

AN ABSTRACT OF THE THESIS OF

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Abstract approved: _

Dr. Theodore Yerian

The purpose of this study was to determine a student's attitudes toward business, his level of occupational aspiration, and the degree of correlation between them. Two questionnaires were used: Student Attitudes Toward Business and Level of Occupational Aspiration.

The business attitude questionnaire elicited student reactions to 87 business-related statements. The occupational aspiration questionnaire sought biographical information and responses pertaining to a student's idealistic short-range, idealistic long-range, realistic short-range, and realistic long-range occupational aspirations.

This study found that senior high school students' attitudes toward business were not significantly correlated with their level of occupational aspiration when compared by sex and intelligence. However, significant differences were found when student attitudes were correlated with level of occupational aspiration by high school (socioeconomic area) and by high school pattern (academic, business, and general education). Students coming from a high

socioeconomic area and attending a high school in a high socioeconomic area scored significantly higher on the business attitude questionnaire than did the other two groups. Students enrolled in an academic pattern (college or university preparatory) scored significantly higher on the business attitude questionnaire than did business education students. Business and general education students' scores were not significantly different.

Senior high school academic students' levels of occupational aspiration were significantly higher than those of business and general education students. However, the occupational aspirations of students in the business education pattern were not significantly higher than those of general education students.

This study found a significant correlation between a senior high school students' concept of self (the strength of his feelings about his ability, chances of getting ahead, value of education and educational aspirations) and his level of occupational aspiration. A student's concept of self and attitudes toward business scores were not significantly correlated.

Senior high school students' scholastic achievement (grade 11 scholastic average) was found to be significantly correlated with their levels of occupational aspiration. Their attitudes toward business scores, meanwhile, were not significantly correlated with their level of occupational aspiration at any of the four levels of intelligence (IQ). Nor was there a significant correlation between student attitudes toward business and scholastic achievement.

Twenty-eight per cent of the students tested indicated that their parents were the greatest single influence on their educational aspirations and 43 per cent indicated that they made their own educational decisions. Academic

students did, however, cite their parents as being the most influential factor significantly more often than did non-academic students. Over 60 per cent of the students reported that they made their own occupational decisions, while 10 per cent regarded their parents as being the greatest single influence on their occupational decisions. Academic students reported that their parents were more instrumental in their decisions than did non-academic students.

Six per cent of the academic students and 25 per cent of the business and general education students felt that circumstances such as grades, attendance record, and interests were responsible for their choice of a high school educational program.

Thirty per cent of the business education students reported that the most important consideration in their choice of an occupation was money, while 20 per cent of the academic and general education students chose money as the most important consideration.

On the average, the educational aspiration of the group tested was slightly higher than a baccalaureate degree; the educational aspiration of the academic group was significantly higher than that of the other two groups. The realistic long-range occupational aspirations of the group were significantly higher than their short-range realistic aspirations, and their long-range idealistic occupational aspirations were significantly higher than their short-range idealistic occupational aspirations.

A STUDY OF THE RELATIONSHIP BETWEEN
ATTITUDES TOWARD BUSINESS AND LEVEL
OF OCCUPATIONAL ASPIRATION

by

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A STUDY OF THE RELATIONSHIP BETWEEN ATTITUDES TOWARD BUSINESS AND LEVEL OF OCCUPATIONAL ASPIRATION

CHAPTER I

INTRODUCTION

Students' occupational aspirations have been and continue to be a topic of interest and concern to educators. This concern with the setting of goals is especially strong in a democratic society which places a high priority on success. As a result, there is a considerable amount of information on the study of psychological problems involving goals and goal-directed behavior.

The phenomenon of level of aspiration involves the study of factors such as social forces and standards, conflicts, personality characteristics, values, failure, success, and developmental aspects of personality. A review of research shows that there are various theories in existence to explain the relationship of a student's level of occupational aspiration and these factors.

However, there is little research on the topic of a student's attitudes toward business as related to his level of occupational aspiration. Undoubtedly, the vast majority of high school students are, in a number of ways, affected daily by practices and malpractices of businessmen. If the assumption that business has a significant influence on educational and occupational aspirations of students is accepted, then a research of this relationship is warranted.

Statement of Problem

Our modern society is becoming increasingly complex. Technology continues to advance and individual occupations are becoming more specialized. The problems are further compounded by a rural-urban shift in population.

Every high school senior is faced with the difficult task of formulating important decisions regarding his educational and vocational choices. However, the whole problem of how young people come to make their educational and vocational choices is very obscure. In many cases the problem is one of rational planning, while in others it is a haphazard allocation among available jobs. Are these selections fairly standardized or do they vary systematically among different age and sex groups, regions, schools, educational programs, home and community environments?

A recent Canada-wide survey (1967)¹ states that 27.2 per cent of Canadian high school students feel that when a man is born, the success he is going to have is already predetermined by factors outside his control. These factors include such things as his socioeconomic background, his parents' role in the community, and the amount of monetary support he is able to command from his family or extraneous sources.

Many students feel that they have little choice when it comes to the selection of a high school program and that educational and occupational goals are

1. Canada. Department of Manpower and Immigration. Career Decisions of Canadian Youth: A Compilation of Basic Data. Ottawa, Queens Printer, 1967. 1:1-4.

planned for them. There is a need to determine the forces which compel students to enroll in a particular high school program and the forces which affect a student's post-high school educational program and vocational choice.

Just as the total educational institution has far-reaching effects on students' educational and vocational plans, so does the business institution. Our way of life, political and socioeconomic, is predicated on free enterprise. As a result, the business institution cannot help but have a very direct and important impact on the life of every student.

Canadian and American consumers, including high school students, are questioning the nature of business. They are questioning its goals, objectives, morals, and ethics. The students of today are cognizant of this surveillance and quickly develop certain attitudes toward and beliefs about the business community.

Purpose of Study

The purpose of this study is to evaluate student attitudes toward business and to determine statistically whether there is a correlation between these attitudes and other variables such as educational and occupational aspirations, scholastic achievement, intelligence, and school attendance. After the constructs attitude and aspiration are defined, two questionnaires which measure them are developed. Two scores from the attitude questionnaire which measure a student's specific and general attitudes toward business are correlated with five scores from the occupational aspiration questionnaire which measure a student's specific and general occupational aspirations.

The student attitudes toward business questionnaire consists of seven sections, A to G, each of which relates to a specific segment of the business community. An eighth section, Section H, contains seventeen general statements related to business. The occupational aspiration scale is used to measure a student's level of occupational aspiration. It has eight specific questions which determine and measure a student's short-range idealistic, long-range idealistic, short-range realistic, and long-range realistic occupational goals.

In dealing with the hypotheses proposed in this study, reference is made to responses of the senior high school total sample and to the high school pattern in which the students are enrolled: academic, business, and general education. For purposes of this study, academic students are those who are presently enrolled in grade 12 and have been enrolled in grades 10 and 11 in courses such as physics, mathematics, chemistry, and modern languages. Mainly, theirs is preparation for entry into a university. Business education students are those enrolled in courses such as accounting, shorthand, economics, office practice, business machines, and business organization and management. This program leads to a high school diploma in business education and is intended to give a student entry into an occupation, a business or community college, or a technical institution. General education students are considered to be students who take a combination of academic, business and vocational courses such as welding, electricity, and electronics. This program prepares a student for job entry, or enrollment in a college or technical institution.

If educators hope to give students the type of leadership they require in this complex society and help students realize their aspirations, there is a need to know more about the nature of business, student attitudes toward that institution, and the impact of these attitudes, directly and indirectly, on the aspiration levels and occupational choices of students. There is also a need to know more about the origin, nature, and strength of these aspirations or orientations.

Hypotheses

The following hypotheses are formulated for research and testing:

1. There is a high positive correlation between a student's attitudes toward business and his level of occupational aspiration.

This hypothesis is predicated on the assumption that a student who looks upon the business community with a positive attitude (positive evaluative and affective reactions toward the business community) and holds the businessman in high esteem is more likely to have a positive regard for other institutions in our society, including the educational institution. If this is the case, the student will select an occupation to which he aspires from the hierarchy of occupations in accordance with the attitudes he fosters toward the business community. As a result, it is hypothesized that the more positive a student's concept of business is, the higher will be his level of occupational aspiration.

2 (a) . The attitudes toward business of senior high school academic students are significantly higher than those of senior high school business education students .

(b) . The attitudes toward business of senior high school academic students are significantly higher than those of senior high school general education students .

(c) . The attitudes toward business of senior high school business education students are significantly higher than those of senior high school general education students .

For purposes of this study , a student who portrays positive attitudes toward business and who is pro-business institution will be deemed to have a high regard or to hold "high" attitudes toward business . A student who portrays negative attitudes toward business will be defined as one who has a "low" attitude of business . This study hypothesizes that an academically oriented high school student will have significantly higher attitudes toward business than will business or general education students .

3 (a) . The levels of occupational aspiration of senior high school academic students are significantly higher than those of business education students .

(b) . The levels of occupational aspiration of senior high school academic students are significantly higher than those of general education students .

(c). The levels of occupational aspiration of senior high school business education students are significantly higher than those of general education students.

It is logical to assume from the program in which a high school student enrolls that there will be significant differences in the levels of educational aspiration, and, consequently, significant differences in the level of occupational aspiration. This hypothesis attempts to corroborate this viewpoint.

4. There is a high positive correlation between a student's occupational aspiration and concept of self.

For purposes of this study, a student's level of occupational aspiration will be his total occupational aspiration score based on four components: idealistic short-range, idealistic long-range, realistic short-range, and realistic long-range occupational goals. His concept of self will consist of his collective score to questions dealing with achievement orientations and relate to the following:

- a. The strength of his feelings about his occupational choice .
- b. His feelings about his ability regarding his occupational choice.
- c. His feelings about his chances of getting ahead in the occupation of his choice.
- d. His feelings about the value of his present education.
- e. His educational aspirations.

f. The extent of parental pressure on his educational and occupational aspirations.

g. The nature of his relationship with his family.

5. There is a high positive correlation between a student's attitudes toward business and concept of self.

Similar to Hypothesis Four, this hypothesis is based on the assumption that a student's concept of self is positively correlated with his attitudes toward business.

6. There is a high positive correlation between a student's level of occupational aspiration and scholastic achievement.

High scholastic achievement (as measured by the student's grade 11 average) is viewed as a prerequisite for a high level of occupational achievement. As a result, a student will tend to have a level of occupational aspiration that corresponds with the level of educational aspiration. Although several studies have shown a significant correlation between a student's level of occupational aspiration and scholastic achievement, this hypothesis will test the degree of this relationship in a Canadian setting.

7. There is a high positive correlation between a student's attitudes toward business and his intelligence (IQ).

This hypothesis will test the relationship of a student's attitudes toward business and intelligence (as measured by the Lorge-Thorndike Intelligence Test).

8. There is a high positive correlation between a student's attitudes toward business and his scholastic achievement.

This hypothesis is similar to Hypothesis Seven, but rather than testing the correlation of a student's attitudes toward business and his intelligence, it tests the correlation of a student's attitudes toward business and his scholastic achievement.

This hypothesis raises the question, is a student who looks upon the business institution with a positive regard more likely to have positive attitudes toward his studies, the school as a learning institution, his peers, and, in particular, himself and his ability to become a productive member of society than a student with negative attitudes toward business?

CHAPTER II

REVIEW OF LITERATURE

Attitudes

Shaw and Wright (1967)² define attitude as a variable construct which is often invoked to account for consistency in social behavior. Attitudes are the end products of the socialization process and significantly influence student responses to cultural products, other persons, and groups of persons such as businessmen. If the attitude of a student toward a given object or class of objects is known, it can be used in conjunction with situational and other dispositional variables to predict and explain reactions of the student to that class of objects.

Everyday and professional use and definition of the term attitude ranges from the operational to the metatheoretical. Despite the variation in the definition of the term, the existing definitions agree upon the one common characteristic--that attitude entails an existing predisposition to respond to social objects, which, in interaction with situational and other dispositional variables, guides and directs the overt behavior of the individual.³

2. Marvin E. Shaw and Jack M. Wright. Scales for Measurement of Attitudes. Toronto, McGraw-Hill Book Company, 1967. p. 1.

3. J. A. Cardno. "The Notion of Attitude: An Historical Note." Psychological Report 1:345-352. 1955.

Theorists Eysenck and Crown (1949)⁴ and Rokeach et al. (1960)⁵ tend to make attitudes a generalized and pervasive disposition of the person. Sherif and Cantril (1945)⁶ consider attitudes to have a specific referent or a specific class of referents and add that one may possess an attitude only when the referent object or event is of a social nature.

Krech, Crutchfield, and Ballachey (1962)⁷ conceptualize attitudes as consisting of three components: an affective component, a cognitive component, and a behavioral component.

There are a number of traditional definitions of the term attitude. Many researchers state that it is an enduring learned predisposition to behave in a consistent way toward a given class of objects. Krech, Crutchfield, and Ballachey (1962)⁸ define attitude as being an enduring system of positive or negative evaluations, emotional feelings, and pro or con action tendencies with

4. H. J. Eysenck and S. Crown. "An Experimental Study of Opinion-Attitude Methodology." International Journal of Opinion and Attitude Research 3:48-86. 1949.

5. Milton Rokeach et al. The Open and Closed Mind. New York, Basic Books, 1960. p. 1f.

6. Muzafer Sherif and Hadley Cantril. "The Psychology of 'Attitude': Part I." Psychological Review 52:295-319. November, 1945.

7. David Krech, Richard S. Crutchfield, and Egerton L. Ballachey. Individual in Society. New York, McGraw-Hill Book Company, 1962. p. 139.

8. Ibid. p. 139.

respect to a social object, while Allport (1954)⁹ defines attitude as a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual response to all objects and situations with which it is related.

Attitude toward an object can be summed up as the strength of beliefs about the object and the evaluative aspect of these beliefs. (By evaluative is meant some order of preferability such as honest-dishonest or ethical-unethical regarding the characteristic of the object.)

To most researchers, then, attitudes are a relatively enduring system of evaluative, affective reactions based upon and reflecting the evaluative concepts of beliefs which have been learned about the characteristic of a social object or class of social objects.

Attitudes and Beliefs

Anderson and Fishbein (1965)¹⁰ define the term belief as emphasizing some level of acceptance of a proposition regarding the characteristic of an object or event. Belief in something is acceptance at some level of probability that specific relations exist between the concept and some other object, concept, value, or goal. Belief involves any expectancy, set, or proposition which the

9. G. W. Allport. "The Historical Background of Modern Social Psychology." Handbook of Social Psychology. Gardner Lindzey (ed.). Cambridge, Massachusetts, Addison-Wesley Publishing Company, 1954. 1:3-56.

10. Lynn R. Anderson and Martin Fishbein. "Prediction of Attitude from the Number, Strength, and Evaluative Aspect of Beliefs About the Attitude Object: A Comparison of Summation and Congruity Theories." Journal of Personality and Social Psychology 2(3):437-443. 1965.

individual accepts as true of the object or event and becomes an attitude when it is accompanied by an affective component which reflects the valuations of the preferability of the characteristics or existence of the object. An attitude is thus the sum of such beliefs about the object.

Attitude versus Concept, Motive, Opinion, Habit, Set, and Trait

In order to compare concept, motive, opinion, habit, set, and trait with attitudes it is necessary to again define the term attitude. Attitudes are a relatively enduring system of evaluative, affective reactions based upon and reflecting the evaluative concepts or beliefs which have been learned about the characteristics of a social object or a class of social objects.

Concept is a more general term than attitude and is considered to be the act of placing any two or more experimentally demarcated entities or events into some relationship.

Motives are similar to attitudes in that both terms refer to the directionality of behavior but not to behavior itself. However, unlike attitudes which are considered to be drive producing toward a specific object, motives connote a commitment or desire to attain a specific goal.

Opinion is similar to attitude and belief in that it refers to implicit responses and can be defined as a belief that one holds without emotional commitment or desire, and which is open to re-evaluation since the evidence is not affirmed to be convincing. "Opinions are viewed as verbal 'answers' that an individual gives in response to stimulus situations in which some 'general' question

is raised." ¹¹ They are difficult to verify as they can and often do deal with such inferences as to the motives of political leaders, the causes of inflation, or predictions concerning the future of a nation's economy. Opinions are responses capable of being verbalized, while attitudes are sometimes mediated as unconscious, nonverbal processes or response predispositions.

Although both habit and set are acquired much as attitudes are, neither reflects an affective nor evaluative reaction. A habit is an enduring structure pertaining to one mental constitution, disposition, way of acting, comporting oneself, or dealing with things. A set is a permanent form or condition of a feeling or attitude of mind having a specified allocation, arrangement, conformation, adjustment, and disposition.

A trait can be defined as a more or less stable and consistent disposition of the individual to respond in a certain way which differentiates him from other individuals. Attitudes differ from traits primarily in that attitudes are revealed in generalized behavior toward a specific object (referent), whereas a trait is reflected in either a specific or general behavior toward a wide variety of objects.

Dimensions of Attitudes

Attitudes give rise to motivated behavior and are based upon evaluative concepts regarding characteristics of the referent object which can, for example,

11. Carl I. Hovland, Irving L. Janis, and Harold H. Kelley. Communication and Persuasion. New Haven, Yale University Press, 1953. p. 6.

be the business community. These are not motives, but they produce motives which react with situational and other dispositional characteristics and determine overt behavior.

Scales used in assessing attitudes measure only one dimension--the positive or negative evaluation--of the affective or feeling reaction.

Attitudes are affective reactions and implicit responses which serve as producers of motives. This implicit response is evaluative and is based upon the conception of the object by the individual holding the attitude. This means that a person has some degree of preferability due to being, for example, more ethical or community-minded than another.

Attitudes are construed as varying in quality and intensity on a continuum from positive through neutral to a negative reaction or response. The strength or intensity of the attitude is represented by the extremity of the position occupied on the continuum and reflects an affective reaction.

The neutral position on the attitude continuum represents no attitude toward the object in question. A second alternative interpretation which may be given to the neutral point is that it represents the point of balance in positive-negative evaluative conflict, thereby reflecting an ambivalent attitude.

Sherif and Sherif (1956)¹² state that attitudes are learned and are not innate or a result of constitutional development and maturation. They are learned through interaction with social objects and in social events or situations and

12. Muzafer Sherif and Carolyn W. Sherif. An Outline of Social Psychology. Rev. ed. New York, Harper & Brothers, 1956. p. 388-409.

demonstrate the same properties as other learned reactions. Attitudes are subject to alteration through thinking, inhibition, and fatigue. They may also be altered through a manipulation of the same order of variables which produce their original acquisition.

Attitudes have specific social referents such as political or business issues or world problems. These learning experiences may be the result of direct contact with the object or situation or the result of indirect contact with them through direct contact with other persons.

Attitudes possess varying degrees of definitiveness and scope with regard to the number and kinds of objects encompassed as referents. For example, attitudes toward business have many referents from the business community. Business is an extremely complex institution and is capable of eliciting a wide range of positive and negative attitudes toward itself.

Krech, Crutchfield, and Ballachey (1962)¹³ note that attitudes possess varying degrees of interrelationships in that they have similar referents or valences. Attitudes which are highly interrelated form clusters of subsystems and thus become the total attitudinal system of the individual.

In their research of attitudes, Sherif and Sherif (1956)¹⁴ conclude that affective predispositions change slowly and, as a result, attitudes are relatively stable and enduring. They are a system of affective, evaluative reactions

13. Krech, Crutchfield, and Ballachey. op. cit. p. 139.

14. Sherif and Sherif. op. cit. p. 541-554.

based upon and reflecting the evaluative concepts or beliefs which have been learned about the characteristics of a social object or a class of social objects. As an affective reaction, it is a covert or implicit response. It is a drive-producing response which elicits motives and thus gives rise to overt behavior.

The Structure of Attitudes Toward Business

The affective reactions that constitute attitudes toward business are derived from the underlying cognitive structures relevant to business. In the course of the individual's experiences in the business community, the student formulates a set of evaluative concepts or beliefs about it. These beliefs may arise from direct experiences with business or through indirect experiences in interaction with other persons. The beliefs thus formed are relevant to the goal striving of the individual and partially determine what further beliefs may be formed about business.

As the student encounters businessmen, evaluative concepts regarding the relationship of business to his goal attainment are formed or elicited. These perceived or anticipated effects upon goal attainment result in such affective reactions as anxiety or frustration, which in turn produce such motives as aggression or affiliation. It is to the positive-negative dimension of the motive-producing affective reaction that the term attitude applies.

Existing beliefs regarding business determine what further beliefs may be formed. For example, a student may come to conceive that most businessmen

are dishonest, but that they have the capacity to alter the student's own beliefs or conclusions. Since concepts tend toward consistency or balance,¹⁵ it is then easier for the student to accept other negatively valued concepts about businessmen. Concepts about negatively valued characteristics of businessmen are goal relevant and lead to the affective reactions, perhaps of frustration, and to an aggressive motive which may then occur in overt behavior in the form of disparagement.

Some students may be able to tolerate inconsistency and accept some conceptual relations about the business that are evaluated positively and some that are evaluated negatively. In fact, this may be true for most students to some extent. However, the set of beliefs that the student holds about business and the associated evaluations determine the individual's attitudes toward business. They lead to an enduring system of affective reactions regarding business. The nature and strength of this system is determined by the number and strength of the evaluative concepts or beliefs formed.

When a student holds a particular attitude toward business, he is predisposed to act in a certain way toward that object. The motive which is elicited is not a part of the attitude; rather, it is a consequence of the attitude. Behavior is determined by a complex set of forces so that the effect of any one determinant is contingent upon the number and strength of other determinants operating at any

15. Charles E. Osgood and George J. Suci. "Factor Analysis of Meaning." Journal of Experimental Psychology 50(5):325-338. 1955.

given time. Therefore, it is possible that two persons holding opposite attitudes toward business will behave, at least outwardly, in identical ways toward business.

For purposes of this study, then, a student's attitudes are viewed as a set of affective and evaluative reactions toward the business institution. These are derived from the concepts or beliefs that the individual has concerning business, and predisposing the student to behave in a certain manner toward the business community. These behavioral patterns which consist of affective and cognitive components are reflected in student's responses to questions contained in the business attitudes questionnaire.

Occupational Aspirations

People in democratic nations develop a deep respect for educational and occupational aspirations. Individuals, groups, and nations aspire and have aspired to a particular level of attainment. It is natural to refer to educational and career goals as aspirations.

The concept of level of aspiration was researched by Lewin et al. (1944)¹⁶. Their studies investigate the effect of success on level of aspiration. To them, level of aspiration is goal-striving behavior which occurs within a range of difficulty. It can be a verbal or a true goal. One is an ideal goal while the other is an expectation goal. The strength of an individual's

16. Kurt Lewin et al. "Level of Aspiration." Personality and Behavior Disorders. J. McV. Hunt (ed.). New York, The Ronald Press Company, 1944. 1:333-378,

aspirations depends on many aspects of the life space of the individual at that time, particularly on the way he sees his past experiences and on the scale of reference which are characteristic of his culture and personality. These become the foundations upon which he develops his life's goals and which become a fulcrum for weighing and measuring the degree of dedication to the attainment of these goals.

Festinger (1942)¹⁷ finds that a person who perceives another as having higher ability will lower his own level of aspiration. He also finds the reverse to be true. Indications are that success is built on success and tends to raise one's level of occupational aspiration while failure tends to lower one's level of occupational aspiration.

Diggory and Morlock (1964)¹⁸ find that people who believe that they are working for an important outcome of a successful performance have a higher overall level of aspiration and a lower overall probability of success than those who feel that the result of doing well is relatively trivial. However, they found that as a student's level of aspiration increases the probability of success declines.

17. Leon Festinger. "Wish, Expectation, and Group Standards as Factors Influencing Level of Aspiration." The Journal of Abnormal and Social Psychology 37(2):199-200. April, 1942.

18. James C. Diggory and Henry C. Morlock, Jr. "Level of Aspiration, or Probability of Success?" The Journal of Abnormal and Social Psychology 69(3):281-289.

Lurie (1939)¹⁹ defines level of aspiration in terms of goal orientation, while Gardner (1940)²⁰ would define the term as the level of future performance in a familiar task which an individual, knowing his level of past performance in that task, explicitly undertakes to reach. To him, level of aspiration can only refer to a quantitative indication which an individual makes concerning his future performance in an activity.

In his research of the concept of level of aspiration, Irwin (1951)²¹ states that subjects very commonly set their goals at a level somewhat higher than their previous performances can justify. He adds that aspirations are influenced not merely by our immediate wants in a concrete situation, but also by what we think we ought to want.

Deutsch (1954)²² defines level of aspiration as the degree of difficulty of the goal toward which a person is striving. The concept of level of aspiration is relevant only when there is a perceived range of difficulty in the attainment of

19. W. A. Lurie. "Estimating the Level of Vocational Aspiration." Journal of Social Psychology 10:467-473. 1939.

20. John W. Gardner. "The Use of the Term 'Level of Aspiration'." Psychological Review 47:59-68. 1940.

21. F. W. Irwin. "Motivation." Theoretical Foundations of Psychology. Henry Helson (ed.). New York, D. Van Nostrand Company, 1951. p. 239-241.

22. Morton Deutsch. "Field Theory in Social Psychology." Handbook of Social Psychology. G. Lindzey (ed.). Cambridge, Massachusetts, Addison-Wesley Publishing Company. 1954. 1:183-223.

possible goals and there is variation in valence among the goals along the range of difficulty.

Brookover, Erickson, and Joiner (1967)²³ define aspirations as wishes or desires and educational plans as a perception of what one expects to be doing or have accomplished at some future date. They find that correlations between educational plans and achievement are greater than correlations between educational aspirations and achievement. Educational aspirations and educational expectations show a decreased association with academic achievement in the later years of high school.

It is generally agreed that at its fundamental level, occupational aspiration can be defined in terms of one or more persons being oriented toward a goal. This goal is a selection of one among the alternative levels of behavior that are possible with respect to an object. Alternative behavior levels vary in the degree to which they are difficult to achieve and can, therefore, be ranked in a continuum of difficulty.

A student's occupational orientation is variable in that its central tendency may lie at any point or limited range of points along this continuum of difficulty. The central tendency (Haller and Miller, 1967)²⁴ of a student's occupational orientation is the point or limited range of points which has the

23. Wilbur B. Brookover, Edsel L. Erickson, and Lee M. Joiner. "Educational Aspirations and Educational Plans in Relation to Academic Achievement and Socioeconomic Status." The School Review 75:392-399. December, 1967.

24. Archibald O. Haller and Irwin W. Miller. The Occupational Aspiration Scale, Theory, Structure and Correlates. Madison, Wisconsin, University of Wisconsin, 1967. p. 6.

highest valence for him. Of interest is the fact that a student's occupational aspiration level is not and need not be constant, but it can and often does vary from time to time.

A second way a student's orientation is variable is that the central tendency may vary in amount of dispersion, in the degree of concentration at a single point, or over a range of goal levels whose valences are relatively high.

Consequently, a student's level of aspiration may vary in either direction. He may have a range of aspirations with upper and lower boundaries where the whole range can vary in accordance with his concern for short-range or long-range goals. Haller and Miller (1967)²⁵, in one of their conclusions, state that students can differentiate between short-range and long-range aspirations and between short-range and long-range expectations.

Level of Occupational Aspirations

The concept of level of occupational aspiration is a special instance of the more general concept, level of aspiration. It differs from the general concept in that it takes as its object the occupational hierarchy, and its continuum of difficulty consists of the various levels along the hierarchy of occupations. This presents the delicate problem of selecting a criterion which should be used in the establishment of an occupational hierarchy.

25. Ibid. p. 6.

Many different dimensions have been proposed as the most adequate for establishing such a hierarchy. These have been reviewed by Davies (1952)²⁶ and Caplow (1964)²⁷ who feels that "no single-dimensional rating of occupational status will satisfactorily rank the major occupations. Social position is based on income, honorific esteem, group participation, and ecological location."

Super (1957)²⁸ notes that the world of work has 22,000 occupations which can be reduced only by classifying them. Unfortunately, no system based on one dimension is adequate.

These dimensions include such variables as income, intelligence, interest, special skills, required education, personality, and prestige which must be introduced when discussing aspiration. Of these dimensions, average income per occupation, average prestige per occupation, average intelligence per occupation, and average education per occupation are all probably very highly correlated.

Stratification theorists such as Kahn (1957)²⁹ generally agree that differential societal evaluation of occupations or occupational prestige is the

26. A. F. Davies. "The Prestige of Occupations." British Journal of Sociology 3:134-147. 1952.

27. Theodore Caplow. The Sociology of Work. Minneapolis, Minnesota, University of Minnesota Press, 1964. p. 30-58.

28. Donald E. Super. The Psychology of Careers. New York Harper & Brothers, 1957. p. 1-51.

29. Joseph A. Kahn. The American Class Structure. New York, Rinehart & Company, Inc., 1957. p. 53-90.

most adequate way of placing occupations in a hierarchy. The continuum of difficulty of level of occupational prestige is then a hierarchical dimension of occupations determined by their relative occupational prestige. Kahn concludes that a person's occupation is at the root of prestige.

Ramsey and Smith (1960)³⁰, in their studies of the differential prestige of occupations, show that similar occupational titles have nearly equivalent ranks among various industrialized societies and that these ranks have been relatively stable.

In the United States, the National Opinion Research Center (1947)³¹ conducted a comprehensive study on occupational hierarchy. It was done by a quota-controlled sample of 2,900 adults from all parts of the Union. Respondents rated 50 occupations representing day laborers to top business and professional personnel. Their estimates of an occupation on a five-point scale were then averaged and the occupations were placed in rank order. These National Opinion Research Center (NORC) scores are now considered to be the best available means for operationalizing the continuum of difficulty of occupations used in the study of level of occupational aspiration.

30. Charles E. Ramsey and Robert J. Smith. "Japanese and American Perceptions of Occupations." American Journal of Sociology 65: 475-482. 1960.

31. National Opinion Research Center. "Jobs and Occupations: A Popular Evaluation." Opinion News 9:3-13. 1947.

Level of Occupational Aspiration as an Attitude

Level of occupational aspiration can be interpreted as an attitude and, like all attitudes, is a personal orientation to action with respect to a social object. This represents a student's conception of and desire for a future state. Social structure can be likened to occupational structure with occupations ranked from highest to lowest in terms of prestige. A student's level of occupational aspiration thus stands for his orientation to action with respect to one or more points on the occupational prestige hierarchy.

Level of occupational aspiration has a general object which is the entire occupational prestige range. It also has a particular object which is the student's own point or limited range of orientation. This concept of occupational aspiration is closely related to the concept of occupational goal; a special kind of object toward which a student has a favorable attitude. A particular occupation may be considered a goal, but the remainder of the alternatives are not necessarily viewed even as substitute goals. A student's occupational goal is then considered to be the particular range to which he is oriented.

Murray et al. (1938)³² define level of occupational aspiration as bearing a resemblance to motivation. They refer to this as n-achievement; a nonconscious tendency to behave in accord with high internally set standards. These standards influence all aspects of behavior, particularly in overcoming obstacles, exercising power, and striving to do the difficult quickly and accurately.

32. H. A. Murray et al. Explorations in Personality. New York, Oxford University Press, 1939. p.80-81

Students generally have some conception about their future role in an occupation, have certain beliefs about life styles in that occupation, and view this level as being more appropriate for them than other levels. As a result, Murray concludes that a student's level of occupational aspiration represents his self-concept.

Enrollment in a high school program is a form of occupational choice. This is a developmental process and students are often unaware of the barriers which may confront them. Ginzberg et al. (1950)³³ describe a person's level of occupational aspiration as having three periods: the period of tentative choices, the period of realistic choices, and the transition stage. Students of a senior high school age have occupational aspirations which are, in most cases, tentative choices only. They suggest that choices involve an element of compromise between interests, capacities, values, and employment opportunities. However, many students make occupational and educational decisions strictly on impulse. One thing appears clear: seldom is a student's decision a one-time event; rather, it is a series of decisions, some of which are irreversible while others are tentative and subject to reconsideration and reversal.

Most students make occupational decisions after a long drawn out thought process. A student must consider the amount and type of education which is required, the school he would like to attend, and which of several openings

33. Eli Ginzberg et al. Occupational Choice. New York, Columbia University Press, 1950. p. 59-117.

offer the best prospect of success and job satisfaction. In addition, the student must consider his decision from a short-range and long-range point of view.

The student who aspires to an occupational goal is often thwarted by the emergence of a multitude of new occupations each year and by the obsolescence of others which are periodically removed from the Dictionary of Occupational Titles.

To make matters worse, the student is often restricted by a lack of knowledge about occupations and about himself. He is unable to make a wise occupational choice unless he is able to assimilate information about himself and the occupational choices open to him.

A student's total system of concepts influences his level of occupational aspiration. His occupational aspiration changes as the student learns about the world of work; acquires work-related values, skills and habits; develops specific occupational interests and intentions; prepares for and seeks an entry occupation.

The development of level of occupational aspiration is restricted by several categories over which he has very little or no control. Biological restrictors such as physiognomy, somotype, health, and genetic sources are among these. Personality traits and intellectual abilities also have a direct impact on level of occupational aspiration.

In addition to biological restrictors, level of occupational aspiration has socio-cultural restrictors. These include race, age, parental socioeconomic status, geographic origin, and religion. The influence of sex on both the

predictors and the criteria of career development is sufficiently sharp to dictate the requirement of separate theories for the sexes.

Occupational Choice

Flanagan et al. (1964)³⁴, in their Project Talent survey, report that almost one-third of the boys but less than one-quarter of the girls expect to be graduated from college. Only 10 per cent of the boys and 20 per cent of the girls report that they are completely decided in their choice of occupation. On the other hand, over 9 per cent of the boys and about 5 per cent of the girls report that they are completely undecided in their choice of occupation. From these statistics one can conclude that a significant number of senior high school males and females are undecided about their educational and vocational plans.

Brookover, Erickson, and Joiner (1967)³⁵ also find that the socioeconomic level of the family has a bearing on the educational and occupational aspirations of students. Those students from a high socioeconomic status tend to set grade goals which are overly optimistic in terms of their past academic histories. Intelligence (IQ) is also found to be a factor in goal setting as students with higher IQ's tend to set goals more commensurate with past achievement than individuals with lower IQ's.

34. John C. Flanagan et al. The American High-School Student. Pittsburgh, Project Talent Office, University of Pittsburgh, 1964. p. 5-28 to 5-64.

35. Brookover, Erickson, and Joiner, op. cit. p. 392-399.

Drabick (1967)³⁶ reports that two-thirds of the high school seniors sampled believe themselves to be responsible for their occupational decisions, while parents are the greatest single external influence. He also notes that mothers are named twice as often as fathers. Relatives, teachers, counselors, and peers are also frequently cited.

Drabick's findings also point out that females perceive their mothers and sisters as sources of influence more so than their fathers and brothers. On the other hand, males perceive their fathers and brothers as the greatest source of influence. The students of low intelligence rely more heavily on advice and influence from family and friends than do their counterparts. However, he finds no relationship between intelligence and the extent to which the students perceive themselves as responsible for their occupational choices.

Males more frequently perceive their fathers as strongly supporting their occupational decisions than do females. The occupational aspirations of students with a high IQ are more closely correlated with their fathers' expectations than are the occupational aspirations of students with low IQ's.

About one-half of the sample believe their education to be instrumental in their occupational decisions, particularly so with females who believe their education to be a meaningful and valuable experience. The more intelligent the male student, the less likely he is to believe the school to be a major

36. Lawrence W. Drabick. "Perceived Sources of Influence Upon Occupational and Educational Expectations." Educational Research Series. Raleigh, North Carolina, North Carolina State University, 1967.

influence in his occupational decision and the more likely he is to believe that it plays no part at all.

Much as in the case of the occupational decision-making process, two-thirds of the students in Drabick's sample report that they themselves are responsible for their educational decisions. Most fail to cite a friend as a source of influence upon their decisions. However, these same students indicate that friends are the most important external source of influence on their educational decisions, followed by teachers and parents. Drabick also notes that the student mentions his mother three times as often as his father as being a source of educational influence. Females are greatly influenced by other females and males are greatly influenced by other males. Students of high intelligence are less likely to consider the educational decisions their own, whereas students of low intelligence felt the opposite to be true. In about two-thirds of the total sample, the mothers concurred with the occupational choices of their children. Drabick reports a conclusive increase in the percentage of students who perceive a strongly supportive mother's attitude toward their own educational decisions across the increasing intelligence categories.

Respondents do not perceive their fathers as frequently in agreement with their educational decisions as their mothers (one-third compared with two-thirds respectively), but females are more likely to consider their fathers as being strongly in agreement. The higher the intelligence classification of the student, the more likely he is to perceive his father as being in strong agreement with his educational decisions.

About one-half of the students in the sample consider their high school education to have been influential upon their educational decisions, while about one-fifth think it had no effect whatever. Students of high intelligence are more willing to admit that their high school education influences their educational decisions.

In their research, Sewell, Haller, and Straus (1957)³⁷ show that males and females from high status families are more likely to have higher educational aspirations than those from lower status families. There is a significant positive relationship between level of educational aspiration and parental social status. This does not deny the importance of intelligence to educational and occupational aspirations, but suggests that status makes an independent contribution to these aspirations.

Coulson (1969)³⁸, in his sample, reports that 77 per cent of the students enrolled presently in business education have not been in a program other than business education. The matriculation and general programs account for 8 and 10 per cent respectively of the students who have been in a program other than business education. Ten per cent of the boys indicate poor marks as the reason for leaving a previous program, while 8 per cent of the girls indicate the lack of good job opportunities as the reason for leaving a previous program.

