1970

# The Image of Marketing as a Field of Study Among Business Students.

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71-3441

ROUNTREE, Wallace Daniel, 1929-
THE IMAGE OF MARKETING AS A FIELD OF STUDY AMONG BUSINESS STUDENTS.

The Louisiana State University and Agricultural and Mechanical College, Ph.D., 1970
Business Administration

University Microfilms, Inc., Ann Arbor, Michigan

# THE IMAGE OF MARKETING AS A FIELD OF STUDY AMONG BUSINESS STUDENTS

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The Department of Management and Marketing

by
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B.A., Duke University, 1958
M.A., University of North Carolina, 1965
May, 1970

ACKNOWLEDGEMENTS

I would like to express my deep appreciation to those organizations and individuals who provided support toward the completion of this dissertation.

Without the helpfulness and cooperation of the officers and brothers of Delta Sigma Pi this study would not have been possible.

The faculty and staff of the Department of Business Administration at Virginia Polytechnic Institute provided invaluable assistance in the preparation and mailing of the research instrument.

Faculty of the College of Business at Louisiana State University who served as members of my dissertation committee provided suggestions and constructive criticism during the early writing and revision stages of the dissertation.

Dr. Thomas Greer served as the original chairman of my committee, helped formulate the problem, and provided many insights into improvement of format and language of the research instrument.

Dr. S. Lee Richardson, who became chairman of my committee after writing was in progress

deserves special gratitude for his prompt reading, concise suggestions, and excellent cooperation while guiding this study to completion.

Many hours of clerical assistance were provided by my student assistant, Mr. Ken Hewitt. The final copy of this dissertation was typed by Mrs. Diane Wynn. Both of these individuals deserve special acknowledgement.

Finally, to my wife Gwynne, whose hours of labor and personal sacrifice made the completion of this study possible I can only express a very personal "Thank you."

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## Review of the Study

Solutions to three basic problems were sought in this study.

1. Does the image of marketing held by business students differ significantly from these students' images of accounting, economics, finance and management as fields of study?

2. Does the image of marketing as a field of study differ significantly among various classes from within the population of business students?

3. What are some specific characteristics which contribute to the formulation of favorable and unfavorable images of marketing as a field of study?

Images were operationally defined as mental representations of anything not actually present to the senses; mental pictures formed as a result of stimuli. Students selected for this study were presented stimuli in the form of attitude statements, descriptive adjectives and value statements related to fields of study in business. Favorable images were revealed by responses indicating agreement with statements and adjectives

illustrating advantageous aspects and disagreement with statements and adjectives illustrating adverse aspects, of fields of study in business.

Data was collected by means of mailed questionnaires to a random sample of the national membership of Delta Sigma Pi, a professional business fraternity. Useable responses were received from 833 students representing 110 colleges in 39 states, and majoring in many fields of business.

The fields of accounting, economics, finance, management, and marketing were considered as separate groups. Significance of differences in total statement scores between marketing and each of the other fields for attitude statements, descriptive adjectives, and value statements was determined by Wilcoxon's matched-pairs signed-ranks test.

Students were classified according to major field, grade point average, graduate school plans, or number of academic honors obtained. Significance of differences between classes of students on individual statement scores for statements and scales related to marketing as a field of study was determined by chi square analysis.

## Summary of Findings

When fields of study in business were compared,

marketing was scored significantly more favorable than accounting, economics, or finance and less favorable than management. When students were classified according to major field, grade point average, graduate school plans, or numbers of honors, the following patterns of responses were revealed.

Among accounting majors the image of marketing is significantly less favorable, while among marketing majors the image of marketing is more favorable, than expected. Among students with high grade point averages (4.0 - 3.1) the image of marketing is less favorable, while among students with lower grade point averages (2.5 or below) the image of marketing is more favorable, than expected. Among students planning to attend graduate school the image of marketing is less favorable, while among students not planning to attend graduate school the image of marketing is more favorable, than expected. Among students with two or more honors the image of marketing is less favorable, while among students with no honors the image of marketing is more favorable, than expected.

