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STUDENT GRADE POINT AVERAGE AS PREDICTORS OF STUDENT OCCUPATIONAL ASPIRATIONS

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STUDENT GRADE POINT AVERAGE AS PREDICTORS OF STUDENT OCCUPATIONAL ASPIRATIONS

An Abstract
Presented to
the Graduate Council of
Austin Peay State University

In Partial Fulfillment
of the Requirements for the Degree
Educational Specialist

by Danny L. Weeks Summer 1991

ABSTRACT

Freshman and senior grade point averages were tested at a rural Tennessee high school to determine the relationship between their grade point averages and occupational aspirations.

Data collected through student interviews and questionnaires were tested using a chi-square distribution, testing at the .05 level of significance.

Results suggest a moderate positive correlation between the general student body grade point averages and their occupational aspirations; a moderate positive correlation between the grade point averages of males as compared to females and their grade point averages; and no significant relationship between the grade point averages of seniors as compared to freshmen.

To the Graduate and Research Council:

I am submitting herewith a field study written by Danny L. Weeks entitled, "Student Grade Point Averages as Predictors of Student Occupational Aspirations." I have examined the final copy of this paper for form and content, and I recommend that it be accepted in partial fulfillment of the requirements for the degree of Educational Specialist, with a major in Administration and Supervision.

Donald B. Lambert Major Professor

We have read this field study and recommend its acceptance:

George M. Rawlins, III

Second Committee Member

Allan S. Williams

Third Committee Member

Accepted for the Graduate and Research Council:

William H. Ellis

Dean of the Graduate School

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Finally, the author recognizes the empowerment of God, for it is through Him, all things are possible (Philippians 4:13).

LIST OF TABLESvi
CHAPTER 1
Introduction 1
Statement of the Problem
Hypotheses2
Importance of the Study
Purpose of the Study 3
Limitations 5
CHAPTER 2
Review of Related Literature
CHAPTER 3
Methodology17
Subjects of the Field Study17
Procedures of the Field Study17
Description of the Evaluation Instrument18
CHAPTER 4
Presentation, Interpretation, and
Discussion of the Data20
Purpose20
Grade Point Averages20
Statistical Analysis23
Distribution of Choices24
Hypothesis One25
Hypothesis Two30

Hypothesis Three34
CHAPTER 5
Summary and Recommendations
Introduction
Summary
Conclusions
Strengths39
Weaknesses39
Recommendations40
BIBLIOGRAPHY43
Works Cited43
Other References46

LIST OF TABLES

[ab]	le Pa	ige
1.	Participation by Gender and Grade Level	21
2.	Mean Grade Point Average by Gender	22
3.	Mean Grade Point Average by Classification	23
4.	Frequency Distribution of Choices of Occupation: Total Population	.24
5.	Frequency Distribution of Choices of Occupation by Student Grade Point Average Quartiles	.26
6.	Percentage Distribution of Student Occupational Choices by Student Grade Point Averages	.27
7.	Contingency Table of Observed and Expected Frequencies by Student Grade Point Average Category	.29
8.	Occupational Choice by Mode: Entire Population	.30
9.	Contingency Table of Observed and Expected Frequencies by Student Grade Point Average Category: Senior Class	31
10.	Contingency Table of Observed and Expected Frequencies by Student Grade Point Average Category: Freshman Class	32
11.	Occupational Choice by Grade Level	33
12.	Contingency Table of Observed and Expected Frequencies by Student Gender	35
12	Occupational Choice by Gender	36

CHAPTER 1

Introduction

Throughout the course of the history of education, one general goal has remained. Educational institutions should prepare students in the best way possible for the careers which they will choose for their future. Though the concept of occupational preparation is often delegated to vocational programs, each educator is in a sense preparing each student for the job market through the everyday experiences provided in the classroom. Educators, especially at the secondary school level, tend to accept part of the responsibility for vocational preparation, whether it be through a college preparatory class, a general education class, or a vocational training course. Educators do realize, as do many businessmen, politicians, and laypersons, the necessity of preparing students to meet the challenge of becoming tomorrow's societal leaders.

Children from a very early age begin to fantasize about what job they wish to hold when they become adults. These fantasies slowly evolve into areas of interest as the child grows older. In the later adolescent years, children tend to focus on areas of particular interest or expertise, and many, in one sense, establish some sort of career objectives. Though occupational aspirations change many times, and often do so drastically, it is interesting to study what factors are predictors or indicators of career choice.

Of particular interest to educators, the question can be posed, "What relationship is there between success in school and a student's occupational aspiration?" This study attempted to determine such correlations of success, as measured by student grade point average, and student occupational aspirations.

Statement of the Problem

This field study investigated the correlation of student grade point averages and occupational aspirations. This field study attempted to determine this relationship intrascholastically by studying the freshman and senior classes at Greenbrier High School in Greenbrier, Tennessee.

Hypotheses

The following hypotheses stated in the question form were investigated in this field study.

H₁: Is there a correlation between high school student grade point averages and occupational aspirations?

H₂: Are high school seniors' grade point averages better predictors of occupational aspirations than those of underclassmen?

H₃: Are high school males' occupational aspirations more clearly defined than those aspirations of females?

