00 percent, Imposing Wishes 29 percent, Standing Out from Group 29 percent, and Routine Administrative Functions 57 percent.

From this comparison it can be seen that the respondents indicated a lack of desire to compete athletically or occupationally, or were interested in routine types of assignments. They did, however, indicate a preference for a role that was predominantly masculine, individualistic, domineering and would place them in a unique and highly

visible position relative to a homogeneous group.

Military or Law Enforcement Experimental Group

In the Military or Law Enforcement Experimental Group, five of the seven subscales scored higher positive responses than negative (Table 3, Appendix). Authority Figures had 75 percent positive, Competitive Games 75 percent, Competitive Situations 38 percent, Masculine Role 50 percent, Imposing Wishes 73 percent, Standing Out from Group 50 percent, and Routine Administrative Functions 25 percent.

The negative responses were Authority Figures 13 percent, Competitive Games 25 percent, Competitive Situations 50 percent, Masculine Role 38 percent, Imposing Wishes 28 percent, Standing Out from Group 38 percent, and Routine Administrative Functions 63 percent.

The high percentages of the positive responses in five of the subscales indicate that this group is definitely inclined towards the managerial role requirements in all areas except competing occupationally and performing routine types of duties.

Laborer or Operative Experimental Group

In the Laborer or Operative Experimental Group, again five of the subscales indicate a positive preference for the managerial role

requirements (Table 4, Appendix). Authority Figures scored 71 percent positive, Competitive Games 50 percent, Competitive Situations 42 percent, Masculine Role 63 percent, Imposing Wishes 67 percent, Standing Out from Group 38 percent and Routine Administrative Functions 17 percent.

The negative responses were Authority Figures 21 percent, Competitive Games 46 percent, Competitive Situations 50 percent, Masculine Role 20 percent, Imposing Wishes 25 percent, Standing Out from Group 25 percent, and Routine Administrative Functions 67 percent.

The negative responses in the Competitive Situations and Routine Administrative Functions subscales indicate that competition in work related activities as well as the routine types of activities were undesirable in the Laborer or Operative Experimental Group.

Craftsman Experimental Group

In the Craftsman Experimental Group, six of the seven subscales scored higher positive responses than negative with only one, Routine Administrative Functions, scoring undesirable (Table 5, Appendix). Authority Figures scored 76 percent positive, Competitive Games 63 percent, Competitive Situations 64 percent, Masculine Role 49 percent, Imposing Wishes 49 percent, Standing Out from Group 39 percent, and Routine Administrative Functions 33 percent.

Negatively, Authority Figures scored 9 percent, Competitive Games 24 percent, Competitive Situations 43 percent, Masculine Role 39 percent, Imposing Wishes 27 percent, Standing Out from Group 36 percent, and Routine Administrative Functions 55 percent.

The high positive responses and the relatively low negative responses indicate a strong preference for practically all managerial role requirements by the subjects in the Craftsman Experimental Group. Again Routine Administrative Functions was the subscale that scored a higher negative response than positive, indicating a lack of desire to perform those routine duties associated with a managerial position.

Technical Experimental Group

Only four of the seven subscales in the Technical Experimental Group scored favorable (Table 6, Appendix). Authority Figures scored 60 percent positive, Competitive Games 60 percent, Competitive Situations 20 percent, Masculine Role 27 percent, Imposing Wishes 73 percent, Standing Out from Group 15 percent, and Routine Administrative Functions 53 percent.

The negative responses indicate that in those subscales where managerial role requirements have not been met, the responses are highly negative, i. e., 67 percent in Competitive Situations, 53 percent in Masculine Role, and to a lesser degree, 33 percent in Standing Out

from Group. The other subscales scored Authority Figures 33 percent negative, Competitive Games 40 percent, Imposing Wishes 20 percent, and Routine Administrative Functions 40 percent.

It was interesting to note that the Routine Administrative Functions subscale scored positive. This could be expected as so much of the work of a technical worker is routine--though usually on a highly skilled plane.

Sales Experimental Group

In the Sales Experimental Group, again a decline in the managerial role requirements is in evidence with only three of the seven subscales scoring as positive, or desirable. Two, however, were neither positive nor negative, with Authority Figures and Masculine Role scoring an equal percentage of positive and negative (Table 7, Appendix).

Overall, the positive responses were Authority Figures 50 percent, Competitive Games 50 percent, Competitive Situations 21 percent, Masculine Role 43 percent, Imposing Wishes 79 percent, Standing Out from Group 64 percent, and Routine Administrative Functions 43 percent.

The negative responses were Authority Figures 50 percent, Competitive Games 29 percent, Competitive Situations 72 percent, Masculine Role 43 percent, Imposing Wishes 14 percent, Standing Out

from Group 29 percent, and Routine Administrative Functions 57 percent.

The Sales Experimental Group indicates a strong desire to compete athletically, to control the behavior of others, and to be placed in a highly visible position relative to the group. On the other hand, this group does not desire to compete in work related activities or to perform those routine functions associated with administrative responsibilities.

Proprietary, Managerial, or Supervisory Experimental Group

As could be expected, the Proprietary, Managerial, or Supervisory Experimental Group scored relatively high insofar as fulfilling the managerial role requirements. Only one--competing in work related activities--scored negatively, which could be explained as a characteristic relative to this homogeneous group (Table 8, Appendix).

Authority Figures scored 68 percent positive, Competitive Games 80 percent, Competitive Situations 36 percent, Masculine Role 68 percent, Imposing Wishes 64 percent, Standing Out from Group 64 percent, and Routine Administrative Functions 52 percent.

The negative responses were Authority Figures 16 percent, Competitive Games 12 percent, Competitive Situations 48 percent, Masculine Role 16 percent, Imposing Wishes 32 percent, Standing Out from Group 24 percent, and Routine Administrative Functions 36 percent.

The positive responses were extremely high in relation to the negative, indicating an overwhelming desire to meet the role requirements in the area of relationships with superiors, in competing in those activities which are extra-occupational, in reflecting a desire to behave in accordance with the masculine model, in the desire to tell others what to do, in being apart from the group, and in performing routine administrative duties.

Professional Experimental Group

The positive responses in this group scored Authority Figures 56 percent, Competitive Games 72 percent, Competitive Situations 28 percent, Masculine Role 28 percent, Imposing Wishes 45 percent, Standing Out from Group 56 percent, and Routine Administrative Functions 39 percent.

Negatively, Authority Figures scored 44 percent, Competitive Games 22 percent, Competitive Situations 45 percent, Masculine Role 39 percent, Imposing Wishes 39 percent, Standing Out from Group 33 percent, and Routine Administrative Functions 56 percent.

In the Professional Experimental Group, four of the subscales scored as positive as compared to three negative (Table 9, Appendix). This indicates approximately an equal distribution in meeting or not meeting managerial role requirements. These role requirements were met in the Authority Figures subscale as well as the Competitive

Games, Imposing Wishes, and Standing Out from Group. They were not met in the Competitive Situations, Masculine Role, or Routine Administrative Functions subscales.

Rare Score by Occupation

In a breakdown of positive and negative Rare Scores according to the occupation of the respondent's father, only three of eight occupational classifications indicated positive responses towards managerial role requirements (Table 10, Appendix).

The positive Rare Scores were Deceased or Unemployed Occupational Group 29 percent, Military or Law Enforcement Occupational Group 25 percent, Laborer or Operative Occupational Group 33 percent, Craftsman Occupational Group 33 percent, Technical Occupational Group 27 percent, Sales Occupational Group 50 percent, Proprietary, Managerial, or Supervisory Occupational Group 48 percent, and Professional Occupational Group 28 percent.

The negative Rare Scores were Deceased or Unemployed Occupational Group 43 percent, Military or Law Enforcement Occupational Group 63 percent, Laborer or Operative Occupational Group 17 percent, Craftsman Occupational Group 48 percent, Technical Occupational Group 60 percent, Sales Occupational Group 43 percent, Proprietary, Managerial, or Supervisory Occupational Group 32 percent, and Professional Occupational Group 61 percent.

It can be seen from this comparison that insofar as the occupation of the respondent's fathers is concerned, the Rare Scores do not indicate a desire for the high school age group to meet the role requirements for managerial motivation.

Rare Score by Subscales

Deceased or Unemployed Experimental Group

When the Rare Scores of the Miner Sentence Completion Scale subscales were compared, only one subscale scored as positive, four scored equal positive and negative responses, and three scored with higher negative responses than positive (Table 11, Appendix).

One further measure, the 'Supervisory Job, has been employed as an eighth subscale and is treated like the other seven in computing the Rare Score. When the Miner Sentence Completion Scale is used for purposes of individual assessment, little is lost if the Supervisory Job index is not obtained. However, to increase the Rare Score variance, somewhat, the Supervisory Job index has been computed to provide a general index of motivation to meet role demands in the supervisory area.

In a comparison of the subscales, Authority Figures scored 21 percent positive, Competitive Games 14 percent, Competitive Situations 36 percent, Masculine Role 21 percent, Imposing Wishes 29

percent, Standing Out from Group 14 percent, Routine Administrative Functions 7 percent, and Supervisory Job 36 percent.

In comparing the negative rares, Authority Figures scored 29 percent, Competitive Games 36 percent, Competitive Situations 36 percent, Masculine Role 00 percent, Imposing Wishes 29 percent, Standing Out from Group 14 percent, Routine Administrative Functions 36 percent, and Supervisory Job 36 percent.

Overall, the Rare Score in the Deceased and Unemployed Experimental Group indicates a negative or neutral reaction to the managerial role requirements with the Supervisory Job index indicating an overall undecided attitude.

Military or Law Enforcement Experimental Group

In the Military or Law Enforcement Experimental Group, only two subscales indicate positive rares with the remaining six highly negative in comparison (Table 12, Appendix).

Authority Figures scored 25 percent positive, Competitive Games 19 percent, Competitive Situations 38 percent, Masculine Role 13 percent, Imposing Wishes 19 percent, Standing Out from Group 6 percent, Routine Administrative Functions 6 percent, and Supervisory Job 44 percent.

In comparing the percentage of negative rares, Authority Figures had 13 percent, Competitive Games 31 percent, Competitive Situations

31 percent, Masculine Role 25 percent, Imposing Wishes 38 percent, Standing Out from Group 31 percent, Routine Administrative Functions 38 percent, and Supervisory Job 50 percent.

Again, a lack of motivation towards the managerial role requirements is evident in the Military or Law Enforcement Experimental Group with the Supervisory Job also indicating a somewhat negative attitude.

Laborer or Operative Experimental Group

In the Laborer or Operative Experimental Group, the same general pattern was found. Six of the eight subscales scored negative rares, one had equal negative and positive rares, and only one scored positive (Table 13, Appendix).

The positive rares by percentage were Authority Figures 19 percent, Competitive Games 8 percent, Competitive Situations 21 percent, Masculine Role 23 percent, Imposing Wishes 27 percent, Standing Out from Group 13 percent, Routine Administrative Functions 10 percent, and Supervisory Job 35 percent.

The negative rares were Authority Figures 19 percent, Competitive Games 23 percent, Competitive Situations 25 percent, Masculine Role 8 percent, Imposing Wishes 33 percent, Standing Out from Group 23 percent, Routine Administrative Functions 35 percent, and Supervisory Job 40 percent.

In all seven basic subscales, the percentage of positive and negative rares collectively is quite low, revealing that the Rare Scores in the Laborer or Operative Experimental Group tend to indicate a neutral or undecided attitude towards the managerial role requirements. However, the Supervisory Job index again indicates a somewhat negative attitude.