37. William H. Sewell, Archie O. Haller, and Murray A. Straus. "Social Status and Educational and Occupational Aspiration." American Sociological Review 22:67-73. February, 1957.

38. Robert J. Coulson. Educational and Occupational Aspirations and Expectations of Grade Eleven Business Education Students in Edmonton, Alberta, Master's thesis. Edmonton, Alberta, University of Alberta, 1969.

Coulson concludes that, on the basis of his findings, students generally regard the business education program more than any other program as best for girls and as leading to the best jobs. On the other hand, students feel that a business education program and a general high school program lead to the poorest jobs for males.

About 60 per cent of the girls and 29 per cent of the boys are taking business education because they like the subjects and about 27 per cent of the boys and 24 per cent of the girls report taking business education because they feel they could use what they learn in the program either in everyday life or in almost any career which may be considered. Finally, 14 per cent of the boys and 54 per cent of the girls report taking business education because it trains them for a career in business.

Of the students enrolled in business education, over half the boys and almost one-fifth the girls feel that they are placed in business program by the school.

When business education students are asked the educational level they would like to attain and the level they expect to attain, Coulson reports that the occupational aspirations of students tend to coincide with or exceed their occupational expectations.

When Coulson asked his sample who or what influences them most in entering the business education program and planning a career, about 40 per cent indicate that no individual or group had influenced them most to enter

business education. He concludes that many of his subjects choose their program of studies independently or with the assistance of the guidance counselor. Parents are rated second to school authorities in influencing students in their educational programs and career plans.

The results of this study show that there is a significant relationship between the educational aspirations and expectations and between the occupational aspirations and expectations of the business education students included in the study. Similarly, there is a significant relationship between these factors when the students are categorized by sex and when girls in the study are categorized by mental-ability level, socioeconomic level, and job experience. Because of the small number of boys in each category, no conclusions are drawn concerning any relationships found between these factors when boys in the study are categorized by mental-ability level, socioeconomic level, and job experience.

Kuvlesky and Bealer (1967)³⁹ report that there is a positive correlation between adolescent aspirations and subsequent occupational attainments. However, they also note that aspirations do not seem to be a reliable predictive device for determining long-range occupational attainments. Differences in intellectual abilities have little bearing on aspirations for more education. Findings show that differences exist in the predictive power for attainment associated with different types or levels of occupational aspirations. Aspirants of unskilled

39. William P. Kuvlesky and Robert C. Bealer. "The Relevance of Adolescents' Occupational Aspirations for Subsequent Job Attainments." Rural Sociology 32(3):269-301. September, 1967.

jobs, particularly the blue-collar jobs, have by far the highest rate of congruence.

Samson and Stefflre (1952)⁴⁰ find that the primary overall tendency is for students to select occupations higher than their parents' but there is also a significant secondary tendency for the parental occupation to influence the child's choice of vocational objectives.

Empey (1956)⁴¹ also finds the corollary to be true. The sons of low occupational status fathers have lower absolute occupational aspirations than the sons of higher status fathers. In both cases, aspirations are very directly affected by a student's work experience.

Influences on Student Aspirations

Aspirations of youth are greatly influenced by parents, school authorities, and peers. The most significant source of influence is from the parents. In most cases this influence is positive, but with several notable exceptions. Most parents advise their children to avoid certain occupations that may have health or safety hazards.

A survey by Ellis and Lane (1963)⁴² finds that 35 per cent of the

40. Ruth Samson and Buford Stefflre. "Like Father...Like Son?" Personnel and Guidance Journal 31:35-39. October, 1952.

41. LaMar T. Empey. "Social Class and Occupational Aspiration: A Comparison of Absolute and Relative Measurement." American Sociological Review 21(6):703-709. December, 1956.

42. Robert A. Ellis and W. Clayton Lane. "Structural Supports for Upward Mobility." American Sociological Review 28(5):75. October, 1963.

students surveyed name high school teachers as having influenced them to go to college, while 33 per cent name a high school teacher as being the most influential person as far as college plans are concerned. Another very important influence emanates from the peer group.

Boys from lower-class families are named more likely to have high educational aspirations if they attend a predominantly middle-class school, while boys from upper-class families are more likely to have modest educational aspirations if they attend a predominantly middle-class school.

Wilson (1966)⁴³ finds that 93 per cent of the sons of professionals in upper-class schools want to go to college, while less than two-thirds of the sons of professionals attending lower-class schools wish to do so. Three-fourths of the children of self-employed artisans and skilled manual workers who attend upper-class schools aspire to go to college, while considerably fewer than half in lower-class schools have similar aspirations.

Fair (1966)⁴⁴ and Kreutz (1960)⁴⁵, in Alberta-wide surveys, find that approximately 10 per cent of the grade twelve boys and 18 per cent of the grade

43. Alan B. Wilson. "Residential Segregation of Social Classes and Aspirations of High School Boys." Class, Status, and Power. Reinhard Bendix and Seymour Lipset (ed.). New York, Free Press, 1966. p. 338.

44. D. C. Fair. Vocational Plans of Alberta Youth. Paper read at the Conference on Post-Secondary and Continuing Education, Edmonton, Alberta, November, 1966.

45. Norma B. Kreutz. The Realizability of Vocational Plans of Grade Twelve Students in Alberta. Master's thesis. Edmonton, Alberta, University of Alberta, 1960. p. 21-22.

twelve girls indicate that they intend to get a job other than with parents upon graduation from high school. On the other hand, 19 per cent of the boys, but only 6 per cent of the girls name a technical institute as their first choice after high school. Thirty-seven per cent of the boys and 27 per cent of the girls indicate that they plan to enter a university.

Kreutz finds that 57 per cent of the grade twelve girls realize their first choice, while 42 per cent of the boys report realization of plans in this time period. Her conclusion, that girls deliberately choose plans which are more "practical" or more easily and quickly realized, is in keeping with the findings of others.

Siemens (1965)⁴⁶ compares level of educational aspiration and level of occupational aspiration with selected aspects of the family situation, including socioeconomic status (the level of occupational aspiration is measured by Haller's Occupational Aspiration Scale). Results show that 75 per cent of the boys and 68 per cent of the girls who rank highest in socioeconomic status aspire to university, while 31 per cent of the boys and 15 per cent of the girls who rank lowest in socioeconomic status have this aspiration. Approximately 60 per cent of the boys and 67 per cent of the girls who rank highest in socioeconomic status display a high level of occupational aspiration, while 27 per cent of the boys

46. Leonard B. Siemens. The Influence of Selected Family Factors on the Educational and Occupational Aspiration Levels of High School Girls and Boys. Master's thesis. Winnipeg, Manitoba, University of Manitoba, 1965. p. 45-49.

and girls in the lowest socioeconomic level have this aspiration. Siemens concludes that educational and occupational aspiration levels increase as does the socioeconomic status of the family.

Summary

This chapter has dealt with a definition of the constructs attitude and aspiration as related to the questionnaires used in this study. Attitudes toward business are a student's beliefs and concepts about that institution and are related to other constructs such as motive, opinion, habit, set, and trait. They are an enduring system of evaluative and affective reactions to the business community.

A review of literature presented in this chapter indicates that a student's occupational and educational aspirations are his orientations toward occupational and educational goals. These aspirations are affected by factors such as sex, mental ability, socioeconomic level, and work experience. Students are also influenced by their parents, the environment, teachers, school administrators, counselors, and peers.

Statistics show that significant differences are found in the levels of occupational and educational aspirations between male and female students and between low-ability and high-ability students. Research also shows that youth from low socioeconomic backgrounds are less optimistic in their educational and occupational aspirations than their peers from high socioeconomic backgrounds. Finally, it is found that parental pressure is the greatest single influence on the educational and occupational aspirations of a student.

CHAPTER III

DESIGN AND PROCEDURES

A study of student attitudes toward business and level of occupational aspiration would be incomplete if the reader were unable to relate it to the nature of the community in which the study was conducted. Consequently, this chapter opens with a review of the population patterns and discusses Edmonton's school systems. Such a presentation gives an insight into the nature of the random sample which consists of academic students who are enrolled in a high school program which prepares them for university entrance, business education students enrolled in courses which prepare them for job entry, and general education students enrolled in a combination of academic, business, and vocational education courses.

Thirty-three variables form the major part of the two questionnaires dealing with level of occupational aspiration and attitudes toward business and are used in a test of linear regression. Procedures used in the preparation of the questionnaires, their administration, and methods of compiling data are also covered in this chapter.

The Setting

Edmonton is a growing city whose present population exceeds 435,000. In attempting to determine the relationship of student attitudes toward business and the level of occupational aspiration, it is interesting to note the ethnic

backgrounds of the residents of Edmonton, their places of birth, and income patterns.

Table 1

ETHNIC BACKGROUND OF POPULATION

British	45.8%
German	12.3
Ukrainian	11.3
French	6.7
Scandinavian	5.3
Dutch	4.1
Polish	3.8
Italian	1.4
Russian8
Other European	5.8
Asiatic9
Others	1.8
TOTAL	<u>100.0</u>

Source: Dominion Bureau of Statistics, Ottawa, Canada, 1968.
(In the Canadian census, a person's ethnic group is traced through the father.)

Table 2

EDMONTON'S POPULATION BY PLACE OF BIRTH

Alberta	56.6%
Other Provinces	20.1
Europe	13.6
United Kingdom	6.6
United States	2.5
Other6
TOTAL	<u>100.0</u>

Source: Dominion Bureau of Statistics, Ottawa, Canada, 1968.

Table 3

INCOME PATTERNS IN EDMONTON AS REPORTED
IN INDIVIDUAL FEDERAL INCOME TAX RETURNS

<u>Income Class</u>	<u>Number of Returns</u>	<u>Percentage</u>
Under \$2,000	44,996	22.0
2,000- 3,000	24,836	12.2
3,000- 4,000	25,411	12.4
4,000- 5,000	21,620	10.6
5,000- 7,000	38,718	19.0
7,000-10,000	31,213	15.3
10,000-20,000	14,981	7.3
Over 20,000	2,469	1.2
AVERAGE \$5,876	204,244	100.0

Source: Department of National Revenue, Ottawa, Canada, 1969.
(Statistics of Income, Individual Income Tax Returns)

There are two main school systems in Edmonton: the public school system for non-Catholics and the separate school system for Catholic children. Each is under the jurisdiction of the provincial government and must follow guidelines on course content and instructional methods laid down by the Alberta Department of Education. Each system receives financial support from city and provincial governments.

At the separate school level, there are 29,881 students enrolled in 74 schools under the tutorship of 1,526 teachers. The public school system operates 140 schools with a total enrollment of 74,216 students under the tutorship of 3,688 teachers, administrators, and support staff (1969-1970).

In addition to the two school systems, there are a small number of public and private colleges, the Northern Alberta Institute of Technology, and the University of Alberta located in Edmonton. During the 1969-1970 school year, the Northern Alberta Institute of Technology had a total enrollment of over sixteen thousand students, while the University of Alberta had an enrollment of over nineteen thousand.

Population and Sample

The population in this study consists of all grade twelve students enrolled in ten public high schools in the city of Edmonton. However, only students carrying at least 15 high school credits were eligible to participate in the study. (A credit in Alberta high schools is equivalent to approximately 40 minutes of instruction time per day five days a week.) Of the ten high schools, five were randomly selected to participate in the study. From these five high schools 125 grade twelve students were randomly selected using a Random Digits Table.

The sample was randomly selected from the grade twelve student population so that the occupational aspirations of the students are derived from impending decisions rather than from fantasy aspirations of younger students. The sample is also limited to students who have not entered the labor market so that aspirations could be measured rather than rationalizations of actual behavior. Finally the sample is drawn from a large and diverse population in order to include subjects who vary widely in status, educational, occupational, and ethnic backgrounds.

For purposes of this study, the five high schools participating were classified according to socioeconomic area. A high socioeconomic area is defined as being one where the majority of the residents are professional people (medicine, law, professors, teachers, businessmen, and, in general, those families whose gross income as reported in the Federal Income Tax returns and compiled by the Public Relations Department, City of Edmonton, exceeded \$8,000 annually and who generally had more than a high school education). A low socioeconomic area is one where the residents are generally blue-collar workers, transients, unskilled labor, and clerks and whose salary, in most cases, did not exceed \$5,000 and whose educational level was a high school diploma or less. An average socioeconomic area is one where the average family's yearly income is between \$5,000 and \$8,000 and where the heads of the household are predominantly white-collar workers with a smaller percentage of blue-collar workers, office supervisors, junior executives, and skilled tradesmen. In each category, the most important criterion for making a decision as to which group a family belongs is salary or yearly income.

Before adapting an instrument which would adequately measure a student's level of occupational aspiration, the study must first consider the methods traditionally or currently used in measuring a student's level of occupational aspiration.

Measuring Level of Occupational Aspiration

Researchers of level of occupational aspiration often use stimulus questions designed to elicit a measurable response. Either a direct technique instrument to elicit responses which can be assigned a score equivalent to the occupation's relative standing in the occupational hierarchy or an indirect technique consisting of questions eliciting responses which are assigned scores based on other criteria may be used. These items can be continuous along the hierarchy of occupations or they can be categorical in order to discriminate between two or more levels of occupational hierarchy.

The questions can be designed as open-end type which require a written response on the part of the respondent, or they can be the type which require structured responses. A third type of question design can consist of a battery of responses, one of which is selected by the respondent.

Although neither direct nor indirect techniques are inherently effective or ineffective, in practice direct techniques are probably more effective because they are explicitly derived from the occupational hierarchy. On the other hand, indirect techniques can be better than direct techniques as they can prevent certain types of faking. Direct techniques are subject to this difficulty because they permit the subject to choose any occupation that he wants to choose or that he thinks an examiner wants him to choose.

Haller and Miller⁴⁷ state that continuous techniques more accurately measure differences along the occupational hierarchy than the indirect techniques which lack a clear relationship to a continuum of difficulty on the occupational hierarchy scale. Multiple-choice techniques may have an advantage over single-item techniques because they make complete and balanced designs possible. Haller and Miller conclude that all existing techniques appear to be classifiable into three types:

1. Indirect, categorical, multiple-item, restricted response, incomplete, and unbalanced.
2. Direct, continuous, single-item, free response, incomplete, and unbalanced.
2. Direct, continuous, multiple-item, free response, incomplete, and unbalanced.

Free-response techniques have the advantage that the subject gives a response which is exactly the occupation he wishes to choose while structured-response techniques may not present alternatives which are especially relevant to the respondent. Unfortunately, the difficulty of coding free responses which arise from such vague responses as, "I want to be a businessman," or "I want to be a housewife," have led researchers to use structured responses which eliminate these obvious faults.

Instruments for Measuring Level of Occupational Aspiration

There are at least two commercial level of occupational aspiration instruments on the market today which measure the extent to which an individual's

47. Haller and Miller. op. cit., p. 15.

interests are similar to, or different from, the interests of persons who are known to be successful in certain occupational areas. One is Strong's (1959)⁴⁸ Occupational Level Scale, and the other is the Lee-Thorpe (1956)⁴⁹ Level of Interest Scale. Both are indirect, categorical, multiple-item, structured response, incomplete, and unbalanced.

Several non-commercial instruments to measure a person's level of aspiration have been designed for specific research projects by Lurie (1939)⁵⁰, Stubbins (1950)⁵¹, Barnett, Stewart, and Super (1952)⁵², and Stephenson (1957)⁵³.

48. E. I. Strong, Jr. Manual for Strong Vocational Interest Blanks for Men and Women. Palo Alto, California, Consulting Psychologists Press, Inc., 1959, p. 1 f.

49. Edwin A. Lee and Louis P. Thorpe. Manual--Occupational Interest Inventory--Advanced. Hollywood, California, Test Bureau, 1956.

50. Lurie. op. cit., p. 467-473.

51. Joseph Stubbins. "The Relationship Between Level of Vocational Aspiration and Certain Personal Data: A Study of Some Traits and Influences Bearing on the Prestige Level of Vocational Choice." Genetic Psychology Monographs 41:327-408. 1950.

52. G. J. Barnett, L. H. Stewart, and Donald E. Super. "The Occupational Level Scale as a Measure of Drive." Psychological Monographs 66(10):22-37. 1952.

53. Richard M. Stephenson. "Mobility Orientation and Stratification of 1,000 Ninth Graders." American Sociological Review 22:204-212. 1957.

Another questionnaire designed as a direct, continuous, multiple-item, free-response, incomplete, and unbalanced design by the National Opinion Research Center (1947)⁵⁴ has the advantage of eliciting a realistic response from respondents. Unfortunately, it has three notable disadvantages:

1. The instrument is invalid if the respondent does not answer all the questions.
2. Considerable guesswork is involved in assigning scores to verbal responses.
3. The scoring process is often lengthy and complicated.

Even though the instrument may have a high degree of internal consistency and predictive validity, its reliability is unknown.

In their study of level of occupational aspiration, Haller and Miller developed an occupational aspiration scale which they report has sufficient validity⁵⁵ and reliability for use in research. As a part of this study parallels the Haller and Miller study, their scale was selected because of its reported reliability and ease in administration and scoring.

In reporting the results of their study using the occupational aspiration scale, Miller and Haller show a mean of slightly over 37 and a standard deviation of 12. The standard errors of measurement estimated for the scale suggest that reasonable precision in determining individual differences on

54. National Opinion Research Center. op. cit. p. 3-13.

55. Miller and Haller. op. cit. p. 58.

level of occupational aspiration may be obtained by grouping the occupational aspiration scores into high, middle, and low categories. Miller and Haller show that their Occupational Aspiration Scale also has reliability coefficients, using a product-moment correlation, of approximately .80 (test-retest method).

The general level of aspiration theory and research holds that, on the average, level of aspiration at the idealistic level is higher than level of aspiration at the realistic level, and similarly that level of aspiration in terms of long-range goals is higher than level of aspiration in terms of short-range goals. Again, in the Miller and Haller Occupational Aspiration Scale, realistic (R) questions are designed to tap a lower level of the respondent's level of occupational aspiration and idealistic (I) questions are designed to tap an upper limit of the respondent's level of occupational aspiration. Thus, on the average, a student's realistic score should be lower than his idealistic score ($R < I$). Moreover, an individual's occupational achievement level is usually expected to rise to some extent during the first decade of his career. Thus, it can be predicted that long-range (L) level of occupational aspiration, on the average, should be higher than short-range (S) level of occupational aspiration, or $S < L$. For the Occupational Aspiration Scale items, specific tests are as follows:

$$\text{For } R < I: \bar{X}_{RS} < \bar{X}_{IS} \text{ and } \bar{X}_{RL} < \bar{X}_{IL}$$

$$\text{For } S < L: \bar{X}_{RS} < \bar{X}_{RL} \text{ and } \bar{X}_{IS} < \bar{X}_{IL}$$

The rationale for the selection of a level of occupational aspiration test instrument being complete, this study now turns to the internal content of the scales used.

Occupational Aspiration Scale for Boys

Before the Occupational Aspiration Scale could be administered to Canadian high school students, several statements pertinent to an American setting had to be changed so that they might be more applicable to the setting in which the study was conducted. The following changes were made:

1. Question 1.3, United States Representative in Congress was changed to A Cabinet Minister with the Federal Government.
2. Question 1.4, Corporal in the Army was changed to Corporal in the Armed Services.
3. Question 1.6, United States Supreme Court Justice was changed to The Chief Justice of the Supreme Court of Canada.
4. Question 3.3, Court Judge was changed to District Court Judge.
5. Question 4.3, Head of a Department in State Government was changed to Head of a Department in the Provincial Government.
6. Question 5.5, Diplomat in the United States Foreign Service was changed to Diplomat in the Canadian Foreign Service.
7. Question 5.6, Share Cropper was changed to Construction Laborer.
8. Question 6.7, Captain in the Army was changed to Owner-Operator of a Printing Shop.
9. Question 6.9, Owner-Operator of a Printing Shop was changed to Captain in the Armed Forces.

Of note is the change made in Questions 6.7 and 6.9 where the order of the responses was changed as a result of a pilot study in which respondents all ranked Owner-Operator of a Printing Shop as more desirable than Captain in the Armed Forces. (The complete questionnaire is presented in Appendix C.)

Occupational Aspiration Scale for Girls

The Occupational Aspiration Scale for Girls (Appendix D) is also a multiple-choice instrument which uses many of the same occupations as are used in the Occupational Aspiration Scale for Boys. Many, however, have been changed to make them more suitable alternatives for girls.

In an analysis of the Occupational Aspiration Scale (from which the two used in this study are adapted), Miller and Haller (1964)⁵⁶ indicate that their scale may be of doubtful value when administered to high school girls or to students below high school level. In administering their scale to a group of girls in high school, the general reaction is that many of the occupations are, in fact, male oriented. Consequently with the assistance of the guidance and English Departments at Ross Sheppard Composite High School, an Occupational Aspiration Scale for Girls was constructed. In a pilot study which followed, a new hierarchy was established for the occupations listed in each of the eight questions.

An attempt was made, however, to retain a similar structure so that little would be lost in the hierarchical occupational translation which might adversely affect reliability or validity of the new Occupational Aspiration Scale.

Design of the Occupational Aspiration Scales

The Occupational Aspiration Scales for Boys and Girls used in this study elicit responses on the following four levels:

56. I. W. Miller and Archie O. Haller. "A Measure of Occupational Aspiration." Personnel and Guidance Journal 42:448-455. January, 1964.

1. Occupational goals which are Realistic and Short Range (RS)
2. Occupational goals which are Realistic and Long Range (RL)
3. Occupational goals which are Idealistic and Short Range (IS)
4. Occupational goals which are Idealistic and Long Range (IL)

Each of the eight Occupational Aspiration Scale questions consists of ten occupational titles which are drawn from among the ninety occupations ranked by the National Opinion Research Center's study of the prestige of occupations⁵⁷ and from the Occupational Outlook Handbook.⁵⁸ Eighty of these were extracted and, in each scale, ranked as closely as possible (subject to the changes previously mentioned which resulted from the pilot study) from first to eightieth. The title with the highest rank was placed in the first question and the title with the lowest rank was placed in the last question.

Each question in the Occupational Aspiration Scale spans the full range of occupational prestige and is scored from 0 to 9. A score of 9 indicates that a student has chosen the highest prestige occupation in a particular question, while a score of 0 would indicate that a student has chosen the lowest prestige occupation. A student's total score can then range from 0 to 72 and reflects his level of occupational aspiration.

Table 4 is a schematic presentation of the format of the Occupational Aspiration Scale.

57. National Opinion Research Center. op. cit. p. 3-13.

58. U. S. Department of Labor. Occupational Outlook Handbook, Employment Information for Use in Guidance. 1966-1967.

Table 4

OAS FORMAT: COMBINATION OF LEVELS AND GOAL
RANGES FOR EACH OF THE FOUR QUESTION-WORDINGS⁵⁹

Level	Goals	
	Short-Range (S)	Long-Range (L)
Idealistic (I)	Of the jobs listed in this question, which ONE would you choose if you were FREE to CHOOSE ANY of them you wished when your SCHOOLING IS OVER? (Questions 2 and 4)	Of the jobs listed in this question, which ONE would you choose to have when you are 30 YEARS OLD if you were FREE TO HAVE ANY of them you wished? (Questions 6 and 8)
Realistic (R)	Of the jobs listed in this question, which is the BEST ONE you are REALLY SURE YOU CAN GET when your SCHOOLING IS OVER? (Questions 1 and 3)	Of the jobs listed in this question, which is the BEST ONE you are REALLY SURE YOU CAN HAVE by the time you are 30 YEARS OLD? (Questions 5 and 7)

The final forms of the Occupational Aspiration Scales for Boys and Girls used in this study differ to some degree from the original as developed by Miller and Haller, particularly in the case of the Occupational Aspiration Scale for Girls. (Appendix F gives a comparative breakdown of the scales.) Unlike the Miller and Haller Scale, several occupational titles are changed in both scales in the study.

The scoring key for the newly developed Scale for Boys, however, remains unchanged, while the scoring key for the newly developed Scale for

59. Miller and Haller. op. cit. p. 449.

Girls changes considerably. The final form of the Scale for Girls is the same one used in the pilot study. As the establishment of an occupational hierarchy for girls requires a considerable amount of testing and an initial arbitrary arrangement, the final form and choice of occupations remained constant, while their rank was not ascertained until the pilot study was completed. In the interest of time and economy, the same scale was used in the actual study. This did not, however, present a problem except that each question had its own scale of values while each of the eight questions in the Scale for Boys uses the same numerical value throughout.

Measuring Student Attitudes Toward Business

In this study, student attitudes toward business are measured by a frequently used method which requires that the respondents indicate their agreement or disagreement with a set of statements about the business community. Generally, these statements attribute to business the characteristics that are positively or negatively evaluated. The Thurstone-Chave (1929)⁶⁰ method of scale construction uses statements which express a favorable or unfavorable attitude toward business based upon the consensus of judges. The scale expresses and measures the positivism-negativism of the affective reaction toward business.

The business attitude scale developed and presented in Appendix B uses a method of summated ratings. The attitude questionnaire has a large number

60. L. L. Thurstone and E. J. Chave. The Measurement of Attitudes. Chicago, University of Chicago Press, 1929. p. 1 f.

of monotone items which have the characteristic that the more favorable the individual's attitudes toward the attitude object, the higher is his expected score for the item. These items are then given to a sample of the target population, and the respondents indicate their reaction to the items by means of a five-category rating system: Strongly Agree, Agree, Neutral or Undecided, Disagree, and Strongly Disagree. Categories are scored by assigning values of 5, 4, 3, 2, and 1 respectively. This scoring is reversed for negatively worded items. This method of summated rating has been used in Sections A-G of the attitude scale.

Guttman and Suchman's (1947)⁶¹ scalogram analysis is based on the idea that items can be arranged in an order such that a student who responds positively to any particular item also responds positively to all other items having a lower rank. Items arranged in this manner are said to be scalable.

In developing an attitude scale of this type, a number of monotone items about business are formulated and the set of items is administered to a group of students. Section H of the Student Attitudes Toward Business questionnaire utilizes this type of approach.

Student Attitudes Toward Business: Pilot Study Number 1

The first of two pilot studies dealing with students' attitudes toward business was conducted at Ross Sheppard Composite High School and Bonnie Doon Composite High School during the first two weeks of October. Fifty randomly

61. Louis Guttman and Edward A. Suchman. "Intensity and a Zero Point for Attitude Analysis." American Sociological Review 12(1):57-67. 1947.

selected grade eleven and twelve students were asked to respond to 200 statements related to business. Each student was asked to:

1. Respond to the first 90 scalogram statements related to the business community by placing a plus sign (+) before each statement with which he agreed, and to leave a blank before each statement with which he disagreed.

2. Respond to the next 110 statements (which would eventually be used in Sections A-G of the business attitude questionnaire) by placing a check mark in one of the five blocks which followed each statement:

1, Agree Strongly; 2, Agree; 3, Neutral; 4, Disagree; and 5, Disagree Strongly

3. Indicate instances where the vocabulary was inappropriate, difficult to understand, or contradictory.

4. Indicate instances where the meaning of a statement was not clear.

5. Indicate whether the questionnaire was too long.

6. Indicate whether the questions having a choice of five responses presented too many alternatives.

7. Indicate reactions to the business community which were omitted from the statements.

8. Add any comments which would help in the preparation of the final questionnaire.

Student responses, remarks, questions, and reactions were reviewed and a revised version of the questionnaire entitled Student Attitudes Toward Business was prepared.

Student Attitudes Toward Business: Pilot Study Number 2

Of the first 90 scalogram questions only 45 were retained and of the next 110 specific business-related questions, only 80 were retained. The 45 scalogram questions and 30 business-related questions were dropped as they were

repetitious or similar to other statements or questions. These 125 questions were again administered to a group of 20 randomly selected students at Ross Sheppard Composite High School (students who participated in the first pilot study were ineligible to participate in the second pilot study) during the first week of November. They were asked to respond to the statements in the same manner as the group in the first pilot study.

From an analysis of the responses of the students in this pilot study, the final draft of the questionnaire was prepared. The 45 scalogram questions were pared down to 17 and became Section H of the attitude questionnaire (28 were discarded for reasons similar to those above). Of the remaining 80 business-related questions and statements, 70 were retained (again, 10 were dropped for reasons similar to the above). These were homogeneously grouped according to their referent and divided into seven sections with 10 statements in each section (Sections A-G).

To determine internal consistency and reliability, the final drafts of Sections A-G and H of the business attitudes questionnaire were administered once again to the same group of high school students in the final week of November (test-retest method). Using a Spearman's rho test, a correlation of +0.79 was obtained for Sections A-G and +0.73 was obtained for Section H ($n = 20$, at the .05 level of significance).

In addition, students scores on Sections A-G were correlated with student scores on Section H. A correlation of +0.55 (linear regression test,

n = 114) indicated that Section H served as a check on the consistency of student responses on similar questionnaires. As the coefficients of stability and equivalence were sufficiently high, the test instruments were accepted for use in the study.

Administration of Questionnaires

In their final form, the two questionnaires used in this study consisted of three parts: Questionnaire Number 1 consisted of two separate booklets: Occupational Aspirations of Students (Appendix A) and Occupational Aspiration Scale for Boys/Girls (Appendices C and D). Questionnaire Number 2 consisted of one booklet, Student Attitudes Toward Business, which, in turn, consisted of two parts: Part I consisted of Sections A-G, while Part II consisted of Section H (Appendix B).

Part I of the Occupational Aspirations of Students questionnaire includes the student's biographical sketch and contains information such as educational and occupational aspirations, school activities, work attitudes, work experience, self-concept, post-secondary school choice, ethnic background, and parental attitudes.

In the administration of the questionnaires to the randomly selected students at Bonnie Doon Composite High School, Harry Ainlay Composite High School, Ross Sheppard Composite High School, Strathcona Composite High School, and Victoria Composite High School, the administrators of the questionnaires were asked to follow the directions in the Administration Booklet (Appendix E).

Briefly, it was impressed upon the respondents that there were no right or wrong answers and that their responses should reflect only their own opinions or beliefs. Although there was no time limit on any part of the questionnaires, students were asked to work quickly and to respond to the statements or questions honestly and sincerely. To help students understand what was expected of them, examples were given. They were assured that they could ask for assistance from the administrator should they experience any difficulty. In addition, a number of terms and phrases used in Student Attitudes Toward Business were briefly defined and included with the answer sheets.

Time for Administration and Scoring

Miller and Haller's Occupational Aspiration Scale⁶² had been administered to a number of groups in the United States, Japan, and Central America. In Michigan, the questionnaire was administered to students ranging in age from early teens to middle-aged working fathers, and from fifty grade school children to college freshmen. Each group was ranked from low intelligence (IQ) to high intelligence (IQ).

Their records show that it generally took the examiner from 5 to 10 minutes to give the instructions and answer any questions that arose, and from 5 to 15 minutes for the students to respond to the eight questions. The total time for administration and completion rarely exceeded 30 minutes.

62. Miller and Haller, op. cit. p. 455.

The three test instruments used in this study were administered in two concurrent class periods or during one morning and one afternoon class period. Table 5 gives a breakdown of the average time required to administer these tests.

Table 5

TIME REQUIRED FOR ADMINISTRATION OF QUESTIONNAIRES			
	Part I Occupational Aspirations of Students	Part II Student Attitudes Toward Business	Part III Occupational Aspiration Scale
Average Time for Instructions	8 minutes	7 minutes	5 minutes
Average Time for Student Responses	<u>20 minutes</u>	<u>25 minutes</u>	<u>11 minutes</u>
TOTAL	28 minutes	32 minutes	16 minutes
AVERAGE TIME FOR QUESTIONNAIRES: 76 minutes			

As the completed questionnaires were handed in to the administrator by each respondent, they were checked for omissions. Where possible, these were immediately rectified. Immediately after the test period, the following procedures were also followed:

1. Wherever possible, the biographical data were checked against the student's cumulative record in the counseling office.
2. Responses in the biographical booklet (Occupational Aspirations of Students) were compared with the responses in the Occupational Aspiration Scale Booklet.

3. The consistency of student responses on similar statements or questions in the Student Attitudes Toward Business questionnaire were checked.

4. Student responses in Sections A-G of the Student Attitudes Toward Business questionnaire were compared and later correlated with their overall business attitude in Section H.

5. It was made clear to the students that a questionnaire would be invalid if responses were incomplete, inconsistent, dishonest, or insincere. In this regard, administrators were asked to withdraw such questionnaires.

Data Computerized

Following a thorough review of the questionnaires completed by a total of 125 students, 114 were sufficiently complete and were retained for use in the various statistical analyses, the major one being the multiple linear regression. All data was key-punched on IBM 80-column Hollerith cards.

The first Fortran program simply collected and segregated information from the questionnaires. The output consisted of the mean response to each question. After a review of this information, it was decided to retain 33 of the possible 70 variables. The Student Attitudes Toward Business questionnaire provided 2 variables, the Occupational Aspiration questionnaire contributed 26 variables, and the Occupational Aspiration Scale, 5 variables. (See Appendix G for a complete listing of all variables.) The remaining 37 responses were not used in the linear regression for various reasons. Among these was the fact that a number of statements or questions were repetitious, and were, consequently, used as a check of internal consistency only. Still other questions made contributions to a determination of the category into which a student should be placed, for example, school, grade, program, socioeconomic category, or intelligence group.

Summary

This chapter dealt with the nature of the population, the setting, income patterns of Edmonton's residents, and selection of test instruments as related to this study. The development and design of the questionnaires used to measure a student's level of occupational aspiration and his attitudes toward business, administrative procedures, time required for administration and scoring, and the results of the pilot studies were also presented. The collation of the raw data now being complete, the study focuses its attention on the analysis of the information compiled.

CHAPTER IV

STATISTICAL ANALYSIS OF DATA AND CONCLUSIONS

Chapter IV deals with a statistical analysis of students' responses on two questionnaires: Student Attitudes Toward Business (Sections A-G and Section H) and Level of Occupational Aspiration (Occupational Aspirations of Students, Biographical Section, and Occupational Aspiration Scale). These are reproduced in Appendices A, B, and C. Student responses, wherever feasible or necessary, have been converted into numeric values, key-punched onto computer cards, and processed electronically.

Relying heavily on a test of linear regression and using thirty-three variables whose correlations are tested at the .05 level of significance (r significantly different from zero), this study presents arguments for and against each hypothesis. In addition to tests of correlation, t -tests, and F -tests, the study makes use of means, standard deviations, and rank scores. Conclusions are drawn from the results of these tests.

Abbreviations are used in many instances in this chapter. Table 6 gives a list of these abbreviations.

Table 6

ABBREVIATIONS USED IN DISCUSSION OF HYPOTHESES

d.f.	Degrees of Freedom
F-test	Measure of contribution of independent variables to a test of significance
High Schools:	
BDCHS	Bonnie Doon Composite High School
HACHS	Harry Ainlay Composite High School
RSCHS	Ross Sheppard Composite High School
VCHS	Victoria Composite High School
SCHS	Strathcona Composite High School
LOA	Level of Occupational Aspiration
LOA:IS	Level of Occupational Aspiration, Idealistic Short-Range Goal
LOA:IL	Level of Occupational Aspiration, Idealistic Long-Range Goal
LOA:RS	Level of Occupational Aspiration, Realistic Short-Range Goal
LOA:RL	Level of Occupational Aspiration, Realistic Long-Range Goal
LOA:OAS	IS + IL + RS + RL
n	Number of students tested
OAS	Occupational Aspiration Scale
r; r-value	Correlation or correlation coefficient; confidence interval for $\rho = 0$
S.D. and σ	Standard Deviation
SATB (A-G)	Student Attitudes Toward Business, Sections A-G
SATB (H)	Student Attitudes Toward Business, Section H
s^2	Variance of the sample
t-test	Student's t-test
\bar{X}	Mean

Review of Hypotheses

Hypothesis One

There is a high positive correlation between a student's attitudes toward business and his level of occupational aspiration.

Results from the Student Attitudes Toward Business and Occupational Aspiration Scale questionnaires are used in the analysis of Hypothesis One. Two scores are taken from the attitude questionnaire; one from Sections A-G and the other from Section H. Meanwhile, five scores come from the Occupational Aspiration Scale. One is the total LOA:OAS score while the other four are components of the total LOA:OAS score: idealistic short-range (IS), idealistic long-range (IL), realistic short-range (RS), and realistic long-range (RL).

The two SATB scores are then statistically correlated with the five OAS scores using the following criteria:

1. High School
2. Intelligence
3. Sex
4. High School Pattern

The study first looks at SATB (A-G) by high school. Table 7 is a breakdown of the data.

Table 7

STUDENT ATTITUDES TOWARD BUSINESS (SECTIONS A-G):
A COMPARISON OF MEANS AND STANDARD DEVIATIONS

By High School

High School	\bar{X}	S.D.	n	Socioeconomic Area
BDCHS	204.91	27.65	22	Generally below average
HACHS	212.12	27.61	17	Generally above average
RSCHS	219.92	17.65	38	Generally high*
VCHS	200.50	25.91	17	Generally low**
SCHS	210.10	18.73	20	Generally above average
ALL SCHOOLS	211.32	23.59	114	

*Predominance of professional and business people.