Importance of the Study

In 1990, the State of Tennessee proposed, under the direction of Governor Ned McWherter, an overall curriculum reform program for the Tennessee public school system. The program entitled 21st Century Challenge, provided statewide goals and objectives for educational excellence. Stated as a position of the 21st Century Challenge, the program was a necessary challenge which was created from a heartfelt desire to ensure that every child who grows up in Tennessee will have an educational opportunity which will prepare them for the new century. Reflecting upon this philosophical statement of the program, education has become everyone's business because students in our schools represent our state's future.

Though this directive is making its way through political hierarchies from the State Department of Education to the Local Education Agencies, the

actual challenge of preparing those students rests with the individual classroom teacher.

Only as teachers accept their challenges, and only as they become more cognizant of the fact that what happens in their individual classrooms will directly influence a child's learning, will they begin to make an impact upon children's lives. Upon this newfound realization, teachers may then seek to make teaching more meaningful by relating it to students, making learning meaningful, improving motivation of the students, and seeking to make a difference in individual lives. Only when these things have changed will educators have made a positive difference in children's lives, then may educators regain a hope for a sound future, both here in Tennessee and throughout this great nation.

Purpose of the Study

It is hoped the information gained in this field study will be used by educators, students, and anyone else interested in the occupational ambitions of high school students.

Primarily, it is hoped that educators will become more cognizant of their role in preparing students to meet the challenges the future has for them. Regardless of teaching load, course type, or teaching style, the ways in which educators touch the student on a day to day basis will undoubtedly play a large role in molding their future. Classroom educators may make use of this research in terms of increasing student motivation, exhibiting curriculum relevance, curriculum modification programs, curricular adaptations, teaching across the curriculum, and emphasizing a constant attitude of high expectations.

Administrators may make use of the findings in terms of curricular

education programs, career counseling programs, and student grouping and tracking procedures.

Too, it is hoped that students will benefit from the findings of this study. Issues raised through the study should give students an opportunity to both assess and express their vocational ambitions. It is hoped through this process of self-examination and reflection, students will be able to set and achieve realistic aspirations. These aspirations could then be established in terms of specific or general goals and objectives which would allow the student to prepare for his future.

Students who establish goals may then spend time exploring their options in terms of the required amount of education or skills necessary, basic competencies needed to perform this occupation, skills which personnel departments are looking for, and any other pertinent information regarding their chosen field. When students are better informed of the requirements and expectations, then they are better able to prioritize, establish goals, and accomplish such goals. Such thorough processes are beneficial for both the student, school, home, and other facets of the students' life. Home-school programs which could stem from this realm include, but are not limited to career counseling, college preparation programs, distributive educational programs, career days, and college information days.

It is hoped further that laypersons might be able to benefit from the findings of this study and thereby become more interested in this facet of the educational process. If business leaders could detect or predict students who show certain occupational tendencies, they could invest in their own future by encouraging and supporting such students. Industries and colleges alike could perform such early recruitment tasks which would benefit their programs.

Limitations of the Study

This field study included student aspirations from members of the freshman and senior class of Greenbrier High School for the academic year 1990 - 1991. Due to the fact this study deals with only one academic year, the perceived trends may not necessarily become generalizations for students from other areas or other schools. In order to determine greater correlations, or predictive validity, a continual longitudinal study would need to be performed to determine post-secondary school entrance, vocational training, employment status, and numerous other variables which are related.

CHAPTER 2

Review of Related Literature

Perhaps the most basic of all freedoms guaranteed by the Bill of Rights in the American Constitution is the freedom of choice given to the individual. This freedom is generally considered to be a unique characteristic of American society. Coupled with this basic freedom is the concept of rapid change in all facets of society. Freedom of choice and ability to change are ever present in the occupational structure of American society.

Some of the chosen professions of past decades, when society was basically agrarian, agriculturally based, are becoming extinct rapidly. Even professions of the industrial society are losing their prominence as a new sort of revolution of the information age is upon society. In the past, occupational choices were often limited due to the types and numbers of occupations. Men often followed in the footsteps of their family, or chose a job in a nearby occupation. The number of people of years gone by who chose to relocate is in sharp contrast to the freely mobile society in which we live.

The changes evident in almost every facet of society have opened many doors to employment for many individuals. True, technology has eliminated many occupations, but it has broadened the scope of many others. Technology has created new jobs which were unconceived even five years ago.

There are many aspects of society which affect the ability to become qualified to obtain, and to maintain a job. Among technology, opportunities, skills, education, mobility, and numerous others lies the basic concept of freedom of choice to pursue an occupation to the fullest.

Job skills in many professions have been on the increase. Most jobs in today's society require at least a high school diploma, while many are requiring more education whether in the form of college, trade school, or additional

course work. The increased need for training has been evident in the secondary schools through the vocational education movement. Vocational education attempts to better prepare students to face the demands of society with respect to occupational preparation.

Students in high school programs are being forced to make career decisions earlier and earlier in their academic lives. Requirements for college admittance are becoming more rigorous, almost forcing potential college students to commit themselves to a rigorous academic at the freshman registration period in high school. Students who choose not to pursue the college preparatory track must make preparation through departmentalized course work, preparing them for a particular area of specialization.

Much concern has developed around the issue of a child setting his path at such an early age. Super (1960) believed the influence from these decisions upon the student's life is almost irreversible. Super and Overstreet (1960) agreed that students at these levels are ready for vocational exploration, but not for vocational choice. McDaniels (1968) believed students are not too young, only too ill-prepared to make such career choices. Vocational programs in schools, as well as career guidance programs, attempt to address such concerns as these. Within the line of thinking, Marr (1965) found that students who decided early were most likely and most able to implement their desired occupation.