Craftsman Experimental Group

No degree of change is evident in the Craftsman Experimental Group with only three of the eight subscales indicating positive rares (Table 14, Appendix).

In a comparison of the positive rares, Authority Figures scored 33 percent, Competitive Games 19 percent, Competitive Situations 48 percent, Masculine Role 33 percent, Imposing Wishes 31 percent, Standing Out from Group 15 percent, Routine Administrative Functions 23 percent, and Supervisory Job 46 percent.

The negative rares were Authority Figures 19 percent, Competitive Games 21 percent, Competitive Situations 35 percent, Masculine Role 19 percent, Imposing Wishes 60 percent, Standing Out from Group 35 percent, Routine Administrative Functions 48 percent, and Supervisory Job 50 percent.

The combined negative and positive rares in the Craftsman Experimental Group indicate that many of the respondents in this

group are also undecided, yet the Supervisory Job index reveals a slight negative attitude.

Technical Experimental Group

In the Technical Experimental Group, positive rares decreased, with only Authority Figures and the Supervisory Job index indicating positive emotion to the managerial role requirements (Table 15, Appendix).

Authority Figures had 33 percent positive rares, Competitive Games 10 percent, Competitive Situations 17 percent, Masculine Role 13 percent, Imposing Wishes 30 percent, Standing Out from Group 13 percent, Routine Administrative Functions 17 percent, and Supervisory Job 47 percent.

In comparing the negative rares, it was found that Authority Figures had 30 percent, Competitive Games 23 percent, Competitive Situations 33 percent, Masculine Role 27 percent, Imposing Wishes 37 percent, Standing Out from Group 27 percent, Routine Administrative Functions 37 percent, and Supervisory Job 40 percent.

It was unusual to find a positive supervisory job index, 47 percent positive rares as compared to 40 percent negative. However, in comparing the positive and negative rares in each subscale collectively, it can be seen that the percentage is quite small, indicating that in the Technical Experimental Group, many of the respondents have a neutral

or undecided attitude towards the managerial role requirements.

Sales Experimental Group

Very little change is in evidence in the Sales Experimental Group with only three subscales scoring positive rares. Two subscales had equal positive and negative rares and the remaining three scored negative (Table 16, Appendix).

The positive rares were Authority Figures 29 percent, Competitive Games 11 percent, Competitive Situations 11 percent, Masculine Role 18 percent, Imposing Wishes 36 percent, Standing Out from Group 21 percent, Routine Administrative Functions 21 percent, and Supervisory Job 32 percent.

Negative rare scores were Authority Figures 25 percent, Competitive Games 21 percent, Competitive Situations 29 percent, Masculine Role 18 percent, Imposing Wishes 32 percent, Standing Out from Group 14 percent, Routine Administrative Functions 32 percent, and Supervisory Job 32 percent.

In the Sales Experimental Group, the Supervisory Job index indicates a neutral attitude. This could be expected with an equal distribution of positive and negative subscales in this group.

Proprietary, Managerial, and Supervisory Experimental Group

A definite change was detected in the Proprietary, Managerial, and Supervisory Experimental Group with six of the eight subscales indicating positive rares (Table 17, Appendix).

In a comparison of the positive rares, Authority Figures had 28 percent positive, Competitive Games 18 percent, Competitive Situations 24 percent, Masculine Role 30 percent, Imposing Wishes 26 percent, Standing Out from Group 18 percent, Routine Administrative Functions 20 percent, and Supervisory Job 40 percent.

The negative rare scores were Authority Figures 26 percent, Competitive Games 14 percent, Competitive Situations 22 percent, Masculine Role 8 percent, Imposing Wishes 34 percent, Standing Out from Group 12 percent, Routine Administrative Functions 32 percent, and Supervisory Job 30 percent.

The Supervisory Job index indicates a strong positive attitude towards the managerial role requirements. This reinforces the rare patterns found in the various subscales in the Proprietary, Managerial, and Supervisory Experimental Group.

Professional Experimental Group

In the Professional Experimental Group, a negative rare pattern again is in evidence with only two subscales scoring positive (Table 18, Appendix).

Authority Figures had 25 percent positive rares, Competitive Games 14 percent, Competitive Situations 19 percent, Masculine Role 19 percent, Imposing Wishes 22 percent, Standing Out from Group 11 percent, Routine Administrative Functions 14 percent, and Supervisory Job 33 percent.

In comparing the negative rare patterns, Authority Figures had 22 percent, Competitive Games 17 percent, Competitive Situations 28 percent, Masculine Role 19 percent, Imposing Wishes 17 percent, Standing Out from Group 25 percent, Routine Administrative Functions 17 percent, and Supervisory Job 47 percent.

The Supervisory Job index also reinforces the subscales rare patterns with a definite negative pattern of 47 percent as compared to only 33 percent positive.

It can be seen from this comparison of the patterns of positive and negative rare scores as indicated on the subscales of the Miner Sentence Completion Scale according to the occupation of the respondent's father, an overall negative reaction to the role requirements for a successful managerial career is indicated. Hence, it can be stated that the Rare Score patterns indicate that the high school age boy, when classified by his father's occupation, has definite negative attitudes towards managerial role requirements.

Item Score

When the Item Score by occupation of the respondents' fathers was analyzed, it was found that four occupational groups produced a pattern of positive Item Scores, three a pattern of negative Item Scores, and one a neutral Item Score (Table 10, Appendix).

In a comparison of the occupational groups, the Deceased or Unemployed Occupational Group had 43 percent positive Item Scores, Military or Law Enforcement Occupational Group 50 percent, Laborer or Operative Occupational Group 33 percent, Craftsman Occupational Group 64 percent, Technical Occupational Group 27 percent, Sales Occupational Group 50 percent, Proprietary, Managerial, or Supervisory Occupational Group 76 percent, and Professional Occupational Group 28 percent.

The negative Item Scores were Deceased or Unemployed Occupational Group 57 percent, Military or Law Enforcement Occupational Group 50 percent, Laborer or Operative Occupational Group 17 percent, Craftsman Occupational Group 33 percent, Technical Occupational Group 60 percent, Sales Occupational Group 43 percent, and Professional Occupational Group 61 percent.

Even though there was one more positive Item Score than negative when comparing the occupational groups, it would not be accurate to construe this as an overall positive regard for the managerial role

requirements. However, it does tend to indicate that the Item Score identifies favorable reactions to certain managerial role requirements in the occupational groups.

Comparison of Mean Scores

Table 20 in the Appendix lists the mean scores of all subscales as well as the mean scores of the Item and Rare Scores of all occupational classifications.

Positive means were found on all occupational Item Scores with the exception of one--Technical Occupational Group. An extremely high mean score was found in the Proprietary, Managerial, or Supervisory Occupational Group--5.24, with the Craftsman Occupational Group high at 3.58, the Deceased and Unemployed Occupational Group at 2.14, the Military and Law Enforcement Occupational Group at 2.38 and the Sales Occupational Group at 2.43.

The means of the Rare Scores were the opposite. Only one Rare Score indicated a positive mean--Proprietary, Managerial, and Supervisory Occupational Group. All others were negative. None was extremely low, but four had mean scores below 1.00--the Military or Law Enforcement Occupational Group with -1.62, the Laborer or Operative Occupational Group with -1.04, the Technical Occupational Group with -1.20, and the Professional Occupational Group with -1.17.

In the individual subscales, most interesting results were found.

In the Authority Figure subscale, all occupational classifications had positive means as did the Competitive Games subscale, yet all occupational classifications in the Competitive Situations subscale were negative. In the Masculine Role subscale, five of the eight occupational classifications were positive with two--Technical Occupational Group and the Professional Occupational Group negative. The Military or Law Enforcement Occupational Group scored at 0.00.

All categories of the Imposing Wishes and Standing Out from Group subscales had positive means and all but two in the Routine Administrative Functions subscale had negative means. The Technical Occupational Group had a positive .27 and the Professional, Managerial, or Supervisory Occupational Group was neutral with a mean of 0.00.

From an analysis of these mean scores, it appears there is a strong managerial motivation indicated by the Item Score, a lack of managerial motivation indicated by the Rare Score, but the necessary attitudes towards the role requirements for a managerial career are present.

From a comparison of these mean scores, those scores obtained when comparing the Rare Score and the Item Score have been reinforced.

This comparison indicates, also, that in all occupational classifications there is a desire to function well with superiors and to compete with one's peers at the game or activity level, but not at the

work-oriented level. The masculine model is apparently not as important in the Technical Occupational Group and the Professional Occupational Group as the others, yet in all occupational classifications there is a strong desire to lead and to be apart from the group as a whole (as indicated by all positive means on the Imposing Wishes and Standing Out from Group subscales). There is no indication of a desire for the routine chores associated with a managerial position with the exception of the Technical Occupational Group and the Proprietary, Managerial, or Supervisory Occupational Group.

Significance of Mean Scores

For a final comparison, each of the occupational classifications has been compared with one another and the results tabulated in Tables 21 through 48 in the Appendix. The mean scores of each occupational classification have been compared, a "t" score computed, and significance ascertained with a reliable comparison of $p < .10$.

In the first comparison, the Deceased or Unemployed Occupational Group with the Military or Law Enforcement Occupational Group (Table 21, Appendix), there were no significant results in any subscale at the $p < .10$ level. In the Deceased or Unemployed Occupational Group, there were seven respondents as compared to eight in the Military or Law Enforcement Occupational Group, the two smallest in the sample.

In comparing the Deceased and Unemployed Occupational Group with the Laborer or Operative Occupational Group with 24 respondents (Table 22, Appendix), the Deceased or Unemployed Occupational Group with the Craftsman Occupational Group with 33 respondents (Table 23, Appendix), the Deceased or Unemployed Occupational Group with the Technical Occupational Group with 15 respondents (Table 24, Appendix), and the Deceased or Unemployed Occupational Group with the Sales Occupational Group with 14 respondents (Table 25, Appendix), no significance again was found in any of the subscales. When comparing the Deceased or Unemployed Occupational Group with those in the Proprietary, Managerial, or Supervisory Occupational Group with 25 respondents (Table 26, Appendix), significant results were found in the Competitive Games subscale at $p < .05$. Significant comparisons were found also on the Competitive Games subscale and the Masculine Role subscale when comparing the Deceased or Unemployed Occupational Group with the Professional Occupational Group with 18 respondents (Table 27, Appendix). In both subscales, significance was $p < .10$.

In comparing the Military or Law Enforcement Occupational Group with those in the Laborer or Operative Occupational Groups (Table 28, Appendix), the Craftsman Occupational Group (Table 29, Appendix), the Technical Occupational Group (Table 30, Appendix), the Sales Occupational Group (Table 31, Appendix), the Proprietary,

Managerial, or Supervisory Occupational Group (Table 32, Appendix), and the Professional Occupational Group (Table 33, Appendix), no significance was again found in any subscale.

Significance at $p < .10$ on the Authority Figures subscale was found when comparing the Laborer or Operative Occupational Group with those in the Craftsman Occupational Group (Table 34, Appendix). Two subscales indicate significance when comparing the Laborer Occupational Group with those in the Technical Occupational Group-- Masculine Role at $p < .10$ and Routine Administrative Functions at $p < .05$ (Table 35, Appendix). There was no significance when comparing those engaged in the Laborer or Operative Occupational Group with those in the Sales Occupational Group (Table 36, Appendix), but when comparing the Laborer or Operative Occupational Group with the Proprietary, Managerial, or Supervisory Occupational Group (Table 37, Appendix), significance at $p < .025$ was found on the Competitive Games subscale. When comparing the Laborer or Operative Occupational Group with the Professional Occupational Group, again two subscales indicate significance--Competitive Games at $p < .05$ and Masculine Role at $p < .10$ (Table 38, Appendix).