**Predominance of low income people.

The question is raised, is there a significant difference at the .05 level of significance in the SATB (A-G) scores of the high schools tested? Using a t-test⁶³ to compare the means, the following results are obtained (Table 8):

63. Charles T. Clark and Lawrence L. Schkade. Statistical Methods for Business Decisions. Burlingame, California, South-Western Publishing Company, 1969. p. 401.

$$t = \frac{(\bar{X}_1 - \bar{X}_2) - (\mu_1 - \mu_2)}{\hat{\sigma}_{\bar{X}_1 - \bar{X}_2}} \quad \text{where} \quad \hat{\sigma}_{\bar{X}_1 - \bar{X}_2} = \sqrt{\frac{n_1 s_1^2 + n_2 s_2^2}{n_1 + n_2 - 2}} \sqrt{\frac{n_1 + n_2}{(n_1)(n_2)}}$$

Table 8
STUDENT ATTITUDES TOWARD BUSINESS (SECTIONS A-G):
A COMPARISON OF MEANS USING A T-TEST
By High School

High School	T-value	Critical T-value	Significant?
RSCHS vs. VCHS	3.175	2.008	yes
RSCHS vs. BDCHS	2.540	2.002	yes
RSCHS vs. HACHS	1.234	2.008	no
RSCHS vs. SCHS	1.800	2.006	no

From Tables 7 and 8, the following conclusions are drawn:

1. Student scores on SATB (A-G) vary considerably from one high school to another, and from one socioeconomic level to another.
2. Student scores (Table 8) at RSCHS are significantly higher (at the .05 level of significance) than those at VCHS. As the setting for RSCHS is in a high socioeconomic area and VCHS is in a low socioeconomic area, it is concluded on the basis of this study that students coming from a high socioeconomic area score significantly higher on the SATB (A-G) questionnaire than students attending a high school in a low socioeconomic area. On the other hand, students coming from similar socioeconomic areas score similarly on the SATB (A-G) questionnaire. Similar results are obtained when the SATB (H) score is used rather than the SATB (A-G) score.

Appendix H contains photostatic copies of the computer print-outs of a multiple linear regression. The correlation between SATB (A-G) and SATB (H) is 0.629. At the .05 level of significance and with 112 d.f., the critical r-value is ± 0.185 . As 0.629 is significantly different from zero, it is concluded that SATB (A-G) and SATB (H) are significantly correlated. This is an important statistic because it shows that the two attitude questionnaires are, in fact, similar and one serves as a reliability check on the other.

Reviewing the Multiple Linear Regression Statistics--by High School

Turning to the multiple linear regression and reviewing the correlation statistics for SATB (A-G) and LOA by high school (Tables 9 and 10), it is noted that the SATB mean score for Bonnie Doon Composite High School is 204.91 with a S.D. of 27.63, while the sample mean is 211.32 with a S.D. of 23.59. When the SATB (A-G) score is correlated with OAS scores, a correlation of -0.311 is computed. With 20 d.f., a computed r-value exceeding the limits of ± 0.423 would be critical at the .05 level of significance. Scanning the LOA:IS, LOA:IL, LOA:RS, and LOA:RL scores, none of the correlation values are significant.

Similar conclusions can be drawn when correlating SATB (A-G) with the scores in the other four high schools. Of twenty-five tests of correlation, only one is found to be significant. This occurs when SATB (A-G) is correlated with LOA:IL for Strathcona Composite High School. A positive correlation of

Table 9

A CORRELATION OF STUDENT ATTITUDES TOWARD BUSINESS (SECTIONS A-G)
AND LEVEL OF OCCUPATIONAL ASPIRATION

By High School

High School	N	SATB (A-G)	S.D.	SATB and LOA*	SATB and LOA:IS*	SATB and LOA:IL*	SATB and LOA:RS*	SATB and LOA:RL*	d.f.	Confidence interval for $\rho = 0$
BDCHS	22	204.91	27.63	-0.311	-0.107	-0.046	-0.063	-0.409	20	± 0.423
HACHS	17	212.12	27.61	-0.193	-0.174	-0.346	-0.054	-0.022	15	± 0.482
RSCHS	38	219.92	17.65	-0.101	-0.120	0.061	-0.262	0.067	36	± 0.321
VCHS	17	200.59	25.91	-0.230	-0.181	0.200	-0.415	-0.111	15	± 0.482
SCHS	20	210.50	18.73	0.378	0.234	0.508**	0.146	0.097	18	± 0.444

BDCHS, F-value*** = 8.03, critical F-value = 2.85; Attributable to regression, 10; Deviation from regression, 11

HACHS, F-value = 4.07, critical F-value = 4.72; Attributable to regression, 10; Deviation from regression, 6

RSCHS, F-value = 1.43, critical F-value = 2.20; Attributable to regression, 10; Deviation from regression, 37

VCHS, F-value = 1.52, critical F-value = 4.06; Attributable to regression, 10; Deviation from regression, 6

SCHS, F-value = 3.67, critical F-value = 3.14; Attributable to regression, 10; Deviation from regression, 9

*Correlation Coefficients

**Significantly different from zero at the .05 level of significance

***F-values for 10 variables

Table 10

A CORRELATION OF STUDENT ATTITUDES TOWARD BUSINESS (SECTION H)
AND LEVEL OF OCCUPATIONAL ASPIRATION

By High School

High School	N	SATB (H)	S.D.	SATB and LOA*	SATB and LOA:IS*	SATB and LOA:IL*	SATB and LOA:RS*	SATB and LOA:RL*	d.f.	Confidence Interval for $\rho = 0$
BDCHS	22	7.65	1.220	0.168	0.104	0.026	0.274	-0.026	20	± 0.423
HACHS	17	7.78	1.223	-0.252	-0.252	-0.030	-0.120	-0.239	15	± 0.482
RSCHS	38	8.03	0.713	-0.033	-0.112	0.012	-0.163	-0.050	36	± 0.321
VCHS	17	7.22	1.377	-0.242	-0.264	0.026	-0.208	-0.165	15	± 0.482
SCHS	20	7.93	0.948	0.116	-0.065	-0.005	0.353	0.016	18	± 0.444

BDCHS, F-value** = 5.87, critical F-value = 2.85; Attributable to regression, 10; Deviation from regression, 11

HACHS, F-value = 4.27, critical F-value = 4.06; Attributable to regression, 10; Deviation from regression, 6

RSCHS, F-value = 1.86, critical F-value = 2.20; Attributable to regression, 10; Deviation from regression, 27

VCHS, F-value = 3.46, critical F-value = 4.06; Attributable to regression, 10; Deviation from regression, 6

SCHS, F-value = 0.69, critical F-value = 3.14; Attributable to regression, 10; Deviation from regression, 9

*Correlation Coefficients

**F-values for 10 variables

0.508 (critical value of r is 0.444) is found. However, in the other twenty-four cases, it is evident that at the .05 level of significance, the correlations between SATB (A-G) and LOA are not significant.

In correlating SATB (H) and LOA scores by high school, similar conclusions can be drawn. For example, looking at Ross Sheppard Composite High School (Table 10) the mean score is 8.03 with a S.D. of 0.713 (compared with the total sample mean of 7.78 and a S.D. of 1.073). With 36 d.f. at the .05 level of significance, only an r -value exceeding +0.321 would be significantly different from zero. None of these values approach this level of significance. Neither do the values of the other four high schools (Table 10).

Based on the findings of this study it is concluded that SATB (A-G and H) scores and LOA scores of senior high school students are not significantly correlated.

Reviewing the Multiple Linear Regression Statistics--by Intelligence

Turning to the category intelligence (Tables 11 and 12), the study correlates the SATB (A-G and H) scores with LOA, LOA:IS, LOA:IL, LOA:RS, and LOA:RL. The four categories of intelligence are based on the student's latest high school intelligence (IQ) score as measured by the Lorge-Thorndike⁶⁴ test.

64. Irving Lorge and Robert L. Thorndike. The Lorge-Thorndike Intelligence Test Manual, Level 5, Form A, Grades 10, 11 and 12. Boston, Houghton Mifflin Company, 1954.

Students were placed in the following intelligence categories:

Group 1. All those students whose IQ was at least one standard deviation above the mean, IQ, 130 and over (all breakdowns are based solely on statistics from this sample).

Group 2. All those students who had an IQ score between the mean and one standard deviation above the mean, IQ, 120 - 129.

Group 3. All those students who had an IQ between the mean and one standard deviation below the mean, IQ, 106 - 119.

Group 4. All those students who had an IQ lower than one standard deviation below the mean, IQ, 105 and lower.

Table 11 correlates the SATB (A-G) and LOA scores. For students who had an IQ of 130 and higher with 15 d.f. and at the .05 level of significance, there must be a correlation which exceeds the limits ± 0.482 before SATB (A-G) and LOA are significantly correlated. None of the values approach these limits of significance.

Similarly for the other three intelligence categories, 120-129, 106-119, and 105 or less, none of the SATB(A-G) and LOA (or its four components LOA:IS, LOA:IL, LOA:RS, and LOA:RL) correlation values surpass critical correlation limits. (See Table 11, page 72 for further details of these correlations).

From the data compiled in this study, there is sufficient evidence to conclude that at the .05 level of significance there is no significant correlation between student attitudes toward business and level of occupational aspiration when considered by intelligence level (IQ).

Table 11

A CORRELATION OF STUDENT ATTITUDES TOWARD BUSINESS (SECTIONS A-G)
AND LEVEL OF OCCUPATIONAL ASPIRATION

By Intelligence

IQ	N	SATB (A-G)	S.D.	SATB and LOA*	SATB and LOA:IS*	SATB and LOA:IL*	SATB and LOA:RS*	SATB and LOA:RL*	d.f.	Confidence Interval for $\rho = 0$
130 +	17	210.53	27.85	-0.056	0.119	0.401	-0.195	-0.175	15	± 0.482
120-129	44	206.73	21.98	-0.101	-0.182	0.014	-0.081	0.013	42	± 0.298
106-119	37	215.05	24.91	0.048	0.137	0.241	-0.121	-0.121	35	± 0.313
- 105	16	216.19	19.21	0.115	-0.025	0.056	0.137	0.053	14	± 0.497

130 +, F-value** = 4.63, critical F-value = 4.06; Attributable to regression, 10; Deviation from regression, 6
 120-129, F-value = 5.51, critical F-value = 2.14; Attributable to regression, 10; Deviation from regression, 33
 106-119, F-value = 4.89, critical F-value = 2.22; Attributable to regression, 10; Deviation from regression, 26
 - 105, F-value = 0.41, critical F-value = 4.74; Attributable to regression, 10; Deviation from regression, 5

*Correlation Coefficients

**F-values for 10 variables

Table 12

A CORRELATION OF STUDENT ATTITUDES TOWARD BUSINESS (SECTION H)
AND LEVEL OF OCCUPATIONAL ASPIRATION

By Intelligence

IQ	N	SATB (H)	S.D.	SATB and LOA*	SATB and LOA:IS*	SATB and LOA:IL*	SATB and LOA:RS*	SATB and LOA:RL*	d.f.	Confidence Interval for $\rho = 0$
130 +	17	7.76	1.064	0.229	0.381	0.201	-0.081	0.033	15	± 0.482
120-129	44	7.81	1.018	0.014	-0.226	0.068	0.108	0.053	42	± 0.298
106-119	37	7.62	1.199	-0.145	-0.132	-0.097	-0.023	-0.304	35	± 0.313
- 105	16	8.09	0.938	0.469	0.092	0.486	0.343	0.245	14	± 0.497

130 +, F-value** = 2.22, critical F-value = 4.06; Attributable to regression, 10; Deviation from regression, 6
 120-129, F-value = 4.77, critical F-value = 2.14; Attributable to regression, 10; Deviation from regression, 33
 106-119, F-value = 5.55, critical F-value = 2.22; Attributable to regression, 10; Deviation from regression, 26
 - 105, F-value = 3.18, critical F-value = 4.74; Attributable to regression, 10; Deviation from regression, 5

*Correlation Coefficients

**F-values for 10 variables

Reviewing the Multiple Linear Regression Statistics--by High School Pattern

Tables 13 and 14 and photostatic copies of computer print-outs on pages 193-198 present the correlation coefficients when senior high school students' attitudes toward business scores (sections A-G and H) are correlated with their level of occupational aspiration (LOA) scores. Three categories of high school educational patterns were used: academic, general and business education.

As none of the correlation coefficients exceed the confidence interval for $\rho = 0 \pm 0.220$, it is concluded that at the .05 level of significance student attitudes toward business and level of occupational aspiration are not significantly correlated when considered by high school educational pattern.

Reviewing the Multiple Linear Regression Statistics--by Sex

Similarly, Tables 15 and 16 compare student attitudes toward business and level of occupational aspiration for males, females, and males and females.

Briefly, results from a test of linear regression show that:

1. For females, correlation coefficients do not exceed the critical limits for $\rho = 0 \pm 0.252$; SATB(A-G) versus LOA and SATB(H) versus LOA, Tables 15 and 16, computer print-outs on pages 203 and 204.
2. For males, correlation coefficients do not exceed the critical limits for $\rho = 0 \pm 0.271$; SATB(A-G) versus LOA and SATB(H) versus LOA, Tables 15 and 16, computer print-outs on pages 201 and 202.
3. For males and females, correlation coefficients do not exceed the critical limits for $\rho = 0 \pm 0.185$; SATB(A-G) versus LOA and SATB(H) versus LOA, Tables 15 and 16, computer print-outs on pages 183 and 184.

Table 13

A CORRELATION OF STUDENT ATTITUDES TOWARD BUSINESS (SECTIONS A-G)
AND LEVEL OF OCCUPATIONAL ASPIRATION

By High School Pattern

Pattern	N	SATB (A-G)	S.D.	SATB and LOA*	SATB and LOA:IS*	SATB and LOA:IL*	SATB and LOA:RS*	SATB and LOA:RL*	d.f.	Confidence Interval for $\rho = 0$
Academic	79	207.44	24.34	0.033	0.001	0.148	-0.024	0.014	77	± 0.220
General	19	217.63	21.83	0.151	0.295	0.318	-0.161	-0.080	17	± 0.456
Business Education	16	223.00	16.26	0.318	0.153	0.325	0.195	-0.056	14	± 0.497

Academic, F-value** = 7.99, critical F-value = 1.98; Attributable to regression, 10; Deviation from regression, 68
 General, F-value = 1.53, critical F-value = 3.35; Attributable to regression, 10; Deviation from regression, 8
 Business Education, F-value = 1.71, critical F-value = 4.74; Attributable to regression, 10; Deviation from regression, 5

*Correlation Coefficients

**F-values for 10 variables

Table 14

A CORRELATION OF STUDENT ATTITUDES TOWARD BUSINESS (SECTION H)
AND LEVEL OF OCCUPATIONAL ASPIRATION

By High School Pattern

Pattern	N	SATB (H)	S.D.	SATB and LOA*	SATB and LOA:IS*	SATB and LOA:IL*	SATB and LOA:RS*	SATB and LOA:RL*	d.f.	Confidence Interval for $\rho = 0$
Academic	79	7.69	1.094	0.058	-0.037	0.028	0.087	0.017	77	± 0.220
General	19	8.06	1.009	-0.029	-0.060	0.178	-0.095	-0.135	17	± 0.456
Business Education	16	7.90	1.036	0.225	-0.041	0.193	0.366	-0.227	14	± 0.497

Academic, F-value ** = 7.67, critical F-value = 1.98; Attributable to regression, 10; Deviation from regression, 68
 General, F-value = 0.66, critical F-value = 3.35; Attributable to regression, 10; Deviation from regression, 8
 Business Education, F-value = 2.49, critical F-value = 4.74; Attributable to regression, 10; Deviation from regression, 5

*Correlation Coefficients

**F-values for 10 variables

Table 15

A CORRELATION OF STUDENT ATTITUDES TOWARD BUSINESS (SECTIONS A-G)
AND LEVEL OF OCCUPATIONAL ASPIRATION

By Sex

Sex	N	SATB (A-G)	S.D.	SATB and LOA*	SATB and LOA:IS*	SATB and LOA:IL*	SATB and LOA:RS*	SATB and LOA:RL*	d.f.	Confidence Interval for $\rho = 0$
Females	60	216.75	19.84	0.064	0.143	0.155	-0.058	-0.038	58	± 0.252
Males	54	205.30	26.03	-0.097	-0.093	0.268	-0.155	-0.128	52	± 0.271
Males and Females	114	211.32	23.59	-0.047	-0.015	0.123	-0.117	-0.083	112	± 0.185

Females, F-value** = 2.05, critical F-value = 1.87; Attributable to regression, 32; Deviation from regression, 27

Males, F-value = 4.77, critical F-value = 2.00; Attributable to regression, 32; Deviation from regression, 21

Males and Females, F-value = 5.10, critical F-value = 1.63; Attributable to regression, 32, Deviation from regression, 81

*Correlation Coefficients

**F-values for 10 variables

Table 16

A CORRELATION OF STUDENT ATTITUDES TOWARD BUSINESS (SECTION H)
AND LEVEL OF OCCUPATIONAL ASPIRATION

By Sex

Sex	N	SATB (H)	S.D.	SATB and LOA*	SATB and LOA:IS*	SATB and LOA:IL*	SATB and LOA:RL*	SATB and LOA:RL*	d.f.	Confidence Interval for $\rho = 0$
Females	60	7.84	0.965	0.103	0.061	0.026	0.123	-0.012	58	± 0.252
Males	54	7.71	1.188	-0.072	-0.169	0.102	-0.037	-0.093	52	± 0.271
Males and Females	114	7.78	1.073	0.005	-0.072	0.042	0.040	-0.057	112	± 0.185

Females, F-value** = 2.38, critical F-value = 1.87; Attributable to regression, 32; Deviation from regression, 27

Males, F-value = 2.67, critical F-value = 2.00; Attributable to regression, 32; Deviation from regression, 21

Males and Females, F-value = 4.35, critical F-value = 1.62; Attributable to regression, 32; Deviation from regression, 81

*Correlation Coefficients

**F-values for 10 variables

In correlating student attitudes toward business with level of occupational aspiration, only one of the one hundred twenty tests used in this study surpasses the .05 level of significance. Eleven of twenty-two F-tests prove to be significant. The evidence tends to negate any hypothesis which would predict a high positive correlation between a student's attitudes toward business and any of the thirty-one variables used in the regression formula.

As a result, this study rejects Hypothesis One and concludes that there is no significant correlation between a student's attitudes toward business and his level of occupational aspiration.

Hypothesis Two

(a). The attitudes toward business of senior high school academic students are significantly higher than those of senior high school business education students.

(b). The attitudes toward business of senior high school academic students are significantly higher than those of senior high school general education students.

(c). The attitudes toward business of senior high school business education students are significantly higher than those of senior high school general education students.

In a discussion of Hypothesis Two, results compiled from the Student Attitudes Toward Business questionnaire are used. The mean scores obtained by

academic, business, and general education students on the SATB (A-G) and SATB (H) are compared. A Student's t-test of difference of means at the .05 level of significance is used.

In comparing the mean scores of academic and general education students on the SATB (A-G) questionnaire (Table 17, Variable 28), a t-value of -1.653 is computed. As this computed t-value does not exceed the critical t-value of 1.988 (96 d.f. and .05 level of significance), it is concluded that academic students' attitudes toward business are not significantly different from those of general education high school students. A similar conclusion was drawn when academic and general education students' SATB (H) mean scores were compared.

However, a comparison of the mean SATB (A-G) scores of academic and business education students yields significant results (Table 17, Variable 28, 93 d.f., and a critical t-value of 1.990). As the critical t-value is exceeded by the computed t-value and because this t-value is negative, it is concluded that at the .05 level of significance, the attitudes toward business of academic students are significantly lower than those of business education students at the senior high school level.

In comparing the mean SATB (A-G) and SATB (H) scores of business and general education students (t-test), the results are not significant at the .05 level of significance (Table 17).

Table 17

A T-TEST* OF SIGNIFICANCE OF DIFFERENCE OF MEANS: ACADEMIC,
BUSINESS, AND GENERAL EDUCATION STUDENTS' SCORES ON THE
STUDENT ATTITUDES TOWARD BUSINESS QUESTIONNAIRE

Variable	Academic vs. Business t-value ¹	Academic vs. General t-value ²	Business vs. General t-value ³
SATB (A-G)	-2.423**	-1.653	0.789
SATB (H)	-0.765	-1.401	-0.448

**Significant at the .05 level of significance

*See footnote 63 on page 65 for the t-test formula .

1. Critical t-value = 1.988 (d.f. = 93)

2. Critical t-value = 1.990 (d.f. = 96)

3. Critical t-value = 2.036 (d.f. = 33)

To sum up, Table 17 of this study shows that one of three t-tests is significant when comparing the mean SATB (A-G) scores of senior high school academic, business and general education students. However, this one significant t-value is negative. On the basis of this evidence the following conclusions are drawn:

1. There is sufficient evidence to reject Hypothesis Two (a) that the attitudes toward business of senior high school academic students are significantly higher than those of students enrolled in business education. In fact, it can be concluded that attitudes toward business of business education students are

significantly higher than are the attitudes toward business of academic students.

2. Attitudes toward business of senior high school academic students are not significantly higher than those of general education students.

3. Attitudes toward business of senior high school business education students are not significantly different from those of general education students.

Hypothesis Three

(a). The levels of occupational aspiration of senior high school academic students are significantly higher than those of business education students.

(b). The levels of occupational aspiration of senior high school academic students are significantly higher than those of general education students.

(c) The levels of occupational aspiration of senior high school business education students are significantly higher than those of general education students.

This study first uses a t-test of significance to compare the difference of means obtained by senior high school students on the Occupational Aspiration Scale. The results are summarized in Table 18. Based on the t-test, the following conclusions are drawn:

Table 18

A COMPARISON OF OAS MEAN SCORES OF SENIOR HIGH SCHOOL ACADEMIC, BUSINESS,
AND GENERAL EDUCATION STUDENTS USING A T-TEST OF SIGNIFICANCE

Variable	Variable Number	Academic vs. Business		Academic vs. General		Business vs. General	
		t-value ¹	significant?	t-value ²	significant?	t-value ³	significant?
LOA:IS	24	3.347	yes	1.804	no	1.021	no
LOA:IL	25	1.895	no	1.395	no	-0.533	no
LOA:RS	26	3.204	yes	3.902	yes	0.250	no
LOA:RL	27	2.884	yes	2.218	yes	-0.790	no
LOA:OAS	33	4.457	yes	2.961	yes	-1.340	no

1. Critical t-value = 1.988

2. Critical t-value = 1.900

3. Critical t-value = 2.036

1. The level of occupational aspiration of academic students is significantly higher than that of business education students in four out of five cases: LOA:OAS, LOA:IS, LOA:RS, and LOA:RL.

2. The level of occupational aspiration of academic students is significantly higher than that of general education students in three out of five cases: LOA:OAS, LOA:RS, and LOA:RL.

3. There are no significant differences in the levels of occupational aspiration when business and general education students are compared.

From these observations, two conclusions are drawn:

1. The levels of occupational aspiration of senior high school academic students are significantly higher than those of general and business education students.

2. In general, no significant differences in levels of occupational aspiration are found when business and general education students are compared.

Hypothesis Four

There is a high positive correlation between a student's occupational aspiration and concept of self.

For purposes of this study a student's self-concept is defined as the development and implementation of educational and occupational choices which allow him to function in a role consistent with his concept of himself. It is an organizing thread of growth modification throughout the formative and productive stages in his life. (See also pages 7 and 8 for a further clarification of concept of self). As self-concept refers to a person's occupational ability, his chances of getting ahead, the value of his present education, his educational

aspirations, parental support of his educational and occupational goals, the amount of financial support he is able to get from his parents, and his role in the family, a student's responses to Variables 6-10 and 16-23 were used (pages 174-177). The most positive response in each of these variables was assigned a score of 5 while the least positive response carried a score of 1. (See pages 174-177 for the scoring used--shown in brackets following each possible response).

Table 19

A COMPARISON OF OCCUPATIONAL ASPIRATION AND
CONCEPT OF SELF USING A TEST OF CORRELATION

Males and Females, n = 114

Variable	Variable Number	Mean	S.D.	Correlation Coefficient*
LOA:OAS	33	22.59	10.089	
Concept of Self	6-10 and 16-23	37.41	6.866	+0.411**

*Confidence Interval for $\rho = 0 \pm 0.185$ (d.f. = 112)

**Significant at the .05 level of significance

Based on the evidence presented above, Hypothesis Four is accepted and it is concluded in this study that a student's occupational aspiration is significantly correlated with his concept of self.

Hypothesis Five

There is a high positive correlation between a student's attitudes toward business and concept of self.

In reviewing Hypothesis Five, students' attitudes toward business, Sections (A-G) and SATB (H) scores are correlated with the students' concept of self scores.

Table 20

A CORRELATION OF STUDENT ATTITUDES TOWARD BUSINESS
(SECTIONS A-G AND H) AND CONCEPT OF SELF

Males and Females, n = 114

Variable	Variable Number	Mean	S.D.	Correlation Coefficient*
SATB (A-G)	28	211.32	23.590	
Concept of Self		22.59	6.866	-0.003
SATB (H)	29	7.78	1.073	
Concept of Self		22.59	6.866	+0.045

*Confidence Interval for $\rho = 0 \pm 0.185$ (d.f. = 112)

Based on the evidence presented, Hypothesis Five is rejected and it is concluded that a student's attitudes toward business and his concept of self are not significantly correlated.

Hypothesis Six

There is a high positive correlation between a student's level of occupational aspiration and scholastic achievement.

For purposes of this study, a student's grade 11 overall grade average will be used as a measure of his scholastic achievement. Table 21 on page 87 and a photostatic copy of a computer print-out shown on page 199 review the degree of correlation of the male students' scholastic achievement with their levels of occupational aspiration. Based on this sample, results show that senior high school male students' scholastic achievement and their levels of occupational aspiration are not significantly correlated.

Table 21

A CORRELATION OF SENIOR HIGH SCHOOL STUDENTS'
SCHOLASTIC ACHIEVEMENT (GRADE 11) AND LEVEL OF
OCCUPATIONAL ASPIRATION

Males, n = 54

Variable	Variable Number	Mean	S. D.	Correlation Coefficient*
Scholastic Achievement	30	61.93	9.435	
LOA:OAS	33	43.37	9.989	0.221
LOA:IS	24	12.20	3.657	0.136
LOA:IL	25	13.44	3.051	0.233
LOA:RS	26	8.74	3.788	0.121
LOA:RL	27	9.54	4.294	0.144

*Confidence interval for $\rho = 0 \pm 0.270$ (d.f. = 52)

F-value (for 33 variables) = 1.88, critical F-value = 2.00

Attributable to regression, 32; Deviation from regression, 21

Table 22 on page 88 and a photostatic copy of a computer print-out on page 200 show the correlation coefficients when scholastic achievement scores of senior high school female students are correlated with their levels of occupational aspiration. Unlike that of their counterparts, the senior high school males (see Table 21, above, and computer print-out, page 199), female students' levels of occupational aspiration are found to be significantly correlated with their grade 11 scholastic achievement scores:

1. LOA:IS, Variable 24, $r = 0.377$
2. LOA:RS, Variable 26, $r = 0.533$
3. LOA:OAS, Variable 33, $r = 0.392$

On the basis of this evidence, it is concluded that there is a significant correlation between senior high school female students' scholastic achievement and their levels of occupational aspiration.

Table 22

A CORRELATION OF SENIOR HIGH SCHOOL STUDENTS'
SCHOLASTIC ACHIEVEMENT (GRADE 11) AND LEVEL OF
OCCUPATIONAL ASPIRATION

Females, $n = 60$

Variable	Variable Number	Mean	S.D.	Correlation Coefficient*
Scholastic Achievement	30	61.35	8.491	
LOA:OAS	33	41.25	10.156	0.392**
LOA:IS	24	11.58	3.222	0.377**
LOA:IL	25	11.48	3.525	0.120
LOA:RS	26	8.23	4.311	0.533**
LOA:RL	27	9.70	3.600	0.112

*Confidence interval for $\rho = 0 \pm 0.254$ (d.f. = 58)

**Significant at the .05 level of significance

F-value (for 33 variables) = 2.81, critical F-value = 1.87
Attributable to regression, 32; Deviation from regression, 27

Table 23 (below) and a photostatic copy of a computer print-out on page 185 show the correlation coefficients when senior high school male and female students' grade 11 scholastic achievement scores are correlated with their levels of occupational aspiration (semester 1, grade 12). The following aspiration variables are found to be significantly correlated with scholastic achievement:

1. LOA:IS, Variable 24, $r = 0.251$
2. LOA:RS, Variable 26, $r = 0.340$
3. LOA:OAS, Variable 33, $r = 0.308$

Table 23

A CORRELATION OF SENIOR HIGH SCHOOL STUDENTS'
SCHOLASTIC ACHIEVEMENT (GRADE 11) AND LEVEL OF
OCCUPATIONAL ASPIRATION

Males and Females, $n = 114$

Variable	Variable Number	Mean	S.D.	Correlation Coefficient*
Scholastic Achievement	30	61.62	8.915	
LOA:OAS	33	42.25	10.089	0.308**
LOA:IS	24	11.88	3.434	0.251**
LOA:IL	25	12.41	3.438	0.173
LOA:RS	26	8.47	4.062	0.340**
LOA:RL	27	9.62	3.927	0.128

*Confidence interval for $\rho = 0 \pm 0.185$ (d.f. = 112)

**Significant at the .05 level of significance

F-value (for 33 variables) = 3.64, critical F-value = 1.62

Attributable to regression, 32; Deviation from regression, 81

On the basis of this evidence, this study concludes that, taken as a total group, the scholastic achievement of senior high school male and female students is significantly correlated with their total level of occupational aspiration scores. The scholastic achievement is also significantly correlated with the students' idealistic short-range level of occupational aspiration and their realistic short-range level of occupational aspiration.

Hypothesis Six, which states that there is a high positive correlation between a student's level of occupational aspiration and scholastic achievement, is therefore accepted.

Hypothesis Seven

There is a high positive correlation between a student's attitudes toward business and his intelligence (IQ).

The correlation coefficients of the correlations of student attitudes toward business (Variables 28 and 29) and intelligence (IQ) scores (Variable 32) are presented in Appendix H (See photostatic copies of computer print-outs on pages 202 and 203). Statistical results contained in these print-outs indicate that the following correlations are not significant at the .05 level of significance:

1. When senior high school students' attitudes toward business scores (Sections A-G), Variable 28, are correlated with their intelligence (IQ) scores, the computed correlation is -0.132.

2. When senior high school students' attitudes toward business scores (Section H) are correlated with their IQ scores, the correlation coefficient is -0.087 .

As neither correlation coefficient is significant at the .05 level of significance, this study rejects Hypothesis Seven and concludes that there is no significant correlation between a student's attitudes toward business and his intelligence (IQ).

Hypothesis Eight

There is a high positive correlation between a student's attitudes toward business and his scholastic achievement.

This study makes reference to Appendix H, computer print-outs of linear regression (pages 178 - 204) in discussing the relationship of senior high school students attitudes toward business and scholastic achievement. The following conclusions summarize this study's findings:

1. In correlating senior high school male students' attitudes toward business (Sections A-G) scores and their grade 11 scholastic achievement scores, the computed correlation coefficient of $+0.053$ is not significant at the .05 level of significance (see computer print-out, page 201).

2. The computed correlation coefficient for students' attitudes toward business (Section H) scores and grade 11 scholastic achievement scores for males is $+0.116$ and is not significant at the .05 level of significance (see computer print-out, page 202).

3. The computed correlation coefficient between senior high school female students' attitudes toward business (Sections A-G) scores and their grade 11 scholastic achievement scores is -0.022 and is not significant at the .05 level of significance (see computer print-out, page 203).

4. The computed correlation coefficient between the female students' attitudes toward business (Section H) scores and their scholastic achievement scores is $+0.217$ and is not significant at the .05 level of significance (see computer print-out, page 204).

5. The computed correlation coefficient between senior high school male and female students' attitudes toward business (Sections A-G) scores and their grade 11 scholastic achievement scores is $+0.012$ and is not significant at the .05 level of significance (see computer print-out, page 183).

6. The computed correlation coefficient between senior high school male and female students' attitudes toward business (Section H) scores and their scholastic achievement scores is $+0.159$ and is not significant at the .05 level of significance (see computer print-out, page 184).

Based on the findings of this study, Hypothesis Eight is rejected and it is concluded that attitudes toward business of senior high school students and their scholastic achievement scores (based on their grade 11 overall average) are not significantly correlated.

Supplementary Findings

Although the main purpose of this study is to research a senior high school student's attitudes toward business as related to his level of occupational aspiration, several related findings are reported here. These deal with:

1. A comparison of a senior high school student's attitudes toward business score with the business attitudes scores of other selected groups in the community.
2. Sources and nature of influence on a student's selection of a high school educational program.
3. Sources and nature of influence on a student's occupational aspirations.

Attitudes Toward Business of Selected Groups in the Community

This study first compares the SATB (A-G) mean score of senior high school students and other selected groups in the community (Table 24).

At the .05 level of significance, it is noted that high school students' SATB (A-G) mean scores are not significantly different from the SATB (A-G) mean scores of students enrolled at the Northern Alberta Institute of Technology (t-test of difference of means). However, at this same level of significance, a comparison of mean SATB (A-G) scores of the high school sample and upper-level management and successful businessmen are significant. Based on the samples used in this study, the attitudes of high school students toward business are

similar to those of other students, mid-management personnel, clerks, sales personnel, and teachers, but significantly lower than the attitudes (based on the mean scores) of upper-level management personnel and successful businessmen (using a t-test).

Table 24

A COMPARISON OF SENIOR HIGH SCHOOL STUDENTS' MEAN
SATB (A-G) SCORES AND THE MEAN SCORES OF OTHER
SELECTED GROUPS IN THE COMMUNITY

	n	\bar{X}	S.D.	T-value
High School Students	114	211.32	23.59	
Northern Alberta Institute of Technology Students ¹	20	212.72	25.62	Not significant
Mid-Management Personnel in Business, Clerks, Sales Personnel, Teachers	40	214.25	28.51	Not significant
Upper-Level Management ²	20	232.19	19.08	3.714*
Successful Businessmen ³	20	239.90	27.27	4.830*

*Significant at the .05 level of significance

1. Students enrolled in a two-year business administration program at the post-secondary school level.
2. Respondents in business, government, and industry who are classified as management or administration, who are either responsible for supervising industrial operations or personnel, and whose salary exceeded \$15,000 per annum.
3. Businessmen who have operated a successful business for at least five years and whose net income exceeded \$15,000 per annum.

Sources of Influence on Students' Selection of a High School Program

Senior high school students participating in this study were asked about the sources of influence on their selection of a high school educational program.

Table 25 summarizes these findings. From these the study concludes that:

1. Male students tested report that the greatest single source of influence on their choice of a high school educational program was a matter of personal decision or orientation (44.64 per cent) followed by parental influence (29.90 per cent). However, of interest are their second and third choices: parents received 50 per cent of the second choice votes, while friends received 21.83 per cent of the third place votes.

2. About 27 per cent of the senior high school females report their parents to be the most influential factor in their choices of a high school educational program, as opposed to about 30 per cent of the male students. The discrepancy is even greater when the female students report the second source of influence: 50 per cent of the males, but only 32.77 per cent of the females indicate that it is their parents.

3. Teachers, guidance counselors, and educational administrators have not been as influential on a student's choice of a high school educational program as parents, the students themselves, and circumstances such as grades, school attendance, and personal interests.

Table 26 compares the sources of influence on senior high school students' selection of a high school educational program according to the high

Table 25

A COMPARISON OF SOURCES OF INFLUENCE ON SENIOR HIGH SCHOOL STUDENTS'
SELECTION OF A HIGH SCHOOL EDUCATIONAL PROGRAM (IN PER CENT)

Group	Choice	1	2	3	4	5	6	7	8	9	10
Males (n = 54)	a	29.90	1.82	1.82	1.82	3.64	3.64	0.00	44.64	7.27	5.45
	b	50.00	1.82	3.64	3.64	5.45	9.08	3.64	13.63	9.09	0.00
	c	7.27	5.45	0.00	12.73	7.27	21.83	16.36	12.73	5.45	10.91
Females (n = 60)	a	26.87	4.92	1.64	1.64	3.28	0.00	0.00	43.62	16.39	1.64
	b	32.77	9.84	3.28	8.20	8.20	11.48	1.64	8.20	13.11	3.28
	c	14.75	8.20	3.28	3.11	17.21	17.21	4.92	4.92	11.48	4.92
Males and Females (n = 114)	a	27.83	3.48	2.17	2.17	3.48	1.74	0.00	43.48	12.17	3.48
	b	40.87	6.09	3.48	6.09	6.96	10.43	2.61	10.43	11.30	1.74
	c	11.30	6.96	1.74	13.04	12.17	19.13	10.43	8.70	8.70	7.83

Code (Question 7, page 2 of Level of Occupational Aspiration Questionnaire):

- 1 My parents
- 2 My brothers or sisters
- 3 Other relatives or adults
- 4 A teacher, principal or assistant principal
- 5 A guidance counselor
- 6 My friends
- 7 The news media (radio, television, newspapers, etc.)
- 8 No one (I have made my own choice)
- 9 Circumstances (such as grades, attendance record, lack of interest, etc.)
- 10 Other (please specify)

Code of Choices:

- a First choice
- b Second choice
- c Third choice

Table 26

A COMPARISON OF SOURCES OF INFLUENCE ON SENIOR HIGH SCHOOL STUDENTS'
SELECTION OF A HIGH SCHOOL EDUCATIONAL PROGRAM BY HIGH
SCHOOL PATTERN (IN PER CENT)

Pattern	Choice	1	2	3	4	5	6	7	8	9	10
Academic (n = 79)	a	12.50	3.75	5.00	0.00	2.50	1.25	1.25	65.00	2.50	5.00
	b	33.75	5.00	6.25	1.25	3.75	13.75	11.25	6.25	11.25	6.25
	c	30.00	7.50	2.50	2.50	12.50	10.00	12.50	6.25	6.25	8.75
Business Education (n = 16)	a	5.88	11.76	0.00	0.00	0.00	0.00	0.00	41.18	35.29	0.00
	b	17.65	11.76	0.00	17.65	5.88	17.65	5.88	11.76	5.88	0.00
	c	47.06	0.00	0.00	11.76	5.88	5.88	11.76	5.88	0.00	5.88
General Education (n = 19)	a	5.00	0.00	5.00	0.00	0.00	5.00	5.00	55.00	5.00	5.00
	b	35.00	0.00	10.00	0.00	5.00	0.00	10.00	10.00	15.00	10.00
	c	25.00	5.00	20.00	0.00	10.00	10.00	0.00	10.00	15.00	0.00

Code (Question 7, page 2 of Level of Occupational Aspiration Questionnaire):

- 1 My parents
- 2 My brothers or sisters
- 3 Other relatives or adults
- 4 A teacher, principal or assistant principal
- 5 A guidance counselor
- 6 My friends
- 7 The news media (radio, television, newspapers, etc.)
- 8 No one (I have made my own choice)
- 9 Circumstances (such as grades, attendance record, lack of interest, etc.)
- 10 Other (please specify)

Code of Choices:

- a First choice
- b Second choice
- c Third choice

school pattern in which they are presently enrolled. The findings show that:

1. The single most important influence on the selection of a senior high school student's high school educational pattern is a decision he makes on his own. In other words, a student's greatest source of influence is not external, but rather internal (65.00 per cent for academic, 41.18 per cent for business education, and 55.00 per cent for general education students).