A trait factor approach was developed by Frank Parsons in 1909. His work basically equated a person's traits with job requirements. This philosophy was the prominent approach to vocational guidance until the 1950s. Due to the work by Ginzberg, Ginzburg, Axelbrade, and Herma (1950) during the 1950s, the theory of occupational decision making became focused as a developmental process rather than a choice to be made.

Super (1951) in his Career Pattern Study traced the vocational development of males. Super's theories developed from other life stages being growth, exploration, establishment, and maintenance. Growth usually being from birth to age 14, exploration from 15 to 24, and establishment from age 25 to 44. The main characteristic of his developmental process is that it is continuous. Generally Super considers this process irreversible. Super found that much of the concept of vocational choice can be predicted.

Super and Overstreet (1960) furthered the concept of vocational maturity, especially at the ninth grade level. Vocational maturity was viewed as a period of readiness for planning. The idea of self-concept in the developmental process is a second focus of their work. The way an individual perceives himself will have a great effect on his reaction to others, and to his vocational choices. Self-concept is a very complex matter; however, perception of oneself is also attached to perception of others. Others in this context can be focused to educational employees, namely teachers, who add to the student's perception of himself. Much of the self-concept development related to occupations is composed of the factors of interest to the individual, aptitudes, values, and vocational relevance.

Roe (1956) composed a theory of three basic constructs. First, early childhood experiences are a major influence of vocational choice. This can be attributed to any number of factors of the early childhood experiences from media, to role models, to parental influence, to fantasy play. Secondly, the individual has needs which he attempts to satisfy through occupation. Thinking along this line is generally focused on the service careers, such as an individual feeling compassion on others, thus desiring to become a doctor or nurse. Thirdly, Roe believed there are genetic factors which attribute to the

occupational choice. Parental attitudes were also found to affect children in terms of satisfying needs. Roe's theory has not been supported by his critics.

Holland (1959) categorized personalities and occupations into six categories but did not bother to explain the developmental process in choosing an occupation. He did explain that the individual develops an orientation toward a category and that this orientation has an effect on his career choice. Holland includes outside factors such as economic abilities, environment, and others which might influence this choice. Holland believed there are two factors, the knowledge of oneself and the knowledge of the occupation to determine proficiency in matching the decision making process. There are drawbacks and questions related to his theories. First, Holland has been the one of a few who has attempted to further his theories; secondly, most of his work has been with a specific group, namely National Merit Scholars.

Hilton (1962) proposed a model based on behavioral alternatives which affect the decision making process in regard to beliefs and expectations in relation to the environment and the self. Alternatives are brought about as individuals change the premises relating to these factors, and their alternatives about the environment until a sense of equilibrium is established. The degree of difficulty in decision making and its effects were studied.

Regardless of the theory, concept, or model used, all individuals do not develop in the same fashion. Students entering high schools must make certain decisions which in a sense will establish occupational choices. These choices are either made intentionally or accidentally as youngsters attempt to prepare for their futures. Either by choice or by mistake, students enter a certain curriculum at the high school level and either exclude or include themselves in a certain career pattern. For example, students electing to take course work

away from the college preparatory track have, to a certain degree, excluded a great number of careers opportunities.

There should be a method of determining when the high school student is at a committal point, where their skills be directed either toward an academic track or a vocational track. Such a method would lower drastically the number of developmental level courses from the realm of higher education, would prohibit much confusion on the individual level, and would better prepare anyone involved at the career preparation level. Yet the problem remains, all individuals do not mature at the same level at the same time.

Exploratory courses offered at an early stage are only one attempt to remedy this situation. These courses give insight to those who are attempting to establish interests, and provide general exploration for those who are not. A balance between skills and academics provides an opportunity for all students to explore and sample. After a period of time, a student will have the opportunity to further explore subjects or perfect the chosen skill.

Under close supervision and counseling, decisions could be made which are more accurate and better informed. If some degree of consistency exists in a student's exploratory course work, a student would probably be more likely to choose that profession and be better prepared for it.

The basic difference among the developmental choice theorists is within the development of the self and the self-concept. As some theorists focus on various stages of development from early childhood to pre-teenage years, other theorists do not devote much time to development. Other theorists who do not focus on the development of the self do focus on the development of the self within the environmental setting, focusing on variables which assist in the maturation process.

The most basic commonality among the choice theorists is in the degree of self-satisfaction which the individual receives either in the pursuit of the career or within the career itself.

As students make a choice regarding their career, a question of stability among choices arises. There is a lack of research related to this topic due to the nature of the topic and its longitudinal character.

Astin (1967) sampled ninth through twelfth grade students longitudinally until one year after graduation. Astin used seven major occupational groups to classify career choices. As Astin noted students changing career options after graduation from high school, he detected three patterns in their movements. First, the changes could be attributed to maturation, explaining that as students matured they were able to make clearer, better informed choices. Second, the choice changes could be attributed to the students' personal development and experiences, in reference to the self concept. As students make self-evaluations and encounter more relevant experiences, they could make more realistic evaluations of their abilities, thus making better career choices. Third, the changes may be due to the environment in which the students are placed. Opportunities for employment, education, and other external factors may play a large role in their career choices.