Specific characteristics contributing most significantly to the formulation of favorable or unfavorable images were indicated by responses to the following statements:

1. This field (marketing) is very interesting and challenging to me.

2. This field (marketing) leads to occupations in which I'd like the life I'd lead outside the job.

3. I do not feel this field (marketing) has a good reputation or high prestige among other students.

4. This field (marketing) leads to occupations which would not provide opportunities for me to use my special abilities or aptitudes.

5. This field (marketing) leads to occupations which would provide me a stable secure future.

# CHAPTER I

# NATURE OF THE PROBLEM

## Introduction

Determination of the image of marketing as a field of study among business students was the primary purpose of this study. To accomplish this purpose these students' image of marketing as a field of study was compared to their images of accounting, economics, finance, and management. Differences in the image of marketing among various classes from within the population of business students were then determined. Specific characteristics which contribute to the formulation of favorable or unfavorable images of marketing as a field of study were indicated during the preceding analyses.

Images are mental representations of anything not actually present to the senses. They are mental pictures formed as a result of stimuli. In this study business students were exposed to stimuli in the form of attitude statements, value statements, and descriptive adjectives related to marketing,

accounting, economics, finance, and management as fields of study. Students' responses to these statements thus indicated their images or mental pictures of each field.

## Need for the Study

Several marketing authorities in recent years have stressed the need for determining the image of marketing among students. In his survey of marketing education, David Luck suggested there has been a deterioration in the relative stature of marketing within schools of business. At their annual conference of 1964 marketing educators commented that marketing departments must project an aggressive, attractive image to students or these students will choose other major fields. In September, 1966, Time, Inc. and Marketing Science Institute co-sponsored a three-day seminar to discuss the "Crisis in Marketing Manpower." In the October, 1967, Journal of Marketing, Wendell Smith and Blaine Cooke state the value of conducting a project to find out what the image of marketing as a career really is among appropriate audiences. Seymour Banks, commenting on the above article, stresses the necessity of determining the image which marketing has in the minds of managers

of tomorrow as compared to other business and non-business functions. The recency of these comments and articles emphasizes the need for a study of the image, and the attitudinal and motivational factors which determine the image, of marketing.

## Statement of the Problems

Solutions to three basic problems were sought in this study.

1. Does the image of marketing held by business students differ significantly from these students' images of accounting, economics, finance, and management as fields of study?

2. Does the image of marketing as a field of study differ significantly among various classes from within the population of business students?

3. What are some specific characteristics which contribute to the formulation of favorable and unfavorable images of marketing as a field of study?

## Research Hypotheses

The following null hypotheses and sub-hypotheses were formulated to serve as guides for analysis.

Major Hypothesis I. The image of marketing as a field of study held by business students will not

differ significantly from these students' images of accounting, economics, finance, and management as fields of study.

Sub-Hypothesis IA. Attitudes toward marketing as a field of study held by business students, and measured by responses to attitude statements related to fields of study in business, will not differ significantly from these students' attitudes toward accounting, economics, finance, and management as fields of study.

Sub-Hypothesis IB. Attitudes toward marketing as a field of study held by business students, and measured by responses to semantic differential scales (descriptive adjectives) related to fields of study in business, will not differ significantly from these students' attitudes toward accounting, economics, finance, and management as fields of study.

Sub-Hypothesis IC. Values of marketing as a field of study held by business

students, and measured by responses to value statements related to fields of study in business, will not differ significantly from these students' values of accounting, economics, finance, and management as fields of study.

Major Hypothesis II. The image of marketing as a field of study held by various classes from within the population of business students will not differ significantly among classes as follows:

Sub-Hypothesis IIA. The image of marketing as a field of study held by students with marketing as their major field will not differ significantly from the image of marketing held by students who are majoring in accounting, economics, finance, management, or other fields.

IIA1. Attitudes, measured by responses to attitude statements related to marketing as a field of study, will not differ significantly among students who are majoring in different fields.

IIA2. Attitudes, measured by responses to semantic differential scales (descriptive adjectives) related to marketing as a field of study, will not differ significantly among students who are majoring in different fields.

IIA3. Values, measured by responses to value statements related to marketing as a field of study, will not differ significantly among students who are majoring in different fields.

Sub-Hypothesis IIB. The image of marketing as a field of study held by students with high (4.0 - 3.1) grade point averages will not differ significantly from the image of marketing held by students with grade point averages of 3.0 or below.