2. Academic students were influenced to a greater degree by their parents than business or general education senior high school students (12.50 compared to 5.88 and 5.00 respectively).

3. Students enrolled in business education reported that their brothers and sisters were more influential on their choice of a high school pattern than was the case with academic and general education students (11.76, 3.75, and 5.00 respectively).

In other comparisons of the greatest single source of influence on their choice of a high school educational program, there exists a great similarity. However, this similarity is nonexistent in the students' secondary and tertiary choices of influences on their educational patterns. It is noted that teachers, counselors, and school administrators have considerably influenced the business education students, while their influence on the academic and general education students is of a lesser degree (17.65 and 11.76 compared to 1.25 and 2.50 and 0.00 and 0.00 respectively). Finally, circumstances have influenced the general education students to a far greater degree than they have the academic or business

education students (15.00 and 1.500 compared to 11.25 and 6.25 and to 5.88 and 0.00 respectively).

Sources of Influence on Students' Selection of an Occupational Career

Table 27 compares the sources of influence on senior high school students' selection of an occupational career. The following is a summary of this study's findings:

1. Over 67 per cent of the male senior high school students report that no one has influenced them in their choice of an occupational career. Nearly 35 per cent of these respondents chose their parents as being the second most influential. The news media (3.64, 12.73, and 10.91 per cent as the first, second, and third choices respectively) was influential as were circumstances such as grades and interests (5.45, 12.73, and 5.45 per cent respectively).
2. Over 57 per cent of the senior high school female students tested report that no one has influenced them in their decision of an occupational career. Otherwise, the statistics for female students are very similar to those for males.

Table 28 compares the influences on the high school students' choices of occupational careers when categorized by high school pattern: academic, business and general education.

Similar to the parental influence on a student's choice of a high school program of studies, Table 28 shows that significantly more academic students felt that their parents were the greatest single influence on their occupational aspirations than did the business and general education students. Over 12 per cent of

Table 27

A COMPARISON OF SOURCES OF INFLUENCE ON SENIOR HIGH SCHOOL STUDENTS'
SELECTION OF AN OCCUPATIONAL CAREER (IN PER CENT)

Group	Choice	1	2	3	4	5	6	7	8	9	10
Males (n = 54)	a	7.27	1.82	5.45	0.00	0.00	1.82	3.64	67.28	5.45	7.27
	b	34.54	1.82	5.45	1.82	3.64	9.09	12.73	9.09	12.73	9.09
	c	36.36	3.64	1.82	3.64	12.73	7.27	10.91	9.09	5.45	9.09
Females (n = 60)	a	13.11	6.56	3.28	0.00	3.28	1.64	0.00	57.38	13.11	1.64
	b	32.77	8.20	6.56	4.92	4.92	14.75	8.20	6.56	9.84	3.28
	c	30.51	8.20	8.20	3.28	9.84	12.09	9.84	4.92	8.20	4.92
Males and Females (n = 114)	a	10.43	4.35	4.35	0.00	1.74	1.74	1.74	61.73	9.57	4.35
	b	33.04	5.22	6.09	3.48	4.35	12.17	10.43	7.83	11.30	6.09
	c	33.03	6.09	5.22	3.48	11.30	9.57	10.43	6.96	6.96	6.96

Code (Question 8, page 3 of Level of Occupational Aspiration Questionnaire):

- 1 My parents
- 2 My brothers or sisters
- 3 Other relatives or adults
- 4 A teacher, principal or assistant principal
- 5 A guidance counselor
- 6 My friends
- 7 The news media (radio, television, newspapers, etc.)
- 8 No one (I have made my own choice)
- 9 Circumstances (such as grades, attendance record, etc.)
- 10 Other (please specify)

Code of Choices:

- a First choice
- b Second choice
- c Third choice

Table 28

A COMPARISON OF SOURCES OF INFLUENCE ON SENIOR HIGH SCHOOL STUDENTS'
SELECTION OF AN OCCUPATIONAL CAREER BY HIGH SCHOOL PATTERN
(IN PER CENT)

Pattern	Choice	1	2	3	4	5	6	7	8	9	10
Academic (n = 79)	a	32.50	2.50	1.25	1.25	3.75	1.25	0.00	46.25	6.25	3.75
	b	45.00	5.00	3.75	7.50	6.25	12.50	1.25	7.50	8.75	1.25
	c	11.25	6.25	1.25	11.25	8.75	20.00	12.50	10.00	8.75	8.75
Business Education (n = 16)	a	17.65	5.88	0.00	5.88	0.00	0.00	0.00	41.18	23.53	0.00
	b	29.41	5.88	0.00	0.00	17.65	11.76	5.88	11.76	11.76	0.00
	c	5.88	17.65	0.00	23.53	17.65	11.76	0.00	0.00	11.76	5.88
General Education (n = 19)	a	15.00	5.00	5.00	0.00	5.00	5.00	0.00	30.00	25.00	5.00
	b	25.00	10.00	5.00	5.00	0.00	0.00	5.00	20.00	20.00	5.00
	c	15.00	0.00	5.00	10.00	20.00	15.00	10.00	10.00	5.00	5.00

Code (Question 8, page 3 of Level of Occupational Aspiration Questionnaire):

- 1 My parents
- 2 My brothers or sisters
- 3 Other relatives or adults
- 4 A teacher, principal or assistant principal
- 5 A guidance counselor
- 6 My friends
- 7 The news media (radio, television, newspaper, etc.)
- 8 No one (I have made my own choice)
- 9 Circumstances (such as grades, attendance record, etc.)
- 10 Other (please specify)

Code of Choices:

- a First choice
- b Second choice
- c Third choice

the academic students indicated that the greatest single influence on their choice of an occupation was their parents, while 5 per cent of the general and business education students held this to be true. Students enrolled in business education were influenced to a greater degree by their brothers and sisters than were academic or general education students.

A significantly greater proportion of the academic students said that they made their own occupational decisions (65 per cent) than did the business and general education students (41 and 55 per cent respectively).

The most significant difference in their responses is found in the choice of circumstances (grades, attendance, and interest). Over one-quarter of the students enrolled in a non-academic program of studies (business and general education) indicated that circumstances dictated their level of occupational aspiration, while 2.5 per cent of the academic students felt this to be true for them.

Factors Influencing the Student's Choice of an Occupational Career

Table 29 compares selected influences on the senior high school students' choice of an occupational career. Following are this study's findings:

1. Almost 34 per cent of the senior high school male students report that the money they could make in their choice of an occupation was the greatest single influence on their decision. Almost 33 per cent report that the good they could do was the greatest single influential factor in their choice of an occupational career. Reviewing their second, third, fourth, and fifth choices,

Table 29

A COMPARISON OF SELECTED INFLUENCES ON THE SELECTION OF
SENIOR HIGH SCHOOL STUDENTS' OCCUPATIONAL CAREERS
(IN PER CENT)

Group	Choice	1	2	3	4	5
Males (n = 54)	a	33.64	18.18	10.01	32.72	5.45
	b	32.73	22.63	23.64	7.27	13.73
	c	27.29	7.27	21.80	27.28	16.36
	d	5.63	31.72	23.64	14.55	24.46
	e	0.71	20.20	20.91	18.18	40.00
Females (n = 60)	a	14.75	26.23	0.00	55.74	3.28
	b	31.15	27.87	19.67	14.75	6.56
	c	29.51	13.11	29.51	11.48	16.39
	d	21.31	18.03	29.51	11.48	19.67
	e	3.28	14.76	21.31	6.55	54.10
Males and Females (n = 114)	a	22.61	22.61	4.35	46.08	4.35
	b	33.04	24.35	21.74	11.30	9.57
	c	28.70	11.30	25.22	18.26	16.52
	d	13.91	24.35	27.83	12.18	21.73
	e	1.74	17.39	20.86	12.18	47.83

Code (Question 12, page 6 of Level of Occupational Aspiration Questionnaire):

- 1 The money you can make.
- 2 The difficulty in getting the required education.
- 3 The working hours.
- 4 The good you can do.
- 5 The social standing of the occupation.

Code of Choices:

- a First choice
- b Second choice
- c Third choice
- d Fourth choice
- e Fifth choice

it is concluded that the monetary return in their choice of an occupation was the greatest single influence on their choice of an occupational career.

2. Meanwhile, 14.75 per cent of the senior high school female students tested report monetary gain to be the single most influential factor in their selection of an occupation. However, nearly 56 per cent said that it was the good they could do that influenced them in their choice of an occupation, and 26 per cent felt that the difficulty in getting the required education was the most influential factor in their choice of an occupation.

Table 30 compares the students' rankings of five sources of influence on their choice of an occupation. The data are categorized by high school pattern.

This study shows that 29.41 per cent of the business education students felt that the money they could make in the occupation of their choice was the most important factor in that choice, while 21.50 and 22.00 per cent of the academic and general education students respectively felt this to be the most influential factor.

Over 47 per cent of the academic and 40 per cent of the general education students felt that the good they could do was the most important factor on their occupational choice, while 35 per cent of the business education students chose the good they could do as the most important consideration.

Table 30

A COMPARISON OF SELECTED INFLUENCES ON THE SELECTION OF
SENIOR HIGH SCHOOL STUDENTS' OCCUPATIONAL CAREERS
BY HIGH SCHOOL PATTERN (IN PER CENT)

Pattern	Choice	1	2	3	4	5
Academic (n = 79)	a	21.50	28.75	35.00	11.25	3.50
	b	21.25	26.50	11.25	24.75	16.25
	c	5.00	26.25	22.50	30.00	16.25
	d	47.50	8.50	18.75	14.00	11.25
	e	4.75	10.00	12.50	20.00	52.75
Business Education (n = 16)	a	29.41	52.95	5.88	11.76	0.00
	b	23.53	5.88	11.77	29.41	29.41
	c	5.89	11.76	41.14	17.65	23.53
	d	35.29	23.53	11.76	17.65	11.76
	e	5.88	5.88	29.45	23.53	35.30
General Education (n = 19)	a	25.00	30.00	20.00	25.00	0.00
	b	25.00	35.00	10.00	20.00	10.00
	c	5.00	10.00	30.00	20.00	35.00
	d	40.00	15.00	20.00	10.00	15.00
	e	5.00	10.00	20.00	25.00	40.00

Code (Question 12, page 6 of Level of Occupational Aspiration Questionnaire):

- 1 The money you can make.
- 2 The difficulty in getting the required education.
- 3 The working hours.
- 4 The good you can do.
- 5 The social standing of the occupation.

Code of Choices:

- a First choice
- b Second choice
- c Third choice
- d Fourth choice
- e Fifth choice

Summary

This chapter has reviewed the statistical evidence as related to the eight hypotheses proposed for research. On the basis of these findings, a number of conclusions were drawn. A summary of these conclusions is presented in the following chapter.

Findings and conclusions supplementary to those proposed for research were given in this chapter.

CHAPTER V

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

Summary of Conclusions

The major task of this study was to determine the relationship of a student's attitudes toward business and level of occupational aspiration. However, before this relationship could be researched, two test instruments to measure these two constructs had to be prepared. A number of variables which were deemed to be closely related to the constructs "attitudes toward business" and "level of occupational aspiration" were selected and included in tests of linear regression or in t-tests of difference of means. The majority of the conclusions which follow are based on these two tests at the .05 level of significance.

Attitudes Toward Business and Level of Occupational Aspiration

In comparing student attitudes toward business and level of occupational aspiration, categories such as IQ scores, socioeconomic area, high school educational pattern and sex (males, females, and males and females) were used. From the results of over one hundred tests, this study was unable to establish a significant tendency or pattern.

Only one test proved to be significant. This occurred when the results of the business-attitudes questionnaire conducted at Strathcona Composite High School were tabulated and correlated with students' idealistic long range levels of occupational aspiration. However, the impact of this one significant statistic is lessened when the correlation coefficient in comparing a student's attitudes toward

business with his overall level of occupational aspiration was not significant.

Subsequently, because this study was unable to provide substantial evidence to the contrary, the hypothesis that there exists a high positive correlation between a student's attitudes toward business and his level of occupational aspiration was rejected. Students who scored very high on the business-attitudes questionnaire did not necessarily score high on the occupational aspiration scale. Neither is there evidence of a significant relationship in the negative direction.

Business Attitudes of Specially Selected Groups

When students' attitudes toward business were considered according to specially selected groups, however, significant differences were found. Using a t-test of difference of means at the .05 level of significance, this study shows that students coming from high socioeconomic areas scored significantly higher on the business-attitudes questionnaire than did students coming from low socioeconomic areas. On the other hand, students coming from high socioeconomic areas did not aspire to significantly higher occupational levels than did students living in low socioeconomic areas.

Although significant differences were not found when business-attitudes scores compiled for business education students were compared with those in general education, it is interesting to note that senior high school students enrolled in a business education program scored significantly higher on the business-attitudes questionnaire than did students enrolled in academic education. In this regard, one might speculate that the very nature of a business education program would tend to raise a student's business-attitudes score.

Students' attitudes toward business and levels of occupational aspiration were compared for selected IQ ranges (105 or less, 106-119, 120-129 and 130 or over). Results were negative, showing that regardless of intelligence level, no significant correlation was indicated between business attitudes and occupational aspirations.

Occupational Aspirations

As might be expected and hypothesized in this study, the level of occupational aspiration of academically oriented students is significantly higher than that of the other two high school groups, business and general education. Meanwhile, no significant differences in levels of occupational aspiration were found when general education students were compared with business education students.

A student's level of occupational aspiration was found to be closely correlated with his concept of self. This, in part, may be attributed to the fact that a student's occupational aspiration is really a role that he someday wishes to play, thus becoming a reflection or portrayal of his self image. It might even be argued that a student's occupational aspiration forms the major part of his self-concept.

A senior high school student's scholastic achievement (which is based on his grade 11 average) was found to be significantly correlated with his level of occupational aspiration. This means that if a student's occupational aspiration is high, his scholastic achievement, too, is very likely to be high. Students generally feel that high occupational aspirations require high degrees of educational achievement and that scholastic success contributes to this measure.

A sequel to this study's inability to establish a significant relationship between business attitudes and occupational aspirations, is a lack of a significant correlation between a student's scholastic achievement and his attitudes toward business, or between attitudes toward business and intelligence (IQ).

Recommendations

Occupational Aspirations of High School Students

The mean occupational aspiration score of students participating in this study (42.25 with a S.D. of 10.09) was significantly higher than that of students in other geographic areas previously tested by Haller and Miller using a similar test instrument (mean OAS score approximately 37.02 with a S.D. of 12.19). The level of occupational aspiration scores obtained in this study seem to indicate that the respondents aspire to large numbers of occupations which are, according to the present status of the Canadian economy, not proportionately available to them. In this respect, questions such as the following need to be researched:

1. As the occupational aspirations of students tested in this study are significantly higher than those of respondents in previous studies (conducted over five years ago), are senior high school students' levels of occupational aspirations increasing or are these differences due to several minor changes made in the test instrument itself?

2. How realistic are senior high school students' occupational aspirations? Are the occupational aspirations of students tested in this study disproportionately high?

Attitudes Toward Business

Further research is recommended in attempting to define and establish the relationship between student attitudes toward business and their attitudes toward other institutions in a democratic society. The following need to be researched:

1. What is the nature of the relationship between a student's attitudes toward business and his attitudes toward other institutions in society?
2. Is there a transfer of attitudes from one institution to another? Can these institutions be identified?
3. Are a student's attitudes toward business either negative or positive? Or would further research indicate a wide range of attitudes toward various segments of business; such as attitudes toward selling and salesmen, advertising, business management and supervision, and privately and publicly owned business corporations?
4. Does there exist a meaningful relationship between student attitudes toward business and variables such as scholastic achievement, intelligence, self-concept and occupational aspiration?

Finally, further refinements to the business-attitudes questionnaire used in this study are recommended. Other researchers might find it advantageous to decrease the number of statements used by eliminating the more difficult or redundant business concepts. A further scrutiny of the test instrument for checking its validity and reliability might also prove useful and beneficial.

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APPENDICES

APPENDIX A

QUESTIONNAIRE: OCCUPATIONAL ASPIRATIONS OF STUDENTS

OCCUPATIONAL ASPIRATIONS OF STUDENTS

You are one of a number of students randomly selected to participate in a research project. The first part of the survey will attempt to get a better understanding of the problems young people face when choosing a life's occupation and the attitudes they have toward these problems. Your sincere and honest responses will be of great help in determining the relationship between your attitudes toward business and level of occupational aspiration.

PLEASE FOLLOW THESE DIRECTIONS:

1. Read each item carefully. Answer to the best of your knowledge.
2. BE SURE TO ANSWER EACH QUESTION. Place an "X" in the brackets preceding the response of your choice. Wherever required, neatly enter the word or figures called for. If you cannot answer the question, write "I do not know."
3. There are several questions which refer to your parents. If for any reason you are not living with your parents, answer for the person who acts as your parent or guardian.
4. If you have any comment to make, if you did not understand any item, if your attitudes differ from those given, or if you have problems which are not mentioned, write about them in the margin.

THERE ARE NO RIGHT OR WRONG ANSWERS. YOUR RESPONSES WILL IN NO WAY AFFECT YOUR GRADES AND WILL BE TREATED CONFIDENTIALLY.

Please turn to page 2 and begin PART I of the survey.

I. ABOUT MYSELF

1. My name is: _____
2. My address is: _____
3. My age is: _____. The date of my birth was: _____

Month
Day
Year
4. The name of my school is: _____
5. I am in grade: _____
6. My high school program is:
 - () business education
 - () general high school program
 - () an academic or matriculation program (preparation for entry into an institution of higher learning--college, university, etc.)
 - () vocational (a job-oriented program)
 - () other (please specify) _____
7. Which THREE of the following have influenced you MOST in the selection of your high school program: (Indicate your selections by placing the numbers 1, 2 and 3 beside your choices--IN ORDER OF IMPORTANCE)
 - () my parents
 - () my brothers or sisters
 - () other relatives or adults
 - () a teacher, principal or assistant principal
 - () a guidance counselor
 - () my friends
 - () the news media (radio, television, newspapers, etc.)
 - () no one (I have made my own decisions)
 - () circumstances (grades, attendance record, lack of interest, etc.)
 - () other (please specify) _____

8. Which THREE of the following have influenced you MOST in the selection of your occupational career: (Indicate your selection by placing the numbers 1, 2, and 3 beside your choices--IN ORDER OF IMPORTANCE)

- ☐ my parents
- ☐ my brothers or sisters
- ☐ other relatives or adults
- ☐ a teacher, principal or assistant principal
- ☐ a guidance counselor
- ☐ my friends
- ☐ the news media (radio, television, newspapers, etc.)
- ☐ no one (I have made my own decision)
- ☐ circumstances (grades, attendance record, special interests, etc.)
- ☐ other (please specify) _____

9. My church preference is: _____

10. I attend church about _____ times each year.

11. I make my regular home with:

- ☐ my own parents
- ☐ a parent and a step-parent
- ☐ one parent only
- ☐ my grandparents
- ☐ an uncle or aunt
- ☐ other (please specify) _____

12. The kinds of extra curricular activities in which I participate are: (Check the ones in which you participate regularly and add to the list if necessary.)

- | | | |
|-----------------------------------------|-----------------------------------------|---------------------------------------------|
| <input type="checkbox"/> athletics | <input type="checkbox"/> debating club | <input type="checkbox"/> yearbook |
| <input type="checkbox"/> band/orchestra | <input type="checkbox"/> school paper | <input type="checkbox"/> student government |
| <input type="checkbox"/> chorus/vocal | <input type="checkbox"/> religious club | <input type="checkbox"/> hobby club |
| <input type="checkbox"/> dramatics | <input type="checkbox"/> booster club | <input type="checkbox"/> other _____ |

13. Compared to most students in my high school, my leadership activities are:

- ☐ greater than average
- ☐ about average
- ☐ less than average

14. As to working while I am in high school:

- () I have a fairly regular job outside my family and home
 () I sometimes work outside my family and home
 () I do not work outside my family and home

15. Of all the men I know well, the ones I admire most are:

	Their names	Their exact occupations (their job titles, not the company they work for)	Their relationship to me (friend, relative, teacher, minister, etc.)
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____

II. ABOUT MY CHOICE OF A LIFE'S OCCUPATION

1. The occupations which I have thought about going into are:

1. First choice: _____
 2. Second choice: _____
 3. Third choice: _____
 4. Fourth choice: _____

2. The occupation I plan to follow is: _____

Indicate the nature or particular type of job: _____

3. In regard to my choice of my occupation:

- () I feel sure that my mind is made up
 () I'm not too sure, but I think my mind is made up
 () I'm not sure that my mind is made up

4. In regard to my choice of an occupation:

- ☐ I have given the matter a great deal of thought
- ☐ I have given the matter some thought
- ☐ I have given the matter little thought

5. As to my knowledge of the work I intend to enter:

- ☐ I have good knowledge because I have worked at it
- ☐ I have good knowledge because I have relatives or friends who work at it
- ☐ I have a general knowledge, but don't know much about the details of it
- ☐ I don't know much about it yet but will find out by experience on the job
- ☐ I don't know much about it yet but will find out when I go on to school
- ☐ I don't know because I have not yet made a choice

6. For the occupation I have chosen I think my ability is:

- ☐ very much above average
- ☐ somewhat above average
- ☐ just average
- ☐ somewhat below average
- ☐ very much below average
- ☐ I don't know because I have not yet made a choice

7. Compared with my friends, I think my chances for getting ahead in the occupation of my choice are:

- ☐ very much above average
- ☐ somewhat above average
- ☐ just average
- ☐ somewhat below average
- ☐ very much below average

8. The education I am now receiving is:

- ☐ very important to my choice of a life's occupation
- ☐ important to my choice of a life's occupation
- ☐ should be of some value to my choice of a life's occupation
- ☐ of no value to my choice of a life's occupation
- ☐ I don't know because I have not made my choice yet

9. In the occupation I have chosen I can expect help in getting started:

- ☐ from my father or mother who is in this type of work
- ☐ from relatives who are in this type of work
- ☐ from friends who are in this type of work
- ☐ from no one
- ☐ I don't know because I have not made my choice yet

10. (FOR BOYS ONLY) As to following his occupation, my father has:

- ☐ tried to encourage me
- ☐ neither tried to encourage nor discourage me
- ☐ tried to discourage me

11. (FOR GIRLS ONLY) As to following her occupation, my mother has:

- ☐ tried to encourage me
- ☐ neither tried to encourage nor discourage me
- ☐ tried to discourage me

12. In general, people consider FIVE facts when they choose a job. Rank in order of IMPORTANCE TO YOU the following FIVE facts:

- _____ The money you can make
- _____ The difficulty in getting the required education
- _____ The working hours
- _____ The good you can do
- _____ The social standing of the occupation

13. If I were absolutely free to go into the kind of work I wanted, my choice would be: _____

14. The type of work I would like to be doing when I am 30 years old is: _____

15. The type of work I will likely be doing when I am 30 years old is: _____

16. Regarding my plans for education after I leave high school:

- ☐ I plan to get more education after high school
- ☐ I do not plan to get more education after high school

IF PLANNING TO GET MORE EDUCATION:

1. The number of years of further education I plan to get is:

- ☐ none beyond high school
- ☐ two years or less
- ☐ three or four years
- ☐ five or six years
- ☐ seven or more years

2. The NAMES and LOCATIONS of the schools I am thinking about attending are:

FIRST CHOICE: _____

SECOND CHOICE: _____

3. The PROGRAM or FACULTY in which I hope to enrol is:

FIRST CHOICE: _____ SECOND CHOICE: _____

4. As far as I know now, the highest diploma or degree I hope to earn is:

- ☐ none
- ☐ a business diploma (high school)
- ☐ a high school diploma (a general or matriculation diploma)
- ☐ a two-year diploma or degree from a junior college or a community college
- ☐ a diploma or degree from an institute of technology or from a similar institution of higher learning
- ☐ a bachelor's degree (arts, science, nursing, etc.)
- ☐ a master's degree
- ☐ a doctor's degree
- ☐ other degree (please specify) _____

III. ABOUT MY PARENTS

1. My parents are:

- ☐ living together
- ☐ not living
- ☐ my father is not living
- ☐ my mother is not living
- ☐ divorced
- ☐ separated

- 1 (a). My parents attend church about _____ times each year.

2. My mother:

- ☐ has no job outside the home
- ☐ has a part-time job outside the home
- ☐ has a full-time job outside the home

(If your mother is working part-time or full-time, please specify her position)

3. My father's occupation is (or was): _____

The type of work he does: _____

4. My father considers his occupation to be:

- ☐ completely satisfactory
- ☐ fairly satisfactory
- ☐ good enough
- ☐ not very good
- ☐ very poor

5. My mother considers my father's occupation to be:

- ☐ completely satisfactory
- ☐ fairly satisfactory
- ☐ good enough
- ☐ not very good
- ☐ very poor

6. The occupation of my father's father was: _____

7. The occupation of my mother's father was: _____

8. The country of birth of my father was: _____

9. The country of birth of my mother was: _____

10. The country of birth of my father's father was: _____

11. The country of birth of my mother's father was: _____

12. My father's education consisted of:

- ☐ less than 8 grades ☐ 9 - 11 grades ☐ some college or
- ☐ 8 grades ☐ 12 grades university
- ☐ a college or university degree

13. My mother's education consisted of:

- ☐ less than 8 grades ☐ 9 - 11 grades ☐ some college or
- ☐ 8 grades ☐ 12 grades university
- ☐ a college or university degree

14. I believe my father's education is:

- ☐ completely satisfactory ☐ good enough ☐ very poor
- ☐ fairly satisfactory ☐ not very good

15. My father thinks that the education he obtained is:

- ☐ completely satisfactory
- ☐ fairly satisfactory
- ☐ good enough
- ☐ not very good
- ☐ very poor

16. In comparison to the income of the parents of other students in the high school, the income of my parents is:

- ☐ one of the highest incomes
- ☐ higher than average
- ☐ just average
- ☐ less than average
- ☐ one of the lowest incomes

17. My parents are considered by most people in the community to be:

- ☐ very important people
- ☐ rather important people
- ☐ just average people
- ☐ of less than average importance
- ☐ not at all important

IV. ABOUT ME AND MY PARENTS

1. As to continuing my education beyond high school, my father:

- ☐ has strongly encouraged me to continue
- ☐ has given me some encouragement to continue
- ☐ has never said much about it
- ☐ feels that I would be better off going to work after high school
- ☐ feels that I should quit high school and go to work

2. As to continuing my education beyond high school, my mother:

- ☐ has strongly encouraged me to continue
- ☐ has given me some encouragement to continue
- ☐ has never said much about it
- ☐ feels that I would be better off going to work after high school
- ☐ feels that I should quit high school and go to work

3. As to any further help from my folks in getting a start or in continuing my schooling after high school, my parents would be:

- ☐ financially able and willing to help me a great deal
- ☐ financially able and willing to give me some help
- ☐ financially able but unwilling to give me any help
- ☐ financially unable to give me any help

4. My family is too poor to buy me the kind of things I need:

- ☐ Yes
- ☐ No

5. As to the kind of job I go into, my father:

- ☐ wants me to have a very important job
- ☐ wants me to have a job that is quite a bit better than most jobs
- ☐ wants me to have a job that is a little bit better than most jobs
- ☐ feels that the job I take should be as good as most jobs
- ☐ does not care how good the job I go into is

6. As to the kind of job I go into, my mother:

- ☐ wants me to have a very important job
- ☐ wants me to have a job that is quite a bit better than most jobs
- ☐ wants me to have a job that is a little bit better than most jobs
- ☐ feels that the job I take should be as good as most jobs
- ☐ does not care how good the job I go into is

7. The boys/girls I would like to date prefer to go out with girls/boys whose families are more important than mine:

- ☐ Yes
- ☐ No

8. I often wish my father (or mother or guardian) had a better job:

- ☐ Yes
- ☐ No

9. I often wish my father was a more important man in the community than he is:

- ☐ Yes
- ☐ No

V. ABOUT MY BROTHERS AND SISTERS

Below is the education, sex, age, occupation and place of residence of each of my brothers and sisters: (Start with the oldest brother or sister and include all brothers and sisters. If in school, insert "student". If sister is married and not working outside the home, insert "housewife".)

	Male or Female	Age	Education	Occupation	Place of residence (town and province)
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					

IF YOU HAVE A BROTHER OR SISTER (or more)--

9. Compared to most of my brothers and sisters, I believe my father was:

- () much more interested in what I did
- () a little more interested in what I did
- () just about equally interested in what each of us did
- () a little less interested in what I did
- () much less interested in what I did

10. Compared to most of my brothers and sisters, I believe my mother was:

- () much more interested in what I did
- () a little more interested in what I did
- () just about equally interested in what each of us did
- () a little less interested in what I did
- () much less interested in what I did

11. Compared to most of my brothers and sisters, I believe my father was:

- ☐ much kinder to me
- ☐ a little kinder to me
- ☐ about equally kind to each of us
- ☐ a little less kind to me
- ☐ much less kind to me

12. Compared to most of my brothers and sisters, I believe my mother was:

- ☐ much kinder to me
- ☐ a little kinder to me
- ☐ about equally kind to each of us
- ☐ a little less kind to me
- ☐ much less kind to me

13. Compared to most of my brothers and sisters, I believe my father was:

- ☐ much more attentive to me
- ☐ a little more attentive to me
- ☐ about equally attentive to each of us
- ☐ a little less attentive to me
- ☐ much less attentive to me

14. Compared to most of my brothers and sisters, I believe my mother was:

- ☐ much more attentive to me
- ☐ a little more attentive to me
- ☐ about equally attentive to each of us
- ☐ a little less attentive to me
- ☐ much less attentive to me

15. Usually I was:

- ☐ much more interested in most of my brothers and sisters than they were in me
- ☐ a little more interested in most of my brothers and sisters than they were in me
- ☐ about as interested in my brothers and sisters as they were in me
- ☐ a little less interested in most of my brothers and sisters than they were in me
- ☐ much less interested in most of my brothers and sisters than they were in me

NOW GO BACK AND CHECK TO SEE THAT
YOU HAVE ANSWERED EVERY QUESTION

APPENDIX B

QUESTIONNAIRE: STUDENT ATTITUDES TOWARD BUSINESS

Sections A-G

Section H

STUDENT ATTITUDES TOWARD BUSINESS

You are one of a number of persons randomly selected to participate in a Business Research Project. Your responses to a number of statements related to business will be carefully analyzed.

As this research is a study of attitudes toward business, there are no right or wrong answers. An answer is right if it is true for you.

Please read carefully each business-related statement and then respond to each on the basis of your own true beliefs and without consulting any other person. Do this by writing, on the answer sheet provided, one of the following numbers: +2, +1, -1 or -2. The meaning of each of these figures is:

- +2 AGREE STRONGLY
- +1 AGREE
- 0 NEUTRAL OR UNDECIDED
- 1 DISAGREE
- 2 DISAGREE STRONGLY

For example, if the following were a business-related statement appearing in this booklet,

"A. BUSINESS IS A VERY COMPLEX INSTITUTION, "

your response might be as follows,

"A. +1."

This would then indicate that you "AGREE" with the business-related statement, "Business is a very complex institution."

PLEASE DO NOT WRITE IN THIS BOOKLET

TURN TO PAGE 2 AND BEGIN THE QUESTIONNAIRE

SECTION A: THE BUSINESS INSTITUTION

In the space provided on the answer sheet, write one of the following figures beside each number in Section A:

+ 2, (Agree Strongly), +1, (Agree), 0, (Neutral or Undecided), -1, (Disagree), or -2, (Disagree Strongly).

1. All activities of business are geared toward meeting the needs of its customers in the most effective way and at the lowest possible prices.
2. Business is an honorable profession and affords one a distinct opportunity to serve society.
3. Business recognizes and is sensitive to customer preferences.
4. Business carries out research to determine those goods and services which consumers want now and will want in the future.
5. It is the responsibility of business to provide steady employment at decent wages and under decent conditions.
6. The aim of business is to make a profit and a return on investment while providing a valuable service.
7. Business exists to satisfy man's needs and wants and not to determine these needs for him.
8. Business is a necessary evil and is naturally contrary to moral law.
9. Business is responsible for polluting our atmosphere and should be made responsible for cleaning it up.
10. Cheating customers, overselling, unfair credit practices, and dishonesty in mailing and fulfilling contracts are common in the business community.

SECTION B: THE ROLE OF BUSINESS

In the space provided on the answer sheet, write one of the following figures beside each number in Section B:

+2, (Agree Strongly), +1, (Agree), 0, (Neutral or Undecided), -1, (Disagree), or -2, (Disagree Strongly).

1. No group is more influential than are businessmen. Their influence, good or evil, enters every life and every home many times each day.
2. Young people imitate the manners, habits, and folkways of successful businessmen.
3. I believe in business and its future and that business has developed a fundamental place in the economic fiber of our nation.
4. Within a company, business executives have a responsibility towards subordinates, fellow workers, superiors and stockholders.
5. Outside the company, the executives' responsibilities extend to the general public and to the business community at large.
6. As individuals, businessmen are honest, give honest opinions and speak out for the things in which they believe.
7. Morals and standards in the business world are improving.
8. The typical leader in business today is a man of deep religious faith. Responsibility brings him humility and respect for forces greater than himself.
9. The popular images of a businessman includes the notion that he is relatively unethical.
10. Business executives develop attitudes which allow very low standards of behavior as they themselves do not feel compelled to act according to their conscience.

SECTION C: BUSINESS-GOVERNMENT RELATIONS

In the space provided on the answer sheet, write one of the following figures beside each number in Section C:

+ 2, (Agree Strongly), +1, (Agree), 0, (Neutral or Undecided), -1, (Disagree), or -2, (Disagree Strongly).

1. Self-regulation by businessmen, government legislation, and the natural action of the marketplace keep unethical practices to a minimum.
2. TRUTH IN LENDING legislation is a must to protect borrowers of money from hidden charges or additional costs.
3. Even though many businessmen oppose increased governmental intervention in business, this intervention is necessary to improve business practice.
4. All forms of monopoly, whether carried on by individuals or groups, must be condemned as violations of the JUST PRICE.
5. Price fixing and price collusion (secret agreements on prices) are very common occurrences in business.
6. When a company develops a new product or a new method of production that leads to lower production costs, it is guilty of infringing on the PROPERTY RIGHTS of its competitors.
7. The public should demand, through government action, if necessary, that acceptable business standards be maintained.
8. Businessmen start to look for loopholes once a law has been passed.
9. If a company of superior financial position sells below cost and drives its competitors out of the market, it is as guilty of theft as if it had stolen the property.
10. The BETTER BUSINESS BUREAU came into existence because of the unethical practices of business.

SECTION D: BUSINESS ETHICS

In the space provided on the answer sheet, write one of the following figures beside each number in Section D:

+2, (Agree Strongly), +1, (Agree), 0, (Neutral or Undecided), -1, (Disagree), or -2, (Disagree Strongly).

1. In all decisions affecting the conduct of their business, businessmen always consider what is right and best for the business as a whole, rather than what may be expedient in dealing with a single situation.
2. Business decisions are always made on the basis of quality, price and service and not on the basis of friendship or personal interest.
3. Competition is a factor of great influence on ethical behavior in business. Unethical practices result from both too little or too much competition.
4. Businessmen who have a college education are more ethical than are businessmen with less than college education.
5. Businessmen who attend church regularly are more honest in their business dealings than are businessmen who do not attend church regularly.
6. Some businessmen try to be ethical, but because the majority of businessmen are unethical, they too must be unethical.
7. Businessmen typically become more ethical as they grow older--partly because of financial security and partly because they want to salve their conscience of past unethical business practices.
8. Businessmen do something as long as it is to their advantage. When it is no longer to their advantage, they stop.
9. The smarter businessman will succeed and the weaker businessman will fail. Business success is synonymous with cleverness and borderline ethical conduct.
10. Dishonest advertising, bribes, excessive gifts and favors, and pirating employees or ideas are common in the business community.