Astin followed this study in 1968, by tracking the decisions of ninth grade girls to one year past their graduation. Astin used three categorical classifications: stable, defector, or recruitor. The girls were considered stable if they gave the same career choice at both measurements. The defector label came about if a girl chose a different career label, lower than the original choice. The recruitor label was attached to those who chose a career choice for one deemed in an upward direction.

Defectors from career-oriented groups scored lower on ability tests than those who were labeled as stable. Recruitors tended to score higher academically than the defectors. Defectors tended to score lower than the stables on measured interests tests. In general, Astin believed the results of career changes differed with respect to general ability. In his conclusion, he found as girls mature their plans become more realistic, and brighter girls tend to raise their aspiration levels, and less capable girls lowered their aspirations (Astin, 1968).

Flannagan and Cooley (1966) in project TALENT studied stability of career plans from ninth through twelfth graders and first year graduates. They found that neither boys nor girls have stable plans during high school years as compared to the year after graduation. Some figures ranged from 17% stability among freshman boys to 41% stability among senior girls. Some career choices tended to be more stable than others. The general conclusion was that career plans of high school students tended to be unrealistic and unstable, and the plans of females were more realistic and stable than boys.

Flores (1966) compared occupational aspirations of eighth, eleventh, and twelfth grade males. Results indicated no significant differences between the occupational aspirations of eighth and twelfth graders. He also found that the level of aspiration was more stable at the eighth grade level than that of older males. Flores did not perform a follow up study examining the level of aspirations on a longitudinal basis nor the variables associated with such inconsistency.

Holmes (1961) performed a similar study on 109 students from eighth to eleventh grade. He found that students in the highest IQ quartiles (115 - 138) had relatively stable levels of aspiration throughout the grade levels measured. Similarly, students in the lower IQ quartiles (88 - 100) had

relatively unstable levels. The average correlation change computed for the high group was only .68, whereas the change for the lower quartiles was -.92. A major finding determined that students of lower scholastic ability tend to choose careers which are more suitable for their abilities. Holmes, too, requested that a longitudinal study be performed in this area.

Rice (1962) sampled 282 students at the tenth grade and followed them through the twelfth grade. These students were termed capables in regard to their academic ability. Of these students, over 50% of them remained at the constant level. Those who were not constants, tended to raise rather than lower their expectations. He concluded that aspiration levels of the capable students are both stable and high.

Though studies in the field of stability are limited, results tend to be very controversial. Research attributes much of the inconsistency to the design of the studies, the inability to adequately define choice of aspiration, and the lack of longitudinal studies. Commonalities among the studies tended to focus on the developmental process of career choice, thus, varying as the individual is developing.

Considering the occupational choice as a developmental process, a number of variables can be attributed as influential to the process. Major variables commonly studied in relation to the topic include high school curriculum, grade point average, levels of occupational choice, occupational values, sex, socioeconomic status, and parental level of education.

The high school curriculum which a student chooses, to a great degree, effects occupational choice. Any curriculum appropriately designed for one student may be totally inappropriate for another. Several factors noted by Gribbons and Lohnes (1968) were classified as influences on curricular choice. These included awareness of relevant factors, individual abilities, interests and

values, availability, and the relation of choice to occupation. They further declared that different curricula attract different types of students. Interests are especially notable as they relate to Super's (1960) self concept as the student selects a curricula which is interesting and fulfilling to him. Wallace and Leonard (1971) found a relationship between occupational aspiration and curriculum among high school girls. They found that girls with low or midlevel occupational aspirations were found in either general education or vocational education curricula. Higher leveled occupational aspirations were found mainly in college preparatory classes.

Many studies have attempted to find correlations between intelligence and occupational choice. Bradley (1943) found IQ to be a correlate of choice. Clark and Gist (1930) found that it was not. Flores (1966) found there was a degree of consistency between level of aspiration and IQ among eighth and twelfth graders. He, however, found a higher relationship at the eighth grade level than he did at the twelfth grade level. Forcese and Siemens (1965) concluded that a high IQ led to a high aspiration level. Gribbons and Lohnes (1968) found the same to be true, especially when examining IQs above 105. Holden (1961) presumed that aspirations of high IQ students are reasonably realistic, and that students with lower range IQ levels were more likely to give unrealistic or unstable choices.

Studies directly related to grade point averages and school achievement can best be summarized in a similar manner as those related to intelligence. It should also be noted that intelligence and achievement do not always coincide. O'Reiley (1972) found that among vocational students, GPA was not a valid measure of achievement. On this assumption, studies have examined the relationship between GPA and level of aspiration.

Kapos (1971) determined there to be a positive relationship between GPA and level of aspiration. He also found that success in academic curriculum could be better predicted than success in a vocational curriculum. Mondary, Curtis, and Dobbins (1970) found aspirations of high school students to be highly related to their GPAs. As Rice (1962) proceeded to investigate changes which occurred in aspiration levels, he found the greatest difference in GPA correlations. Rieger (1961) found that students with higher GPAs tended to have a better concept of aspirations than those with lower GPAs. Wallace and Leonard (1971) also found that GPA was related significantly to aspirations.

Burchinal (1962) found that younger students have a tendency to choose professional jobs. Flannagan and Cooley (1966) found a slightly downward trend through the high school years and that the trend tended to be more evident in males. Bradley (1963) found that gender was related to level of occupational choice and that males tended to form earlier decision, though they tended to stray from them more.