In a comparison of those in the Craftsman Occupational Group with those in the Technical Occupation Group, significance was obtained on two subscales and the Item Score (Table 39, Appendix)-- the Item Score with $p < .10$ and Competitive Situations and Masculine

Role both at $p < .10$. No significance was found when comparing the Craftsman Occupational Group with the Sales Occupational Group (Table 40, Appendix), but one subscale indicated significance when comparing the Craftsman Occupational group with the Proprietary, Managerial or Supervisory Occupational Group (Table 41, Appendix)--Standing Out from Group at $p < .10$. In addition, when comparing the Craftsman Occupational Group with those in the Professional Occupational Group (Table 42, Appendix), one subscale, Masculine Role at $p < .10$, and the Item Score at $p < .05$, indicated significance.

In comparing those in the Technical Occupational Group with those in the Sales Occupational Group (Table 43, Appendix), significance was found on one subscale--Standing Out from Group at $p < .001$. Four subscales and the Item Score indicated significance when comparing the Technical Occupational Group with the Proprietary, Managerial, or Supervisory Occupational Groups--the Item Score at $p < .05$, Competitive Games at $p < .10$, Competitive Situations at $p < .10$, Masculine Role at $p < .001$, and Standing Out from Group at $p < .10$ (Table 44, Appendix). One subscale indicated significance when comparing the Technical Occupational Group with the Professional Occupational Group (Table 45, Appendix)--Competitive Games at $p < .10$.

In a comparison of the Sales Occupational Group with the Proprietary, Managerial, or Supervisory Occupational Group (Table

46, Appendix), one subscale indicated significance--Competitive Games at $p < .10$. This same subscale indicated significance at $p < .10$ when comparing the Sales Occupational Group and the Professional Occupational Group (Table 47).

In a final comparison by occupation, one subscale and the Item Score indicated significance when comparing the Proprietary, Managerial, or Supervisory Occupational Group with the Professional Occupational Group (Table 48, Appendix)--Masculine Role at $p < .05$ and the Item Score at $p < .05$.

The results of this comparison indicate that there is very little evidence that the occupation of a boy's father has any great influence on his attitudes towards overall managerial role requirements when measured by a comparison of the mean scores. In the comparison of the means of the occupational groups, significance was obtained on very few subscales.

Only one subscale, Authority Figures, indicated significance when comparing the sons of laborers or operatives with the sons of craftsman. This indicates that sons of laborers or operatives are more inclined to meet role requirements in the area of relationships with superiors.

When comparing sons of laborers or operatives with sons of technical workers, significance was obtained on only two subscales, Masculine Role and Routine Administrative Functions. This indicates

that sons of laborers or operatives are more inclined to behave in accordance with the masculine model and to have more of a positive regard for routine types of duties than sons of technical workers.

In the comparison of sons of laborers or operatives with sons of proprietors, managers, or supervisors, significance was obtained only on the Competitive Games subscale. Such indicates that sons of laborers or operatives strive more towards those activities that are extra-occupational for business managers--largely recreational, than do sons of proprietors, managers, or supervisors.

Significance was obtained on only two subscales when comparing the sons of laborers or operatives with the sons of professional workers--Competitive Games and Masculine Role. This indicates that the sons of professional workers are not as inclined towards the extra-occupational, recreational activities and the masculine role model as sons of laborers or operatives.

In the comparison of the sons of craftsman and the sons of technical workers, again significance was obtained on only two subscales--Competitive Situations and Masculine Role. This indicates that sons of Craftsman have a greater regard to compete and strive for success in work related activities and have more of a desire to behave in accordance with the masculine model than do sons of technical workers.

Only one subscale indicated significance when comparing the sons

of craftsman with sons of proprietors, managers, or supervisors -- Standing Out from Group, which indicates that the craftsman sons desire to be placed in a unique and highly visible position relative to a homogeneous group.

Significance was found in the Masculine Role subscale when comparing the sons of craftsmen with the sons of professional workers. This indicates that the sons of the craftsmen have a greater positive regard for those activities in our society which are considered predominantly masculine.

In comparing the sons of technical workers with the sons of fathers engaged in sales occupations, significance in the Standing Out from Group subscale indicates that the sons of technical workers also desire to be placed in a unique and highly visible position relative to a homogeneous group.

The four subscales that indicate significance when comparing the sons of technical workers with the sons of proprietors, managers, and supervisors indicate that the technical workers sons strive for success in the extra-occupational recreation activities more so than the sons of proprietors, managers, and supervisors. In addition, they also strive more for success in the occupational or work-related activities, they are more inclined towards those activities in our society which are considered predominantly masculine, and they have a stronger desire to also be placed in a unique and highly visible

position relative to a homogeneous group.

Significance was obtained on the Competitive Games subscale when comparing the sons of technical workers with the sons of professional workers, in a comparison of the sons of fathers engaged in sales occupations with the sons of proprietors, managers, and supervisors, and when comparing the sons of those fathers engaged in sales occupations with the sons of professional workers. This indicates that those activities which are essentially extra-occupational and largely recreational for business managers are more important to the sons of technical workers and sales workers than they are to the sons of proprietors, managers, or supervisors, or professional workers.

In a final comparison of the sons of proprietors, managers, or supervisors with the sons of professional workers, only one subscale indicates significance--Masculine Role--indicating that the sons of the professional workers do not have as positive a regard for the activities in our society which are predominantly masculine as does the sons of proprietors, managers, or supervisors.

The Experimental Group by Parental Education

Comparison of Positive and Negative Responses on
Miner Sentence Completion Scale Subscales

College Degree Experimental Group

In a comparison of the positive and negative responses on the Miner Sentence Completion Scale subscales of those respondents whose fathers hold a college degree, five of the seven subscales scored greater positive responses, one had equal positive and negative responses, and one scored as negative (Table 49, Appendix).

Authority Figures scored 62 percent positive, Competitive Games 81 percent, Competitive Situations 38 percent, Masculine Role 38 percent, Imposing Wishes 57 percent, Standing Out from Group 67 percent, and Routine Administrative Functions 48 percent.

The negative responses were Authority Figures 19 percent, Competitive Games 14 percent, Competitive Situations 48 percent, Masculine Role 33 percent, Imposing Wishes 33 percent, Standing Out from Group 29 percent, and Routine Administrative Functions 48 percent.

From this comparison it can be seen that overall the role requirements for a managerial career have been met.

Less Than College Degree Experimental Group

In comparing the subscales of the experimental group whose fathers attended college but had earned no four-year degree, again there was an overall positive response with five of the seven subscales scoring positive (Table 50, Appendix).

Authority Figures scored 65 percent positive, Competitive Games 60 percent, Competitive Situations 23 percent, Masculine Role 58 percent, Imposing Wishes 65 percent, Standing Out from Group 50 percent, and Routine Administrative Functions 28 percent.

The negative responses were Authority Figures 23 percent, Competitive Games 35 percent, Competitive Situations 63 percent, Masculine Role 35 percent, Imposing Wishes 28 percent, Standing Out from Group 33 percent, and Routine Administrative Functions 65 percent.

This comparison also indicates that the respondents whose fathers attended college but did not complete graduation requirements have generally met the role requirements for a successful managerial career.

High School Experimental Group

In the experimental group whose fathers earned a high school diploma, again five of the subscales scored as positive (Table 51,

Appendix).

Authority Figures scored 67 percent positive, Competitive Games 63 percent, Competitive Situations 42 percent, Masculine Role 42 percent, Imposing Wishes 61 percent, Standing Out from Group 43 percent, and Routine Administrative Functions 39 percent.

Negatively, Authority Figures scored 11 percent, Competitive Games 23 percent, Competitive Situations 54 percent, Masculine Role 33 percent, Imposing Wishes 26 percent, Standing Out from Group 32 percent and Routine Administrative Functions 47 percent.

The positive responses were characteristically much higher than the negative responses, indicating not only that managerial role requirements have been met, but that the respondents were quite emphatic in their positive responses.

Less Than High School Experimental Group

In a comparison of those respondents whose fathers attended high school but earned no diploma to those with an elementary school education or less, a positive pattern was again in evidence with five of the seven subscales also scoring as positive.

Authority Figures had 72 percent positive, Competitive Games 34 percent, Competitive Situations 30 percent, Masculine Role 61 percent, Imposing Wishes 57 percent, Standing Out from Group 49 percent, and Routine Administrative Functions 27 percent.

The negative responses were Authority Figures 8 percent, Competitive Games 32 percent, Competitive Situations 53 percent, Masculine Role 27 percent, Imposing Wishes 42 percent, Standing Out from Group 27 percent and Routine Administrative Functions 49 percent.

It is apparent from this comparison that the respondents in this experimental group also favor the requirements for a successful managerial career.

Rare Score by Education

In examining the rare scores of the total population by the formal education of the respondent's fathers, only one of the educational classifications reveals a higher percentage of positive rares than negative, two a higher negative than positive, and one equally positive and negative (Table 53, Appendix).

The College Degree Educational Group scored 48 percent positive rares, the Less Than College Degree Educational Group 28 percent, the High School Diploma Educational Group 44 percent, and the Less than High School Diploma Educational Group 19 percent.

The negative rare scores were College Degree Educational Group 48 percent, Less than College Degree Educational Group 55 percent, High School Diploma Educational Group 42 percent, and the Less than High School Diploma Educational Group 53 percent.

This comparison indicates that there is a lack of positive regard

for managerial role requirements when measured by the rare scores of the total educational population.

Rare Score by Subscale

In a comparison of the Rare Scores obtained on the subscales of each of the four experimental groups by education of the respondent's fathers, an overall negative reaction is indicated. Again a Supervisory Job index has been computed to reinforce the findings of the other seven subscales.

College Degree Experimental Group

In a comparison of the subscales in the College Degree Experimental Group, six of the eight subscales indicate negative rares (Table 54, Appendix).

The Authority Figures subscale scored 33 percent positive rares, Competitive Games 17 percent, Competitive Situations 19 percent, Masculine Role 14 percent, Imposing Wishes 26 percent, Standing Out from Group 19 percent, Routine Administrative Functions 14 percent, and Supervisory Job 36 percent.

The negative rare scores were Authority Figures 14 percent, Competitive Games 10 percent, Competitive Situations 24 percent, Masculine Role 17 percent, Imposing Wishes 38 percent, Standing Out from Group 19 percent, Routine Administrative Functions 38

percent and Supervisory Job 41 percent.

In this comparison, the Supervisory Job index also reinforces the overall negative reaction to meeting managerial role requirements by the College Degree Experimental Group.

Less than College Degree Experimental Group

In comparing the subscales of the experimental group whose fathers attended college but earned no degree, only one subscale scored positive rares. All others were negative (Table 55, Appendix).

The positive Rare Scores were Authority Figures 28 percent, Competitive Games 11 percent, Competitive Situations 20 percent, Masculine Role 20 percent, Imposing Wishes 30 percent, Standing Out from Group 15 percent, Routine Administrative Functions 14 percent, and the Supervisory Job index 38 percent.

In comparing the negative Rare Scores, Authority Figures scored 30 percent, Competitive Games 25 percent, Competitive Situations 33 percent, Masculine Role 14 percent, Imposing Wishes 34 percent, Standing Out from Group 24 percent, Routine Administrative Functions 39 percent, and Supervisory Job 41 percent.