SECTION E: BUSINESS AND ADVERTISING

In the space provided on the answer sheet, write one of the following figures beside each number in Section E:

+2, (Agree Strongly), +1, (Agree), 0, (Neutral or Undecided), -1, (Disagree), or -2 (Disagree Strongly).

1. Advertising contributes to mass production economies with resulting lower costs and prices which lead to a higher standard of living.
2. Advertising supports a wide network of news media that is essential to a Democracy.
3. Businessmen advertise and sell merchandise or service on its merit and refrain from attacking their competitors or reflecting unfairly upon their competitors' products, services or methods of doing business.
4. Business institutions do not place misleading labels on food or other articles put up for sale.
5. Business, in using testimonials as a means of advertising, only uses competent witnesses who are sincere and honest in what they say about what they are selling.
6. Advertising stimulates constant product improvement and a wider range of products.
7. Advertising is used to reduce price competition and create monopoly positions.
8. Advertising creates meaningless product differentiation and is therefore a poor guide for consumer decisions.
9. Advertising contributes to the violence of economic fluctuations.
10. Advertising adds unnecessarily to the cost of merchandise and therefore contributes to an inefficient use of resources.

SECTION F: BUSINESS-CONSUMER RELATIONS

In the space provided on the answer sheet, write one of the following figures beside each number in Section F:

+2, (Agree Strongly), +1, (Agree), 0, (Neutral or Undecided), -1, (Disagree), or -2, (Disagree Strongly).

1. Businessmen tell customers what they want to know and what they have a right to know and ought to know about what is offered so that they may buy wisely and obtain the maximum satisfaction from their purchases.
2. Businessmen, in their treatment of customers, are always fair and fully considerate of their needs. They make promises as to delivery, quality and service so conservative that, on the average, they are exceeded.
3. Businessmen have qualifications to perform assignments which they accept and it is their sincere intention and wholehearted purpose that the client benefits from these services.
4. Businessmen are never satisfied with anything less than the best solution of each and every problem to be solved.
5. Business always makes sure that the normal use of merchandise or service offered will not be hazardous to public life or health.
6. Business is prepared and willing to make good as promised, and without quibble, on any guarantee offered.
7. Businessmen avoid all tricky devices and schemes such as deceitful trade-in allowances or fictitious list prices.
8. Businessmen respect all information relating to the business affairs of their clients as confidential.
9. Business is always extremely accurate in the use of weights and measures.
10. Businessmen convert all human weaknesses into cash.

SECTION G: BUSINESS-EMPLOYEE RELATIONS

In the space provided on the answer sheet, write one of the following figures besides each number in Section G:

+2, (Agree Strongly), +1, (Agree), 0, (Neutral or Undecided), -1, (Disagree), or -2, (Disagree Strongly).

1. Businessmen select employees of the highest ability and good character and place them in positions which will utilize their talents to the best advantage.
2. Businessmen have given the physically, mentally and economically handicapped person an equal opportunity for employment.
3. Business has given workers security, freedom and increased job satisfaction.
4. Business has established and financially supported adequate leadership and supervisory training programs.
5. Employees are given sufficient opportunity to participate in the decision-making process.
6. In reducing their work force, trained supervisors always release employees who have been least efficient.
7. Business has shown a keen interest in the mental health, morale and welfare of its employees.
8. Businessmen are employed to make money. They have no other ambitions.
9. A business institution that earns higher profits should pay its employees higher wages and salaries.
10. Business views employees as being expendable to the goals of the system.

SECTION H: STUDENT ATTITUDES TOWARD BUSINESS

Section H contains 17 statements about the Business Institution. Your reactions to these general statements will help in the determination of your overall attitude toward business.

Please read each statement with care and then, on the answer sheet provided, place a plus sign (+) beside the number which corresponds with the statement WITH WHICH YOU AGREE.

For example, if the following were two business-related statements appearing in this statement booklet,

"A. THE BUSINESS INSTITUTION SMELLS
B . BUSINESSMEN ARE HUMAN ."

your responses might be as follows,

"A. _____
B. + ."

This would indicate that you "DISAGREE" with the statement, "The Business Institution Smells," but "AGREE" with the statement, "Businessmen are Human."

PLEASE DO NOT WRITE IN THIS BOOKLET

1. Business exerts a strong influence for good government and right living.
2. On the whole, business serves society well.
3. Business is necessary to society as organized.
4. Business adjusts itself to changing conditions.
5. Business is improving with the years.
6. Business does more good than harm.
7. Business will not harm anybody.
8. Business inspires no definite likes or dislikes.
9. Business is necessary only until such time that a better institution can be found or formed.
10. Business is too liberal in its policies.
11. Business is losing ground as education advances.
12. Business promotes false beliefs and much wishful thinking.
13. Business does more harm than good.
14. No one any longer has faith in the business institution.
15. Business is detrimental to society and the individual.
16. Business benefits no one.
17. Business has positively no value.

APPENDIX C
OCCUPATIONAL ASPIRATION SCALE FOR BOYS

YOUR NAME: _____ SCHOOL: _____

OCCUPATIONAL ASPIRATION SCALE FOR BOYS

This set of questions concerns your interest in different kinds of jobs. There are eight questions. Each one asks you to choose one job out of ten listed.

Be sure your name is on the top of this page.

READ EACH QUESTION CAREFULLY. THEY ARE ALL DIFFERENT.

ANSWER EACH ONE THE BEST YOU CAN. DO NOT OMIT ANY.

Question 1. Of the jobs listed in this question, which is the BEST ONE you are REALLY SURE YOU CAN GET when your SCHOOLING IS OVER?

- 1.1 _____ Lawyer
- 1.2 _____ Welfare worker for a city government
- 1.3 _____ A cabinet minister with the Federal Government
- 1.4 _____ Corporal in the Armed Forces
- 1.5 _____ The Chief Justice of the Supreme Court of Canada
- 1.6 _____ Night watchman
- 1.7 _____ Sociologist
- 1.8 _____ Policeman
- 1.9 _____ County agricultural agent
- 1.10 _____ Filling station attendant

Question 2. Of the jobs listed in this question, which ONE would you choose if you were FREE TO CHOOSE ANY of them you wished when your SCHOOLING IS OVER?

- 2.1 _____ Member of the board of directors of a large corporation
- 2.2 _____ Undertaker
- 2.3 _____ Banker
- 2.4 _____ Machine operator in a factory
- 2.5 _____ Physician (doctor)
- 2.6 _____ Clothes presser in a laundry
- 2.7 _____ Accountant for a large business
- 2.8 _____ Railroad conductor
- 2.9 _____ Railroad engineer
- 2.10 _____ Singer in a night club

Question 3. Of the jobs listed in this question, which is the BEST ONE you are REALLY SURE YOU CAN GET when your SCHOOLING IS OVER?

- 3.1 _____ Nuclear physicist
- 3.2 _____ Reporter for a daily newspaper
- 3.3 _____ District court judge
- 3.4 _____ Barber
- 3.5 _____ Provincial premier
- 3.6 _____ Soda fountain clerk
- 3.7 _____ Biologist
- 3.8 _____ Mail carrier
- 3.9 _____ Official of an international labor union
- 3.10 _____ Farm hand

Question 4. Of the jobs listed in this question, which ONE would you choose if you were FREE TO CHOOSE ANY of them you wished when your SCHOOLING IS OVER?

- 4.1 ☐ Psychologist
- 4.2 ☐ Manager of a small store in a city
- 4.3 ☐ Head of a department in the Provincial Government
- 4.4 ☐ Clerk in a store
- 4.5 ☐ Cabinet member in the Federal Government
- 4.6 ☐ Janitor
- 4.7 ☐ Musician in a symphony orchestra
- 4.8 ☐ Carpenter
- 4.9 ☐ Radio announcer
- 4.10 ☐ Coal miner

Question 5. Of the jobs listed in this question, which is the BEST ONE you are REALLY SURE YOU CAN HAVE by the time you are 30 YEARS OLD?

- 5.1 ☐ Civil engineer
- 5.2 ☐ Bookkeeper
- 5.3 ☐ Minister or Priest
- 5.4 ☐ Streetcar motorman or city bus driver
- 5.5 ☐ Diplomat in the Canadian Foreign Service
- 5.6 ☐ Construction laborer
- 5.7 ☐ Author of novels
- 5.8 ☐ Plumber
- 5.9 ☐ Newspaper columnist
- 5.10 ☐ Taxi driver

Question 6. Of the jobs listed in this question, which ONE would you choose to have when you are 30 YEARS OLD, if you were FREE TO HAVE ANY of them you WISHED?

- 6.1 _____ Airline pilot
- 6.2 _____ Insurance agent
- 6.3 _____ Architect
- 6.4 _____ Milk route man
- 6.5 _____ Mayor of a large city
- 6.6 _____ Garbage collector
- 6.7 _____ Owner-operator of a printing shop
- 6.8 _____ Garage mechanic
- 6.9 _____ Captain in the Armed Forces
- 6.10 _____ Railroad section hand

Question 7. Of the jobs listed in this question, which is the BEST ONE you are REALLY SURE YOU CAN HAVE by the time you are 30 YEARS OLD?

- 7.1 _____ Artist who paints pictures that are exhibited in galleries
- 7.2 _____ Traveling salesman for a wholesale concern
- 7.3 _____ Chemist
- 7.4 _____ Truck driver
- 7.5 _____ College professor
- 7.6 _____ Street sweeper
- 7.7 _____ Building contractor
- 7.8 _____ Local official of a labor union
- 7.9 _____ Electrician
- 7.10 _____ Restaurant waiter

Question 8. Of the jobs listed in this question, which ONE would you choose to have when you are 30 YEARS OLD, if you were FREE TO HAVE ANY of them you WISHED?

8.1 _____ Owner of a factory that employs about 100 workers

8.2 _____ Playground director

8.3 _____ Dentist

8.4 _____ Lumberjack

8.5 _____ Scientist

8.6 _____ Shoeshiner

8.7 _____ Public school teacher

8.8 _____ Owner-operator of a lunch stand

8.9 _____ Trained machinist

8.10 _____ Dock worker

APPENDIX D
OCCUPATIONAL ASPIRATION SCALE FOR GIRLS

YOUR NAME: _____ SCHOOL: _____

OCCUPATIONAL ASPIRATION SCALE FOR GIRLS

This set of questions concerns your interest in different kinds of jobs. There are eight questions. Each one asks you to choose one job out of ten listed.

Be sure your name is on the top of this page.

READ EACH QUESTION CAREFULLY. THEY ARE ALL DIFFERENT.

ANSWER EACH ONE THE BEST YOU CAN. DO NOT OMIT ANY.

Question 1. Of the jobs listed in this question, which is the BEST ONE you are REALLY SURE YOU CAN GET when your SCHOOLING IS OVER?

- 1.1 _____ Lawyer
- 1.2 _____ Welfare worker for a city government
- 1.3 _____ A cabinet minister with the Federal Government
- 1.4 _____ Corporal in the Armed Forces
- 1.5 _____ President of a large corporation
- 1.6 _____ Car hop in a drive-in restaurant
- 1.7 _____ Sociologist
- 1.8 _____ Policewoman
- 1.9 _____ County home economist
- 1.10 _____ Filing clerk

Question 2. Of the jobs listed in this question, which ONE would you choose if you were FREE TO CHOOSE ANY of them you wished when your SCHOOLING IS OVER?

- 2.1 ☐ Member of the board of directors of a large corporation
- 2.2 ☐ Medical record librarian
- 2.3 ☐ Banker
- 2.4 ☐ Machine operator in a factory
- 2.5 ☐ Physician (doctor)
- 2.6 ☐ Clothes presser in a laundry
- 2.7 ☐ Accountant for a large business
- 2.8 ☐ Singer in a night club
- 2.9 ☐ Airline stewardess
- 2.10 ☐ Beautician

Question 3. Of the jobs listed in this question, which is the BEST ONE you are REALLY SURE YOU CAN GET when your SCHOOLING IS OVER?

- 3.1 ☐ Occupational therapist
- 3.2 ☐ Reporter for a daily newspaper
- 3.3 ☐ Commercial artist
- 3.4 ☐ Telephone operator
- 3.5 ☐ Nuclear physicist
- 3.6 ☐ Soda fountain clerk
- 3.7 ☐ Biologist
- 3.8 ☐ Mail sorter
- 3.9 ☐ Official of an International Women's League
- 3.10 ☐ Barber

Question 4. Of the jobs listed in this question, which ONE would you choose if you were FREE TO CHOOSE ANY of them you wished when your SCHOOLING IS OVER?

- 4.1 _____ Psychologist
- 4.2 _____ Manager of a small store in a city
- 4.3 _____ Head of a department in the Provincial Government
- 4.4 _____ Clerk in a store
- 4.5 _____ Cabinet member in the Federal Government
- 4.6 _____ Janitor
- 4.7 _____ Musician in a symphony orchestra
- 4.8 _____ Seamstress
- 4.9 _____ Radio announcer
- 4.10 _____ Work for a dry-cleaning firm

Question 5. Of the jobs listed in this question, which is the BEST ONE you are REALLY SURE YOU CAN HAVE by the time you are 30 YEARS OLD?

- 5.1 _____ Interior designer
- 5.2 _____ Bookkeeper
- 5.3 _____ Fashion model
- 5.4 _____ City bus driver
- 5.5 _____ Diplomat in the Canadian Foreign Service
- 5.6 _____ Fairground attendant
- 5.7 _____ Author of novels
- 5.8 _____ Assembly line worker
- 5.9 _____ Newspaper columnist
- 5.10 _____ Taxi driver

Question 6. Of the jobs listed in this question, which ONE would you choose to have when you are 30 YEARS OLD, if you were FREE TO HAVE ANY of them you WISHED?

- 6.1 ☐ Pharmacist
- 6.2 ☐ A dental hygienist
- 6.3 ☐ Architect
- 6.4 ☐ Hospital attendant
- 6.5 ☐ Mayor of a large city
- 6.6 ☐ General maid
- 6.7 ☐ Captain in the Armed Forces
- 6.8 ☐ Sales clerk
- 6.9 ☐ Owner-operator of a printing shop
- 6.10 ☐ Short order cook

Question 7. Of the jobs listed in this question, which is the BEST ONE you are REALLY SURE YOU CAN HAVE by the time you are 30 YEARS OLD?

- 7.1 ☐ Artist who paints pictures that are exhibited in galleries
- 7.2 ☐ Private secretary to a successful businessman
- 7.3 ☐ Chemist
- 7.4 ☐ Receptionist
- 7.5 ☐ College professor
- 7.6 ☐ Street sweeper
- 7.7 ☐ Registered nurse
- 7.8 ☐ Physical therapist
- 7.9 ☐ Librarian
- 7.10 ☐ Waitress

Question 8. Of the jobs listed in this question, which ONE would you choose to have when you are 30 YEARS OLD, if you were FREE TO HAVE ANY of them you WISHED?

8.1 _____ Owner of a factory that employs about 100 workers

8.2 _____ Playground director

8.3 _____ Dentist

8.4 _____ Typist

8.5 _____ Scientist

8.6 _____ Housekeeper

8.7 _____ Public school teacher

8.8 _____ Owner-operator of a lunch stand

8.9 _____ Trained machinist

8.10 _____ Worker in a factory

APPENDIX E
ADMINISTRATIVE DIRECTIONS FOR QUESTIONNAIRES
ANSWER BOOKLET

ADMINISTRATION OF QUESTIONNAIRE

Thesis Title

"A STUDY OF THE RELATIONSHIP BETWEEN ATTITUDE TOWARD BUSINESS AND LEVEL OF OCCUPATIONAL ASPIRATION."

Contents

This is an ADMINISTRATION BOOKLET for the following QUESTIONNAIRE BOOKLETS:

1. OCCUPATIONAL ASPIRATIONS OF STUDENTS
2. STUDENT ATTITUDES TOWARD BUSINESS
3. OCCUPATIONAL ASPIRATION SCALE

Please read the following instructions with care so that the instructions you give to the participants and respondents in your high school are just as clear and uniform as is possible.

To The Administrator of the Questionnaire

This survey consists of THREE PARTS. PART I is entitled "OCCUPATIONAL ASPIRATIONS OF STUDENTS" and deals with a brief but important biographical sketch of the respondent, his choice of a life's occupation, his educational and career aspirations, and about himself and his family.

PART II is entitled "STUDENT ATTITUDES TOWARD BUSINESS". This questionnaire deals with eight specific areas of business and students will be asked to react to statements related to these areas of business.

PART III is entitled "OCCUPATIONAL ASPIRATION SCALE" and deals with a student's interest in different kinds of occupations. There are two sections; one is for BOYS and the other is for GIRLS.

Student responses should be made in pencil. Should a student wish to change a response, he will then be able to erase the initial response without difficulty.

Administration of PART I

In order that instructions are uniform in each high school, please read to the students those statements typed in UPPER CASE:

"YOUR QUESTION BOOKLET, PART I OF THE SURVEY, IS ENTITLED OCCUPATIONAL ASPIRATIONS OF STUDENTS AND CONSISTS OF 14 PAGES. PLEASE CHECK TO SEE THAT EACH OF THESE PAGES HAS BEEN INCLUDED AND THAT EACH PAGE IS LEGIBLE. THIS IS A SURVEY OF YOUR OCCUPATIONAL GOALS. THERE ARE NO RIGHT OR WRONG ANSWERS. AN ANSWER IS RIGHT IF IT IS TRUE FOR YOU."

Turn to page 1 and read aloud to the group of students the directions on this page. When you are finished, say, "ARE THERE ANY QUESTIONS?" Answer any questions that students may have and add, "I WILL ANSWER ANY QUESTIONS YOU MAY HAVE WHILE RESPONDING TO THIS QUESTIONNAIRE. DO NOT HESITATE TO STOP ME IF YOU ARE EXPERIENCING DIFFICULTY. THERE IS NO TIME LIMIT FOR THIS QUESTIONNAIRE BUT I URGE YOU TO WORK QUICKLY. PLACE ALL OF YOUR RESPONSES IN THIS BOOKLET. ARE YOU READY? PLEASE BEGIN."

Administration of PART II

"PART II OF THE SURVEY IS ENTITLED STUDENT ATTITUDES TOWARD BUSINESS. PLEASE NOTE THAT THIS PART OF THE SURVEY CONSISTS OF TWO BOOKLETS--A QUESTION BOOKLET AND AN ANSWER BOOKLET. CHECK TO SEE THAT YOU HAVE TEN PAGES IN THE QUESTION BOOKLET AND FOUR IN THE ANSWER BOOKLET. BE SURE THAT EACH OF THESE IS LEGIBLE. DO NOT WRITE IN THE QUESTION BOOKLET. PLACE YOUR RESPONSES IN THE ANSWER BOOKLET. AS THIS QUESTIONNAIRE MAY CONTAIN SOME TERMS WITH WHICH YOU MAY NOT BE THOROUGHLY ACQUAINTED, LET US TAKE A MOMENT TO REVIEW THESE."

Turn to that section of the answer booklet where these terms have been briefly defined and carefully review these with the students.

"ANY QUESTIONS? NOW TURN TO THE QUESTIONNAIRE BOOKLET AND REVIEW WITH ME THE INSTRUCTIONS."

Review, with care, the instructions and then ask, "ARE THERE ANY QUESTIONS? REMEMBER--THERE ARE NO RIGHT OR WRONG ANSWERS. AN ANSWER IS RIGHT IF IT IS TRUE FOR YOU. THERE IS NO TIME LIMIT FOR THIS PART OF THE SURVEY, BUT PLEASE RESPOND TO THE

STATEMENTS PROMPTLY. DO NOT SPEND TOO MUCH TIME ON ANY ONE PART OF THE SURVEY. FEEL FREE TO STOP ME AT ANY TIME IF YOU ARE EXPERIENCING DIFFICULTY. ARE YOU READY? PLEASE BEGIN."

Administration of PART III

"PART III OF THE SURVEY IS ENTITLED OCCUPATIONAL ASPIRATION SCALE. PLEASE NOTE THAT ONE IS MARKED FOR BOYS AND ONE IS MARKED FOR GIRLS. BE SURE THAT YOU HAVE THE RIGHT ONE. THERE ARE FIVE PAGES IN THIS BOOKLET. CHECK TO SEE THAT YOUR BOOKLET CONTAINS FIVE PAGES AND THAT EACH PAGE IS LEGIBLE. BE SURE THAT YOUR NAME IS AT THE TOP OF THE PAGE. THIS SET OF QUESTIONS CONCERNS YOUR INTEREST IN VARIOUS KINDS OF JOBS OR OCCUPATIONS. THERE ARE EIGHT QUESTIONS. EACH ONE ASKS YOU TO CHOOSE ONE JOB OUT OF TEN PRESENTED. READ EACH QUESTION CAREFULLY. THEY ARE ALL DIFFERENT. ANSWER EACH ONE THE BEST YOU CAN. DO NOT OMIT ANY. PLACE ALL YOUR ANSWERS DIRECTLY IN THIS BOOKLET. NOW LET'S REVIEW THE DIRECTIONS."

Turn to page 1 and review the directions with the group. Answer any questions that the students may raise.

"REMEMBER, THERE ARE NO RIGHT OR WRONG ANSWERS. AN ANSWER IS RIGHT IF IT IS TRUE FOR YOU. THERE IS NO TIME LIMIT FOR THIS PART OF THE SURVEY. PLEASE ANSWER EACH QUESTION HONESTLY AND SINCERELY. IF YOU EXPERIENCE ANY DIFFICULTY WITH THE QUESTIONNAIRE, PLEASE FEEL FREE TO STOP ME AT ANY TIME. ANY QUESTIONS? PLEASE TURN TO PAGE ONE AND BEGIN THE QUESTIONNAIRE."

A Reminder

As the students hand in their questionnaires, please check to see that they have answered every question. A student's questionnaire may become invalid--especially if he omits an important question which is crucial to the determination of a particular correlation.

SELECTED TERMS

CHAPLAIN: A minister, priest or rabbi in a religious capacity.

CONSUMER: A person who uses goods or services to satisfy his needs.

CONTRARY: Opposed to or against.

DETRIMENTAL: Harmful or injurious.

DIFFERENTIATION: To distinguish between; to perceive or express a difference.

ECONOMIC FLUCTUATIONS: Ups and downs in the amount of income and expenditure on the part of the consumers; uneven production, distribution and consumption of wealth by private business and government.

ECONOMICS: The avoidance of waste or needless spending.

ETHICAL: Conforming to good standards of behavior in business; conforming to moral standards.

EXPEDIENT: Suited to the circumstances or the occasion; advantageous; the use of advantage rather than what is right or just.

EXPENDABLE: That which can be easily replaced; secondary in nature.

HUMILITY: Absence of pride; the state or quality of being humble of mind or spirit.

INFRINGE: To violate; to break in on; to trespass on rights or patents of others.

JUST PRICE: The right or fair price; a fair price based on economic conditions; a price based on the law of "supply and demand."

MONOPOLY: Exclusive control of a commodity or service in a given market.

MORAL, MORALS: Implies conformity with generally accepted business standards.

PSYCHIATRISTS: Those who deal with disorders of the mind.

PSYCHOLOGISTS: Those who deal with the mental or physical processes of the human being.

REFRAIN: To hold back; curb.

SALVE: Soothe or heal.

STIMULATES: To rouse to action or increased action; to cause a change in a business activity.

SUBORDINATE: Placed in an inferior position; below in rank.

SYNONYMOUS: The same as or nearly the same in meaning.

TRUTH IN LENDING LEGISLATION: Government legislation dealing with full disclosure in lending; disclosure of all charges in a business transaction.

UNETHICAL: Not moral; sub-standard behavior; below normal; behavior that does not conform to good business standards.

STUDENT ATTITUDES TOWARD BUSINESS

NAME: _____ SCHOOL: _____

This is your ANSWER BOOKLET. After you have carefully read a statement in the QUESTIONNAIRE BOOKLET, place one of the following figures in the space provided below:

+2, +1, 0, -1 or -2

SECTION						
A	B	C	D	E	F	G
1.	1.	1.	1.	1.	1.	1.
2.	2.	2.	2.	2.	2.	2.
3.	3.	3.	3.	3.	3.	3.
4.	4.	4.	4.	4.	4.	4.
5.	5.	5.	5.	5.	5.	5.
6.	6.	6.	6.	6.	6.	6.
7.	7.	7.	7.	7.	7.	7.
8.	8.	8.	8.	8.	8.	8.
9.	9.	9.	9.	9.	9.	9.
10.	10.	10.	10.	10.	10.	10.

SECTION H: After you have carefully read a statement in Section H, place a plus sign (+) beside the number of the statement(s) with which you AGREE.

1.	2.	3.	4.	5.	6.
7.	8.	9.	10.	11.	12.
13.	14.	15.	16.	17.	

APPENDIX F

A COMPARISON OF HALLER AND MILLER'S OCCUPATIONAL ASPIRATION SCALE AND THE REVISED SCALES FOR BOYS AND GIRLS USED IN THIS STUDY

A COMPARISON OF HALLER AND MILLER'S OCCUPATIONAL ASPIRATION SCALE*
AND THE REVISED SCALES FOR BOYS AND GIRLS USED IN THIS STUDY

Question 1

Haller and Miller's Occupational Aspiration Scale			Occupational Aspiration Scale for Boys (used in this study)		Occupational Aspiration Scale for Girls (used in this study)	
Question	Key	Occupation	Key	Occupation	Key	Occupation
1.1	7	Lawyer	7	Lawyer	7	Lawyer
1.2	4	Welfare worker for a city government	4	Welfare worker for a city government	4	Welfare worker for a city government
1.3	8	United States representative in Congress	8	A cabinet minister with the Federal Government	8	A cabinet minister with the Federal Government
1.4	2	Corporal in the Army	2	Corporal in the Armed Forces	2	Corporal in the Armed Forces
1.5	9	United States Supreme Court Justice	9	The Chief Justice of the Supreme Court of Canada	9	President of a large corporation
1.6	0	Nightwatchman	0	Nightwatchman	0	Carhop in a drive-in restaurant
1.7	6	Sociologist	6	Sociologist	6	Sociologist
1.8	3	Policeman	3	Policeman	3	Policewoman
1.9	5	County agricultural agent	5	County agricultural agent	5	County home economist
1.10	1	Filling station attendant	1	Filling station attendant	1	Filing clerk

*Source: Haller and Miller, op. cit. p. 84-86.

Question 2

Haller and Miller's Occupational Aspiration Scale			Occupational Aspiration Scale for Boys (used in this study)		Occupational Aspiration Scale for Girls (used in this study)	
Question	Key	Occupation	Key	Occupation	Key	Occupation
2.1	7	Member of the board of directors of a large corporation	7	Member of the board of directors of a large corporation	8	Member of the board of directors of a large corporation
2.2	4	Undertaker	4	Undertaker	5	Medical record librarian
2.3	8	Banker	8	Banker	7	Banker
2.4	2	Machine operator In a factory	2	Machine operator in a factory	1	Machine worker in a factory
2.5	9	Physician (doctor)	9	Physician (doctor)	9	Physician (doctor)
2.6	0	Clothes presser in a laundry	0	Clothes presser in a laundry	0	Clothes presser in a laundry
2.7	6	Accountant for a large business	6	Accountant for a large business	6	Accountant for a large business
2.8	3	Railroad conductor	3	Railroad conductor	2	Singer in a night club
2.9	5	Railroad engineer	5	Railroad engineer	4	Airline stewardess
2.10	1	Singer in a night club	1	Singer in a night club	3	Beautician

Question 3

Haller and Miller's Occupational Aspiration Scale			Occupational Aspiration Scale for Boys (used in this study)		Occupational Aspiration Scale for Girls (used in this study)	
Question	Key	Occupation	Key	Occupation	Key	Occupation
3.1	7	Nuclear physicist	7	Nuclear physicist	7	Occupational therapist
3.2	4	Reporter for a daily newspaper	4	Reporter for a daily newspaper	4	Reporter for a daily newspaper
3.3	8	County judge	8	District court judge	6	Commercial artist
3.4	2	Barber	2	Barber	2	Telephone operator
3.5	9	State governor	9	Provincial premier	9	Nuclear physicist
3.6	0	Soda fountain clerk	0	Soda fountain clerk	0	Soda fountain clerk
3.7	6	Biologist	6	Biologist	8	Biologist
3.8	3	Mail carrier	3	Mail carrier	1	Mail carrier
3.9	5	Official of an international labor union	5	Official of an international labor union	5	Official of an international Women's League
3.10	1	Farm hand	1	Farm hand	3	Barber

Question 4

Haller and Miller's Occupational Aspiration Scale			Occupational Aspiration Scale for Boys (used in this study)		Occupational Aspiration Scale for Girls (used in this study)	
Question	Key	Occupation	Key	Occupation	Key	Occupation
4.1	7	Psychologist	7	Psychologist	7	Psychologist
4.2	4	Manager of a small store in a city	4	Manager of a small store in a city	6	Manager of a small store in a city
4.3	8	Head of a department in state government	8	Head of a department in the Provincial Government	8	Head of a department in the Provincial Government
4.4	2	Clerk in a store	2	Clerk in a store	2	Clerk in a store
4.5	9	Cabinet member in the federal government	9	Cabinet member in the Federal Government	9	Cabinet member in the Federal Government
4.6	0	Janitor	0	Janitor	0	Janitor
4.7	6	Musician in a symphony orchestra	6	Musician in a symphony orchestra	5	Musician in a symphony orchestra
4.8	3	Carpenter	3	Carpenter	3	Seamstress
4.9	5	Radio announcer	5	Radio announcer	4	Radio announcer
4.10	1	Coal miner	1	Coal miner	1	Work for a dry-cleaning firm

Question 5

Haller and Miller's Occupational Aspiration Scale			Occupational Aspiration Scale for Boys (used in this study)		Occupational Aspiration Scale for Girls (used in this study)	
Question	Key	Occupation	Key	Occupation	Key	Occupation
5.1	7	Civil Engineer	7	Civil Engineer	8	Interior designer
5.2	4	Bookkeeper	4	Bookkeeper	4	Bookkeeper
5.3	8	Minister or Priest	8	Minister or Priest	6	Fashion model
5.4	2	Streetcar motorman or city bus driver	2	Streetcar motorman or city bus driver	2	City bus driver
5.5	9	Diplomat in the United States Foreign Service	9	Diplomat in the Canadian Foreign Service	9	Diplomat in the Canadian Foreign Service
5.6	0	Share cropper (one who owns no livestock or farm machiner, and does not manage the farm)	0	Construction laborer	0	Fairground attendant
5.7	6	Author of novels	6	Author of novels	7	Author of novels
5.8	3	Plumber	3	Plumber	3	Assembly line worker
5.9	5	Newspaper columnist	5	Newspaper columnist	5	Newspaper columnist
5.10	1	Taxi driver	1	Taxi driver	1	Taxi driver

Question 6

Haller and Miller's Occupational Aspiration Scale			Occupational Aspiration Scale for Boys (used in this study)		Occupational Aspiration Scale for Girls (used in this study)	
Question	Key	Occupation	Key	Occupation	Key	Occupation
6.1	7	Airline pilot	7	Airline pilot	7	Pharmacist
6.2	4	Insurance agent	4	Insurance agent	4	A dental hygienist
6.3	8	Architect	8	Architect	8	Architect
6.4	2	Milk route man	2	Milk route man	2	Hospital attendant
6.5	9	Mayor of a large city	9	Mayor of a large city	9	Mayor of a large city
6.6	0	Garbage collector	0	Garbage collector	0	General maid
6.7	6	Captain in the army	6	Owner-operator of a printing shop	6	Captain in the Armed Forces
6.8	3	Garage mechanic	3	Garage mechanic	3	Sales clerk
6.9	5	Owner-operator of a printing shop	5	Captain in the Armed Forces	5	Owner-operator of a printing shop
6.10	1	Railroad section hand	1	Railroad section hand	1	Short-order cook

Question 7

Haller and Miller's Occupational Aspiration Scale			Occupational Aspiration Scale for Boys (used in this study)		Occupational Aspiration Scale for Girls (used in this study)	
Question	Key	Occupation	Key	Occupation	Key	Occupation
7.1	7	Artist who paints pictures that are exhibited in galleries	7	Artist who paints pictures that are exhibited in galleries	7	Artist who paints pictures that are exhibited in galleries
7.2	4	Traveling salesman for a wholesale concern	4	Traveling salesman for a wholesale concern	3	Private secretary to a successful businessman
7.3	8	Chemist	8	Chemist	8	Chemist
7.4	2	Truck driver	2	Truck driver	2	Receptionist
7.5	9	College professor	9	College professor	9	College professor
7.6	0	Street sweeper	0	Street sweeper	0	Street sweeper
7.7	6	Building contractor	6	Building contractor	6	Registered nurse
7.8	3	Local official of a labor union	3	Local official of a labor union	5	Physical therapist
7.9	5	Electrician	5	Electrician	4	Librarian
7.10	1	Restaurant waiter	1	Restaurant waiter	1	Waitress

Question 8

Haller and Miller's Occupational Aspiration Scale			Occupational Aspiration Scale for Boys (used in this study)		Occupational Aspiration Scale for Girls (used in this study)	
Question	Key	Occupation	Key	Occupation	Key	Occupation
8.1	7	Owner of a factory that employs about 100 workers	7	Owner of a factory that employs about 100 workers	8	Owner of a factory that employs about 100 workers
8.2	4	Playground director	4	Playground director	5	Playground director
8.3	8	Dentist	8	Dentist	7	Dentist
8.4	2	Lumberjack	2	Lumberjack	2	Typist
8.5	9	Scientist	9	Scientist	9	Scientist
8.6	0	Shoeshiner	0	Shoeshiner	0	Housekeeper
8.7	6	Public school teacher	6	Public school teacher	6	Public school teacher
8.8	3	Owner-operator of a lunch stand	3	Owner-operator of a lunch stand	4	Owner-operator of a lunch stand
8.9	5	Trained machinist	5	Trained machinist	3	Trained machinist
8.10	1	Dock worker	1	Dock worker	1	Worker in a factory

APPENDIX G

SELECTED VARIABLES FROM STUDENT ATTITUDES TOWARD
BUSINESS AND OCCUPATIONAL ASPIRATIONS QUESTIONNAIRES
USED IN LINEAR REGRESSION

SELECTED VARIABLES FROM STUDENT ATTITUDES TOWARD
BUSINESS AND OCCUPATIONAL ASPIRATIONS QUESTIONNAIRES
USED IN LINEAR REGRESSION

1. Number of times student attends church each year
2. An assessment of the kinds of extracurricular activities in which the student participates--broken down into three categories: fine arts, sports, and government.
3. As to working while I am in high school:
☐ I have a fairly regular job outside my family and home
☐ I sometimes work outside my family and home
☐ I do not work outside my family and home
4. In regard to my choice of my occupation:
☐ I feel sure that my mind is made up
☐ I'm not too sure, but I think my mind is made up
☐ I'm not sure that my mind is made up
5. In regard to my choice of an occupation:
☐ I have given the matter a great deal of thought
☐ I have given the matter some thought
☐ I have given the matter little thought
6. For the occupation I have chosen I think my ability is:
☐ very much above average (5)
☐ somewhat above average (4)
☐ just average (3)
☐ somewhat below average (2)
☐ very much below average (1)
☐ I don't know because I have not yet made a choice (3)
7. Compared to my friends, I think my chances for getting ahead in the occupation of my choice are
☐ very much above average (5)
☐ somewhat above average (4)
☐ just average (3)
☐ somewhat below average (2)
☐ very much below average (1)
8. The education I am now receiving is
☐ very important to my choice of a life's occupation (5)
☐ important to my choice of a life's occupation (4)
☐ should be of some value to my choice of a life's occupation (3)

9. The number of years of further education I plan to get is:
- ☐ two years or less (2)
 - ☐ three or four years (3)
 - ☐ five or six years (4)
 - ☐ seven or more years (5)
10. As far as I know now, the highest diploma or degree I hope to earn is:
- ☐ none (0)
 - ☐ a business diploma (high school) (1)
 - ☐ a high school diploma (general matriculation) (1)
 - ☐ a two-year diploma or degree from a junior college or community college
 - ☐ a diploma or degree from an institute of technology or from a similar institute of higher learning (2)
 - ☐ a bachelor's degree (arts, science, nursing, etc.) (3)
 - ☐ a master's degree (4)
 - ☐ a doctor's degree (5)
 - ☐ other degree (please specify) (Weighted according to response)
11. Number of times parents of student attend church each year
12. My mother:
- ☐ has no job outside the home
 - ☐ has a part-time job outside the home
 - ☐ has a full-time job outside the home (specify the position: _____)
13. My father's education consisted of:
- ☐ less than 8 grades
 - ☐ 9 - 11 grades
 - ☐ 12 grades
 - ☐ some college or university
 - ☐ a college or university degree
14. My mother's education consisted of:
- ☐ less than 8 grades
 - ☐ 8 grades
 - ☐ 9 - 11 grades
 - ☐ 12 grades
 - ☐ some college or university
 - ☐ a college or university degree
15. My parents are considered by most people in the community to be:
- ☐ very important people
 - ☐ rather important people
 - ☐ just average people
 - ☐ of less than average importance
 - ☐ not at all important

16. As to continuing my education beyond high school, my father:
- ☐ has strongly encouraged me to continue (5)
 - ☐ has given me some encouragement to continue (4)
 - ☐ has never said much about it (3)
 - ☐ feels that I would be better off going to work after high school (2)
 - ☐ feels that I should quit high school and go to work (1)
17. As to continuing my education beyond high school, my mother:
- ☐ has strongly encouraged me to continue (5)
 - ☐ has given me some encouragement to continue (4)
 - ☐ has never said much about it (3)
 - ☐ feels that I would be better off going to work after high school (2)
 - ☐ feels that I should quit high school and go to work (1)
18. As to any further help from my folks in getting a start or in continuing my schooling after high school, my parents would be:
- ☐ financially able and willing to help me a great deal (5)
 - ☐ financially able and willing to give me some help (4)
 - ☐ financially able but unwilling to give me any help (3)
 - ☐ financially unable to give me any help (2)
19. As to the job I go into, my father:
- ☐ wants me to have a very important job (5)
 - ☐ wants me to have a job that is quite a bit better than most jobs (4)
 - ☐ wants me to have a job that is a little bit better than most jobs (3)
 - ☐ feels that the job I take should be as good as most jobs (2)
 - ☐ does not care how good the job I go into is (1)
20. As to the kind of job I go into, my mother:
- ☐ wants me to have a very important job (5)
 - ☐ wants me to have a job that is quite a bit better than most jobs (4)
 - ☐ wants me to have a job that is a little bit better than most jobs (3)
 - ☐ feels that the job I take should be as good as most jobs (2)
 - ☐ does not care how good the job I go into is (1)
21. Compared to most of my brothers and sisters, I believe my father was:
- ☐ much more interested in what I did (5)
 - ☐ a little more interested in what I did (4)
 - ☐ just about equally interested in what each of us did (3)
 - ☐ a little less interested in what I did (2)
 - ☐ much less interested in what I did (1)

22. Compared to most of my brothers and sisters, I believe my mother was:

- ☐ much more interested in what I did (5)
- ☐ a little more interested in what I did (4)
- ☐ just about equally interested in what each of us did (3)
- ☐ a little less interested in what I did (2)
- ☐ much less interested in what I did (1)

23. Usually I was:

- ☐ much more interested in most of my brothers and sisters than they were in me (5)
- ☐ a little more interested in most of my brothers and sisters than they were in me (4)
- ☐ about as interested in my brothers and sisters as they were in me (3)
- ☐ a little less interested in most of my brothers and sisters than they were in me (2)
- ☐ much less interested in most of my brothers and sisters than they were in me (1)

24. Aspiration Level: Idealistic Short-Range Goal (LOA:IS)

25. Aspiration Level: Idealistic Long-Range Goal (LOA:IL)

26. Aspiration Level: Realistic Short-Range Goal (LOA:RS)

27. Aspiration Level: Realistic Long-Range Goal (LOA:RL)

28. Student Attitudes Toward Business, Total Score, Sections A-G

29. Student Attitudes Toward Business, Score on Section H

30. Student scholastic average in grade 11

31. Number of days student was absent from school in grade 11

32. Student's IQ, Lorge-Thorndike or equivalent (administered in grades 10 or 11)

33. Total Occupational Aspiration Scale score (IS + IL + RS + RL)

PLEASE NOTE:

**Print on the following pages is
very small, blurred and indistinct.
Best available copy. Filmed as
received.**

UNIVERSITY MICROFILMS.