Socioeconomic status has been studied quite thoroughly in relation to occupational aspirations. It was interesting to note how the family of the individual has achieved in both the occupational status level and educational level. Bennett and Gist (1964) found social class to a large degree influencing occupational aspirations, and the mother having a stronger influence on the child than the father. Davis, Hagan, and Strouf (1962) found similar results among eighth graders, noting mature choices correlating to higher socioeconomic status. Hamburger (1958) found at the ninth grade level significant relationships to vocational plans and socioeconomic status. Research tended to indicate males are more emphasizing of the financial aspects of a job than are females, but that females tended to specify goals more precisely. However, Gribbons and Lohnes (1968) found no significant

relationship among social class through the seventh grade, but a strong influence from there to the twelfth grade as related to occupational choice. Howel (1970) found when studying 800 males that GPA and education had a direct influence on adult occupational achievement. Davis (1966) found GPA to be positively related to career choice level.

Studies characteristic of the environment tended to be effective predictors of choice. Research tends to be clear on the variables of curriculum, vocational development, and GPA as a measure of achievement. Stability was also high when correlated with GPA and socioeconomic status, when status is a composite of parental influence, environment, and achievement of parents. Perhaps, "nothing succeeds like success, and there is no prediction of success better than a history of academic success," (Arnold & Denny, 1985) best summarizes research relating to GPAs and occupational aspirations.

CHAPTER 3

Methodology

Subjects of the Field Study

This field study was conducted by compiling information from student records and completed questionnaires from ninth and twelfth grade students at Greenbrier High School, Greenbrier, Tennessee. Greenbrier High School is an accredited secondary school containing grades nine through twelve, located within the city limits of Greenbrier, Tennessee. The courses of study offered may be basically categorized as general education, vocational education, and college preparatory.

Greenbrier High School has forty-two professionally certified teachers, one full-time principal, and two full-time assistant principals to accommodate approximately 650 students. Teacher and student population change very little from year to year. Most of the students and teachers live in the immediate Greenbrier area, or nearby within the Robertson County area. Most students are from average to lower-middle class families. Approximately 25% of the students enter college upon graduation.

Procedures of the Field Study

The topic and general description of the field study were presented and approved by the investigator's graduate committee. Permission to conduct the field study was then received from Mr. Mike Kavanagh, Principal of Greenbrier High School, and Mr. Jerome P. Ellis, Superintendent of Robertson County School.

Cumulative grade point averages were determined for freshmen and seniors on the traditional four point scale. Grade point averages were rounded to the nearest hundredth for the purpose of this study.

A computer data base was established to contain information on students by name. Information within the data base included grade, gender, GPA, occupational aspiration, and degree of stability. Protection of confidentiality was assured through the data diskettes being stored under lock and key and the use of a systems password which was necessary to access the data base.

Student questionnaires were used to collect occupational aspirations and presumed degree of stability from the freshman and senior classes.

Description of the Evaluation Instrument

The researcher-made questionnaire consisted of a place for student name, grade level, gender, and a list of occupations. This list of sixty-five careers was compiled from a list obtained by the school guidance counselor from the National Commission on Career Studies and from additional resources, including the Encyclopedia of Careers and Vocational Guidance. A blank was placed on the list, where the student could specify another career field which was not included on the list. Presumed degree of stability was measured by having the student select a number on the following continuum in response to the question, "How sure are you that this will be the career in which you wish to work?"

1 = definitely sure

2 = quite certain

3 = certain

4 = fairly certain

5 = only a possibility

The questionnaire was field tested on a group of seventeen sophomore students who voluntarily stayed after school one afternoon. Students in the test group were given the same directions intended to be given to the other students. Students worked rapidly through the questionnaire, which was one intent of its design, so as not to interfere with academic learning time. As

students in the test group completed their questionnaires, the researcher asked for comments, questions, mistakes, and clarifications. Responses were discussed and clarification was checked to determine the intent of marked responses. Other than slight rearrangement for presentability, no changes were made in the original format.

Questionnaires were completed for the two groups (freshmen and senior classes) during an extended homeroom period with the cooperation of homeroom teachers. The information obtained was studied and combined. The occupational titles on the questionnaire were classified in one of nine areas according to type of work performed, with reference to the Encyclopedia of Careers and Vocational Guidance. The following framework was used to classify careers:

1 = Professional occupations

2 = Semi-professional and Technical

3 = Managerial and Office

4 = Clerical

5 = Sales

6 = Skilled labor

7 = Semi-skilled and unskilled labor

8 = Service occupations

9 = Farming

Data regarding career choice were placed numerically in the computer data base only according to classification, as were the students' perceived degree of certainty.

CHAPTER 4

Presentation, Interpretation, and Discussion of the Data
Purpose

The purpose of this chapter is to present an analysis, interpretation, and discussion of the collected data. The major purpose of the field study was to determine if a relationship existed between grade point average and occupational aspirations. The data reported in this chapter pertain to the hypotheses determined by the investigator of this field study.

Grade Point Averages

The cumulative grade point averages (GPA) are determined on a regular, semester basis in the guidance office by the counselor and her assistant. GPAs are calculated on a traditional four point scale, using the computer program "GPAide". This program allows for entry of the number of earned grades to be entered into the computer on a semester basis, calculates the GPA, stores the data, and prints or displays the data.