This comparison also indicates that the respondents whose fathers attended college but earned no degree have a lack of desire to meet the role requirements for a successful managerial career as measured by the Rare Score.

High School Diploma Experimental Group

In an examination of the experimental group whose fathers had earned a high school diploma, a positive change was indicated with five of the eight subscales scoring positive rares (Table 56, Appendix).

Authority Figures scored 29 percent positive rares, Competitive Games 16 percent, Competitive Situations 27 percent, Masculine Role 22 percent, Imposing Wishes 26 percent, Standing Out from Group 25 percent, Routine Administrative Functions 18 percent, and Supervisory Job 39 percent.

The negative rares were Authority Figures 15 percent, Competitive Games 18 percent, Competitive Situations 23 percent, Masculine Role 16 percent, Imposing Wishes 35 percent, Standing Out from Group 20 percent, and Routine Administrative Functions 33 percent. The Supervisory Job index scored 33 percent.

The Supervisory Job index in this comparison also reinforces the overall positive responses to the managerial role requirements.

Less than High School Experimental Group

In a final comparison of the experimental group whose fathers attended high school but earned no diploma or who had only an elementary school education or less, a sharp decline in meeting managerial role requirements is detected with only one subscale scoring positive

rare (Table 47, Appendix).

In comparing the subscales, Authority Figures scored 15 percent positive rares, Competitive Games 8 percent, Competitive Situations 25 percent, Masculine Role 29 percent, Imposing Wishes 25 percent, Standing Out from Group 12 percent, Routine Administrative Functions 8 percent and Supervisory Job 33 percent.

The negative rares were Authority Figures 21 percent, Competitive Games 25 percent, Competitive Situations 33 percent, Masculine Role 10 percent, Imposing Wishes 35 percent, Standing Out from Group 25 percent, Routine Administrative Functions 31 percent, and Supervisory Job 42 percent.

Again, the Supervisory Job index tends to reinforce the overall negative reaction to meeting managerial role requirements as measured by the Rare Score.

Item Score

In a comparison of the Item Scores indicated by the education of the respondent's fathers, three of the four educational groups scored a greater percentage of positive Item Scores than negative (Table 58, Appendix).

The College Degree Educational Group scored 48 percent positive, the Less than College Degree Educational Group 54 percent, the High School Diploma Educational Group 44 percent, and the Less

than High School Diploma Educational Group 34 percent.

It is evident by this comparison of the four educational groups as measured by the Item Scores that the high school age boy does have a positive regard towards meeting the role requirements for a successful managerial career.

Comparison of Mean Scores

In a comparison of the mean scores of each subscale within each of the educational groups, predominantly positive means are found (Table 59, Appendix).

In all four educational groups, the means of the Item Scores are positive, with the High School Diploma Educational Group very high with a mean score of +3.75.

Four of the subscales have all positive means--Authority Figures, Competitive Games, Imposing Wishes, and Standing Out from Group.

Masculine Role had three educational classifications with positive means and one, the College Degree Education Group with a mean of 0.00.

The Rare Score had negative means in three of the educational classifications--College Degree Educational Group, High School Diploma Educational Group, and Less than High School Diploma Educational Group. The Less than College Degree Educational Group

had a positive mean.

Routine Administrative Functions also had three classifications with negative means--Less than College Degree Educational Group, High School Diploma Educational Group, and the Less than High School Diploma Educational Group. The College Degree Educational Group had a positive mean in this subscale.

The results of these overall mean scores, like the Item Scores, indicate that the necessary role requirements for a successful managerial career have been met when compared by the formal education of the respondent's fathers. Only the Rare Score and two of seven subscales indicated a lack of motivation.

Significance of Mean Scores

As with the Occupational Group, each of the educational classifications has been compared with one another and the results tabulated in Tables 60 through 65 of the Appendix. Again a "t" score has been computed with a reliable comparison of $p < .10$.

Table 60 in the Appendix compares the College Degree Educational Group with the Less than College Degree Educational Group. The Rare Score indicates significance with $p < .025$ as does the Competitive Games subscale with $p < .025$ and the Routine Administrative Functions subscale with $p < .10$. There were 20 respondents in the College Degree Educational Group as compared to 40 in the Less

than College Degree Educational Group.

Significance at $p < .10$ was found in the Competitive Games subscale when comparing the College Degree Educational Group with the High School Diploma Educational Group, but none in the other six subscales nor the Item Score or Rare Score (Table 61, Appendix).

In a comparison of the College Degree Educational Group with the Less than High School Diploma Educational Group, significance was found in two subscales--Competitive Games with $p < .005$ and Masculine Role with $p < .10$ (Table 62, Appendix).

Table 63 in the Appendix compares the Less than College Degree Educational Group with the High School Diploma Educational Group. Significance at $p < .05$ was found on the Rare Score and in two subscales--Competitive Situations at $p < .05$ and Routine Administrative Functions with $p < .10$.

The Less than College Degree Educational Group and the Less than High School Diploma Educational Group are compared in Table 64 of the Appendix. The Rare Score indicates significance at $p < .005$, but no significant results were found in any of the subscales nor the Item Score.

In comparing the High School Diploma Educational Group with the Less than High School Diploma Educational Group, significance is again found in the Rare Score with $p < .10$, and in two subscales--Competitive Games with $p < .025$ and Competitive Situations with

$p < .10$ (Table 64, Appendix).

The results of this comparison tend to indicate also that there is little evidence that the education of a boy's father has a great deal of influence in the boy's attitudes towards meeting managerial role requirements when measured by a comparison of the mean scores. Significance was obtained on very few subscales when the educational groups were compared.

When the sons of the fathers who held a college degree were compared with the sons of fathers who attended college but had earned no degree, significance was obtained on only two subscales--Competitive Games and Routine Administrative Functions, which indicates that the sons of the fathers who held a college degree were more favorable towards recreational activities and routine types of duties.

In comparing the sons of fathers who held a college degree with the sons of fathers who had earned a high school diploma, significance was obtained only on the Competitive Games subscale, indicating that the sons of fathers with college degrees are more inclined towards those activities that are extra-occupational and recreational for business managers than are the sons of fathers who held a high school diploma.

Significance was obtained on two subscales, Competitive Games and Masculine Role, when comparing the sons of fathers who had a college degree with the sons of fathers who had less than a high school

diploma, indicating the sons of the college degree fathers are consistently more inclined towards the extra-occupational recreational activities than the sons in any of the other occupational classifications. In addition, in this comparison, it is indicated they are more inclined to tell others what to do and to utilize sanctions in influencing others.

In comparing the sons of fathers who attended college but earned no degree with the sons of fathers who earned a high school diploma, it was indicated that the sons of fathers who attended college but earned no degree were more inclined towards competing in work related activities and performing routine types of assignments.

In the comparison of the sons of fathers who earned a high school diploma with the sons of fathers who had less than a high school diploma, significance was obtained on two subscales--Competitive Games and Competitive Situations. This comparison indicates the sons of the fathers who had a high school diploma were more favorable towards competition, on both a recreational and a work oriented basis.

CHAPTER V

SUMMARY AND CONCLUSIONS

The problem undertaken was to study the significance of paternal education and occupation as contributing factors in the identification of managerial motivation in the high school senior boy as measured by the Miner Sentence Completion Scale.

Specifically, the problem undertaken was to ascertain the answers to six primary questions as delineated on page 5 of this study. The answers to these six questions provide us with the expressed attitudes that the high school senior boy has developed towards authority, competition, masculine behavior patterns, imposing his wishes on others, standing out from the group, and routine administrative functions--those characteristics that have been identified by Miner as necessary role requirements for a successful managerial career.

As a total population, the Rare Score indicated a lack of motivation towards the managerial role requirements.

The Item Score, however, revealed that these requirements have been met, and in a comparison of the seven subscales which represent the managerial role requirements, the high school senior boy indicated a positive regard towards:

authority
competition in extra-occupational activities

masculinity
 the desire to impose his wishes on others
 to stand out from the group

He does not, however, have the necessary motivation to:

compete with his peers in work-oriented activities
 perform routine types of administrative functions

When grouped into a population according to the occupation of the respondent's fathers, the Item Score indicated that the attitudes necessary for a successful managerial career have been met in the:

Deceased and Unemployed Occupational Group
 Military and Law Enforcement Occupational Group
 Laborer and Operative Occupational Group
 Proprietary, Managerial, and Supervisory Occupational Group
 Professional Occupational Group

The necessary attitudes were not met in the:

Technical Occupational Group

The Rare Score obtained in the occupational grouping revealed that motivation is apparent only in the:

Proprietary, Managerial, and Supervisory Occupational Group

Lack of motivation is indicated in the:

Deceased and Unemployed Occupational Group
 Military and Law Enforcement Occupational Group
 Laborer or Operative Occupational Group
 Craftsman Occupational Group
 Technical Occupational Group
 Sales Occupational Group
 Professional Occupation Group

In a comparison of the various subscales which, as previously stated, represent the characteristics identified as role requirements

necessary for a successful managerial career, positive attitudes in all eight occupational classifications was found in the:

Authority Figures subscale
Competitive Games subscale
Imposing Wishes subscale
Standing Out from Group subscale

Lack of motivation was indicated in all eight occupational classifications in the:

Competitive Situations subscale

In the Masculine Role subscale, positive regard was found in the:

Deceased and Unemployed Occupational Group
Military and Law Enforcement Occupational Group
Laborer and Operative Occupational Group
Craftsman Occupational Group
Sales Occupational Group
Proprietary, Managerial, and Supervisory Occupational Group

Negative emotions were found in the:

Technical Occupational Group
Professional Group

When the sample was regrouped into a population according to the formal education of the respondents' fathers, the Item Score again indicated the necessary attitudes for a successful managerial career were present, yet the Rare Score indicated that only in the Less than College Degree Educational Group was this positive emotion apparent.

A lack of motivation towards these role requirements was indicated by the Rare Scores in the:

College Degree Educational Group
 High School Diploma Educational Group
 Less than High School Diploma Educational Group

In a comparison of the subscales:

Authority Figures
 Competitive Games
 Masculine Role
 Imposing Wishes
 Standing Out from Group

all indicated that managerial motivation is apparent.

A lack of motivation was found in all four educational groups
 in the:

Competitive Situations subscale.

In the Routine Administrative Functions subscale, motivation
 was found in the:

College Degree Educational Group

None was found in the:

Less than College Degree Educational Group
 High School Diploma Educational Group
 Less than High School Diploma Educational Group

From the findings of this study, it is concluded that the occupa-
 tion of the high school senior boy's father, and the degree of his
 father's formal education play a relatively small part in the develop-
 ment of the boys' attitudes towards the role requirements necessary
 for a successful managerial career as measured by the Miner
 Sentence Completion Scale.

It is further concluded that the high school senior boy does have

definite, marked attitudes towards those characteristics that have been identified as necessary for a successful managerial career, and that the following characteristics have been measured by the Miner Sentence Completion Scale:

He does have a favorable attitude towards authority
He does desire to compete in those activities which
are essentially extra-occupational and largely
recreational
He does desire to impose his wishes on others
He does desire to stand out from the group

He does not, however, have a desire to:

compete and strive for success generally on occupa-
tional or work-oriented activities
perform the routine administrative duties associated
with a managerial career

Though a paradox is apparent in that the Item Scores indicate that the Miner Sentence Completion Scale predicted positive managerial motivation as early as the senior year on the high school level, the Rare Score indicated that it did not. The writer's conclusions were based on the results of the Rare Score, whose value, according to Miner, is inherent in the fact that it tends to cut through the more superficial content of responses to their real meaning. It gets at tendencies and motives which are so dominant that they are manifested repeatedly in responses to a variety of similar stimuli. At the same time it minimizes the influence that more conventional completions, which are given largely because of their social desirability or conforming nature, might have on the interpretations made.