APPENDIX H
PHOTOSTATIC COPIES OF COMPUTER PRINT-OUTS

DOCTORAL THESIS
STEVEN T. KASHUBA
OREGON STATE UNIVERSITY

MULTIPLE LINEAR REGRESSION

JOB DESCRIP: STAT. ANALYSIS
RUN DATE IS: 15 APR. 71
USER: KASHUBA
DATA I.D.: AAAAA
SELECTION NUMBER: 24

A CORRELATION OF SENIOR HIGH SCHOOL MALE
AND FEMALE STUDENTS' LOA:IS AND OTHER
SELECTED VARIABLES

VARIABLE NUMBER	MEAN	STANDARD DEVIATION	CORRELATION OF X VS. Y	REGRESSION COEFFICIENT	STD. ERROR OF REG. COEFF.	COMPUTED T-VALUE
1	10.53	17.98972	-0.01270	-0.01545	0.01671	-0.92437
2	2.09	0.51775	-0.18262	-0.37646	0.39787	-0.94620
3	1.94	0.77878	0.08318	0.02506	0.27171	0.09223
4	1.99	0.94660	0.04529	0.28036	0.32409	0.86655
5	1.32	0.52065	-0.06722	-0.33136	0.45009	-0.73621
6	2.84	1.45430	-0.08884	-0.24022	0.18672	-1.28650
7	2.39	0.75353	-0.08357	-0.03996	0.34460	-0.11995
8	2.54	1.23475	-0.15318	0.16776	0.21699	0.77314
9	1.86	1.09676	0.41853	0.36851	0.30192	1.22089
10	5.19	1.71812	0.43360	0.24520	0.17203	1.42536
11	17.42	22.47121	0.01156	0.00591	0.01309	0.45187
12	1.65	0.79353	0.04227	0.15644	0.28161	0.55553
13	3.73	1.53314	0.09465	0.26165	0.16606	1.57567
14	3.76	1.30555	0.12374	-0.22251	0.19816	-1.12290
15	2.88	0.40225	0.22061	1.23268	0.47176	2.61294
16	1.74	0.49175	-0.26961	0.19513	0.38362	-1.00392
17	1.59	0.79513	-0.27767	0.10335	0.35912	-0.28778
18	1.88	0.96981	0.04061	-0.16393	0.25089	-0.65339
19	2.89	1.10874	-0.08949	0.77219	0.30983	2.49234
20	2.73	1.01567	-0.17714	-0.38619	0.31280	-1.23462
21	2.84	0.58366	0.04286	1.10740	0.39787	2.78331
22	2.96	0.53198	-0.00724	-0.99164	0.45671	-2.17124
23	2.79	0.70190	-0.15229	-0.47704	0.29959	-1.59233
25	12.41	3.43736	0.44962	-0.42947	0.09666	-4.44316
26	8.47	4.06192	0.31130	-0.46622	0.09372	-5.56884
27	9.62	3.92718	0.14879	-0.60341	0.08101	-7.44824
28	211.32	23.58993	-0.01430	0.02168	0.01330	1.63024
29	2.78	1.07345	-0.07231	-0.80026	0.26762	-2.99018
30	61.62	8.91436	-0.25086	0.1857	0.03209	-0.57853
31	13.42	9.14565	-0.12515	-0.00409	0.02447	-0.16736
32	118.43	11.91627	0.21391	-0.02633	0.02131	-1.23557
33	42.25	10.08875	0.63216	0.54668	0.05371	10.17898

DEPENDENT
VARIABLE

24 11.88 3.43365

THE DEGREES OF FREEDOM TO BE USED WITH THE T-TABLE IS: 81

INTERCEPT 3.40404
MULTIPLE CORRELATION 0.87654
STD. ERROR OF EST. 1.95207

REGRESSION EQUATION WHERE Y IS VARIABLE 24 :

$$Y(\text{EST}) = 3.4040 + -0.0154 \cdot \text{VAR } 1 + -0.3765 \cdot \text{VAR } 2 + 0.0251 \cdot \text{VAR } 3 + 0.2808 \cdot \text{VAR } 4 + -0.3314 \cdot \text{VAR } 5 + -0.2402 \cdot \text{VAR } 6 + \\ 0.0400 \cdot \text{VAR } 7 + 0.1670 \cdot \text{VAR } 8 + 0.3686 \cdot \text{VAR } 9 + 0.2452 \cdot \text{VAR } 10 + 0.0059 \cdot \text{VAR } 11 + 0.1564 \cdot \text{VAR } 12 + 0.2617 \cdot \text{VAR } 13 + \\ -0.2225 \cdot \text{VAR } 14 + 1.2327 \cdot \text{VAR } 15 + -0.3851 \cdot \text{VAR } 16 + 0.1033 \cdot \text{VAR } 17 + -0.1639 \cdot \text{VAR } 18 + 0.7722 \cdot \text{VAR } 19 + -0.3862 \cdot \text{VAR } 20 + \\ 1.1074 \cdot \text{VAR } 21 + -0.9916 \cdot \text{VAR } 22 + -0.4770 \cdot \text{VAR } 23 + -0.4295 \cdot \text{VAR } 25 + -0.4662 \cdot \text{VAR } 26 + -0.6034 \cdot \text{VAR } 27 + 0.0217 \cdot \text{VAR } 28 + \\ -0.8002 \cdot \text{VAR } 29 + 0.0186 \cdot \text{VAR } 30 + -0.0041 \cdot \text{VAR } 31 + -0.0263 \cdot \text{VAR } 32 + 0.5467 \cdot \text{VAR } 33 +$$

ANALYSIS OF VARIANCE FOR THE REGRESSION

SOURCE OF VARIATION	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARED	F-VALUE
ATTRIBUTABLE TO REGRESSION	32	1023.61	31.99	8.39
DEVIATION FROM REGRESSION	81	308.66	3.81	
TOTALS	113	1332.26		

DOCTORAL THESIS
STEVEN C. KASHUBA
OREGON STATE UNIVERSITY

MULTIPLE LINEAR REGRESSION

JOB DESCRIP: STAT. ANALYSIS
RUN DATE IS: 15 APR. 71
USER: KASHUBA
DATA I.D.: AAAAA
SELECTION NUMBER: 25

VARIABLE NUMBER	MEAN	STANDARD DEVIATION	CORRELATION OF X VS. Y	REGRESSION COEFFICIENT	STD. ERROR OF REG. COEFF.	COMPUTED T-VALUE
1	10.53	17.98772	-0.18282	-0.02253	0.01713	-1.31505
2	2.09	0.61775	-0.28802	-0.58197	0.40729	-1.42643
3	1.94	0.77398	0.10536	-0.07506	0.27996	-0.26809
4	1.99	0.34660	0.06314	0.26408	0.33432	0.78984
5	1.32	0.52765	-0.04372	-0.20998	0.40452	-0.58120
6	2.84	1.43440	-0.76118	-0.11955	0.13397	-0.61634
7	2.39	0.75353	-0.10228	-0.22699	0.35434	-0.64060
8	2.54	0.23475	-0.13251	0.25021	0.22276	1.12325
9	1.96	1.09406	0.22635	0.06782	0.31397	0.21600
10	5.19	1.91812	0.31795	0.13096	0.17894	0.73189
11	17.42	22.49121	-0.16272	-0.00659	0.01349	-0.48853
12	1.65	0.79303	0.10157	0.14536	0.29038	0.50057
13	3.73	1.53014	0.12412	0.32553	0.16996	1.91527
14	3.76	1.30555	-0.01812	-0.40118	0.20095	-1.99640
15	2.88	0.43225	-0.07594	0.24917	0.50560	0.49084
16	1.70	0.49175	-0.23564	0.32398	0.39624	-0.81764
17	1.57	0.79613	-0.25390	-0.17079	0.36987	-0.46175
18	1.88	0.76981	0.03390	-0.16059	0.25868	-0.62880
19	2.89	1.17074	-0.12557	0.80432	0.31910	-2.52059
20	2.73	1.01547	-0.26159	-0.64863	0.31737	-2.04376
21	2.84	0.58866	0.05431	1.08344	0.41205	2.62939
22	2.96	0.53938	-0.01140	-0.88570	0.47417	-1.86791
23	2.79	0.70970	0.04676	-0.11609	0.31333	0.37049
24	11.68	3.43365	0.44062	-0.45630	0.10270	-4.44316
25	8.47	4.06192	0.22226	-0.51884	0.08351	-6.21276
26	9.62	3.92718	0.16327	-0.59611	0.08580	-6.94737
27	211.32	23.53992	0.12349	-0.02632	0.01362	-1.93201
28	7.78	1.07345	0.04194	-0.62388	0.28230	-2.20999
29	61.62	3.91486	-0.17288	0.02554	0.03303	-0.77332
30	13.42	9.14565	-0.17360	-0.02505	0.02500	-0.99930
31	118.43	11.91627	0.16477	-0.02514	0.02200	-1.14272
32	42.25	10.08875	0.60725	0.57209	0.05426	10.54348

DEPENDENT
VARIABLE

25 12.41 3.43796

THE DEGREES OF FREEDOM TO BE USED WITH THE T-TABLE IS: 81

INTERCEPT 4.93267
MULTIPLE CORRELATION 0.86860
STD. ERROR OF EST. 2.01213

REGRESSION EQUATION WHERE Y IS VARIABLE 25 :

$$Y(EST) = 4.9327 + -0.0225*VAR 1 + -0.5910*VAR 2 + -0.0751*VAR 3 + 0.2641*VAR 4 + -0.2700*VAR 5 + -0.1196*VAR 6 + \\ -0.2270*VAR 7 + 0.2502*VAR 8 + 0.0678*VAR 9 + -0.1310*VAR 10 + -0.0066*VAR 11 + 0.1454*VAR 12 + 0.3255*VAR 13 + \\ -0.4012*VAR 14 + 0.2482*VAR 15 + -0.3240*VAR 16 + -0.1708*VAR 17 + -0.1606*VAR 18 + 0.8043*VAR 19 + -0.6486*VAR 20 + \\ 1.0834*VAR 21 + -0.8857*VAR 22 + 0.1161*VAR 23 + -0.4563*VAR 24 + -0.5188*VAR 26 + -0.5961*VAR 27 + 0.0263*VAR 28 + \\ -0.6239*VAR 29 + 0.0255*VAR 30 + -0.0251*VAR 31 + -0.0251*VAR 32 + 0.5721*VAR 33 +$$

ANALYSIS OF VARIANCE FOR THE REGRESSION

SOURCE OF VARIATION	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARED	F-VALUE
ATTRIBUTABLE TO REGRESSION	32	1007.67	31.49	7.70
DEVIATION FROM REGRESSION	81	327.94	4.05	
TOTALS	113	1335.61		

A CORRELATION OF SENIOR HIGH SCHOOL MALE
AND FEMALE STUDENTS' LOAIL AND OTHER
SELECTED VARIABLES

DOCTORAL THESIS
STEVEN C. KASHUBA
OREGON STATE UNIVERSITY

MULTIPLE LINEAR REGRESSION

JOB DESCRIP: STAT. ANALYSIS
RUN DATE IS: 15 APR. 71
USFR: KASHUBA
DATA I.D.: AAAAA
SELECTION NUMBER: 26

A. CORRELATION OF SENIOR HIGH SCHOOL MALE
AND FEMALE STUDENTS' LOADS AND OTHER
SELECTED VARIABLES

VARIABLE NUMBER	MEAN	STANDARD DEVIATION	CORRELATION OF X VS. Y	REGRESSION COEFFICIENT	STD. ERROR OF REG COEFF.	COMPUTED T-VALUE
1	10.53	17.98972	0.00952	-0.02316	0.01878	-1.23296
2	2.09	0.61775	-0.33764	-0.56687	0.44711	-1.26784
3	1.94	0.77898	0.05682	-0.13364	0.30632	-0.43627
4	1.99	0.74450	0.10158	0.11399	0.36725	0.31038
5	1.32	0.52005	-0.07136	-0.50237	0.58663	-0.85159
6	2.64	1.45440	-0.02221	-0.11899	0.21247	-0.56000
7	2.39	0.75053	-0.22932	-0.19336	0.38837	-0.49787
8	2.54	1.23475	-0.01300	0.31327	0.24333	1.28745
9	1.86	1.09606	0.42056	0.33810	0.34117	1.13758
10	5.12	1.91812	0.41192	0.00719	0.19658	0.03657
11	17.42	22.49121	0.10387	0.01169	0.01474	0.79326
12	1.65	0.79803	-0.06293	-0.34646	0.31611	-1.09602
13	3.73	1.53014	0.05793	0.09130	0.19000	0.48054
14	3.76	1.30555	0.21659	-0.17520	0.22454	-0.78025
15	2.88	0.48225	-0.02377	0.13659	0.55423	0.24645
16	1.73	0.69175	-0.34309	-1.01453	0.42082	-2.41084
17	1.59	0.77613	-0.33314	-0.01336	0.40552	-0.03294
18	1.88	0.76981	0.05309	-0.05054	0.28386	-0.17804
19	2.89	1.10804	-0.08713	0.97431	0.34432	2.81334
20	2.73	1.01957	-0.08645	-0.30756	0.35471	-0.86709
21	2.84	0.53356	-0.00175	-1.17349	0.45159	-2.59857
22	2.96	0.53038	-0.13173	-1.36574	0.50808	-2.68807
23	2.79	0.70990	-0.02649	-0.24105	0.34233	-0.70416
24	11.86	3.43345	0.31130	-0.59385	0.10664	-5.56856
25	12.41	3.43796	0.22226	-0.62202	0.10012	-6.21247
26	9.62	3.92718	0.42404	-0.55898	0.10114	-5.52690
27	211.32	23.53972	-0.11715	0.00258	0.01525	0.16893
28	7.78	1.07345	0.03950	-0.22554	0.31730	-0.71081
29	61.62	8.91486	-0.33978	0.03293	0.03611	0.91180
30	13.42	9.14555	-0.19194	-0.01510	0.02757	-0.54787
31	118.43	11.91627	0.28902	-0.01773	0.02420	-0.73244
32	42.25	10.98975	0.70016	-0.63238	0.05862	-10.78715

DEPENDENT
VARIABLE

THE DEGREES OF FREEDOM TO BE USED WITH THE T-TABLE IS: 81

INTERCEPT 6.29438
MULTIPLE CORRELATION 0.88832
STD. ERROR OF EST. 2.20320

REGRESSION EQUATION WHERE Y IS VARIABLE 26 :

Y(EST)= 6.2944 + -0.0232*VAR 1 + -0.5669*VAR 2 + -0.1336*VAR 3 + 0.1140*VAR 4 + -0.5024*VAR 5 + -0.1190*VAR 6 +
-0.1934*VAR 7 + 0.3133*VAR 8 + 0.3881*VAR 9 + 0.0072*VAR 10 + 0.0117*VAR 11 + -0.3465*VAR 12 + -0.0913*VAR 13 +
-0.1752*VAR 14 + 0.1366*VAR 15 + -1.0145*VAR 16 + -0.0134*VAR 17 + -0.0505*VAR 18 + 0.9743*VAR 19 + -0.3076*VAR 20 +
1.1735*VAR 21 + -1.3657*VAR 22 + -0.2411*VAR 23 + -0.5938*VAR 24 + -0.6220*VAR 25 + -0.5590*VAR 27 + 0.0026*VAR 28 +
-0.2255*VAR 29 + 0.0329*VAR 30 + -0.0151*VAR 31 + -0.0177*VAR 32 + 0.6324*VAR 33 +

ANALYSIS OF VARIANCE FOR THE REGRESSION

SOURCE OF VARIATION	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARED	F-VALUE
ATTRIBUTABLE TO REGRESSION	32	1471.23	45.98	9.47
DEVIATION FROM REGRESSION	81	393.18	4.85	
TOTALS	113	1864.41		

DOCTORAL THESIS
STEVEN C. KASHUBA
OREGON STATE UNIVERSITY

MULTIPLE LINEAR REGRESSION
=====

JOB DESCRIP: STAT. ANALYSIS
RUN DATE IS: 15 APR. 71
USER: KASHUBA
DATA ID.: AAAAAA
SELECTION NUMBER: 27

A CORRELATION OF SENIOR HIGH SCHOOL MALE
AND FEMALE STUDENTS' LOA:RL AND OTHER
SELECTED VARIABLES

VARIABLE NUMBER	MEAN	STANDARD DEVIATION	CORRELATION OF X VS. Y	REGRESSION COEFFICIENT	STD. ERROR OF REG COEFF.	COMPUTED T-VALUE
1	10.53	17.98972	0.10642	-0.00506	0.01774	-0.28516
2	2.09	0.61775	-0.36561	-0.58157	0.41774	-1.39217
3	1.94	0.77898	0.07325	-0.06995	0.28700	-0.24374
4	1.99	0.34650	0.10313	0.32572	0.24211	0.95208
5	1.32	0.52055	-0.15330	-0.65611	0.47156	-1.39135
6	2.34	1.45499	-0.04525	-0.05047	0.19922	-0.25332
7	2.39	0.75453	-0.28639	-0.55016	0.35897	-1.53259
8	2.54	1.23475	-0.04046	0.26522	0.22822	1.16211
9	1.86	1.09696	0.25075	0.09888	0.32175	0.30731
10	5.19	1.71312	0.37334	0.22174	0.18238	1.21582
11	17.42	22.49121	0.12455	0.00411	0.01384	0.29693
12	1.65	0.79303	-0.00307	0.10324	0.29790	0.34657
13	3.73	1.53014	0.17128	0.33154	0.17428	1.90237
14	3.76	1.30555	0.26722	-0.11642	0.21060	-0.55281
15	2.88	0.48225	-0.05738	0.46746	0.51645	0.90514
16	1.70	0.49175	-0.17644	-0.17531	0.40739	-0.43033
17	1.59	0.79613	-0.18321	-0.06757	0.37957	-0.17802
18	1.88	0.95931	-0.06208	-0.09568	0.26558	-0.36026
19	2.39	1.10804	-0.12682	-0.63116	0.33237	-1.89898
20	2.73	1.01567	-0.12356	-0.41694	0.33039	-1.25923
21	2.84	0.58866	-0.14349	1.02736	0.42497	2.41747
22	2.96	0.54398	-0.07306	-1.00186	0.48377	-2.07093
23	2.79	0.70990	-0.06649	-0.01199	0.32146	-0.03729
24	11.80	3.42365	0.14879	-0.67366	0.09045	-7.44819
25	12.41	3.43796	0.16327	-0.62637	0.09016	-6.94736
26	8.47	4.05192	0.42494	-0.48994	0.08664	-5.52723
28	211.32	23.58992	-0.08232	-0.01580	0.01417	-1.11486
29	7.78	1.07345	-0.05679	-0.55331	0.29156	-1.89776
30	61.62	8.91486	0.12835	0.00316	0.03398	0.09313
31	13.42	9.14505	-0.05960	-0.00691	0.02585	-0.26739
32	118.43	11.91627	0.17369	-0.03315	0.02243	-1.47771
33	42.25	10.08875	0.66827	0.63230	0.04903	12.89728

DEPENDENT
VARIABLE

27 9.62 3.92718

THE DEGREES OF FREEDOM TO BE USED WITH THE T-TABLE IS: 81

INTERCEPT 6.06418
MULTIPLE CORRELATION 0.89570
STD. ERROR OF EST. 2.06258

REGRESSION EQUATION WHERE Y IS VARIABLE 27 :

Y(EST)= 6.0642 + -0.0051*VAR 1 + -0.5816*VAR 2 + -0.0700*VAR 3 + 0.3257*VAR 4 + -0.6561*VAR 5 + -0.0505*VAR 6 +
-0.5502*VAR 7 + 0.2652*VAR 8 + -0.0989*VAR 9 + 0.2217*VAR 10 + 0.0041*VAR 11 + -0.1032*VAR 12 + 0.3315*VAR 13 +
-0.1164*VAR 14 + 0.4675*VAR 15 + -0.1753*VAR 16 + 0.0676*VAR 17 + -0.0957*VAR 18 + 0.6312*VAR 19 + -0.4160*VAR 20 +
1.0274*VAR 21 + -1.0019*VAR 22 + -0.0120*VAR 23 + -0.6737*VAR 24 + -0.6264*VAR 25 + -0.4899*VAR 26 + 0.0158*VAR 28 +
-0.5533*VAR 29 + 0.0032*VAR 30 + -0.0069*VAR 31 + -0.0331*VAR 32 + 0.6323*VAR 33 +

ANALYSIS OF VARIANCE FOR THE REGRESSION
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SOURCE OF VARIATION	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARED	F-VALUE
ATTRIBUTABLE TO REGRESSION	32	1398.17	43.69	10.27
DEVIATION FROM REGRESSION	81	344.59	4.25	
TOTALS	113	1742.77		

DOCTORAL THESIS
STEVEN C. KASHUBA
OREGON STATE UNIVERSITY

MULTIPLE LINEAR REGRESSION

JOB DESCRIPT: STAT. ANALYSIS
RUN DATE IS: 15 APR. 71
USPR: KASHUBA
DATA I.D.: AAAAA
SELECTION NUMBER: 28

VARIABLE NUMBER	MEAN	STANDARD DEVIATION	CORRELATION OF X VS. Y	REGRESSION COEFFICIENT	STD. ERROR OF REG. COEFF.	COMPUTED T-VALUE
1	10.53	17.98972	0.08966	0.28566	0.13439	2.12560
2	2.09	0.61775	0.08305	4.94981	3.24246	1.52656
3	1.94	0.77898	-0.02154	-3.88018	2.19177	-1.77034
4	1.99	0.84660	-0.02423	1.53470	2.67110	-0.57456
5	1.32	0.52365	-0.17342	-7.08959	3.62787	-1.95420
6	2.84	1.45480	-0.09648	1.11527	1.54561	0.72157
7	2.39	0.75853	0.04684	-2.44932	2.81999	-0.86856
8	2.54	1.23475	-0.28016	5.77433	1.67143	3.45473
9	1.86	1.08606	-0.11733	-3.80462	2.46818	-1.54109
10	2.19	1.91812	-0.18856	-2.77832	1.39818	-1.98567
11	17.42	22.49121	0.01127	-0.04046	0.10765	-0.37585
12	3.65	0.79673	-0.13492	-1.73300	2.29949	-0.75882
13	3.73	1.53114	0.05616	1.18377	1.37961	0.85805
14	3.76	1.36555	-0.19316	-0.88113	1.43868	-0.61770
15	2.88	0.48225	-0.01747	-3.45462	4.02003	-0.85935
16	1.70	0.89175	0.06270	-1.46404	3.16899	-0.46199
17	1.59	0.77613	0.12876	2.69331	2.93852	0.91655
18	1.88	0.96981	-0.11970	-2.37026	2.05109	-1.15561
19	2.89	1.10874	0.03247	1.57159	2.63705	-0.59597
20	2.73	1.01567	-0.02694	-1.93167	2.58664	-0.74679
21	2.84	0.58856	0.08275	2.85345	3.40887	0.83707
22	2.96	0.53018	0.07227	-0.36205	3.86198	-0.09375
23	2.79	0.70970	-0.26617	1.07607	2.49817	0.43074
24	11.68	3.43345	-0.31480	1.46526	0.89879	1.63025
25	11.68	3.43345	0.12349	1.67390	0.86640	1.93200
26	8.47	4.05132	-0.11715	0.13673	0.80917	0.16898
27	9.52	3.92718	-0.06282	0.95646	0.85792	1.11487
29	7.78	1.07345	0.62855	14.41564	1.67593	8.60159
30	61.62	8.91486	-0.01132	-0.15885	0.26379	-0.60219
31	13.42	9.14595	0.05762	0.05762	0.20107	0.28655
32	118.43	11.91627	-0.13228	0.22693	0.17505	1.29634
33	42.25	10.08875	-0.04709	-0.56067	0.66361	-0.84487

DEPENDENT VARIABLE	THE DEGREES OF FREEDOM TO BE USED WITH THE T-TABLE IS: 81			
28	211.32	23.58992	INTERCEPT	103.15685
			MULTIPLE CORRELATION	0.81749
			STD. ERROR OF EST.	16.04729

REGRESSION EQUATION WHERE Y IS VARIABLE 28 :

$$Y(EST) = 103.1568 + 0.2357*VAR\ 1 + 4.9498*VAR\ 2 + -3.8802*VAR\ 3 + 1.5347*VAR\ 4 + -7.0896*VAR\ 5 + 1.1153*VAR\ 6 + -2.4493*VAR\ 7 + 5.7743*VAR\ 8 + -3.8046*VAR\ 9 + -2.7763*VAR\ 10 + -0.0405*VAR\ 11 + -2.7330*VAR\ 12 + 1.1838*VAR\ 13 + -0.8811*VAR\ 14 + -3.4546*VAR\ 15 + -1.4640*VAR\ 16 + 2.6933*VAR\ 17 + -2.3703*VAR\ 18 + 1.5716*VAR\ 19 + -1.9317*VAR\ 20 + 2.8535*VAR\ 21 + -0.3621*VAR\ 22 + 1.0761*VAR\ 23 + 1.4652*VAR\ 24 + 1.6739*VAR\ 25 + 0.1367*VAR\ 26 + 0.9565*VAR\ 27 + 14.4156*VAR\ 29 + -0.1588*VAR\ 30 + 0.0576*VAR\ 31 + 0.2269*VAR\ 32 + -0.5607*VAR\ 33 +$$

ANALYSIS OF VARIANCE FOR THE REGRESSION

SOURCE OF VARIATION	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARED	F-VALUE
ATTRIBUTABLE TO REGRESSION	32	42024.01	1313.25	5.10
DEVIATION FROM REGRESSION	81	20858.76	257.52	
TOTALS	113	62882.77		

A CORRELATION OF SENIOR HIGH
SCHOOL MALE AND FEMALE STUDENTS'
ATTITUDES TOWARD BUSINESS (SECTIONS
A-G) AND LEVEL OF OCCUPATIONAL ASPIRATION

DOCTORAL THESIS
STEVEN C. KASHUBA
OREGON STATE UNIVERSITY

MULTIPLE LINEAR REGRESSION

JOB DESCRIPT: STAT. ANALYSIS
RUN DATE IS: 15 APR. 71
USER: KASHUBA
DATA I.O.: AAAAAA
SELECTION NUMBER: 29

VARIABLE NUMBER	MEAN	STANDARD DEVIATION	CORRELATION OF X VS. Y	REGRESSION COEFFICIENT	STD. ERROR OF REG COEFF.	COMPUTED T-VALUE
1	10.53	17.98972	-0.09410	-0.01562	0.00639	-2.44643
2	2.09	0.61775	0.01347	-0.18579	0.15627	-1.18894
3	1.94	0.77698	0.05701	0.10427	0.10643	0.97969
4	1.99	0.34680	0.05649	0.16925	0.12690	1.33373
5	1.32	0.52265	-0.01912	0.19317	0.17756	0.58102
6	2.84	1.45447	-0.10920	-0.14140	0.07264	-1.94671
7	2.39	0.75853	-0.02996	0.03435	0.13573	0.25311
8	2.54	1.23475	-0.12983	0.19255	0.08310	2.31711
9	1.86	1.09616	0.04894	0.13191	0.11915	1.10710
10	5.19	1.31312	-0.00147	0.06008	-0.06830	0.87969
11	17.42	22.49121	-0.03756	0.00318	0.00515	0.61785
12	1.95	0.79833	0.03401	0.11056	0.11049	1.00067
13	3.73	1.53914	0.03881	0.05442	0.06615	0.82272
14	3.76	1.50555	-0.11215	-0.07444	0.07824	-0.95141
15	2.88	0.48225	0.14299	0.46884	0.18641	2.51514
16	1.70	0.49175	-0.06226	-0.03661	0.15203	-0.24084
17	1.59	0.79613	-0.00777	-0.01969	0.14155	-0.13911
18	1.88	0.96931	-0.01203	0.02314	0.09908	0.23356
19	2.89	1.10874	-0.00936	0.05968	0.12649	0.47182
20	2.73	0.01567	0.01057	-0.05103	0.12427	-0.41064
21	2.64	0.58056	0.08485	0.05800	0.16396	0.35374
22	2.96	0.53078	0.12381	0.09820	0.18479	0.53145
23	2.79	0.70470	0.00203	-0.02423	0.11984	-0.20222
24	11.00	3.43365	0.07221	-0.12423	0.04155	-2.99021
25	12.41	3.43796	0.04194	-0.09115	0.04125	-2.20999
26	6.47	4.06192	0.03950	-0.02749	0.03867	-0.71087
27	9.62	3.92718	-0.05679	-0.07694	0.04054	-1.89777
28	211.32	23.58992	0.62855	0.03312	0.00385	8.60166
30	61.62	8.91436	0.15872	0.02637	0.01233	2.13933
32	118.43	9.14565	-0.00466	-0.00930	0.00930	-0.48208
33	42.25	10.08875	-0.00537	-0.01920	0.00820	-2.34005
				0.05862	0.03127	1.87431

DEPENDENT
VARIABLE

29

7.78

1.07345

THE DEGREES OF FREEDOM TO BE USED WITH THE T-TABLE IS: 81

INTERCEPT
MULTIPLE CORRELATION
STD. ERROR OF EST.