Though all students GPAs were calculated, and originally entered into the data base, only those students who completed the questionnaire were retained in the data base. Records of one hundred twenty-six seniors and one hundred fourteen freshmen were established and maintained within the data base, representing approximately 85% of the eligible students.

Table 1 displays the number of participants and category in which participation fell. A total of two hundred forty students were used in this study. Students were fairly evenly distributed between males and females and between freshmen and seniors. Students who were not included in this study account for approximately 15% of freshman and senior students at Greenbrier High School.

TABLE 1
Participation by Gender and Grade Level

	Freshmen	%	Seniors	%	Total	%
Males	69	28%	56	23%	125	53%
Females	45	20%	70	29%	115	47%
Totals	114	47%	126	53%	240	100%

^{*} Some numbers have been rounded to the nearest whole.

These students were not included due to the fact they were unavailable to complete the survey, chose not to complete the survey, or in the case of a few transfer students, no recorded grades were available for the computation of their grade point averages.

Table 2 compares the distributed mean grade point averages determined across gender based on the traditional four point scale. As predicted, females had a slightly higher grade point average than males included in this study. All mean grade point averages were approaching the 2.5 mark, or C range, identifying clearly the population as being in the average ability grouping.

TABLE 2

Mean Grade Point Average by Gender

Males	2.39
Females	2.57
All students	2.48

^{*} Some numbers have been rounded to the nearest hundredth.

Table 3 compares the distributed mean grade point averages determined across grade levels based on the traditional four point scale. As predicted, grade point averages of seniors is slightly above that of members of the freshman class. Again, there is much similarity noted around the 2.5 range.

TABLE 3

Mean Grade Point Average by Classification

Freshmen	2.42	
Seniors	2.53	
All Students	2.48	

^{*} Some numbers have been rounded to the nearest hundredth.

Statistical Analysis

A chi-square distribution was used to test the hypotheses of independence between the assigned variables of classification. A contingency table was established for each hypothesis. Observed and expected frequencies were included within each contingency table. Each hypothesis was then tested at the .05 level of significance to determine the validity of the hypothesis.

Distribution of Choices

A frequency distribution chart was constructed to examine the relationship between chosen occupational titles. Table 4 shows the frequency distribution according to category of occupation chosen by the total population sample.

TABLE 4
Frequency Distribution of Choices of Occupation
Total Population

	-									
Occupational Class Code										
	1	2	3	4	5	6	7	8	9	Total
Number	23	29	22	33	23	37	28	40	5	240
Percent	10	12	09	14	10	15	11	17	02	100%

^{*} Some numbers have been rounded to the nearest whole.

Hypothesis One

The purpose of the first hypothesis was to determine what correlation exists between student grade point averages and occupational aspirations. Student grade point averages were divided into quartiles for the purpose of study and for constructing the first contingency table. A chi-square test was chosen to be the statistical measurement, due to the nominal nature of the data collected. Table 5 shows the frequency distribution by student grade point average quartile. Quartile 1 consisted of grade point averages between 4.00 and 3.08; quartile 2, grade point averages between 3.07 and 2.55; quartile 3, grade point averages between 2.54 and 1.91; and quartile 4, grade point averages between 1.90 and 0.28. Table 6 furthers the data displayed in Table 5, distributing the data according to percentages of occupational choice by student grade point average quartiles.

TABLE 5
Frequency Distribution of Choices of Occupation by Student
Grade Point Average Quartiles

Occupation Class Code										
1 2 3 4 5 6 7 8 9										
Quartile 1 n = 60	14	16	5	5	1	9	3	7	0	
Quartile 2 n = 60	5	10	8	10	8	8	6	4	1	
Quartile 3 n = 60	4	1	8	9	9	11	7	10	1	
Quartile 4 n = 60	0	2	1	9	5	9	12	19	3	

TABLE 6

Percentage Distribution of Student Occupational Choices
by Student Grade Point Averages Quartiles

		Occı	Occupational Class Code								
	1	2	3	4	5	6	7	8	9		
Quartile 1 n = 60	6	7	2	2	0	4	1	3	0		
Quartile 2 n = 60	2	4	3	4	3	3	3	2	0		
Quartile 3 n = 60	2	0	3	4	4	5	3	4	0		
Quartile 4 n = 60	0	1	0	4	2	4	5	8	1		

^{*} All values reported in whole percentages.

^{**} Numbers do not equal 100% due to rounding to the nearest whole.

Table 7 shows the contingency table of observed and expected values which were used to calculate the chi-square values. Data for Table 7 were grouped according to grade point averages using approximate data from the bell curve, appropriately distributing GPAs according to abilities. Category A consisted of student GPAs ranging from 4.0 to 3.4; Category B consisted of GPAs ranging from 3.39 to 2.6; Category C consisted of student GPAs ranging from 2.59 to 1.6; and Category D consisted of GPAs ranging lower than 1.59. A chi-square test was performed on the data from the contingency table. The question hypothesis is accepted at the .05 level of significance, and it can be concluded that a student's GPA and their occupational choice are moderately, independently related.