Thus, if the Rare Score is indeed an accurate predictor of potential managerial success, only those boys whose fathers are engaged in proprietary, managerial, or Supervisory occupations and whose father's formal educational level is having entered college but earned no degree, would only slightly meet the necessary qualifications for a successful managerial career.

In the last eleven years, great social changes have become apparent in our society, and these changes are manifest not only in the institutions of higher learning but in the secondary schools as well. Young people are no longer limited by the social and economic boundaries of their fathers.

As a result, it is the writer's opinion, that had this study been undertaken prior to 1959 when the results of the Lipset and Bendix study were published, and which found that a father's occupation and his social status based on the degree of his formal education related both to a son's first job and to the pattern of his later career, the results would have been different.

Financial limitations are no longer barriers in the attainment of a minimal higher education. Race, color, and creed are no longer handicaps in the achievement of social status or economic worth. In fact, in many instances it may be an asset to be a member of a minority group. An individual's occupation and the degree of his formal education are rapidly losing their intrinsic value as a

measurement of a person's worth. Individuality and "doing your own thing" are the slogans of the times.

It is concluded that the occupation of a boy's father and the degree of formal education that his father has attained are no longer primary contributing factors that influence positive attitudes towards managerial role requirements, yet the necessary attitudes for a successful managerial career seem to be inherent in this age group, as indicated by the subscales of the Miner Sentence Completion Scale. It becomes, then, in the writer's opinion, a decision-making matter. Does the boy, or does he not, choose to pursue a managerial career.

Since this is the first study of which I am aware that has used the Miner Sentence Completion Scale in an attempt to identify managerial motivation as early as the senior year on the high school level, and since the results of only one study are not conclusive, I would recommend that parallel studies be undertaken at the high school level. In addition to further research grouping the respondents by paternal occupation and education, I believe an investigation grouping the respondents by parental income, by race, by the boy's high school grade point average, and by the boy's educational curriculum that has been pursued while in high school, would reveal most interesting results.

Further research is obviously needed at the high school level if

managerial talent is to be identified and utilized prior to permanent entry into the labor force.

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APPENDIX

Table 1. Percent of Total Experimental Group Giving Positive and Negative Responses on Various Subscales of the Miner Sentence Completion Scale

MSCS Subscales	Percentage
Authority Figures	
Positive	70
Negative	15
Competitive Games	
Positive	64
Negative	28
Competitive Situations	
Positive	32
Negative	51
Masculine Role	
Positive	49
Negative	32
Imposing Wishes	
Positive	62
Negative	27
Standing Out From Group	
Positive	49
Negative	30
Routine Administrative Functions	
Positive	33
Negative	52

Table 2. Percent of Experimental Group Whose Fathers are Deceased or Unemployed Giving Positive and Negative Responses on Various Subscales of the Miner Sentence Completion Scale

MSCS Subscales	Percentage
Authority Figures	
Positive	71
Negative	14
Competitive Games	
Positive	43
Negative	43
Competitive Situations	
Positive	28
Negative	57
Masculine Role	
Positive	57
Negative	00
Imposing Wishes	
Positive	71
Negative	29
Standing Out From Group	
Positive	72
Negative	29
Routine Administrative Functions	
Positive	29
Negative	57

Table 3. Percent of Total Experimental Group Whose Fathers are Engaged in the Military or Law Enforcement Occupations Giving Positive and Negative Responses on Various Subscales of the Miner Sentence Completion Scale

MSCS Subscales	Percentage
Authority Figures	
Positive	75
Negative	13
Competitive Games	
Positive	75
Negative	25
Competitive Situations	
Positive	38
Negative	50
Masculine Role	
Positive	50
Negative	38
Imposing Wishes	
Positive	73
Negative	28
Standing Out From Group	
Positive	50
Negative	38
Routine Administrative Functions	
Positive	25
Negative	63

Table 4. Percent of Total Experimental Group Whose Fathers are Engaged in Laborer or Operative Occupations Giving Positive and Negative Responses on Various Subscales of the Miner Sentence Scale

MSCS Subscale	Percentage
Authority Figures	
Positive	71
Negative	21
Competitive Games	
Positive	50
Negative	46
Competitive Situations	
Positive	42
Negative	50
Masculine Role	
Positive	63
Negative	20
Imposing Wishes	
Positive	67
Negative	25
Standing Out From Group	
Positive	38
Negative	25
Routine Administrative Functions	
Positive	17
Negative	67

Table 5. Percent of Total Experimental Group Whose Fathers are Engaged in Craftsman Occupations Giving Positive or Negative Responses on Various Subscales of the Miner Sentence Completion Scale

MSCS Subscale	Percentage
Authority Figures	
Positive	76
Negative	9
Competitive Games	
Positive	63
Negative	24
Competitive Situations	
Positive	64
Negative	43
Masculine Role	
Positive	49
Negative	39
Imposing Wishes	
Positive	49
Negative	27
Standing Out From Group	
Positive	39
Negative	36
Routine Administrative Functions	
Positive	33
Negative	55

Table 6. Percent of Total Experimental Group Whose Fathers are Engaged in Technical Occupations Giving Positive or Negative Responses on Various Subscales of the Miner Sentence Completion Scale

MSCS Subscale	Percentage
Authority Figures	
Positive	60
Negative	33
Competitive Games	
Positive	60
Negative	40
Competitive Situations	
Positive	20
Negative	67
Masculine Role	
Positive	27
Negative	53
Imposing Wishes	
Positive	73
Negative	20
Standing Out From Group	
Positive	15
Negative	33
Routine Administrative Functions	
Positive	53
Negative	40

Table 7. Percent of Total Expterimental Group Whose Fathers are Engaged in Sales Occupations Giving Positive or Negative Responses on Various Subscales of the Miner Sentence Completion Scale

MSCS Subscale	Percentage
Authority Figures	
Positive	50
Negative	50
Competitive Games	
Positive	50
Negative	29
Competitive Situations	
Positive	21
Negative	72
Masculine Role	
Positive	43
Negative	43
Imposing Wishes	
Positive	79
Negative	14
Standing Out From Group	
Positive	64
Negative	29
Routine Administrative Functions	
Positive	43
Negative	57

Table 8. Percent of Total Experimental Group Whose Fathers are Engaged in Proprietary, Managerial or Supervisory Occupations Giving Positive or Negative Responses on Various Subscales of the Miner Sentence Completion Scale

MSCS Subscale	Percentage
Authority Figures	
Positive	68
Negative	16
Competitive Games	
Positive	80
Negative	12
Competitive Situations	
Positive	36
Negative	48
Masculine Role	
Positive	68
Negative	16
Imposing Wishes	
Positive	64
Negative	32
Standing Out From Group	
Positive	64
Negative	24
Routine Administrative Functions	
Positive	52
Negative	36

Table 9. Percent of Total Experimental Group Whose Fathers are Engaged in Professional Occupations Giving Positive or Negative Responses on Various Subscales of the Miner Sentence Completion Scale

MSCS Subscales	Percentage
Authority Figures	
Positive	56
Negative	44
Competitive Games	
Positive	72
Negative	22
Competitive Situations	
Positive	28
Negative	45
Masculine Role	
Positive	28
Negative	39
Imposing Wishes	
Positive	45
Negative	39
Standing Out From Group	
Positive	56
Negative	33
Routine Administrative Functions	
Positive	39
Negative	56

Table 10. Percent of Total Experimental Group Giving Positive and Negative Rare Scores on the Miner Sentence Completion Scale According to Occupation of Father

Occupation	Percentage
Deceased or Unemployed	
Positive Rares	29
Negative Rares	43
Military or Law Enforcement	
Positive Rares	25
Negative Rares	63
Laborer or Operative	
Positive Rares	33
Negative Rares	17
Craftsman	
Positive Rares	33
Negative Rares	48
Technical	
Positive Rares	27
Negative Rares	60
Sales	
Positive Rares	50
Negative Rares	43
Proprietary, Managerial or Supervisory	
Positive Rares	48
Negative Rares	32
Professional	
Positive Rares	28
Negative Rares	61

Table 11. Percent of Total Experimental Group Whose Fathers are Deceased or Unemployed Giving Positive and Negative Rares on Various Subscales of the Miner Sentence Completion Scale

MSCS Subscales	Percentage
Authority Figures	
Positive Rares	21
Negative Rares	29
Competitive Games	
Positive Rares	14
Negative Rares	36
Competitive Situations	
Positive Rares	36
Negative Rares	36
Masculine Role	
Positive Rares	21
Negative Rares	0
Imposing Wishes	
Positive Rares	29
Negative Rares	29
Standing Out From Group	
Positive Rares	14
Negative Rares	14
Routine Administrative Functions	
Positive Rares	7
Negative Rares	36
Supervisory Job	
Positive Rares	36
Negative Rares	36

Table 12. Percent of Total Experimental Group Whose Fathers are Engaged in the Military or Law Enforcement Occupations Giving Positive and Negative Rares on Various Subscales of the Miner Sentence Completion Scale

MSCS Subscales	Percentage
Authority Figures	
Positive Rares	25
Negative Rares	13
Competitive Games	
Positive Rares	19
Negative Rares	31
Competitive Situations	
Positive Rares	38
Negative Rares	31
Masculine Role	
Positive Rares	13
Negative Rares	25
Imposing Wishes	
Positive Rares	19
Negative Rares	38
Standing Out From Group	
Positive Rares	6
Negative Rares	31
Routine Administrative Functions	
Positive Rares	6
Negative Rares	38
Supervisory Jobs	
Positive Rares	44
Negative Rares	50

Table 13. Percent of Total Experimental Group Whose Fathers are Engaged in Laborer or Operative Occupations Giving Positive and Negative Rares on Various Subscales of the Miner Sentence Completion Scale

MSCS Subscales	Percentage
Authority Figures	
Positive Rares	19
Negative Rares	19
Competitive Games	
Positive Rares	8
Negative Rares	23
Competitive Situations	
Positive Rares	21
Negative Rares	25
Masculine Role	
Positive Rares	23
Negative Rares	8
Imposing Wishes	
Positive Rares	27
Negative Rares	33
Standing Out From Group	
Positive Rares	13
Negative Rares	23
Routine Administrative Functions	
Positive Rares	10
Negative Rares	35
Supervisory Job	
Positive Rares	35
Negative Rares	40

Table 14. Percent of Total Experimental Group Whose Fathers are Engaged in Craftsman Occupations Giving Positive or Negative Rares on Various Subscales of the Miner Sentence Completion Scale

MSCS Subscales	Percentage
Authority Figures	
Positive Rares	33
Negative Rares	19
Competitive Games	
Positive Rares	19
Negative Rares	21
Competitive Situations	
Positive Rares	48
Negative Rares	35
Masculine Role	
Positive Rares	33
Negative Rares	19
Imposing Wishes	
Positive Rares	31
Negative Rares	60
Standing Out From Group	
Positive Rares	15
Negative Rares	35
Routine Administrative Functions	
Positive Rares	23
Negative Rares	48
Supervisory Job	
Positive Rares	46
Negative Rares	50