-0.13413
0.79499
0.76912

REGRESSION EQUATION WHERE Y IS VARIABLE 29 :

$$Y(EST) = -0.1341 + -0.0156*VAR\ 1 + -0.1858*VAR\ 2 + 0.1043*VAR\ 3 + 0.1692*VAR\ 4 + 0.1032*VAR\ 5 + -0.1414*VAR\ 6 + \\ 0.0344*VAR\ 7 + 0.1925*VAR\ 8 + 0.1319*VAR\ 9 + 0.0601*VAR\ 10 + 0.0032*VAR\ 11 + -0.1106*VAR\ 12 + 0.0544*VAR\ 13 + \\ -0.0744*VAR\ 14 + 0.4688*VAR\ 15 + -0.0366*VAR\ 16 + -0.0197*VAR\ 17 + 0.0231*VAR\ 18 + 0.0597*VAR\ 19 + -0.0510*VAR\ 20 + \\ 0.0580*VAR\ 21 + 0.0982*VAR\ 22 + -0.0242*VAR\ 23 + -0.1242*VAR\ 24 + -0.0912*VAR\ 25 + -0.0275*VAR\ 26 + -0.0769*VAR\ 27 + \\ 0.0331*VAR\ 28 + 0.0264*VAR\ 30 + -0.0046*VAR\ 31 + -0.0192*VAR\ 32 + 0.0586*VAR\ 33 +$$

ANALYSIS OF VARIANCE FOR THE REGRESSION

SOURCE OF VARIATION	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARED	F-VALUE
ATTRIBUTABLE TO REGRESSION	32	82.29	2.57	4.35
DEVIATION FROM REGRESSION	81	47.92	0.59	
TOTALS	113	130.21		

A CORRELATION OF SENIOR HIGH
SCHOOL MALE AND FEMALE STUDENTS'
ATTITUDES TOWARD BUSINESS (SECTION H)
AND LEVEL OF OCCUPATIONAL ASPIRATION

DOCTORAL THESIS
STEVEN C. KASHURA
OREGON STATE UNIVERSITY

MULTIPLE LINEAR REGRESSION

JOB DESCRIP: STAT. ANALYSIS
RUN DATE IS: 15 APR. 71
USER: KASHURA
DATA I.D.: AAAAA
SELECTION NUMBER: 30

A CORRELATION OF SENIOR HIGH SCHOOL MALE
AND FEMALE STUDENTS' SCHOLASTIC ACHIEVEMENT
(GRADE 11) AND LEVEL OF OCCUPATIONAL ASPIRATION

185

VARIABLE NUMBER	MEAN	STANDARD DEVIATION	CORRELATION OF X VS. Y	REGRESSION COEFFICIENT	STD. ERROR OF REG. COEFF.	COMPUTED T-VALUE
1	10.53	17.73772	0.14670	0.09642	0.05704	1.69048
2	2.09	0.61775	-0.20284	0.52809	1.38097	0.38240
3	1.94	0.77898	0.06927	0.41210	0.93770	0.43948
4	1.99	0.34650	0.00073	-1.56295	1.11142	-1.40626
5	1.32	0.52065	-0.01798	0.10044	1.56022	0.06438
6	2.84	1.65449	-0.18755	0.63316	0.64787	0.97729
7	2.39	0.75353	-0.29498	-0.44010	1.18970	-0.36992
8	2.54	1.23475	-0.24107	-1.73941	0.72721	-2.39191
9	1.86	1.09616	0.48450	0.69481	1.04985	0.66182
10	5.19	1.91812	0.50784	1.42118	0.58068	2.44745
11	17.42	22.49121	0.07318	-0.01394	0.04526	-0.30303
12	1.55	0.79403	0.01233	1.35219	0.96318	1.40388
13	3.73	1.53714	0.07156	-0.58572	0.57881	-1.01195
14	3.76	1.30555	0.21124	0.15322	0.68973	0.22214
15	2.88	0.43225	-0.03969	-2.06389	1.68167	-1.22723
16	1.70	0.49175	-0.29480	0.72475	1.33114	0.54443
17	1.59	0.79613	-0.26400	0.24594	1.24110	0.19816
18	1.88	0.96481	0.01097	0.68970	0.86573	0.79666
19	2.89	1.10904	-0.15315	-0.09918	1.08597	-0.93300
20	2.73	1.01567	-0.00947	3.16078	1.03278	3.06046
21	2.94	0.59866	0.08973	0.77610	1.43629	0.54035
22	2.76	0.53098	-0.04582	-2.01184	1.60775	-1.25134
23	2.79	0.70990	-0.02804	-1.12042	1.04374	-1.07346
24	11.45	3.43355	0.25086	0.22162	0.38310	0.57849
25	12.41	3.43796	0.17288	0.28694	0.37106	0.77329
26	8.47	4.05192	0.33978	0.30854	0.33841	0.91173
27	9.62	3.92713	0.12835	0.03382	0.36330	0.09308
28	211.32	23.58992	0.01182	-0.02806	0.04659	-0.60219
29	1.78	1.07345	-0.15372	-2.02789	0.94792	-2.13930
30	13.42	9.14565	-0.37717	-0.13580	0.08319	-1.63239
31	118.43	11.91627	0.44638	0.27911	0.06755	4.13187
32	42.25	10.98875	0.30407	-0.17695	0.27944	-0.63324

DEPENDENT
VARIABLE

30 61.62 8.91486

THE DEGREES OF FREEDOM TO BE USED WITH THE T-TABLE IS: 81

INTERCEPT 20.92839
MULTIPLE CORRELATION 0.76794
STD. ERROR OF EST. 6.74440

REGRESSION EQUATION WHERE Y IS VARIABLE 30 :

Y(EST) = 20.9284 + 0.0964*VAR 1 + 0.5281*VAR 2 + 0.4121*VAR 3 + -1.5629*VAR 4 + 0.1004*VAR 5 + 0.6332*VAR 6 +
-0.4401*VAR 7 + -1.7394*VAR 8 + 0.6948*VAR 9 + 1.4212*VAR 10 + -0.0139*VAR 11 + 1.3522*VAR 12 + -0.5857*VAR 13 +
0.1532*VAR 14 + -2.0638*VAR 15 + 0.7247*VAR 16 + 0.2459*VAR 17 + 0.6897*VAR 18 + -2.0992*VAR 19 + 3.1608*VAR 20 +
0.7761*VAR 21 + -2.0118*VAR 22 + -1.1204*VAR 23 + 0.2216*VAR 24 + 0.2869*VAR 25 + 0.3085*VAR 26 + 0.0338*VAR 27 +
-0.0281*VAR 28 + 2.0279*VAR 29 + -0.1358*VAR 31 + 0.2791*VAR 32 + -0.1770*VAR 33 +

ANALYSIS OF VARIANCE FOR THE REGRESSION

SOURCE OF VARIATION	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARED	F-VALUE
ATTRIBUTABLE TO REGRESSION	32	5296.20	165.51	3.64
DEVIATION FROM REGRESSION	81	3684.45	45.49	
TOTALS	113	8980.65		

DOCTORAL THESIS
STEVEN C. KASHUBA
OREGON STATE UNIVERSITY

MULTIPLE LINEAR REGRESSION

JOB DESCRIP: STAT. ANALYSIS
RUN DATE IS: 15 APR. 71
USER: KASHUBA
DATA I.D.: AAAAA
SELECTION NUMBER: 31

A CORRELATION OF SENIOR HIGH SCHOOL MALE
AND FEMALE ABSENTEEISM AND OTHER SELECTED
VARIABLES

VARIABLE NUMBER	MEAN	STANDARD DEVIATION	CORRELATION OF X VS. Y	REGRESSION COEFFICIENT	STD. ERROR OF REG COEFF.	COMPUTED T-VALUE
1	10.53	17.98972	-0.19182	-0.04729	0.07609	-0.62152
2	2.09	0.61775	-0.13124	-0.09593	1.81643	-0.05281
3	1.94	0.77898	-0.03112	0.13457	1.23367	0.10908
4	1.99	0.94650	0.01420	-0.17970	1.47817	-0.12157
5	1.32	0.52065	0.02573	0.35044	2.05008	0.17094
6	2.84	1.45480	0.16534	0.46365	0.85487	0.54167
7	2.39	1.73333	0.09928	-0.78276	1.56236	-0.50101
8	2.64	1.23475	0.26088	-1.08525	0.98147	-1.10575
9	1.86	1.09506	-0.32952	-1.58438	1.37216	-1.15466
10	5.19	1.91312	-0.26346	0.53688	0.78857	0.58083
11	17.42	22.49121	-0.22394	-0.06814	0.05902	-1.15452
12	1.55	0.73813	-0.07173	-0.81094	1.27791	-0.63458
13	3.73	1.53014	-0.14035	-0.35231	0.76444	-0.46087
14	3.76	1.31555	-0.13313	0.19957	0.90642	0.22018
15	2.88	0.48225	0.07503	2.04241	2.21888	0.92047
16	1.70	0.89175	0.32478	1.72874	1.74205	0.99236
17	1.59	0.79613	0.31696	0.21321	1.63123	0.13671
18	1.88	0.96981	0.11464	-0.41168	1.19125	-0.36073
19	2.89	1.19804	0.16399	0.47902	1.45872	0.32838
20	2.73	1.01567	0.12104	-0.18503	1.43342	-0.12908
21	2.84	0.58456	-0.06315	-0.24105	1.89073	-0.12749
22	2.96	0.53098	0.01583	-1.38228	2.12764	-0.64968
23	2.79	0.70770	-0.10208	-1.01991	1.37672	-0.74082
24	11.00	3.43365	-0.12515	-0.08441	0.50441	-0.16735
25	12.41	3.43796	-0.17360	-0.48610	0.48645	-0.99929
26	8.47	4.06192	-0.19194	-0.24444	0.44618	-0.54786
27	9.62	3.92718	-0.05960	-0.12761	0.47726	-0.26777
28	211.32	23.58992	-0.07529	-0.01758	1.06134	0.28655
29	7.78	1.07345	-0.12750	-0.21636	1.27860	-0.48206
30	61.62	8.91486	-0.37717	-0.23654	0.16368	-1.63243
31	118.43	11.91627	-0.10383	0.06189	0.09744	0.63517
32	42.25	10.08975	-0.16662	-0.19936	0.36747	-0.54250

DEPENDENT
VARIABLE

31 13.42 9.14565

THE DEGREES OF FREEDOM TO BE USED WITH THE T-TABLE IS: 81

INTERCEPT 23.27011
MULTIPLE CORRELATION 0.57164
STD. ERROR OF EST. 8.86327

REGRESSION EQUATION WHERE Y IS VARIABLE 31 :

$$Y(\text{EST}) = 23.2701 + -0.0473 \cdot \text{VAR } 1 + -0.0959 \cdot \text{VAR } 2 + 0.1346 \cdot \text{VAR } 3 + -0.1797 \cdot \text{VAR } 4 + 0.3504 \cdot \text{VAR } 5 + 0.4631 \cdot \text{VAR } 6 + \\ -0.7828 \cdot \text{VAR } 7 + 1.0853 \cdot \text{VAR } 8 + -1.5844 \cdot \text{VAR } 9 + 0.5369 \cdot \text{VAR } 10 + -0.0681 \cdot \text{VAR } 11 + -0.8109 \cdot \text{VAR } 12 + -0.3523 \cdot \text{VAR } 13 + \\ 0.1996 \cdot \text{VAR } 14 + 2.0424 \cdot \text{VAR } 15 + 1.7287 \cdot \text{VAR } 16 + 0.2132 \cdot \text{VAR } 17 + -0.4117 \cdot \text{VAR } 18 + 0.4790 \cdot \text{VAR } 19 + -0.1850 \cdot \text{VAR } 20 + \\ -0.2410 \cdot \text{VAR } 21 + -1.3823 \cdot \text{VAR } 22 + -1.0199 \cdot \text{VAR } 23 + -0.0844 \cdot \text{VAR } 24 + -0.4861 \cdot \text{VAR } 25 + -0.2444 \cdot \text{VAR } 26 + -0.1276 \cdot \text{VAR } 27 + \\ 0.0176 \cdot \text{VAR } 28 + -0.6164 \cdot \text{VAR } 29 + -0.2345 \cdot \text{VAR } 30 + 0.0619 \cdot \text{VAR } 32 + 0.1994 \cdot \text{VAR } 33 +$$

ANALYSIS OF VARIANCE FOR THE REGRESSION

SOURCE OF VARIATION	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARED	F-VALUE
ATTRIBUTABLE TO REGRESSION	32	3088.49	96.52	1.23
DEVIATION FROM REGRESSION	81	6363.16	78.56	
TOTALS	113	9451.65		

DOCTORAL THESIS
STEVEN C. KASHUBA
OREGON STATE UNIVERSITY

MULTIPLE LINEAR REGRESSION
=====

JOB DESCRIP: STAT. ANALYSIS
RUN DATE IS: 15 APR. 71
USER: KASHUBA
DATA I.D.: AAAAA
SELECTION NUMBER: 32

VARIABLE NUMBER	MEAN	STANDARD DEVIATION	CORRELATION OF X VS. Y	REGRESSION COEFFICIENT	STD. ERROR OF REG. COEFF.	COMPUTED T-VALUE
1	10.53	17.98772	0.00294	-0.05724	0.08652	-0.66159
2	2.09	0.61775	-0.18790	-2.40271	2.04769	-1.21244
3	1.94	0.77398	0.05340	0.31324	1.40294	0.22327
4	1.99	0.84450	0.14336	2.50282	1.65838	1.50919
5	1.32	0.52365	0.08776	0.20736	2.33222	0.08891
6	2.84	1.45410	-0.16440	-1.86645	0.95182	-1.96093
7	2.39	0.75353	0.11449	0.55623	1.77882	0.31269
8	2.54	1.23475	0.32717	3.48501	1.05503	3.30010
9	2.86	1.09616	0.32717	0.83788	1.57084	0.53340
10	2.19	1.01312	0.36608	0.14256	0.89940	0.15850
11	17.42	22.49121	0.02326	0.00022	0.06769	-0.00321
12	1.65	0.79403	-0.02960	-1.87643	1.44221	-1.30108
13	3.73	1.53114	0.27422	0.95113	0.86423	1.10055
14	3.76	1.30555	0.36325	1.15970	1.02326	1.13343
15	2.88	0.48225	-0.04001	-2.12082	1.52611	-0.83956
16	1.79	0.89175	-0.25914	-0.70449	1.99201	-0.35366
17	1.59	0.79613	-0.23581	-0.22699	1.85551	-0.12233
18	1.88	0.76741	0.03907	0.05548	1.29388	0.81575
19	2.89	1.10334	-0.23348	0.07261	1.66034	-0.04373
20	2.73	1.01597	-0.14966	-2.10808	1.61374	-1.30633
21	2.84	0.53366	0.09807	1.68251	2.14274	0.78521
22	2.76	0.53000	0.01338	1.67099	2.41932	0.69069
23	2.19	0.70970	-0.02582	0.17628	1.57116	0.11220
24	11.40	3.43345	0.21391	0.70246	0.56852	-1.24275
25	12.41	3.43776	0.16477	-0.63113	0.55229	-0.73250
26	8.47	4.36192	0.28702	-0.37122	0.50228	-1.47774
27	9.62	3.92718	0.17369	-0.79197	0.53593	-1.29634
28	211.32	23.38792	-0.13228	-0.08957	0.06909	-2.34004
29	7.78	1.07345	-0.08063	-3.22852	1.40960	-4.13190
30	51.62	8.91485	0.44538	0.62369	0.15095	0.63516
31	13.42	9.14565	-0.10383	0.38008	0.12607	1.44839
32	42.25	10.80875	0.32267	0.59881	0.41343	

A CORRELATION OF SENIOR HIGH SCHOOL MALE
AND FEMALE IQ SCORES AND OTHER SELECTED
VARIABLES

DEPENDENT
VARIABLE

32 118.43 11.91627

THE DEGREES OF FREEDOM TO BE USED WITH THE T-TABLE IS: 81

INTERCEPT 64.00507
MULTIPLE CORRELATION 0.69779
STD. ERROR OF EST. 10.08175

REGRESSION EQUATION WHERE Y IS VARIABLE 32 :

$$Y(\text{EST}) = 64.0051 + -0.0572 * \text{VAR } 1 + -2.4027 * \text{VAR } 2 + 0.3132 * \text{VAR } 3 + 2.5028 * \text{VAR } 4 + 0.2074 * \text{VAR } 5 + -1.8665 * \text{VAR } 6 + \\ 0.5562 * \text{VAR } 7 + 3.4359 * \text{VAR } 8 + 0.8379 * \text{VAR } 9 + 0.1426 * \text{VAR } 10 + 0.0002 * \text{VAR } 11 + -1.8764 * \text{VAR } 12 + -0.9511 * \text{VAR } 13 + \\ 1.1598 * \text{VAR } 14 + 2.1208 * \text{VAR } 15 + -0.7045 * \text{VAR } 16 + -0.2270 * \text{VAR } 17 + 1.0555 * \text{VAR } 18 + 0.0726 * \text{VAR } 19 + -2.1081 * \text{VAR } 20 + \\ 1.6825 * \text{VAR } 21 + 1.6710 * \text{VAR } 22 + 0.1763 * \text{VAR } 23 + -0.7025 * \text{VAR } 24 + -0.6311 * \text{VAR } 25 + -0.3712 * \text{VAR } 26 + -0.7920 * \text{VAR } 27 + \\ 0.0896 * \text{VAR } 28 + -3.2985 * \text{VAR } 29 + 0.6237 * \text{VAR } 30 + 0.0801 * \text{VAR } 31 + 0.5988 * \text{VAR } 33 +$$

ANALYSIS OF VARIANCE FOR THE REGRESSION
=====

SOURCE OF VARIATION	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARED	F-VALUE
ATTRIBUTABLE TO REGRESSION	32	7812.76	244.15	2.40
DEVIATION FROM REGRESSION	81	8232.97	101.64	
TOTALS	113	16045.73		

DOCTORAL THESIS
STEVEN C. KASHUBA
OREGON STATE UNIVERSITY

MULTIPLE LINEAR REGRESSION

JOB DESCRIP: STAT. ANALYSIS
RUN DATE IS: 15 APR. 71
USER: KASHUBA
DATA I.D.: AAAAA
SELECTION NUMBER: 33

A. CORRELATION OF SENIOR HIGH SCHOOL MALE
AND FEMALE OAS SCORES AND OTHER SELECTED
VARIABLES

VARIABLE NUMBER	MEAN	STANDARD DEVIATION	CORRELATION OF X VS. Y	REGRESSION COEFFICIENT	STD. ERROR OF REG COEFF.	COMPUTED T-VALUE
1	10.53	17.98972	-0.03151	0.01735	0.02294	0.75601
2	2.09	0.61775	-0.39633	0.37846	0.54673	0.69296
3	1.94	0.77878	0.11236	0.20328	0.37176	0.54680
4	1.99	0.84660	0.10905	-0.31407	0.44490	-0.70593
5	1.32	0.52065	-0.12157	0.54831	0.61598	-0.89015
6	2.84	1.45440	-0.02437	0.17557	0.25779	0.68104
7	2.39	0.75853	-0.23513	0.51535	0.46889	1.09909
8	2.54	1.23675	-0.09006	-0.31093	0.29650	-1.04865
9	1.86	1.09509	0.42420	-0.25306	0.41667	-0.60733
10	5.19	1.91812	0.53614	-0.06882	0.23861	-0.28843
11	17.42	22.49121	0.02558	-0.00409	0.01796	-0.22772
12	1.55	0.79543	0.02437	-0.01249	0.38673	-0.03230
13	3.73	1.53814	0.14725	-0.41454	0.22543	-1.83078
14	3.75	1.30585	0.25657	0.43727	0.26936	1.62335
15	2.88	0.44825	0.03012	-0.76528	0.66793	-1.14572
16	1.70	0.89175	-0.36622	-0.50090	0.52613	-0.95205
17	1.59	0.79613	-0.36933	-0.04110	0.49246	-0.08345
18	1.88	0.96931	0.08915	0.38574	0.34212	1.12752
19	2.89	1.10874	-0.19153	-1.17754	0.42077	-2.79857
20	2.73	1.01567	-0.20910	0.66852	0.42634	1.56805
21	2.54	0.55366	-0.09450	-1.88065	0.53119	-3.54048
22	2.06	0.53098	-0.01484	1.66089	0.61693	2.69217
23	2.79	0.70970	-0.02458	0.05430	0.41696	0.13022
24	11.10	3.43365	0.63216	1.02664	0.10388	10.17696
25	12.41	3.43776	0.67725	1.01118	0.09592	10.54142
26	8.47	4.06112	0.70016	0.93232	0.08644	10.78521
27	9.27	4.02718	0.66327	1.06361	0.08248	12.89481
28	211.32	23.58392	-0.04709	-1.01553	0.01844	-0.84474
29	7.78	1.07345	0.00537	0.70914	0.37841	1.87398
30	61.62	8.91486	0.30807	-0.02784	0.04397	-0.63317
31	13.42	9.14565	-0.16662	0.01816	0.03348	0.54244
32	118.43	11.91627	0.32267	0.04216	0.02911	1.44807

DEPENDENT
VARIABLE

THE DEGREES OF FREEDOM TO BE USED WITH THE T-TABLE IS: 81

33 42.25 10.08875

INTERCEPT -5.40831
MULTIPLE CORRELATION 0.97447
STD. ERROR OF EST. 2.67561

REGRESSION EQUATION WHERE Y IS VARIABLE 33 :

$$Y(EST) = -5.4083 + 0.0173*VAR\ 1 + 0.3789*VAR\ 2 + 0.2033*VAR\ 3 + -0.3141*VAR\ 4 + 0.5483*VAR\ 5 + 0.1756*VAR\ 6 + \\ 0.5153*VAR\ 7 + -0.3109*VAR\ 8 + -0.2531*VAR\ 9 + -0.0688*VAR\ 10 + -0.0041*VAR\ 11 + -0.0125*VAR\ 12 + -0.4145*VAR\ 13 + \\ 0.4375*VAR\ 14 + -0.7653*VAR\ 15 + 0.5009*VAR\ 16 + -0.0411*VAR\ 17 + 0.3857*VAR\ 18 + -1.1775*VAR\ 19 + 0.6685*VAR\ 20 + \\ -1.8807*VAR\ 21 + 1.6609*VAR\ 22 + 0.0543*VAR\ 23 + 1.0266*VAR\ 24 + 1.0112*VAR\ 25 + 0.9323*VAR\ 26 + 1.0636*VAR\ 27 + \\ -0.0156*VAR\ 28 + 0.7091*VAR\ 29 + -0.0278*VAR\ 30 + 0.0182*VAR\ 31 + 0.0422*VAR\ 32 +$$

ANALYSIS OF VARIANCE FOR THE REGRESSION

SOURCE OF VARIATION	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARED	F-VALUE
ATTRIBUTABLE TO REGRESSION	32	10921.59	341.30	47.67
DEVIATION FROM REGRESSION	81	579.87	7.16	
TOTALS	113	11501.46		

JOB DESCRIP: STAT. ANALYSIS
 RUN DATE IS: 23 AUG. 71
 USER: KASHUHA
 DATA I.D.: AAAAA
 SELECTION NUMBER: 1

MULTIPLE LINEAR REGRESSION
 =====

VARIABLE NUMBER	MEAN	STANDARD DEVIATION	CORRELATION OF X VS. Y	REGRESSION COEFFICIENT	STD. ERROR OF REG. COEFF.	COMPUTED T-VALUE
2	11.86	3.43365	0.35029	0.37790	0.27462	1.37612
3	12.41	3.43766	0.27451	0.21447	0.26791	0.80060
4	8.47	4.06192	0.32487	0.14512	0.24295	0.59734
5	5.62	3.92710	0.23700	0.22784	0.27193	0.83786
6	211.32	23.58952	-0.00008	-0.00126	0.03226	-0.01153
7	7.76	1.07343	0.34582	0.05228	0.71872	0.07272
8	61.62	8.91485	0.45079	0.25159	0.07620	3.30173
9	116.43	11.91527	0.25322	0.00599	0.05598	0.10734
10	42.25	10.06875	0.41169	-0.01693	0.20410	-0.08295

DEPENDENT
 VARIABLE

THE DEGREES OF FREEDOM TO BE USED WITH THE T-TABLE IS: 104

INTERCEPT -3.81084
 MULTIPLE CORRELATION 0.53647
 STD. ERROR OF EST. 6.03102

1 22.59 6.86634

REGRESSION EQUATION WHERE Y IS VARIABLE 1:

$$Y(EST) = -3.8 + 0.3779 \cdot VAR\ 2 + 0.2145 \cdot VAR\ 3 + 0.1451 \cdot VAR\ 4 + 0.2278 \cdot VAR\ 5 + -0.0004 \cdot VAR\ 6 + 0.0523 \cdot VAR\ 7 + 0.2516 \cdot VAR\ 8 + 0.0060 \cdot VAR\ 9 + -0.0169 \cdot VAR\ 10 +$$

ANALYSIS OF VARIANCE FOR THE REGRESSION
 =====

SOURCE OF VARIATION	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARED	F-VALUE
ATTRIBUTABLE TO REGRESSION	9	1544.75	171.64	4.72
DEVIATION FROM REGRESSION	104	3782.02	36.37	
TOTALS	113	5327.57		

10
9
8
7
6
5
4
3
2
1

Code: (For pages 189-192)
 Variables on
 this Print-out

Linear
 Regression
 Variables

Self-concept
 (Variables 6-10
 and 16-23 incl.
 p. 174-177)

24
25
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33

MULTIPLE LINEAR REGRESSION

JOB DESCRIP: STAT. ANALYSIS
 RUN DATE IS: 23 AUG. 71
 USER: KASHIWA
 DATA I.D.: AAAAA
 SELECTION NUMBER: 6

VARIABLE NUMBER	MEAN	STANDARD DEVIATION	CORRELATION OF X VS. Y	REGRESSION COEFFICIENT	STD. ERROR OF REG. COEFF.	COMPUTED T-VALUE
1	22.59	6.86634	-0.00288	-0.00347	0.29810	-0.01143
2	11.83	3.43365	-0.11480	0.90677	0.83771	1.08244
3	12.41	3.43756	0.13349	1.44223	0.80434	1.79347
4	1.47	4.18192	-0.11715	-0.37772	0.73892	-0.51118
5	5.62	3.92718	-0.58282	0.70751	0.82655	0.85598
6	7.76	1.37545	0.92955	14.21191	1.68559	8.44395
7	51.62	8.91495	0.11182	-0.15285	0.24303	-0.62693
8	118.43	11.49167	-0.13228	-0.15533	0.16849	-0.93591
9	42.25	10.06675	-0.34769	-0.62229	0.61745	-1.01270

DEPENDENT
VARIABLE

THE DEGREES OF FREEDOM TO BE USED WITH THE T-TABLE IS: 104

INTERCEPT 111.05246
 MULTIPLE CORRELATION 0.66636
 STD. ERROR OF EST. 18.33467

REGRESSION EQUATION WHERE Y IS VARIABLE 6 :

Y(EST) = 111.1 + -0.0035*VAR 1 + 0.9068*VAR 2 + 1.4422*VAR 3 + -0.3777*VAR 4 + 0.7075*VAR 5 + 14.2119*VAR 7 +
 -0.1528*VAR 8 + -0.0563*VAR 9 + -0.6253*VAR 10 +

ANALYSIS OF VARIANCE FOR THE REGRESSION

SOURCE OF VARIATION	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARED	F-VALUE
ATTRIBUTABLE TO REGRESSION	9	27922.13	3102.46	9.23
DEVIATION FROM REGRESSION	104	34986.64	336.16	
TOTAL	113	62908.77		

MULTIPLE LINEAR REGRESSION

JOB DESCRIP: STAT. ANALYSIS
 RUN DATE: 15: 23 AUG. 71
 USER: KASHUBA
 DATA I.D.: AAAAA
 SELECTION NUMBER: 8

VARIABLE NUMBER	MEAN	STANDARD DEVIATION	CORRELATION OF X VS. Y	REGRESSION COEFFICIENT	STD. ERROR OF REG. COEFF.	COMPUTED T-VALUE
1	22.59	6.86634	0.43679	0.37710	0.11421	3.30172
2	11.08	3.43525	0.25086	0.32148	0.33779	0.95174
3	12.41	3.43756	0.17288	0.12160	0.32865	0.39130
4	8.47	4.06132	0.33978	0.45353	0.29453	1.55681
5	9.62	3.52713	0.12653	0.04867	0.33400	0.14572
6	211.32	23.55952	0.01132	-0.02479	0.03941	-0.62393
7	7.78	1.07345	0.15872	1.80748	0.80211	2.00890
9	118.43	11.91627	0.44638	0.26918	0.20309	4.12415
10	42.25	10.06875	0.30867	-0.17392	0.24930	-0.69763

DEPENDENT
VARIABLE

THE DEGREES OF FREEDOM TO BE USED WITH THE T-TABLE IS: 104

INTERCEPT 11.03157
 MULTIPLE CORRELATION 0.60717
 STD. ERROR OF EST. 7.38365

REGRESSION EQUATION WHERE Y IS VARIABLE 8 :

Y(EST)= 11.0 + 0.3771*VAR 1 + 0.3215*VAR 2 + 0.1286*VAR 3 + 0.4585*VAR 4 + 0.0487*VAR 5 + -0.0248*VAR 6 +
 1.8095*VAR 7 + 0.2602*VAR 9 + -0.1739*VAR 10 +

ANALYSIS OF VARIANCE FOR THE REGRESSION

SOURCE OF VARIATION	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARED	F-VALUE
ATTRIBUTABLE TO REGRESSION	9	3310.74	367.86	6.75
DEVIATION FROM REGRESSION	104	5669.90	54.52	
TOTALS	113	8980.64		

JOB DESCRIP: STAT. ANALYSIS
 RUN DATE IS: 23 AUG. 71
 USER: KASHIRA
 DATA I.D.: AAAAA
 SELECTION NUMBER: 9

MULTIPLE LINEAR REGRESSION

VARIABLE NUMBER	MEAN	STANDARD DEVIATION	CORRELATION OF X VS. Y	REGRESSION COEFFICIENT	STD. ERROR OF REG. COEFF.	COMPUTED T-VALUE
1	22.59	0.86874	0.25322	0.01865	0.17298	0.10784
2	11.84	0.43365	0.21391	-0.32097	0.46784	-0.68793
3	12.41	0.43756	0.16477	-0.23799	0.47334	-0.50273
4	8.47	4.06192	0.38952	-0.09631	0.42923	-0.22438
5	9.62	3.92713	0.17369	-0.34676	0.43612	-0.78669
6	211.32	23.58932	-0.13228	-0.01897	0.65687	-0.28851
7	7.76	1.07345	-0.98663	-1.54080	1.25929	-1.22354
8	61.62	9.91455	0.46654	0.54024	0.13699	4.12615
10	42.25	10.08675	0.32267	0.46360	0.35719	1.29690

DEPENDENT
VARIABLE

9 118.43 11.91627

THE DEGREES OF FREEDOM TO BE USED WITH THE T-TABLE IS: 104

INTERCEPT 92.0536
 MULTIPLE CORRELATION 0.51602
 STD. ERROR OF EST. 10.63966

REGRESSION EQUATION WHERE Y IS VARIABLE 9 :

Y(EST)= 92.1 + 0.0187*VAR 1 + -0.3210*VAR 2 + -0.2380*VAR 3 + -0.0963*VAR 4 + -0.3468*VAR 5 + -0.0190*VAR 6 +
 -1.5408*VAR 7 + 0.5402*VAR 8 + 0.4638*VAR 10 +

ANALYSIS OF VARIANCE FOR THE REGRESSION

SOURCE OF VARIATION	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARED	F-VALUE
ATTRIBUTEABLE TO REGRESSION	9	4272.68	474.74	4.19
DEVIATION FROM REGRESSION	104	11773.05	113.20	
TOTALS	113	16045.73		

JOB DESCRIP: STAT. ANALYSIS
 RUN DATE IS: 23 FEB. 71
 USER: KASHURA
 DATA I.D.: ACAD.
 SELECTION NUMBER: 15

MULTIPLE LINEAR REGRESSION
 =====

VARIABLE NUMBER	MEAN	STANDARD DEVIATION	CORRELATION OF X VS. Y	REGRESSION COEFFICIENT	STD. ERROR OF REG. COEFF.	COMPUTED T-VALUE
23	2.84	0.74128	-0.01722	0.08601	2.80799	0.03063
24	12.54	3.18569	0.00131	1.65238	1.21429	1.36078
25	12.87	3.52614	0.14847	2.53291	1.14474	2.21265
26	2.58	3.99807	-0.02410	0.77372	1.06953	0.72343
27	16.43	4.05589	0.01463	1.91914	1.16938	1.64116
29	7.69	1.07430	0.68361	15.28838	1.91792	7.97132
30	64.19	8.36516	0.13218	-0.07442	0.29620	-0.25125
31	11.77	8.43364	-0.24231	-0.39802	0.26299	-1.51342
32	122.71	9.34677	-0.09511	-0.16262	0.23479	-0.69260
33	45.04	9.46168	0.03271	-1.67494	0.99369	-1.68557

DEPENDENT
VARIABLE

28 207.44 24.34193

THE DEGREES OF FREEDOM TO BE USED WITH THE T-TABLE IS: 68

INTERCEPT 113.71910
 MULTIPLE CORRELATION 0.73507
 STD. ERROR OF EST. 17.67564

REGRESSION EQUATION WHERE Y IS VARIABLE 28 :

$$Y(EST) = 113.7191 + 0.0860 \cdot VAR\ 23 + 1.6524 \cdot VAR\ 24 + 2.5329 \cdot VAR\ 25 + 0.7737 \cdot VAR\ 26 + 1.9191 \cdot VAR\ 27 + 15.2884 \cdot VAR\ 29 + \\ -0.0744 \cdot VAR\ 30 + -0.3980 \cdot VAR\ 31 + -0.1626 \cdot VAR\ 32 + -1.6749 \cdot VAR\ 33 +$$

ANALYSIS OF VARIANCE FOR THE REGRESSION
 =====

SOURCE OF VARIATION	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARED	F-VALUE
ATTRIBUTABLE TO REGRESSION	10	24972.23	2497.22	7.99
DEVIATION FROM REGRESSION	68	21245.13	312.43	
TOTALS	78	46217.35		

A CORRELATION OF SENIOR HIGH SCHOOL
 ACADEMIC STUDENTS' ATTITUDES TOWARD
 BUSINESS (SECTIONS A-G) AND LEVEL OF
 OCCUPATIONAL ASPIRATION

MULTIPLE LINEAR REGRESSION

JOB DESCRIP: STAT. ANALYSIS
 RUN DATE IS: 23 FEB. 71
 USER: KASHUBA
 DATA I.D.: GFNER
 SELECTION NUMBER: 15

VARIABLE NUMBER	MEAN	STANDARD DEVIATION	CORRELATION OF X VS. Y	REGRESSION COEFFICIENT	STD. ERROR OF REG. COEFF.	COMPUTED T-VALUE
23	2.74	0.65338	-0.19807	-6.50945	10.38055	-0.62708
24	11.95	4.21574	0.29484	2.20426	2.01603	1.09337
25	11.63	3.67698	0.31801	1.48912	2.98372	0.49908
26	5.84	2.81392	-0.16111	-2.38296	2.00943	-1.18589
27	8.16	3.38728	-0.07958	-0.64407	3.32634	-0.27686
29	8.06	1.00946	0.35972	5.10194	5.78486	0.88195
30	55.16	6.84156	0.29694	0.66709	1.19194	0.55967
31	14.68	9.50469	0.21205	0.55705	0.64945	0.85773
32	110.00	11.34155	0.40734	0.96216	0.43239	2.22522
33	37.79	9.58342	0.15100	-0.41248	1.12434	-0.36586

DEPENDENT
VARIABLE

28 217.63 21.82556

THE DEGREES OF FREEDOM TO BE USED WITH THE T-TABLE IS: 8

INTERCEPT 26.31845
 MULTIPLE CORRELATION 0.81040
 STD. ERROR OF EST. 19.18082

REGRESSION EQUATION WHERE Y IS VARIABLE 28 :

$$\hat{Y}(\text{EST}) = 26.3185 + -6.5095 \cdot \text{VAR } 23 + 2.2043 \cdot \text{VAR } 24 + 1.4891 \cdot \text{VAR } 25 + -2.3830 \cdot \text{VAR } 26 + -0.6441 \cdot \text{VAR } 27 + 5.1019 \cdot \text{VAR } 29 + 0.6671 \cdot \text{VAR } 30 + 0.5570 \cdot \text{VAR } 31 + 0.9622 \cdot \text{VAR } 32 + -0.4125 \cdot \text{VAR } 33 +$$

ANALYSIS OF VARIANCE FOR THE REGRESSION

SOURCE OF VARIATION	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARED	F-VALUE
ATTRIBUTABLE TO REGRESSION	10	5631.17	563.12	1.53
DEVIATION FROM REGRESSION	8	2943.23	367.90	
TOTALS	18	8574.40		

A CORRELATION OF SENIOR HIGH SCHOOL
 GENERAL EDUCATION STUDENTS' ATTITUDES
 TOWARD BUSINESS (SECTIONS A-G) AND LEVEL
 OF OCCUPATIONAL ASPIRATION

MULTIPLE LINEAR REGRESSION

JOB DESCRIP: STAT. ANALYSIS
 RUN DATE IS: 23 FEB. 71
 USER: KASHUBA
 DATA I.D.: BUS.
 SELECTION NUMBER: 15

VARIABLE NUMBER	MEAN	STANDARD DEVIATION	CORRELATION OF X VS. Y	REGRESSION COEFFICIENT	STD. ERROR OF REG. COEFF.	COMPUTED T-VALUE
23	2.43	0.61914	0.00662	-7.05381	9.74492	-0.72384
24	9.69	2.44182	0.15283	-3.77175	5.32845	-0.70785
25	11.06	3.04344	0.32474	1.87761	3.77376	0.49754
26	6.13	3.82753	0.19500	-1.53367	3.49534	-0.43878
27	7.38	1.95214	-0.05643	-6.81808	4.59988	-1.48223
29	7.90	1.03631	0.60677	12.76762	5.84843	2.18308
30	56.63	8.02392	-0.06184	-2.10030	1.08154	-1.94196
31	20.06	9.40545	-0.28123	0.03969	0.76077	0.05217
32	107.31	11.35323	-0.00361	0.80370	0.54902	1.46390
33	33.81	6.99732	0.31824	1.62121	3.47884	0.46602

DEPENDENT
VARIABLE

28 223.00 16.25627

THE DEGREES OF FREEDOM TO BE USED WITH THE T-TABLE IS: 5

INTERCEPT 193.16551
 MULTIPLE CORRELATION 0.87942
 STD. ERROR OF EST. 13.40406

REGRESSION EQUATION WHERE Y IS VARIABLE 28 :

Y(EST)=193.1655 + -7.0538*VAR 23 + -3.7718*VAR 24 + 1.8776*VAR 25 + -1.5337*VAR 26 + -6.8181*VAR 27 + 12.7676*VAR 29 +
 -2.1003*VAR 30 + 0.0397*VAR 31 + 0.8037*VAR 32 + 1.6212*VAR 33 +

ANALYSIS OF VARIANCE FOR THE REGRESSION

SOURCE OF VARIATION	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARED	F-VALUE
ATTRIBUTABLE TO REGRESSION	10	3065.66	306.57	1.71
DEVIATION FROM REGRESSION	5	898.34	179.67	
TOTALS	15	3964.00		

A CORRELATION OF SENIOR HIGH SCHOOL
 BUSINESS EDUCATION STUDENTS' ATTITUDES
 TOWARD BUSINESS (SECTIONS A-G) AND LEVEL
 OF OCCUPATIONAL ASPIRATION

JOB DESCRIP: STAT. ANALYSIS
 RUN DATE IS: 23 FEB. 71
 USFR: KASHUBA
 DATA I.D.: ACAD.
 SELECTION NUMBER: 18

MULTIPLE LINEAR REGRESSION

VARIABLE NUMBER	MEAN	STANDARD DEVIATION	CORRELATION OF X VS. Y	REGRESSION COEFFICIENT	STD. ERROR OF REG COEFF.	COMPUTED T-VALUE
23	2.84	0.74128	-0.06907	-0.07789	0.12730	-0.61187
24	12.54	3.13568	-0.03674	-0.10236	0.05455	-1.87622
25	12.87	3.52414	0.02779	-0.08779	0.05282	-1.86218
26	9.58	3.80807	0.08683	-0.03033	0.04867	-0.62125
27	10.43	4.09089	0.01730	-0.08341	0.05325	-1.56628
28	207.44	24.34193	0.63301	0.03160	0.00396	7.97132
30	64.19	8.36516	0.21438	0.01242	0.01326	1.46440
31	11.77	8.43264	-0.14513	0.00866	0.01211	0.71536
32	122.71	9.34677	-0.00712	0.00037	0.01071	0.03410
33	45.04	9.46168	0.05786	0.07159	0.04528	1.58087

DEPENDENT
VARIABLE

THE DEGREES OF FREEDOM TO BE USED WITH THE T-TABLE IS: 68

29	7.69	1.07430
INTERCEPT		0.31346
MULTIPLE CORRELATION		0.72796
STD. ERROR OF EST.		0.80355

REGRESSION EQUATION WHERE Y IS VARIABLE 29 :

$$Y(EST) = 0.3135 + -0.0779*VAR 23 + -0.1024*VAR 24 + -0.0878*VAR 25 + -0.0303*VAR 26 + -0.0834*VAR 27 + 0.0316*VAR 28 + 0.0194*VAR 30 + 0.0087*VAR 31 + 0.0004*VAR 32 + 0.0716*VAR 33 +$$

ANALYSIS OF VARIANCE FOR THE REGRESSION

SOURCE OF VARIATION	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARED	F-VALUE
ATTRIBUTABLE TO REGRESSION	10	49.50	4.95	7.67
DEVIATION FROM REGRESSION	68	43.91	0.65	
TOTALS	78	93.40		

A CORRELATION OF SENIOR HIGH SCHOOL
 ACADEMIC EDUCATION (STUDENTS' ATTITUDES
 TOWARD BUSINESS (SECTION H) AND LEVEL
 OF OCCUPATIONAL ASPIRATION