As noted in Category A, students with higher grade point averages tend to choose careers which require more training and usually more college experience, suggesting a need for students with greater ability. Conversely, students with lower grade point averages tend to shy away from choosing professional or managerial careers, choosing many more service and labor related fields. It is interesting to note the order in which occupational categories were chosen by students. Table 8 represents by mode, the choices all students made and the percentage of students making that choice. Students choosing careers in the service and the labor categories tends to indicate a degree of a lack of motivation on the part of many students. This tends to indicate some students do not believe they are capable of performing those occupations, which is related to the self-concept theory. Other students may not wish to pursue the requirements necessary to obtain such jobs. This too indicates a degree of complacency on behalf of many students.

TABLE 7

Contingency Table of Observed and Expected Frequencies by Student Grade Point Average Category

Occupational Choice Code		Student GP	Student GPA Category		
	Α	В	С	D	Total
1	10 (2.7)	8 (8.1)	5 (9.1)	0 (3.1)	23
2	10 (3.4)	14 (10.3)	4 (11.5)	1 (3.9)	29
3	2 (2.6)	11 (7.8)	8 (8.7)	1 (2.9)	22
4	1 (3.9)	14 (11.7)	16 (13.1)	2 (4.4)	33
5	0 (2.7)	7 (8.1)	15 . (9.1)	1 (3.1)	23
6	3 (4.3)	14 (13.1)	17 (14.6)	3 (4.9)	37
7	0 (3.3)	10 (9.9)	12 (11.1)	6 (3.7)	28
8	2 (4.7)	7 (14.2)	16 (15.8)	15 (5.3)	40
9	0 (0.6)	0 (1.2)	2 (1.9)	3 (0.7)	5
Total	28	85	95	32	240

^{*} Expected frequency indicated by parentheses.

TABLE 8
Occupational Choice by Mode: Entire Population

Occupational Choice	Students Choosing	Percentage
Service Skilled labor Clerical Semi-professional Semi-skilled labor Professional Skilled labor Managerial / office Farming	40 36 33 29 28 23 23 22 5	17% 15% 14% 12% 12% 10% 10% 2%

^{*} Numbers to not equal 100% due to rounding to the nearest whole.

Hypothesis Two

The purpose of the second hypothesis was to determine whether or not senior grade point averages were better predictors of occupational aspirations than those of the freshman class. Two contingency tables were prepared in the same fashion as they were when examining the first hypothesis, dividing the data into the grade levels being studied. A test concerning two proportions was performed to handle the nominal format of classifications. Tables 9 and 10 are contingency tables representing data in the study related to hypothesis two. A chi-square test was performed on the data from the contingency tables, and a comparison of proportions was performed on the means. The question hypothesis is rejected at the .05 level of significance, and it can be concluded that a student's grade level and his or her occupational choice are not independently related.

TABLE 9

Contingency Table of Observed and Expected Frequencies by Student Grade Point Average Category Senior Class

Occupational Choice Code	Stud	Total		
	A	В	С	D Total
1	6	6	4	0 16
	(1.6)	(6.0)	(6.9)	(1.5)
2	4	7	2	1
	(1.4)	(5.2)	(6.0)	(1.3)
3	0	5	4	1
	(1.0)	(3.7)	(4.3)	(0.9)
4	0	10	10	0
	(2.1)	(7.5)	(8.6)	(1.9)
5	0	4	10	1
	(1.5)	(5.6)	(6.4)	(1.4)
6	2	6	8	3 19
	(2.0)	(7.1)	(8.1)	(1.4)
7	0	5	6	0 11
	(1.1)	(4.1)	(4.7)	(1.0)
8	1	4	8	5 18
	(1.9)	(6.7)	(7.7)	(1.7)
9	0 (0.3)	0 (1.2)	2 (1.3)	1 (0.3)
Total	13	47	54	12 126

^{*} Expected frequencies indicated by parentheses.

TABLE 10

ontingency Table of Observed and Expected Frequencies
by Student Grade Point Average Category
Freshman Class

Stud	Student GPA Category			Total	
A	В	С	D T	otal	
4 (0.9)	2 (2.3)	1 (2.5)	0 (1.2)	7	
6 (2.0)	7 (5.0)	2 (5.4)	0 (2.6)	15	
2 (1.6)	6 (4.0)	4 (4.3)	0 (2.1)	12	
1 (1.7)	4 (4.3)	6 (4.7)	2 (2.3)	13	
0 (1.1)	3 (2.7)	5 (2.9)	0 (1.4)	8	
1 (2.4)	8 (6.0)	9 (6.5)	0 (3.2)	18	
0 (2.3)	4 (5.7)	6 (6.1)	7 (3.0)	17	
1 (2.9)	4 (1.3)	8 (8.0)	9 (3.6)	22	
0 (0.3)	0 (0.7)	0 (0.7)	2 (0.4)	2	
15	38	41	20	114	

ted frequencies indicated by parentheses.

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Hypothesis Three

The purpose of the third hypothesis was to determine whether or not male grade point averages were better predictors of occupational aspirations than those of the females in this study. Two contingency tables were prepared in the same fashion as in hypothesis two, dividing the data into the gender of those being studied. A chi-square test was performed on the data from the contingency tables, and a comparison of proportions was performed on the means of the data. The question hypothesis is accepted at the .05 level of significance, and it can be concluded that a student's gender and his or her occupational choices are moderately, independently related. Table 12 is a contingency table of observed and expected frequencies of students by gender. Table 13 compares by number and percentage the occupational choices indicated by gender. As predicted, more females chose occupations related to clerical and sales positions, still relating to occupational choice stereotypes. In the same light, more males chose professional, technical, and managerial occupations, and chose more labor related fields. Approximately the same number of students chose service professions.