Table 15. Percent of Total Experimental Group Whose Fathers are Engaged in Technical Occupations Giving Positive and Negative Rares on Various Subscales of the Miner Sentence Completion Scale

MSCS Subscales	Percentage
Authority Figures	
Positive Rares	33
Negative Rares	30
Competitive Games	
Positive Rares	10
Negative Rares	23
Competitive Situations	
Positive Rares	17
Negative Rares	33
Masculine Role	
Positive Rares	13
Negative Rares	27
Imposing Wishes	
Positive Rares	30
Negative Rares	37
Standing Out From Group	
Positive Rares	13
Negative Rares	27
Routine Administrative Functions	
Positive Rares	17
Negative Rares	37
Supervisory Job	
Positive Rares	47
Negative Rares	40

Table 16. Percent of Total Experimental Groups Whose Fathers are Engaged in Sales Occupations Giving Positive and Negative Rares on Various Subscales of the Miner Sentence Completion Scale

MSCS Subscales	Percentage
Authority Figures	
Positive Rares	29
Negative Rares	25
Competitive Games	
Positive Rares	11
Negative Rares	21
Competitive Situations	
Positive Rares	11
Negative Rares	29
Masculine Role	
Positive Rares	18
Negative Rares	18
Imposing Wishes	
Positive Rares	36
Negative Rares	14
Standing Out From Group	
Positive Rares	21
Negative Rares	14
Routine Administrative Functions	
Positive Rares	21
Negative Rares	32
Supervisory Job	
Positive Rares	32
Negative Rares	32

Table 17. Percent of Total Experimental Group Whose Fathers are Engaged in Proprietary, Managerial or Supervisory Occupations Giving Positive and Negative Rares on Various Subscales of the Miner Sentence Completion Scale

MSCS Subscales	Percentage
Authority Figures	
Positive Rares	28
Negative Rares	26
Competitive Games	
Positive Rares	18
Negative Rares	14
Competitive Situations	
Positive Rares	24
Negative Rares	22
Masculine Role	
Positive Rares	30
Negative Rares	8
Imposing Wishes	
Positive Rares	26
Negative Rares	34
Standing Out From Group	
Positive Rares	18
Negative Rares	12
Routine Administrative Functions	
Positive Rares	20
Negative Rares	32
Supervisory Job	
Positive Rares	40
Negative Rares	30

Table 18. Percent of Total Experimental Group Whose Fathers are Engaged in Professional Occupations Giving Positive and Negative Rares on Various Subscales of the Miner Sentence Completion Scale

MSCS Subscales	Percentage
Authority Figures	
Positive Rares	25
Negative Rares	22
Competitive Games	
Positive Rares	14
Negative Rares	17
Competitive Situations	
Positive Rares	19
Negative Rares	28
Masculine Role	
Positive Rares	19
Negative Rares	19
Imposing Wishes	
Positive Rares	22
Negative Rares	17
Standing Out From Group	
Positive Rares	11
Negative Rares	25
Routine Administrative Functions	
Positive Rares	14
Negative Rares	17
Supervisory Job	
Positive Rares	33
Negative Rares	47

Table 19. Percent of Total Experimental Group Giving Positive and Negative Item Scores on the Miner Sentence Completion Scale According to Occupation of Father

Occupation	Percentage
Deceased or Unemployed	
Positive Item Scores	43
Negative Item Scores	57
Military or Law Enforcement	
Positive Item Scores	50
Negative Item Scores	50
Laborer or Operative	
Positive Item Scores	33
Negative Item Scores	17
Craftsman	
Positive Item Scores	64
Negative Item Scores	33
Technical	
Positive Item Scores	27
Negative Item Scores	60
Sales	
Positive Item Scores	50
Negative Item Scores	43
Proprietary, Managerial or Supervisory	
Positive Item Scores	76
Negative Item Scores	24
Professional	
Positive Item Scores	28
Negative Item Scores	61

Table 20. Comparison of Mean Scores for Subscales of Miner Sentence Completion Scale in Relation to Occupations of Fathers of Experimental Group

Subscales	Deceased Unemployed	Military Law Enforcement	Laborer Operative	Craftsman	Technical	Sales	Proprietary Managerial Supervisory	Professional
Item Score	2.14	2.38	1.92	3.58	- .53	2.43	5.24	.61
Rare Score	- .86	-1.62	-1.04	- .52	-1.20	- .50	.24	-1.17
Authority Figures	1.14	1.12	1.00	1.85	1.00	1.07	1.32	1.17
Competitive Games	.14	.88	.42	1.00	.40	.71	1.96	2.06
Competitive Situations	- .71	- .13	- .71	- .09	-1.47	-1.00	- .12	- .67
Masculine Role	1.00	0.00	.79	.73	- .47	.29	.96	- .33
Imposing Wishes	1.29	.75	.96	.70	1.40	1.57	1.00	.56
Standing Out From Group	.57	.50	.46	.15	0.00	1.07	1.08	.28
Routine Administrative Functions	- .71	- .38	-1.08	- .70	.27	- .43	0.00	- .39

Table 21. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers are Deceased or Unemployed with Those Engaged in the Military or Law Enforcement Occupations

Subscale	Deceased Unemployed	Military Law Enforcement	t	p
Item Score	2.14	2.38	.05	--
Rare Score	-.86	-1.62	.52	--
Authority Figures	1.14	1.12	.02	--
Competitive Games	.14	.88	.78	--
Competitive Situations	-.71	-.13	.47	--
Masculine Role	1.00	0.00	1.00	--
Imposing Wishes	1.29	.75	.49	--
Standing Out From Group	.57	.50	.07	--
Routine Administrative Functions	-.71	-.38	.32	--

Reliable comparisons ($p < .10$).

Table 22. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers are Deceased or Unemployed with Those Engaged in Laborer or Operative Occupations

Subscale	Deceased Unemployed	Laborer Operative	t	p
Item Score	2.14	1.92	.07	--
Rare Score	-.86	-1.04	.15	--
Authority Figures	1.14	1.00	.18	--
Competitive Games	.14	.42	.28	--
Competitive Situations	-.71	-.71	0.00	--
Masculine Role	1.00	.79	.27	--
Imposing Wishes	1.29	.96	.26	--
Standing Out From Group	.57	.46	.16	--
Routine Administrative Functions	-.71	-1.08	.67	--

Reliable comparisons ($p < .10$).

Table 23. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers are Deceased or Unemployed with Those Engaged in Craftsman Occupations

Subscale	Deceased Unemployed	Craftsman	t	p
Item Score	2.14	3.58	.47	--
Rare Score	- .86	- .52	1.38	--
Authority Figures	1.14	1.85	1.00	--
Competitive Games	.14	1.00	.91	--
Competitive Situations	- .71	- .09	.63	--
Masculine Role	1.00	.73	.30	--
Imposing Wishes	1.29	.70	.51	--
Standing Out From Group	.57	.15	.50	--
Routine Administrative Functions	- .71	- .70	.01	--

Reliable comparisons ($p < .10$).

Table 24. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers are Deceased or Unemployed with Those Engaged in Technical Occupations

Subscale	Deceased Unemployed	Technical	t	p
Item Score	2.14	- .53	.63	--
Rare Score	- .86	-1.20	1.00	--
Authority Figures	1.14	1.00	.13	--
Competitive Games	.14	.40	.23	--
Competitive Situations	- .71	-1.47	.64	--
Masculine Role	1.00	.73	.30	--
Imposing Wishes	1.29	.70	.51	--
Standing Out From Group	.57	.15	.50	--
Routine Administrative Functions	- .71	- .70	.01	--

Reliable comparisons ($p < .10$).

Table 25. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers are Deceased or Unemployed with Those Engaged in Sales Occupations

Subscale	Deceased Unemployed	Sales	t	p
Item Score	2.14	2.43	.07	--
Rare Score	- .86	- .50	1.09	--
Authority Figures	1.14	1.07	.07	--
Competitive Games	.14	.71	.67	--
Competitive Situations	- .71	-1.00	.30	--
Masculine Role	1.00	.29	.74	--
Imposing Wishes	1.29	1.57	.26	--
Standing Out From Group	.57	1.07	.50	--
Routine Administrative Functions	- .71	- .43	.23	--

Reliable comparisons ($p < .10$).

Table 26. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers are Deceased or Unemployed with Those Engaged in Proprietary, Managerial or Supervisory Occupations

Subscale	Deceased Unemployed	Proprietary Managerial Supervisory	t	p
Item Score	2.14	5.24	.85	--
Rare Score	- .86	.24	.80	--
Authority Figures	1.14	1.32	.25	--
Competitive Games	.14	1.96	2.33	< .05
Competitive Situations	- .71	- .12	.71	--
Masculine Role	1.00	.96	.05	--
Imposing Wishes	1.29	1.00	.40	--
Standing Out From Group	.57	1.08	.75	--
Routine Administrative Functions	- .71	0.00	.88	--

Reliable comparisons ($p < .10$).

Table 27. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers are Deceased or Unemployed with Those Engaged in Professional Occupations

Subscale	Deceased Unemployed	Professional	t	p
Item Score	2.14	.61	.48	--
Rare Score	- .86	-1.17	.26	--
Authority Figures	1.14	1.17	.03	--
Competitive Games	.14	2.06	1.86	< .10
Competitive Situations	- .71	- .67	.03	--
Masculine Role	1.00	- .33	1.87	< .10
Imposing Wishes	1.29	.56	.81	--
Standing Out From Group	.57	.28	.36	--
Routine Administrative Functions	- .71	- .39	.32	--

Reliable comparisons ($p < .10$).

Table 28. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers are Engaged in the Military or Law Enforcement Occupations with Those in Laborer or Operative Occupations

Subscale	Military Law Enforcement	Labor Operative	t	p
Item Score	2.38	1.92	.18	--
Rare Score	-1.62	-1.04	.43	--
Authority Figures	1.12	1.00	.13	--
Competitive Games	.88	.42	.46	--
Competitive Situations	-.13	-.71	.58	--
Masculine Role	0.00	.79	.79	--
Imposing Wishes	.75	.96	.21	--
Standing Out From Group	.50	.46	.04	--
Routine Administrative Functions	-.38	-1.08	.70	--

Reliable comparisons ($p < .10$).

Table 29. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers are Engaged in the Military or Law Enforcement Occupations with Those in Craftsman Occupations

Subscale	Military Law Enforcement	Craftsman	t	p
Item Score	2.38	3.58	.44	--
Rare Score	-1.62	-.52	1.00	--
Authority Figures	1.12	1.85	.73	--
Competitive Games	.88	1.00	.12	--
Competitive Situations	-.13	-.09	.04	--
Masculine Role	0.00	.73	.73	--
Imposing Wishes	.75	.70	.05	--
Standing Out From Group	.50	.15	.35	--
Routine Administrative Functions	-.38	-.70	.35	--

Reliable comparisons ($p < .10$).

Table 30. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers are Engaged in the Military or Law Enforcement Occupations with Those in Technical Occupations

Subscale	Military Law Enforcement	Technical	t	p
Item Score	2.38	- .53	.79	--
Rare Score	-1.62	-1.20	.29	--
Authority Figures	1.12	1.00	.12	--
Competitive Games	.88	.40	.43	--
Competitive Situations	- .13	-1.47	1.17	--
Masculine Role	0.00	- .47	.50	--
Imposing Wishes	.75	1.40	.79	--
Standing Out From Group	.50	0.00	.56	--
Routine Administrative Functions	- .38	.27	.65	--

Reliable comparisons ($p < .10$).