JOB DESCRIP: STAT. ANALYSIS
 RUN DATE IS: 23 FEB. 71
 USER: KASHURA
 DATA I.D.: GENER
 SELECTION NUMBER: 18

MULTIPLE LINEAR REGRESSION
 =====

VARIABLE NUMBER	MEAN	STANDARD DEVIATION	CORRELATION OF X VS. Y	REGRESSION COEFFICIENT	STD. ERROR OF REG COEFF.	COMPUTED T-VALUE
23	2.74	0.65338	0.13371	0.60200	0.58272	1.03308
24	10.95	4.23574	-0.06029	-0.06001	0.12431	-0.48271
25	11.63	3.07693	0.17844	0.02518	0.17655	0.14260
26	5.84	3.81392	-0.09450	0.07055	0.12466	-0.56596
27	8.16	3.33728	-0.13532	-0.09097	0.13254	-0.68641
28	217.63	21.82556	0.35972	0.01737	0.01969	0.88196
30	55.16	6.84156	0.34817	0.07682	0.06548	1.17317
31	14.68	9.50469	0.17682	0.02531	0.03857	0.65607
32	110.00	11.84155	0.00339	-0.02633	0.03072	-0.85696
33	37.79	9.59342	-0.02850	0.02739	0.06544	0.41853

DEPENDENT
VARIABLE

THE DEGREES OF FREEDOM TO BE USED WITH THE T-TABLE IS: 8

29	8.06	1.00946	INTERCEPT	0.57789
			MULTIPLE CORRELATION	0.67360
			STD. ERROR OF EST.	1.11913

REGRESSION EQUATION WHERE Y IS VARIABLE 29 :

$$Y(EST) = 0.5779 + 0.6020*VAR 23 + -0.0600*VAR 24 + 0.0252*VAR 25 + 0.0706*VAR 26 + -0.0910*VAR 27 + 0.0174*VAR 28 + 0.0768*VAR 30 + 0.0253*VAR 31 + -0.0263*VAR 32 + 0.0274*VAR 33 +$$

ANALYSIS OF VARIANCE FOR THE REGRESSION
 =====

SOURCE OF VARIATION	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARED	F-VALUE
ATTRIBUTABLE TO REGRESSION	10	8.32	0.83	0.66
DEVIATION FROM REGRESSION	8	10.02	1.25	
TOTALS	18	18.34		

A CORRELATION OF SENIOR HIGH SCHOOL
 GENERAL EDUCATION STUDENTS' ATTITUDES
 TOWARD BUSINESS (SECTION H) AND LEVEL
 OF OCCUPATIONAL ASPIRATION

MULTIPLE LINEAR REGRESSION

JOB DESCRIP: STAT. ANALYSIS
 RUN DATE 15: 23 FEB. 71
 USER: KASHURA
 DATA 1.0: RUS
 SELECTION NUMBER: 18

VAR. TABLE NUMBER	MEAN	STANDARD DEVIATION	CORRELATION OF X VS. Y	REGRESSION COEFFICIENT	STD. ERROR OF REG. COEFF.	COMPUTED T-VALUE
23	2.63	0.61914	0.40315	0.27456	0.54682	0.50211
24	6.69	2.44192	-0.04110	-0.06576	0.30439	-0.21605
25	11.06	3.04344	0.19383	-0.12944	0.20346	-0.63620
26	6.13	3.82753	0.36590	0.04640	0.19379	0.23943
27	7.38	1.96214	-0.22721	0.15314	0.29409	0.52074
28	22.00	16.25427	0.03822	0.03822	0.01751	2.18395
30	56.63	8.02392	0.30033	0.05321	0.07468	0.71257
31	20.06	9.47545	-0.67501	-0.04452	0.03657	-1.21743
32	107.31	11.35323	-0.13452	-0.02982	0.03334	-0.89460
33	33.81	6.99732	0.22534	0.02180	0.19419	0.11224

DEPENDENT
VARIABLE

29 7.90 1.03631

THE DEGREES OF FREEDOM TO BE USED WITH THE T-TABLE IS: 5

INTERCEPT -0.34567
 MULTIPLE CORRELATION 0.91271
 STD. ERROR OF EST. 0.73341

REGRESSION EQUATION WHERE Y IS VARIABLE 29 :

$$Y(EST) = -0.3457 + 0.2746*VAR\ 23 + -0.0658*VAR\ 24 + -0.1294*VAR\ 25 + 0.0464*VAR\ 26 + 0.1531*VAR\ 27 + 0.0382*VAR\ 28 + 0.0532*VAR\ 30 + -0.0445*VAR\ 31 + -0.0298*VAR\ 32 + 0.0218*VAR\ 33 +$$

ANALYSIS OF VARIANCE FOR THE REGRESSION

SOURCE OF VARIATION	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARED	F-VALUE
ATTRIBUTABLE TO REGRESSION	10	13.42	1.34	2.49
DEVIATION FROM REGRESSION	5	2.69	0.54	
TOTALS	15	16.11		

A CORRELATION OF SENIOR HIGH SCHOOL
 BUSINESS EDUCATION STUDENTS' ATTITUDES
 TOWARD BUSINESS (SECTION H) AND LEVEL
 OF OCCUPATIONAL ASPIRATION

JOB DESCRIPTION: STAT. ANALYSIS
 DATE: 11/17/71
 USER: KASIMATA
 DATA FILE: 2337
 COLLECTION NUMBER: 100

MULTIPLE LINEAR REGRESSION

VARIABLE NO. LP	MEAN	STANDARD DEVIATION	CORRELATION OF X VS. Y	REGRESSION COEFFICIENT	STD. ERROR OF REG. COEFF.	COMPUTED T-VALUE
1	6.40	14.12544	0.23012	0.00289	0.14156	0.41973
2	1.09	0.75071	-0.15529	-1.10134	3.60095	-0.30528
3	1.87	0.75071	0.16183	0.12034	2.27587	0.05256
4	2.04	0.75071	0.20093	-0.00092	2.63019	-1.07113
5	1.91	0.75071	0.21193	1.52095	2.75500	0.55555
6	1.91	1.22830	-0.10111	1.24020	1.25010	1.00000
7	2.20	0.75071	-0.13083	1.02039	2.35038	0.43038
8	2.75	1.35818	-0.19150	0.55555	1.74015	0.32015
9	2.13	1.00001	0.23012	0.00000	2.70015	1.00000
10	2.75	1.10000	0.25000	0.55555	1.86033	0.49732
11	16.56	27.12717	-0.02014	0.07075	0.10124	0.70000
12	1.75	0.75071	-0.13110	1.00000	1.50000	1.00000
13	3.09	1.77717	-0.00712	-2.01201	1.32053	-1.50000
14	3.09	1.10000	0.00000	0.10000	1.50000	0.00000
15	2.00	0.40000	0.10000	0.10000	0.20000	0.50000
16	1.46	0.40000	-0.10000	-0.10000	0.20000	-0.50000
17	1.29	0.40000	-0.20000	-0.20000	0.40000	-0.50000
18	1.11	0.40000	-0.30000	-0.30000	0.60000	-0.50000
19	1.07	0.40000	-0.35000	-0.35000	0.80000	-0.50000
20	0.50	0.40000	0.00000	0.00000	0.40000	0.00000
21	2.11	0.51007	0.09000	1.43000	0.50000	0.00000
22	2.03	0.47000	-0.00000	-3.71000	2.64000	-1.40000
23	2.09	0.71014	-0.34000	-1.00000	1.90000	-0.50000
24	12.20	3.45007	0.13000	0.39000	1.10000	0.35000
25	12.44	3.00002	0.13000	0.70000	1.01000	0.69000
26	5.74	3.75000	0.12142	0.29000	0.85000	0.34000
27	5.54	3.75000	0.14397	0.20000	0.87000	0.23000
28	205.50	23.00000	0.00000	0.00000	0.11000	0.00000
29	7.71	1.40000	0.11000	1.83000	1.95000	0.92000
30	12.19	3.90000	-0.30000	-0.21000	0.19000	-1.07000
31	12.12	12.00000	0.40000	0.20000	0.12000	1.67000
32	43.57	7.90000	-0.20000	-0.23000	0.50000	-0.46000

DEPENDENT
VARIABLE

30 61.93 9.43467

THE DEGREES OF FREEDOM TO BE USED WITH THE T-TABLE IS: 21

INTERCEPT 18.2954
 MULTIPLE CORRELATION 0.45074
 STD. ERROR OF EST. 7.62976

REGRESSION EQUATION WHERE Y IS VARIABLE 30 :

Y(EST) = 18.2954 + 0.0020*VAR 1 + -1.1034*VAR 2 + 0.4293*VAR 3 + -4.0009*VAR 4 + 1.5209*VAR 5 + 1.2423*VAR 6 +
 1.0244*VAR 7 + 0.8400*VAR 8 + 0.0568*VAR 9 + -0.5546*VAR 10 + 0.0767*VAR 11 + 1.4940*VAR 12 + -2.5124*VAR 13 +
 0.1070*VAR 14 + -7.0000*VAR 15 + -1.3195*VAR 16 + 0.9738*VAR 17 + 0.3419*VAR 18 + -2.5000*VAR 19 + 4.4120*VAR 20 +
 1.4263*VAR 21 + -3.7142*VAR 22 + -1.0438*VAR 23 + -0.3908*VAR 24 + 0.7015*VAR 25 + -0.5300*VAR 26 + 0.2633*VAR 27 +
 0.0255*VAR 28 + 1.6297*VAR 29 + -0.2120*VAR 31 + 0.2600*VAR 32 + 0.0237*VAR 33 +

ANALYSIS OF VARIANCE FOR THE REGRESSION

SOURCE OF VARIATION	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARED	F-VALUE
ATTRIBUTABLE TO REGRESSION	32	3455.21	109.23	1.89
DEVIATION FROM REGRESSION	21	1222.40	58.21	
TOTALS	53	4717.69		

A CORRELATION OF SENIOR HIGH SCHOOL
 MALE STUDENTS' SCHOLASTIC ACHIEVEMENT
 (GRADE 11) AND LEVEL OF OCCUPATIONAL
 ASPIRATION

JCL: DD JCL=STAT, ANALYSIS
 DD JCL=STAT, 18, 17, 11, 71

 DATA FILE: 1000
 SOLUTION CODE: 1

MULTIPLE LINEAR REGRESSION

VAR LABEL	NO.	MEAN	STANDARD DEVIATION	CORRELATION OF X VS. Y	REGRESSION COEFFICIENT	STD. ERROR OF REG. COEFF.	COMPUTED T-VALUE
1	12.95	20.27076	0.11159	0.02077	0.11159	0.29113	-0.38113
2	2.23	0.12927	-0.00013	-1.02341	2.15679	-0.47566	-0.47566
3	2.55	0.12927	-0.00013	-1.12571	1.43337	-0.77006	-0.77006
4	1.95	0.12927	-0.00013	-0.93339	2.33339	0.00000	0.00000
5	1.25	0.12927	-0.00013	-0.47700	3.35755	-1.02215	-1.02215
6	2.73	1.15251	-0.00125	1.13119	1.13535	0.77007	0.77007
7	2.64	0.12927	-0.00013	-0.81669	1.77951	-1.35176	-1.35176
8	2.33	1.87009	-0.00130	-1.00169	1.26175	-1.35287	-1.35287
9	1.02	1.17051	0.02317	-1.97795	1.00415	-0.37119	-0.37119
10	4.67	1.17051	0.02317	1.19082	1.10221	1.00000	1.00000
11	17.05	20.27076	0.11159	0.00000	0.00000	0.00000	0.00000
12	1.02	0.12927	-0.00013	1.93376	1.93376	1.22173	1.22173
13	3.77	1.87009	-0.00130	0.00000	0.00000	0.00000	0.00000
14	2.73	1.15251	-0.00125	1.00000	1.00000	0.00000	0.00000
15	2.65	0.12927	-0.00013	-1.00000	2.00000	-0.20000	-0.20000
16	1.02	1.17051	0.02317	-1.00000	2.00000	-0.00000	-0.00000
17	1.77	0.12927	-0.00013	-0.00000	2.00000	1.20000	1.20000
18	1.03	0.12927	-0.00013	-0.00000	1.00000	1.77000	1.77000
19	3.10	0.12927	-0.00013	-1.12713	2.25369	-0.31135	-0.31135
20	2.03	0.12927	-0.00013	0.00000	2.16939	0.41091	0.41091
21	3.87	0.12927	-0.00013	0.00000	2.49431	0.00000	0.00000
22	3.08	0.12927	-0.00013	-3.00000	3.00000	-0.00000	-0.00000
23	2.70	0.12927	-0.00013	0.00000	1.77321	0.10000	0.10000
24	11.80	0.12927	-0.00013	0.00000	0.00000	0.00000	0.00000
25	11.84	0.12927	-0.00013	0.00000	0.00000	0.00000	0.00000
26	0.73	0.12927	-0.00013	0.00000	0.00000	0.00000	0.00000
27	0.73	0.12927	-0.00013	-0.00000	0.00000	-1.00000	-1.00000
28	216.79	1.15251	-0.00125	-0.00000	0.00000	0.00000	0.00000
29	7.84	0.12927	-0.00013	0.00000	1.00000	1.00000	1.00000
30	14.07	0.12927	-0.00013	0.00000	0.00000	0.00000	0.00000
31	117.00	1.15251	-0.00125	0.00000	0.00000	0.00000	0.00000
32	41.25	1.15251	-0.00125	-0.00000	0.00000	0.00000	0.00000

DEPENDENT VARIABLE

THE DEGREES OF FREEDOM TO BE USED WITH THE T-TABLE IS: 27

INTERCEPT 46.7650
 MULTIPLE CORRELATION 0.67707
 STD. ERROR OF EST. 0.62941

REGRESSION EQUATION WHERE Y IS VARIABLE 30 :

Y=46.7650 + 0.0000*VAR 1 + -1.0230*VAR 2 + -1.1267*VAR 3 + 1.3167*VAR 4 + -5.6970*VAR 5 + 1.1342*VAR 6 +
 -2.0148*VAR 7 + -1.6815*VAR 8 + -1.4759*VAR 9 + -1.1904*VAR 10 + -0.0497*VAR 11 + -1.4533*VAR 12 + -0.0053*VAR 13 +
 1.0222*VAR 14 + -0.7247*VAR 15 + -1.3791*VAR 16 + 2.6594*VAR 17 + 2.3393*VAR 18 + -1.1371*VAR 19 + 0.9008*VAR 20 +
 0.0073*VAR 21 + -3.3001*VAR 22 + 0.3543*VAR 23 + 0.6267*VAR 24 + 0.0593*VAR 25 + 0.5645*VAR 26 + -1.0173*VAR 27 +
 -0.0724*VAR 28 + 2.6419*VAR 29 + 0.0021*VAR 31 + 0.1657*VAR 32 + -0.0346*VAR 33 +

ANALYSIS OF VARIANCE FOR THE REGRESSION

SOURCE OF VARIATION	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARE	F-VALUE
ATTRIBUTABLE TO REGRESSION	26	3272.09	125.85	2.01
DEVIATION FROM REGRESSION	27	981.55	36.35	
TOTALS	53	4253.64		

A CORRELATION OF SENIOR HIGH SCHOOL FEMALE STUDENTS' SCHOLASTIC ACHIEVEMENT (GRADE 11) AND LEVEL OF OCCUPATIONAL ASPIRATION

JOB DESCRIPTION: STAT. ANALYSIS
 RUN DATE: 15: 17 FEB. 71
 USER: KASHIMA
 DATA: 1.01: VAR 1
 SELECTION NUMBER: 29

MULTIPLE LINEAR REGRESSION =====

VARIABLE NUMBER	MEAN	STANDARD DEVIATION	CORRELATION OF X VS. Y	REGRESSION COEFFICIENT	STD. ERROR OF REG. COEFF.	COMPUTED T-VALUE
1	6.40	14.35444	0.29353	0.31557	0.23956	1.31463
2	1.63	7.00773	-0.37591	-7.40739	5.45202	-1.35965
3	1.67	6.76691	-0.93222	-1.97344	4.76376	-0.41294
4	1.09	0.97465	-0.93221	-1.97315	4.85788	-0.40413
5	1.29	0.93611	-0.14359	-9.34434	5.06167	-1.84579
6	2.01	1.26638	-0.11230	0.11230	2.33436	0.04811
7	2.48	0.33265	-0.04412	-0.46357	4.23797	-1.22516
8	2.76	1.35515	-0.29116	-10.34322	2.41242	-4.28531
9	2.13	1.00691	-0.04374	-1.02548	5.05129	-0.20379
10	2.73	1.15564	-0.17869	-1.37756	2.22515	-0.61815
11	16.56	22.12517	0.15591	0.04173	0.16226	0.25594
12	1.78	0.00000	-0.35263	-2.01253	3.56655	-0.56226
13	3.39	1.47117	0.13356	6.12415	2.35318	2.60232
14	2.20	1.21002	-0.20779	2.30949	0.80116	0.00116
15	4.68	0.45000	-0.04162	0.43349	7.25993	0.06173
16	4.44	0.62541	-0.05554	-2.75914	0.00754	-0.35515
17	1.49	0.62666	0.00666	4.45970	8.53511	0.53511
18	1.81	1.11077	-0.15015	3.20645	3.55366	0.90639
19	2.77	1.12559	-0.04555	2.57352	3.91875	0.65672
20	2.50	1.15655	-0.13347	-4.92147	4.37503	-1.12490
21	2.81	0.51667	0.13126	10.73714	6.32127	1.69857
22	2.63	0.57462	-0.01429	-4.07632	5.13323	-0.78410
23	2.89	0.71019	-0.14444	-2.24906	3.70616	-0.60665
24	12.20	3.55477	0.09339	2.22577	2.02357	1.10129
25	13.44	3.35702	0.23519	3.67240	1.79550	2.04679
26	2.74	2.71000	-0.12515	1.44634	1.50426	0.96720
27	0.54	1.76446	-0.13356	-2.29634	1.57077	-1.45536
28	1.71	1.14200	0.09407	13.26822	1.27320	9.62845
29	61.53	9.43407	0.09302	0.09307	0.41095	0.22080
30	16.15	8.30034	-0.23772	-0.37133	0.33205	-0.10882
31	126.02	12.35942	-0.13918	0.13157	0.25532	0.51477
32	43.37	4.95921	-0.04685	-2.26443	1.44323	-1.57221

DEPENDENT VARIABLE

THE DEGREES OF FREEDOM TO BE USED WITH THE T-TABLE IS: 21

INTERCEPT 73.84157
 MULTIPLE CORRELATION 0.93757
 STD. ERROR OF EST. 14.36491

REGRESSION EQUATION WHEN Y IS VARIABLE 28:

$$Y(EST) = 73.8416 + 0.3156 \cdot VAR\ 1 + 7.4074 \cdot VAR\ 2 + -3.9754 \cdot VAR\ 3 + 1.9732 \cdot VAR\ 4 + -5.3440 \cdot VAR\ 5 + 0.1123 \cdot VAR\ 6 + -6.4636 \cdot VAR\ 7 + -10.3452 \cdot VAR\ 8 + -10.0255 \cdot VAR\ 9 + -1.3735 \cdot VAR\ 10 + -0.0417 \cdot VAR\ 11 + -2.0125 \cdot VAR\ 12 + 0.1242 \cdot VAR\ 13 + 2.3042 \cdot VAR\ 14 + 6.5655 \cdot VAR\ 15 + -2.7641 \cdot VAR\ 16 + 4.4551 \cdot VAR\ 17 + 3.2065 \cdot VAR\ 18 + 2.5735 \cdot VAR\ 19 + -4.9215 \cdot VAR\ 20 + 10.7371 \cdot VAR\ 21 + -4.0763 \cdot VAR\ 22 + -2.2491 \cdot VAR\ 23 + 2.2237 \cdot VAR\ 24 + 3.6725 \cdot VAR\ 25 + 1.4463 \cdot VAR\ 26 + 2.2963 \cdot VAR\ 27 + 13.2625 \cdot VAR\ 29 + 0.0900 \cdot VAR\ 30 + -0.0714 \cdot VAR\ 31 + 0.1386 \cdot VAR\ 32 + -2.2644 \cdot VAR\ 33 +$$

ANALYSIS OF VARIANCE FOR THE REGRESSION =====

SOURCE OF VARIATION	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARED	F-VALUE
ADJUSTABLE TO REGRESSION	32	31577.72	986.80	4.77
DEVIATION FROM REGRESSION	21	4345.44	206.93	
TOTALS	53	35923.16		

A CORRELATION OF SENIOR HIGH SCHOOL
 MALE STUDENTS' ATTITUDES TOWARD BUSINESS
 (SECTIONS A-G) AND SCHOLASTIC ACHIEVEMENT

MULTIPLE LINEAR REGRESSION

DATA DESCRIBED: STAT. ANALYSIS
 DATE: 12-17-71
 DATA: 12-17-71
 SELECTION NUMBER: 29

VARIABLE NUMBER	MEAN	STANDARD DEVIATION	CORRELATION OF X VS. Y	REGRESSION COEFFICIENT	STD. ERROR OF REG. COEFF.	COMPUTED T-VALUE
1	6.86	19.12044	0.14189	-0.01121	0.01433	-0.78246
2	1.83	0.66873	0.02109	-0.21783	0.22812	-0.95406
3	1.87	0.75351	-0.05562	0.19955	0.25144	0.79183
4	2.89	0.87455	-0.16077	0.13564	0.28277	0.48344
5	1.31	0.25611	-0.03259	-0.13325	0.33275	-0.41347
6	2.26	0.25325	-0.07347	-0.12383	0.15813	-0.77822
7	2.26	0.25325	-0.03321	0.19955	0.25144	0.79183
8	2.74	1.25516	-0.08176	0.50794	0.16093	3.15586
9	2.13	1.25401	-0.12904	0.41958	0.35761	1.17387
10	2.78	1.1674	-0.08354	0.03011	0.13997	0.21458
11	17.56	27.12017	0.03226	-0.09303	0.01125	-0.83359
12	1.76	0.25325	0.03119	0.15377	0.25678	0.59966
13	3.69	1.77717	-0.03112	-0.15334	0.15431	-0.97752
14	3.60	1.21872	-0.23444	-0.24311	0.16175	-1.50362
15	2.80	0.48056	0.11161	0.13655	0.43024	0.31713
16	1.46	0.23351	-0.09587	0.02682	0.43813	0.06080
17	1.39	0.25325	-0.03347	-0.15347	0.25678	-0.62955
18	1.81	1.1077	-0.1300	-0.11647	0.25843	-0.45359
19	1.67	1.25516	-0.15773	-0.25155	0.23053	-0.82361
20	2.59	1.05858	-0.09759	0.05135	0.26205	0.19147
21	2.31	0.14067	0.14775	-0.23655	0.26955	-0.88709
22	2.85	0.25742	-0.03227	0.16996	0.30198	0.56460
23	2.69	0.71114	-0.03263	0.15775	0.21532	0.73459
24	12.26	5.65667	-0.16556	-0.18512	0.11435	-1.62766
25	12.47	3.05602	0.19214	-0.15352	0.10725	-1.43924
26	5.74	3.75759	-0.03697	-0.08235	0.09303	-0.88520
27	5.54	4.26446	-0.03323	-0.14686	0.09105	-1.51172
28	20.20	20.03450	0.65437	0.64569	0.03667	17.88369
29	51.93	9.15967	0.11231	0.11539	0.02359	4.89271
30	14.15	6.86024	-0.13282	0.22178	0.02173	10.20181
31	12.02	12.89942	-0.20494	-0.2076	0.01423	-14.5911
32	43.37	9.48921	-0.07210	-0.13733	0.08357	-1.64332

DEPENDENT VARIABLE

29 7.71 1.18806

THE DEGREES OF FREEDOM TO BE USED WITH THE T-TABLE IS: 21

INTERCEPT -1.59392
 MULTIPLE CORRELATION 0.89585
 STD. ERROR OF EST. 0.83008

REGRESSION EQUATION WHERE Y IS VARIABLE 29 :

$$Y(EST) = -1.5939 + (-0.0112 \times VAR\ 1) + (-0.2179 \times VAR\ 2) + (0.0906 \times VAR\ 3) + (0.1368 \times VAR\ 4) + (-0.0334 \times VAR\ 5) + (-0.1299 \times VAR\ 6) + (0.1585 \times VAR\ 7) + (-0.4675 \times VAR\ 8) + (0.4195 \times VAR\ 9) + (-0.0301 \times VAR\ 10) + (-0.0034 \times VAR\ 11) + (0.1548 \times VAR\ 12) + (-0.1508 \times VAR\ 13) + (-0.2421 \times VAR\ 14) + (0.1466 \times VAR\ 15) + (0.0283 \times VAR\ 16) + (-0.1565 \times VAR\ 17) + (-0.1165 \times VAR\ 18) + (-0.0516 \times VAR\ 19) + (0.0814 \times VAR\ 20) + (-0.2366 \times VAR\ 21) + (0.1499 \times VAR\ 22) + (0.1098 \times VAR\ 23) + (-0.1661 \times VAR\ 24) + (-0.1564 \times VAR\ 25) + (-0.0924 \times VAR\ 26) + (-0.1467 \times VAR\ 27) + (0.0451 \times VAR\ 28) + (0.0198 \times VAR\ 30) + (0.0218 \times VAR\ 31) + (-0.0269 \times VAR\ 32) + (0.1373 \times VAR\ 33)$$

ANALYSIS OF VARIANCE FOR THE REGRESSION

SOURCE OF VARIATION	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARED	T-VALUE
ADJUSTABLE TO REGRESSION	32	60.94	1.90	2.67
DEVIATION FROM REGRESSION	21	14.77	0.70	
TOTALS	53	74.31		

A CORRELATION OF SENIOR HIGH SCHOOL STUDENTS' ATTITUDES TOWARD BUSINESS (SECTION H) AND SCHOLASTIC ACHIEVEMENT

JOB: REGRESS: STAT. ANALYSIS
 CO. DATE: 10/17/61
 USER: AS-111A
 DATA: 10-15-61
 SELECTION NUMBER: 28

MULTIPLE LINEAR REGRESSION

VARIABLE NUMBER	MEAN	STANDARD DEVIATION	CORRELATION OF X VS. Y	REGRESSION COEFFICIENT	STD. ERROR OF REG. COEFF.	COMPUTED T-VALUE
1	12.25	20.27774	-0.08558	0.41495	0.21692	1.91675
2	2.25	0.55912	-0.13273	0.22912	0.54625	1.18977
3	2.25	0.55912	-0.13273	0.22912	0.54625	1.18977
4	1.25	0.55912	-0.13273	0.22912	0.54625	1.18977
5	1.25	0.55912	-0.13273	0.22912	0.54625	1.18977
6	2.25	0.55912	-0.13273	0.22912	0.54625	1.18977
7	2.25	0.55912	-0.13273	0.22912	0.54625	1.18977
8	2.25	0.55912	-0.13273	0.22912	0.54625	1.18977
9	1.25	0.55912	-0.13273	0.22912	0.54625	1.18977
10	2.25	0.55912	-0.13273	0.22912	0.54625	1.18977
11	17.25	22.75161	-0.13273	0.22912	0.54625	1.18977
12	1.25	0.55912	-0.13273	0.22912	0.54625	1.18977
13	1.25	0.55912	-0.13273	0.22912	0.54625	1.18977
14	1.25	0.55912	-0.13273	0.22912	0.54625	1.18977
15	1.25	0.55912	-0.13273	0.22912	0.54625	1.18977
16	1.25	0.55912	-0.13273	0.22912	0.54625	1.18977
17	1.25	0.55912	-0.13273	0.22912	0.54625	1.18977
18	1.25	0.55912	-0.13273	0.22912	0.54625	1.18977
19	3.25	0.55912	-0.13273	0.22912	0.54625	1.18977
20	2.25	0.55912	-0.13273	0.22912	0.54625	1.18977
21	2.25	0.55912	-0.13273	0.22912	0.54625	1.18977
22	3.25	0.55912	-0.13273	0.22912	0.54625	1.18977
23	2.25	0.55912	-0.13273	0.22912	0.54625	1.18977
24	11.58	3.22222	0.12255	3.99591	1.64114	2.43455
25	11.48	3.22468	0.13340	2.44036	1.26922	1.92773
26	4.23	4.31145	-0.13340	1.32535	1.57851	1.03893
27	4.79	3.56322	-0.13340	1.32535	1.57851	1.03893
28	1.25	0.55912	-0.13340	0.22912	0.54625	1.18977
29	1.25	0.55912	-0.13340	0.22912	0.54625	1.18977
30	61.35	0.17001	-0.13340	0.22912	0.54625	1.18977
31	14.57	0.31505	-0.13340	0.22912	0.54625	1.18977
32	117.20	13.66746	-0.13340	0.22912	0.54625	1.18977
33	41.25	10.15578	0.13340	-1.66542	1.00509	-1.65714

DEPENDENT VARIABLE

THE DEGREES OF FREEDOM TO BE USED WITH THE T-TABLE IS: 27

INTERCEPT 92.80058
 MULTIPLE CORRELATION 0.84186
 STD. ERROR OF EST. 15.66460

REGRESSION EQUATION WHERE Y IS VARIABLE 28:

$$\begin{aligned}
 Y_{EST} = & 92.80058 + 0.41495 \cdot VAR_1 + 0.55912 \cdot VAR_2 + -5.42860 \cdot VAR_3 + -5.91954 \cdot VAR_4 + -13.01249 \cdot VAR_5 + 5.0312 \cdot VAR_6 + \\
 & -1.4573 \cdot VAR_7 + -1.3773 \cdot VAR_8 + 1.6532 \cdot VAR_9 + 1.0657 \cdot VAR_{10} + 0.31172 \cdot VAR_{11} + 0.1424 \cdot VAR_{12} + -2.4747 \cdot VAR_{13} + \\
 & -0.7524 \cdot VAR_{14} + -15.6776 \cdot VAR_{15} + 2.1295 \cdot VAR_{16} + 4.6770 \cdot VAR_{17} + -1.4002 \cdot VAR_{18} + -6.7501 \cdot VAR_{19} + 2.4407 \cdot VAR_{20} + \\
 & -2.6591 \cdot VAR_{21} + -0.1321 \cdot VAR_{22} + 0.1222 \cdot VAR_{23} + 3.7009 \cdot VAR_{24} + 2.4407 \cdot VAR_{25} + 1.6244 \cdot VAR_{26} + 1.1009 \cdot VAR_{27} + \\
 & 16.0755 \cdot VAR_{29} + -0.4395 \cdot VAR_{30} + 0.2200 \cdot VAR_{31} + 0.5345 \cdot VAR_{32} + -1.6654 \cdot VAR_{33}
 \end{aligned}$$

ANALYSIS OF VARIANCE FOR THE REGRESSION

SOURCE OF VARIATION	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARE	F-VALUE
Attributable to REGRESSION	32	12452.67	514.15	2.05
DEVIATION FROM REGRESSION	27	6778.36	251.05	
TOTALS	59	23231.25		

A CORRELATION OF SENIOR HIGH SCHOOL
 FEMALE STUDENTS' ATTITUDES TOWARD BUSINESS
 (SECTIONS A-G) AND SCHOLASTIC ACHIEVEMENT

JOHNS HOPKINS STAT. ANALYSIS
 FILE: 1111 IN: 17 P: 71
 USER: PASTORAL
 DATA FILE: 1111
 SELECTION NUMBER: 29

A CORRELATION OF SENIOR HIGH SCHOOL
 STUDENTS ATTITUDES TOWARD BUSINESS
 (SECTION H) AND SCHOLASTIC ACHIEVEMENT

MULTIPLE LINEAR REGRESSION
 =====

INDEPENDENT VARIABLE	MEAN	STANDARD DEVIATION	CORRELATION OF X VS. Y	REGRESSION COEFFICIENT	STD. ERROR OF REG. COEFF.	COMPUTED T-VALUE
1	12.50	2.27173	-0.3324	-0.91772	0.61301	-1.50261
2	6.25	1.86259	-0.3763	-0.47149	0.29213	-1.6146
3	2.50	1.08254	-0.1944	-0.27698	0.14597	-1.77555
4	1.25	0.81713	-0.25425	-0.16914	0.24435	-0.77267
5	1.25	0.93047	-0.25934	-0.30955	0.39766	-2.33865
6	2.75	1.29121	-0.18682	-0.26917	0.12037	-2.23756
7	2.43	1.71227	-0.25733	-0.36294	0.27472	-1.32039
8	2.43	1.67454	-0.21424	-0.21774	0.15754	-1.3875
9	1.00	1.17211	-0.1762	-0.16192	0.20723	-0.7822
10	4.67	1.70253	-0.1732	-0.36198	0.13565	-2.6740
11	17.50	2.77173	-0.12767	-0.30754	0.61172	-0.50465
12	17.50	1.75253	-0.37335	-0.22544	0.19454	-1.1613
13	2.77	1.50773	-0.11022	-0.13911	0.09551	-1.45555
14	2.73	1.33841	-0.26127	-0.2117	0.13981	-1.52157
15	2.25	1.51169	-0.1283	-0.1114	0.38226	-0.29167
16	1.77	1.51169	-0.11934	-0.22339	0.25454	-0.87751
17	1.77	0.93047	-0.1400	-0.10506	0.25676	-0.41258
18	1.93	0.93047	-0.1153	-0.10192	0.17034	-0.59818
19	2.13	0.93047	-0.12941	-0.32919	0.24281	-1.35255
20	2.93	0.93047	0.19139	-0.24663	0.29987	-0.82226
21	2.87	0.93047	0.0564	0.01513	0.30173	0.04950
22	3.08	1.46167	0.27259	0.42655	0.67226	1.58227
23	2.75	0.69623	-0.22922	-0.22129	0.21104	-1.04857
24	11.50	3.22222	-0.15118	-0.15154	0.67817	-0.22297
25	11.48	3.52863	-0.2281	-0.15655	0.85095	-1.7751
26	6.23	4.31142	-0.13239	-0.92335	0.67391	-1.36953
27	6.73	3.55167	-0.11165	-0.07332	0.87233	-0.08269
28	21.75	1.75617	0.27260	0.18637	0.66506	0.27929
29	14.25	0.44684	0.21760	0.03367	0.64236	1.75273
30	19.57	0.33185	-0.16346	-0.01191	0.61139	-0.01939
31	11.50	10.17946	0.17475	-0.22765	0.61455	-1.83763
32	41.25	19.15975	-0.10340	-0.06039	0.64715	-1.28975

DEPENDENT
VARIABLE

THE DEGREES OF FREEDOM TO BE USED WITH THE T-TABLE IS: 27

INTERCEPT -1.29443
 MULTIPLE CORRELATION 0.65930
 STD. ERROR OF EST. 0.72946

REGRESSION EQUATION WHERE Y IS VARIABLE 29 :

$$Y(29) = -1.2944 + -0.9177*VAR 1 + -0.1574*VAR 2 + 0.2947*VAR 3 + 0.1591*VAR 4 + 0.3067*VAR 5 + -0.2703*VAR 6 + \\
-0.6625*VAR 7 + 0.0217*VAR 8 + 0.0819*VAR 9 + -0.0614*VAR 10 + 0.0076*VAR 11 + 0.0255*VAR 12 + 0.1341*VAR 13 + \\
-0.0382*VAR 14 + 0.2134*VAR 15 + -0.0224*VAR 16 + -0.1060*VAR 17 + -0.1019*VAR 18 + 0.3292*VAR 19 + -1.2446*VAR 20 + \\
0.0131*VAR 21 + 0.4349*VAR 22 + -0.2213*VAR 23 + -0.1516*VAR 24 + -0.1047*VAR 25 + -0.0208*VAR 26 + -0.0033*VAR 27 + \\
0.0341*VAR 28 + 0.0337*VAR 30 + -0.0149*VAR 31 + -0.0777*VAR 32 + 0.0044*VAR 33 +$$

ANALYSIS OF VARIANCE FOR THE REGRESSION
 =====

SOURCE OF VARIATION	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARED	T-VALUE
ATTRIBUTABLE TO REGRESSION	32	40.55	1.27	2.99
DEVIATION FROM REGRESSION	27	14.37	0.53	
TOTALS	59	54.92		

APPENDIX I
CORRESPONDENCE

THE UNIVERSITY OF WISCONSIN



College of Agricultural and Life Sciences
Department of Rural Sociology
240 Agriculture Hall
Madison, Wisconsin 53706
(608) 262-1510

October 29, 1970

Mr. Steven C. Kashuba
12431 Lansdowne Drive
Edmonton 70, Canada

Dear Mr. Kashuba:

This is in answer to your inquiry regarding Archibald O. Haller and Irwin W. Miller, The Occupational Aspiration Scale: Theory, Structure and Correlates: East Lansing, Michigan: Michigan State University Agric. Exper. Sta., Tech. Bull. 288, 1963: 2nd Printing: Department of Rural Sociology, University of Wisconsin (Madison) 1967.

Under separate cover we are sending you a copy of the above bulletin, the 1957 version for scoring, and a copy of "A Measure of Level of Occupational Aspiration" by I. W. Miller and A. O. Haller, Personnel and Guidance Journal Jan. 1964, pp. 448-455.

You have my permission to duplicate all or part of this material for research purposes. However, please let me know how many copies you run off and give complete citation.

There is no charge for this material. However, I would appreciate receiving a copy of your dissertation when it is completed.

Sincerely yours.

Redacted for Privacy

AOH/lb

Archibald O. Haller
Chairman

P.S. Please note that my address now is Department of Rural Sociology, University of Wisconsin, Madison, Wisconsin 53706