IIB1. Attitudes, measured by responses to attitude statements related to marketing as a field of study, will not differ significantly among students with different

grade point averages.

IIB2. Attitudes, measured by responses to semantic differential scales (descriptive adjectives) related to marketing as a field of study, will not differ significantly among students with different grade point averages.

IIB3. Values, measured by responses to value statements related to marketing as a field of study, will not differ significantly among students with different grade point averages.

Sub-Hypothesis IIC. The image of marketing as a field of study held by students planning to attend graduate or professional school will not differ significantly from the image of marketing held by students who do not plan to attend graduate or professional schools or who are undecided about attending.

IIC1. Attitudes, measured by responses to attitude statements related to marketing as a field of

study, will not differ significantly among students planning to attend, not planning to attend, and undecided about plans to attend graduate or professional school.

IIC2. Attitudes, measured by responses to semantic differential scales (descriptive adjectives) related to marketing as a field of study, will not differ significantly among students planning to attend, not planning to attend, and undecided about plans to attend graduate or professional school.

IIC3. Values, measured by responses to value statements related to marketing as a field of study, will not differ significantly among students planning to attend, not planning to attend, and undecided about plans to attend graduate or professional school.

Sub-Hypothesis IID. The image of marketing as a field of study held by students with several (two or more) academic honors

or awards will not differ significantly from the image of marketing held by students with few (less than two) or no academic honors.

IID1. Attitudes, measured by responses to attitude statements related to marketing as a field of study, will not differ significantly among students with varying numbers of academic honors or awards.

IID2. Attitudes, measured by responses to semantic differential scales (descriptive adjectives) related to marketing as a field of study, will not differ significantly among students with varying numbers of academic honors or awards.

IID3. Values, measured by responses to value statements related to marketing as a field of study, will not differ significantly among students with varying numbers of academic honors or awards.

## Definition of Terms

The following operational definitions were provided for terms used in this study.

Academic Honors or Awards.--Includes deans list, academic honor society, graduation with honors, national merit scholarship, academic scholarship. Students who indicate they have received, or will receive by graduation, any of the above honors or awards were operationally defined as students with honors.

Attitude Statements.--Selected statements which describe students' feelings about various fields of study. Attitudes are defined as predispositions to think, feel, perceive, and behave toward given stimuli. Students' opinions or responses to stimuli in the form of attitude statements thus provide a measure of their attitudes.

Business Students.--Students enrolled in four-year colleges, universities, or departments of commerce and business administration offering courses leading to a bachelors, master's, or doctor's degree in these fields.

Favorable or Unfavorable Images.--Favorable statements are defined as statements which illustrate to the student advantageous aspects of fields of study

in business. Unfavorable statements are statements which illustrate to the student adverse aspects of fields of study in business. Literature sources, educators, and students were consulted for favorable and unfavorable statements and adjectives. Favorable images were revealed by responses indicating agreement (Strongly Agree, Agree) with favorable statements and disagreement (Strongly Disagree, Disagree) with unfavorable statements.

Field of Study.--A subject of study in one department or field of learning in which a student is required or elects to take a specified number of courses and/or credit hours.

Grade Point Average.--Determined by the ratio of all quality points earned to all credit hours attempted as reported by respondents. Quality points are assigned to letter grades as follows: A = four quality points; B = three quality points; C = two quality points; D = one quality point; below D = no quality points.

Images.--Mental representations of anything not actually present to the senses; mental pictures formed as a result of stimuli.

Marketing.--The performance of business activities that direct the flow of goods and services

from producer to consumer or user.

Value Statements.--Selected statements which describe students' feelings about opportunities provided by study in various fields. Values are defined as preferences, criteria, or choices of personal or group conduct. Students' opinions or responses to stimuli in the form of value statements provide a measure of their preferences or personal conduct (values).

## Organization of the Study

In Chapter I the problem is outlined, hypotheses stated, and variables defined. Literature relevant to the need for the study, student images, and techniques of measurement and analysis are reviewed in Chapter II. Chapter III discusses research design. Complete details are provided on development and tryout of the research instrument, selection of the student sample, and collection and treatment of the data. Research hypotheses are restated in Chapters IV and V where findings from data analysis and results of statistical tests of significance are presented. Chapter VI is a summary of the study and includes conclusions, implications, and recommendations for further study.