Table 31. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers are Engaged in the Military or Law Enforcement Occupations with Those in Sales Occupations

Subscale	Military Law Enforcement	Sales	t	p
Item Score	2.38	2.43	.01	--
Rare Score	-1.62	-.50	.73	--
Authority Figures	1.12	1.07	.05	--
Competitive Games	.88	.71	.21	--
Competitive Situations	-.13	-1.00	1.22	--
Masculine Role	0.00	.29	.27	--
Imposing Wishes	.75	1.57	.85	--
Standing Out From Group	.50	1.07	.60	--
Routine Administrative Functions	-.38	-.43	.04	--

Reliable comparisons ($p < .10$).

Table 32. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers are Engaged in the Military or Law Enforcement Occupations with Those in Proprietary, Managerial, or Supervisory Occupations

Subscale	Military Law Enforcement	Proprietary Managerial Supervisory	t	p
Item Score	2.38	5.24	.89	--
Rare Score	-1.62	.24	1.27	--
Authority Figures	1.12	1.32	.29	--
Competitive Games	.88	1.96	1.47	--
Competitive Situations	- .13	- .12	.01	--
Masculine Role	0.00	.96	1.29	--
Imposing Wishes	.75	1.00	.37	--
Standing Out From Group	.50	1.08	.89	--
Routine Administrative Functions	- .38	0.00	.50	--

Reliable comparisons ($p < .10$).

Table 33. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers are Engaged in the Military or Law Enforcement Occupations with Those in Professional Occupations

Subscale	Military Law Enforcement	Professional	t	p
Item Score	2.38	.61	.82	--
Rare Score	-1.62	-1.17	.33	--
Authority Figures	1.12	1.17	.06	--
Competitive Games	.88	2.06	1.24	--
Competitive Situations	-.13	-.67	.62	--
Masculine Role	0.00	-.33	.39	--
Imposing Wishes	.75	.56	.22	--
Standing Out From Group	.50	.28	.28	--
Routine Administrative Functions	-.38	-.39	.01	--

Reliable comparisons ($p < .10$).

Table 34. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers are Engaged in Laborer or Operative Occupations with Those in Craftsman Occupations

Subscale	Laborer Operative	Craftsman	t	p
Item Score	1.92	3.58	.95	--
Rare Score	-1.04	-.52	.69	--
Authority Figures	1.00	1.85	1.80	< .10
Competitive Games	.42	1.00	.93	--
Competitive Situations	-.71	-.09	1.01	--
Masculine Role	.79	.73	.10	--
Imposing Wishes	.96	.70	.38	--
Standing Out From Group	.46	.15	.65	--
Routine Administrative Functions	-1.08	-.70	.69	--

Reliable comparisons ($p < .10$).

Table 35. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers are Engaged in Laborer or Operative Occupations with Those in Technical Occupations

Subscale	Laborer Operative	Technical	t	p
Item Score	1.92	- .53	1.01	--
Rare Score	-1.04	-1.20	.16	--
Authority Figures	1.00	1.00	0.00	--
Competitive Games	.42	.40	.02	--
Competitive Situations	- .71	-1.47	.97	--
Masculine Role	.79	- .47	2.00	< .10
Imposing Wishes	.96	1.40	.50	--
Standing Out From Group	.46	0.00	.83	--
Routine Administrative Functions	-1.08	.27	2.04	< .05

Reliable comparisons ($p < .10$).

Table 36. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers are Engaged in Laborer or Operative Occupations with Those in Sales Occupations

Subscale	Laborer Operative	Sales	t	p
Item Score	1.92	2.43	.21	--
Rare Score	-1.04	-.50	.50	--
Authority Figures	1.00	1.07	.10	--
Competitive Games	.42	.71	.40	--
Competitive Situations	-.71	-1.00	.41	--
Masculine Role	.79	.29	.71	--
Imposing Wishes	.96	1.57	.64	--
Standing Out From Group	.46	1.07	1.01	--
Routine Administrative Functions	-1.08	-.43	.92	--

Reliable comparison ($p < .10$).

Table 37. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers are Engaged in Laborer or Operative Occupations with Those in Proprietary, Managerial, or Supervisory Occupations.

Subscale	Laborer Operative	Proprietary Managerial Supervisory	t	p
Item Score	1.92	5.24	1.62	--
Rare Score	-1.04	.24	1.34	--
Authority Figures	1.00	1.32	.58	--
Competitive Games	.42	1.96	2.33	< .025
Competitive Situations	- .71	- .12	.92	--
Masculine Role	.79	.96	.29	--
Imposing Wishes	.96	1.00	.05	--
Standing Out From Group	.46	1.08	1.29	--
Routine Administrative Functions	-1.08	0.00	0.00	--

Reliable comparison ($p < .10$).

Table 38. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers are Engaged in Laborer or Operative Occupations with Those in Professional Occupations

Subscale	Laborer Operative	Professional	t	p
Item Score	1.92	.61	.70	--
Rare Score	-1.04	-1.17	.13	--
Authority Figures	1.00	1.17	.28	--
Competitive Games	.42	2.06	2.21	< .05
Competitive Situations	- .71	- .67	.05	--
Masculine Role	.79	- .33	1.93	< .10
Imposing Wishes	.96	.56	.48	--
Standing Out From Group	.46	.28	.37	--
Routine Administrative Functions	-1.08	- .39	1.15	--

Reliable comparison ($p < .10$).

Table 39. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers are Engaged in Craftsman Occupations with Those in Technical Occupations

Subscale	Craftsman	Technical	t	p
Item Score	3.58	- .53	1.74	< .10
Rare Score	- .52	-1.20	.80	--
Authority Figures	1.85	1.00	1.34	--
Competitive Games	1.00	.40	1.07	--
Competitive Situations	- .09	-1.47	1.94	< .10
Masculine Role	.73	- .47	1.73	< .10
Imposing Wishes	.70	1.40	1.16	--
Standing Out From Group	.15	0.00	.23	--
Routine Administrative Functions	- .70	.27	1.31	--

Reliable comparison ($p < .10$).

Table 40. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers are Engaged in Craftsman Occupations with Those in Sales Occupations

Subscale	Craftsman	Sales	t	p
Item Score	3.58	2.43	.49	--
Rare Score	- .52	- .50	.02	--
Authority Figures	1.85	1.07	1.34	--
Competitive Games	1.00	.71	.42	--
Competitive Situations	- .09	-1.00	1.40	--
Masculine Role	.73	.29	.59	--
Imposing Wishes	.70	1.57	1.33	--
Standing Out From Group	.15	1.07	1.39	--
Routine Administrative Functions	- .70	- .43	.29	--

Reliable comparison ($p < .10$).

Table 41. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers are Engaged in Craftsman Occupations with Those in Proprietary, Managerial, or Supervisory Occupations

Subscale	Craftsman	Proprietary Managerial Supervisory	t	p
Item Score	3.58	5.24	.84	--
Rare Score	- .52	.24	.95	--
Authority Figures	1.85	1.32	1.06	--
Competitive Games	1.00	1.96	1.60	--
Competitive Situations	- .09	- .12	.05	--
Masculine Role	.73	.96	.38	--
Imposing Wishes	.70	1.00	.58	--
Standing Out From Group	.15	1.08	1.82	< .10
Routine Administrative Functions	- .70	0.00	0.00	--

Reliable comparison ($p < .10$).

Table 42. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers are Engaged in Craftsman Occupations with Those in Professional Occupations

Subscale	Craftsman	Professional	t	p
Item Score	3.58	.61	2.21	< .05
Rare Score	- .52	-1.17	.80	--
Authority Figures	1.85	1.17	1.28	--
Competitive Games	1.00	2.06	1.53	--
Competitive Situations	- .09	- .67	.90	--
Masculine Role	.73	- .33	1.68	< .10
Imposing Wishes	.70	.56	.24	--
Standing Out From Group	.15	.28	.23	--
Routine Administrative Functions	- .70	- .39	.50	--

Reliable comparison ($p < .10$).

Table 43. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers are Engaged in Technical Occupations with Those in Sales Occupations

Subscale	Technical	Sales	t	p
Item Score	- .53	2.43	1.09	--
Rare Score	-1.20	- .50	.73	--
Authority Figures	1.00	1.07	.08	--
Competitive Games	.40	.71	.37	--
Competitive Situations	-1.47	-1.00	.62	--
Masculine Role	-.47	.29	.95	--
Imposing Wishes	1.40	1.57	.22	--
Standing Out From Group	0.00	1.07	7.64	< .001
Routine Administrative Functions	.27	- .43	.72	--

Reliable comparison ($p < .10$).

Table 44. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers are Engaged in Technical Occupations with Those in Proprietary, Managerial or Supervisory Occupations

Subscale	Technical	Proprietary Managerial Supervisory	t	p
Item Score	- .53	5.24	2.06	< .05
Rare Score	-1.20	.24	1.32	--
Authority Figures	1.00	1.32	.43	--
Competitive Games	.40	1.96	1.98	< .10
Competitive Situations	-1.47	-.12	1.82	< .10
Masculine Role	-.47	.96	7.15	< .001
Imposing Wishes	1.40	1.00	.67	--
Standing Out From Group	0.00	1.08	1.68	< .10
Routine Administrative Functions	.27	0.00	.34	--

Reliable comparison ($p < .10$).

Table 45. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers are Engaged in Technical Occupations with Those in Professional Occupation

Subscale	Technical	Professional	t	p
Item Score	- .53	.61	.43	--
Rare Score	-1.20	-1.17	.02	--
Authority Figures	1.00	1.17	.21	--
Competitive Games	.40	2.06	1.90	< .10
Competitive Situations	-1.47	- .67	1.01	--
Masculine Role	- .47	- .33	.21	--
Imposing Wishes	1.40	.56	1.27	--
Standing Out From Group	0.00	.28	.42	--
Routine Administrative Functions	.27	- .39	.79	--

Reliable comparison ($p < .10$).

Table 46: Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers are Engaged in Sales Occupations with Those in Proprietary, Managerial, or Supervisory Occupations

Subscale	Sales	Proprietary Managerial Supervisory	t	p
Item Score	2.43	5.24	1.01	--
Rare Score	- .50	.24	.64	--
Authority Figures	1.07	1.32	.36	--
Competitive Games	.71	1.96	1.76	< .10
Competitive Situations	-1.00	- .12	1.33	--
Masculine Role	.29	.96	.91	--
Imposing Wishes	1.57	1.00	.83	--
Standing Out From Group	1.07	1.08	.01	--
Routine Administrative Functions	- .43	0.00	.53	--

Reliable comparison ($p < .10$).

Table 47. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers are Engaged in Sales Occupations with Those in Professional Occupations

Subscale	Sales	Professional	t	p
Item Score	2.43	.61	.70	--
Rare Score	-.50	-1.17	.59	--
Authority Figures	1.07	1.17	.13	--
Competitive Games	.71	2.06	1.73	<.10
Competitive Situations	-1.00	-.67	.47	--
Masculine Role	.29	-.33	.84	--
Imposing Wishes	1.57	.56	1.36	--
Standing Out From Group	1.07	.28	1.12	--
Routine Administrative Functions	-.43	-.39	.04	--

Reliable comparison ($p < .10$).