TABLE 12

Contingency Table of Observed and Expected Frequencies by Student Gender

Occupational Choice Code	Student Gender		Total
	Females	Males	Total
1	8 (11.0)	15 (12.0)	23
2	17 (13.9)	12 (15.1)	29
3	8 (10.5)	14 (11.5)	22
4	27 (15.8)	6 (17.2)	33
5	14 (11.0)	9 (12.0)	23
6	17 (17.7)	20 (19.3)	37
7	4 (13.4)	24 (14.6)	28
8	20 (19.2)	20 (20.1)	40
9	0 (2.4)	5 (2.6)	5
Total	115	125	240

^{*} Expected frequencies indicated by parentheses.

TABLE 13
Occupational Choice by Gender

onal	Females Choosing	%	Males Choosing	%
nal fessional ial / Office abor lled labor	8 17 8 27 14 17 4 20 0	7% 15% 7% 23% 12% 15% 3% 17% 0%	15 12 14 6 9 20 24 20 5	12% 10% 11% 5% 7% 16% 19% 16% 4%

ers do not equal 100% due to rounding to the nearest whole.

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Although some upperclassmen indicated a stronger certainty toward their chosen career field, no strong relationship exists to suggest that seniors are making better choices as related to their grade point averages. In terms of a few individual students, quite the opposite appeared to be the case, where students are making choices outside their presumed level of capability as measured by their grade point averages.

H₃: Are high school males' occupational aspirations more clearly defined than those aspirations of females?

A moderate, positive relationship between student gender and their occupational aspirations was found when tested at the .05 significance level. However, much of the discrepancy appeared to be related to occupational stereotypes which often permeate small communities.

Conclusions

This field study revealed some of the strengths and weaknesses of Greenbrier High School concerning the occupational preparation of students. After studying and comparing the student data, the following strengths and weaknesses were determined to exist:

Strengths:

- 1. As a whole, students tend to indicate a high degree of certainty about the career decisions they are making at the levels examined.
- 2. Greenbrier High School does a good job in certain isolated areas of college preparatory and vocational preparation.
- 3. Students at Greenbrier High School are encouraged from the very beginning of their high school career to establish an academic path to follow throughout their four years at school.
- 4. Programs and counseling with career guidance are available to those students who seek such help.

Weaknesses:

- 1. A small percentage of students graduating from Greenbrier High School pursue a college career, and even fewer graduate from an institution of higher education.
- 2. Students are not equipped with the knowledge they need to make well informed career choices in a variety of areas.
- 3. Students are not equipped with the knowledge they need in regard to requirements for employment in a variety of areas.
- 4. Many students who enter college as graduates from Greenbrier High School are forced to take developmental studies courses.

- 5. There is some indication that students need more encouragement by faculty, staff, and parents when establishing and seeking high career goals and objectives.
- 6. Little, if any, classroom work is devoted to career decision making outside the realm of the vocational courses.
- 7. Students often make career decisions based on typical sex role stereotypes, or other influences which should not have such a dominant effect upon their decision.

Recommendations

After having studied the research on career decision making, and the results of the data collected from students at Greenbrier High School, it is obvious that the topic of career decision making is very complex. Many external variables appear to be influential over the decisions which students are making in regard to career choice. There appears to be a broad scope lacking in the area of decisions being made according to data collected in this field study.

After studying the data collected from students at Greenbrier High School regarding the issue of career decisions, the following recommendations are suggested:

- 1. All students upon entering Greenbrier High School should be made aware of college entrance requirements, and be updated when and if those requirements change.
- 2. The school should bring in and sponsor guest speakers, representing a broad spectrum of career opportunities for the student body.
- 3. Computer software and other media should be obtained which would assess the career awareness and personal skills of interested individuals.

- 4. The school should encourage parents to play an active role in the career and college decision making process of their children.
- 5. The results of ASVAB, DAT, or other such formalized testing should be discussed and used to assist students in their career and college decision making process.
- 6. Greenbrier High School should continue the College Day program where college counselors visit the school and make students aware of opportunities available to them through their programs.
- 7. Faculty and staff should make an effort to encourage each student to establish and develop high career goals.
- 8. Greenbrier High School should continue their Occupational Visitation programs, where students are allowed to visit one occupational area during their senior year. Further, this program could be extended to include underclassmen.
- 9. More students should be recruited, and should be encouraged to participate in the vocational educational program at Greenbrier High School or the Robertson County Vocational School.
- 10. The school should explore the possibility of developing relationships with civic groups, professional associations, and businesses and industries which could assist in career counseling and preparation.
- 11. The school should explore the availability of all financial aid sources and assist more students in acquiring such aid.
- 12. The faculty and staff should encourage students to develop a variety of interests outside of those typical sex role related stereotypes, emphasizing variation in occupational opportunities.

In today's technological society, more essential skills are necessary to provide a stable, productive occupation for students. Students must be well

informed about the choices they must make in choosing a career path.

Educational systems must do their part in preparing the student to become a productive member of society. This includes a re-examination of some of the procedures which our schools deem vocational educational preparation.

Further, each educator must recognize the responsibility he or she has for preparing the student to enter the job market, higher education, or technical school, regardless of content area, grade level, or specialty area which is being taught at that level.

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