# CHAPTER II

# CONCEPTUAL FOUNDATIONS FROM THE LITERATURE

## Introduction

Several authorities in the social sciences, business administration, and specifically in marketing have cited the need for studies to determine images of occupations and fields of study. The present study was undertaken to determine the image of one specific field of study, marketing, among business students.

Conceptual foundations for the study are established in Chapter II by reviewing representative selections from the literature concerning the nature and determination of student images. Timeliness and relevance of the study are indicated in the sections discussing college students' image of business and specifically marketing. Literature concerning the general nature of image and its components is then reviewed. Appropriate methodology for determination of image, and statistical techniques to test hypotheses are discussed in the final sections of the chapter.

In the introduction to his book Occupations and Values, Morris Rosenberg, a participant in the 1957 Cornell Values Studies, comments on reasons why it is important to study the way college students make up their minds. Rosenberg feels the college youth of today are the occupational elite of tomorrow; they will occupy the key social positions in future years. During the college years students' ideas about work are still relatively undistorted by special conditions of the job situation; thus it is easier to observe the influence of values, attitudes, personality structure, and images as they bear on the decision process.[1]

Rose Goldsen and associates in their definitive volume, What College Students Think, state one important factor in the process of occupational selection is occupational image. These authors feel students tend to have an idea of distinctive demands and rewards characteristic of each occupational field and in selecting careers, students try to pick a field of work which they consider compatible with their own values.[2]

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[1]Morris Rosenberg, Occupations and Values (Glencoe, Illinois: The Free Press, 1957), pp. 3-4.

[2]Rose K. Goldsen, et al., What College Students Think (Princeton, New Jersey: D. Van Nostrand Company, Inc., 1960), p. 42.

In the January, 1969, issue of Fortune, Daniel Seligman states today's college educated youth have to be taken seriously. Even though they might bitterly condemn our society, the eight million college students of today are its future leaders.[3]

## College Students' Image of Business

During recent years business has been made increasingly aware of its poor image among college students. Rosenberg and his colleagues concluded that students are more likely to view business as a second-best rather than a golden career opportunity.[4]

In their study of students' images of a selected group of professions and occupations, O'Dowd and Beardslee created semantic profiles of a number of occupations. Business executives were portrayed as having both weaknesses and personal problems that offset to some degree their wealth and social status. Sales managers were portrayed as rather shallow and extroverted, selfish, impulsive, somewhat undependable,

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[3]Daniel Seligman, "A Special Kind of Rebellion," Fortune, January, 1969, p. 67.

[4]Rosenberg, Occupations and Values, p. 114.

and possessed of limited intelligence.[5]

Fortune magazine sponsored a study of the Harvard University Class of 1966 and found, of approximately 1,100 seniors, only 50 intended to accept jobs in business after graduation and only 20 per cent indicated business as an ultimate career objective.[6]

In his investigation of student attitudes toward business on the campus of Michigan State University during 1968, Leslie Dawson found grade point average correlated inversely with attitudes toward business and that the college experience is more potent in a negative rather than a positive direction in redirecting attitudes toward business.[7]

The June, 1969, issue of Fortune reports findings from its latest youth poll.

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[5]Donald D. O'Dowd and David C. Beardslee, College Student Images of a Selected Group of Professions and Occupations (Middletown, Connecticut: Wesleyan University, 1960), pp. 37-39.

[6]D. Norton-Taylor, "Private World of the Class of 1966," Fortune, February, 1966, p. 128.

[7]Leslie M. Dawson, "Social and Professional Dimensions of the Image of Business; A Study of the Attitudes of College Students and Recent College Graduates Representing Selected Major Fields of Study" (unpublished Ph.D. dissertation, Michigan State University, 1968), abstract. (Hereinafter referred to as "Social and Professional Dimensions of the Image of Business.")