Table 48. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers are Engaged in Proprietary, Managerial, or Supervisory Occupations with Those in Professional Occupations

Subscale	Proprietary Managerial Supervisory	Professional	t	p
Item Score	5.24	.61	2.03	< .05
Rare Score	.24	-1.17	1.36	--
Authority Figures	1.32	1.17	.23	--
Competitive Games	1.96	2.06	.13	--
Competitive Situations	-.12	-.67	.82	--
Masculine Role	.96	-.33	2.15	< .05
Imposing Wishes	1.00	.56	.73	--
Standing Out From Group	1.08	.28	1.40	--
Routine Administrative Functions	0.00	-.39	.55	--

Reliable comparisons ($p < .10$).

Table 49. Percent of Total Experimental Group Whose Fathers Hold a College Degree Giving Positive and Negative Responses on Various Subscales of the Miner Sentence Completion Scale

MSCS Subscale	Percentage
Authority Figures	
Positive	62
Negative	19
Competitive Games	
Positive	81
Negative	14
Competitive Situations	
Positive	38
Negative	48
Masculine Role	
Positive	38
Negative	33
Imposing Wishes	
Positive	57
Negative	33
Standing Out From Group	
Positive	67
Negative	29
Routine Administrative Functions	
Positive	48
Negative	48

Table 50. Percent of Total Experimental Group Whose Fathers Attended College but Earned No Degree Giving Positive and Negative Responses on Various Subscales of the Miner Sentence Completion Scale

MSCS Subscales	Percentage
Authority Figures	
Positive	65
Negative	23
Competitive Games	
Positive	60
Negative	35
Competitive Situations	
Positive	23
Negative	63
Masculine Role	
Positive	58
Negative	35
Imposing Wishes	
Positive	65
Negative	28
Standing Out From Group	
Positive	50
Negative	33
Routine Administrative Functions	
Positive	28
Negative	65

Table 51. Percent of Total Experimental Group Whose Fathers Have a High School Diploma Giving Positive and Negative Responses on Various Subscales of the Miner Sentence Completion Scale

MSCS Subscales	Percentage
Authority Figures	
Positive	67
Negative	11
Competitive Games	
Positive	63
Negative	23
Competitive Situations	
Positive	42
Negative	54
Masculine Role	
Positive	42
Negative	33
Imposing Wishes	
Positive	61
Negative	26
Standing Out From Group	
Positive	43
Negative	32
Routine Administrative Functions	
Positive	39
Negative	47

Table 52. Percent of Total Experimental Group Whose Fathers Attended High School but Earned No Diploma or Those with an Elementary School Education or Less Giving Positive and Negative Responses on Various Subscales of the Miner Sentence Completion Scale

MSCS Subscales	Percentage
Authority Figures	
Positive	72
Negative	8
Competitive Games	
Positive	34
Negative	32
Competitive Situations	
Positive	30
Negative	53
Masculine Role	
Positive	61
Negative	27
Imposing Wishes	
Positive	57
Negative	42
Standing Out From Group	
Positive	49
Negative	27
Routine Administrative Functions	
Positive	27
Negative	49

Table 53. Percent of Total Experimental Group Giving Positive and Negative Rare Scores on the Miner Sentence Completion Scale According to Education of Father

Education	Percentage
College Degree	
Positive Rares	48
Negative Rares	48
Less Than College Degree	
Positive Rares	28
Negative Rares	55
High School Diploma	
Positive Rares	44
Negative Rares	42
Less Than High School Diploma	
Positive Rares	19
Negative Rares	53

Table 54. Percent of Total Experimental Group Whose Fathers Hold a College Degree Giving Positive and Negative Rares on Various Subscales of the Miner Sentence Completion Scale

MSCS Subscales	Percentage
Authority Figures	
Positive Rares	33
Negative Rares	14
Competitive Games	
Positive Rares	17
Negative Rares	10
Competitive Situations	
Positive Rares	19
Negative Rares	24
Masculine Role	
Positive Rares	14
Negative Rares	17
Imposing Wishes	
Positive Rares	26
Negative Rares	38
Standing Out From Group	
Positive Rares	17
Negative Rares	19
Routine Administrative Functions	
Positive Rares	14
Negative Rares	38
Supervisory Job	
Positive Rares	36
Negative Rares	41

Table 55. Percent of Total Experimental Group Whose Fathers Attended College but Earned No Degree Giving Positive and Negative Rares on Various Subscales of the Miner Sentence Completion Scale

MSCS Subscales	Percentage
Authority Figures	
Positive Rares	28
Negative Rares	30
Competitive Games	
Positive Rares	11
Negative Rares	25
Competitive Situations	
Positive Rares	20
Negative Rares	33
Masculine Role	
Positive Rares	20
Negative Rares	14
Imposing Wishes	
Positive Rares	30
Negative Rares	34
Standing Out From Group	
Positive Rares	15
Negative Rares	24
Routine Administrative Functions	
Positive Rares	14
Negative Rares	39
Supervisory Job	
Positive Rares	38
Negative Rares	41

Table 56. Percent of Total Experimental Group Whose Fathers Have a High School Diploma Giving Positive and Negative Rares on Various Subscales of the Miner Sentence Completion Scale

MSCS Subscales	Percentage
Authority Figures	
Positive Rares	29
Negative Rares	15
Competitive Games	
Positive Rares	16
Negative Rares	18
Competitive Situations	
Positive Rares	27
Negative Rares	23
Masculine Role	
Positive Rares	22
Negative Rares	16
Imposing Wishes	
Positive Rares	26
Negative Rares	35
Standing Out From Group	
Positive Rares	25
Negative Rares	20
Routine Administrative Functions	
Positive Rares	18
Negative Rares	33
Supervisory Job	
Positive Rares	39
Negative Rares	33

Table 57. Percent of Total Experimental Group Whose Fathers Attended High School but Earned No Diploma or Those with an Elementary School Education or Less Giving Positive and Negative Rares on Various Subscales of the Miner Sentence Completion Scale

MSCS Subscale	Percentage
Authority Figures	
Positive Rares	15
Negative Rares	21
Competitive Games	
Positive Rares	8
Negative Rares	25
Competitive Situations	
Positive Rares	25
Negative Rares	33
Masculine Role	
Positive Rares	29
Negative Rares	10
Imposing Wishes	
Positive Rares	25
Negative Rares	35
Standing Out From Group	
Positive Rares	12
Negative Rares	25
Routine Administrative Functions	
Positive Rares	8
Negative Rares	31
Supervisory Job	
Positive Rares	33
Negative Rares	42

Table 58. Percent of Total Experimental Group Giving Positive and Negative Item Scores on the Miner Sentence Completion Scale According to Education of Father

Education	Percentage
College Degree	
Positive Item Scores	48
Negative Item Scores	48
Less Than College Degree	
Positive Item Scores	54
Negative Item Scores	46
High School Diploma	
Positive Item Scores	44
Negative Item Scores	42
Less Than High School Diploma	
Positive Item Scores	66
Negative Item Scores	34

Table 59. Comparison of Mean Scores for Subscales of Miner Sentence Completion Scale in Relation to Education of Fathers Experimental Group

Subscales	College Degree	College No Degree	High School Diploma	Less Than High School Diploma
Item Score	2.43	1.20	3.75	2.38
Rare Score	- .81	1.33	- .02	-1.27
Authority Figures	1.83	1.00	1.26	1.58
Competitive Games	2.19	.75	1.28	.08
Competitive Situations	- .43	-1.00	- .02	-1.08
Masculine Role	0.00	.58	.32	1.15
Imposing Wishes	.86	1.18	.86	1.15
Standing Out From Group	.71	.55	.44	.46
Routine Administrative Functions	.24	-1.03	- .19	- .54

Table 60. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers Hold a College Degree with Those Who Attended College but Earned No Degree

Subscale	College Degree	College but No Degree	t	p
Item Score	2.43	1.20	.56	--
Rare Score	-.81	1.33	2.32	< .025
Authority Figures	1.83	1.00	1.59	--
Competitive Games	2.19	.75	2.36	< .025
Competitive Situations	-.43	-1.00	.95	--
Masculine Role	0.00	.58	1.11	--
Imposing Wishes	.86	1.18	.58	--
Standing Out From Group	.71	.55	.30	--
Routine Administrative Functions	.24	-1.03	1.98	< .10

Reliable comparisons ($p < .10$).

Table 61. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers Hold a College Degree with Those Who Earned a High School Diploma

Subscale	College Degree	High School Diploma	t	p
Item Score	2.43	3.75	.74	--
Rare Score	-.81	-.02	1.03	--
Authority Figures	1.83	1.26	1.07	--
Competitive Games	2.19	1.28	1.71	< .10
Competitive Situations	-.43	-.02	.64	--
Masculine Role	0.00	.32	.60	--
Imposing Wishes	.86	.86	0.00	--
Standing Out From Group	.71	.44	.57	--
Routine Administrative Functions	.24	-.19	.76	--

Reliable comparisons ($p < .10$).

Table 62, Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers Hold a College Degree with Those Who Attended High School but Earned No Diploma or Those with an Elementary School Education or Less

Subscale	Degree	Less than High School Diploma	t	p
Item Score	2.43	2.38	.02	--
Rare Score	-.81	-1.27	.50	--
Authority Figures	1.83	1.58	.46	--
Competitive Games	2.19	.08	3.14	<.005
Competitive Situations	-.43	-1.08	.97	--
Masculine Role	0.00	1.15	1.91	<.10
Imposing Wishes	.86	1.15	.52	--
Standing Out From Group	.71	.46	.47	--
Routine Administrative Functions	.24	-.54	1.36	--

Reliable comparisons ($p < .10$).

Table 63. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers Attended College but Earned No Degree with Those Who Earned a High School Diploma

Subscale	College but No Degree	High School Diploma	t	p
Item Score	1.20	3.75	1.64	--
Rare Score	1.33	- .02	2.07	< .05
Authority Figures	1.00	1.26	.63	--
Competitive Games	.75	1.28	1.20	--
Competitive Situations	-1.00	- .02	2.04	< .05
Masculine Role	.58	.32	.60	--
Imposing Wishes	1.18	.86	.84	--
Standing Out From Group	.55	.44	.27	--
Routine Administrative Functions	-1.03	- .19	1.78	< .10

Reliable comparisons ($p < .10$).

Table 64. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers Attended College but Earned No Degree with Those Who Attended High School but Earned No Diploma or Those with an Elementary School Education or Less

Subscale	College but No Degree	Less Than High School Diploma	t	p
Item Score	1.20	2.38	.61	--
Rare Score	1.33	-1.27	3.13	<.005
Authority Figures	1.00	1.58	1.28	--
Competitive Games	.75	.08	1.15	--
Competitive Situations	-1.00	-1.08	.14	--
Masculine Role	.58	1.15	1.09	--
Imposing Wishes	1.18	1.15	.05	--
Standing Out From Group	.55	.46	.18	--
Routine Administrative Functions	-1.03	-.54	.87	--

Reliable comparisons ($p < .10$).

Table 65. Comparison of MSCS Subscale Scores for Experimental Group Whose Fathers Earned a High School Diploma with Those Who Attended High School but Earned No Diploma or Those with an Elementary School Education or Less

Subscale	High School Diploma	Less Than High School Diploma	t	p
Item Score	3.75	2.38	.54	--
Rare Score	-.02	-1.27	1.81	<.10
Authority Figures	1.26	1.58	.69	--
Competitive Games	1.28	.08	2.40	<.025
Competitive Situations	-.02	-1.08	1.85	<.10
Masculine Role	.32	1.15	1.62	--
Imposing Wishes	.86	1.15	.70	--
Standing Out From Group	.44	.46	.04	--
Routine Administrative Functions	-.19	-.54	.70	--

Reliable comparisons ($p < .10$).