> Young Americans are overwhelmingly (94 per cent of students and 92 per cent of nonstudents) convinced that business is too profit minded and too little concerned with the public welfare; a surprising majority of their parents share these views.[8]

## Need to Determine Students' Image of Marketing

Marketing educators and practitioners are particularly concerned with determining and hopefully improving the image of marketing. In a 1959 Journal of Marketing article William Borton states:

> Certainly society's judgement of the usefulness of marketing is not very favorable. Opinion surveys consistently show little respect for advertising, selling, middleman's functions and other marketing activities. Naturally responsible people engaged in these kinds of work are disturbed. Some are baffled or even jealous of the prestige which recognized professions enjoy even though they don't require more intelligence or make more money.[9]

In his survey, Marketing Education in the United States, David Luck suggests:

> There is an implication that there has been a deterioration in the relative stature of marketing within schools of business. In the face of ever-widening acceptance that marketing is the foundation of business management, a question arises as to whether universities are preparing sufficient numbers of students for careers in

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[8]Jeremy Main, "A Special Report on Youth," Fortune, June, 1969, p. 73.

[9]William M. Borton, "Respectability for Marketing?," Journal of Marketing, XXIV (October, 1959), 48.

marketing.[10]

Jerome McCarthy at the 1964 Marketing Educators Conference recommends clarifying just what marketing is and what image we wish to project. He feels the marketing department must project an aggressive and attractive image to students or they will go elsewhere.[11] Taylor W. Meloan, at the same conference, cites remarks by marketing faculty who feel marketing suffers from an unfavorable image at certain institutions; students who major in marketing are perhaps not as academic as those who major in other fields; athletes and marginal students are often shunted into marketing because of the general feeling this route is the easiest to go.[12]

Discussing a study made by Professor Charles H. Hindersman at Southern Illinois University, Edwin

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[10]David J. Luck, Marketing Education in the United States (Philadelphia, Pennsylvania: Marketing Science Institute, 1964), p. 9.

[11]E. Jerome McCarthy, "Has Marketing Really Lost Share?" in Reflections on Progress in Marketing: Proceedings 1964 Educators Conference, ed. by L. George Smith (Chicago, Illinois: American Marketing Association, 1964), pp. 498-499.

[12]Taylor W. Meloan, "Marketing Education in Transition," in Reflections on Progress in Marketing: Proceedings 1964 Educators Conference, ed. by L. George Smith (Chicago, Illinois: American Marketing Association, 1964), p. 505.

Sonnecken reports on the willingness of faculty members to eliminate marketing as a subject area. Hindersman's study indicates, on a weighted response basis, non-marketing business faculty favor dropping business law first and marketing second. When business faculty were asked to define marketing, 43 per cent gave no answer or defined marketing as buying and selling.[13]

Richard Farmer in a provocative Journal of Marketing article states marketing as viewed by young people appears to be a trivial activity indulged in by trivial people and too many U. S. marketers create an image of vulgar hucksters.[14]

While discussing the future talent pool for marketing managers, Dik Warren Twedt comments,

> "When college students choose other than business careers, marketing suffers along with other business functions. And when the brightest students are less and less likely to elect business careers, then the chances for the marketing team to be of a higher intellectual level are correspondingly reduced."[15]

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[13]Edwin H. Sonnecken, "Marketing Marketing Education," in The Dynamic World of Education for Business: Issues, Trends, Forecasts, ed. by Preston P. LeBreton (Cincinnati, Ohio: South-Western Publishing Co., 1969), pp. 59-60.

[14]Richard N. Farmer, "Would You Want Your Daughter to Marry a Marketing Man," Journal of Marketing, XXXI (January, 1967), 3.

[15]Dik Warren Twedt, "Is the Talent Pool for Marketing Managers Drying Up," Journal of Marketing, XXXI (July, 1967), 65.

William Crissy and Ferdinand Mauser feel, for all its attractions, marketing fails to project an appealing image to promising young people. For them, "marketing's image as a socially honorable field with intellectual challenge and scope is in need of improvement, an ironic condition for a profession involved with creating and improving images."[16]

Of all the articles supporting the need for a study of the image of marketing, two in the October, 1967, Journal of Marketing provided the primary impetus for this study. In "Marketing Education and Marketing Personnel as Research Areas," Wendell R. Smith and Blaine Cooke state:

> If we are to make a science and profession of marketing, it is necessary that the field acquire stature and repute as a highly regarded career among young people, particularly the college trained. In this age of highly developed techniques for image measurement, it could turn out to be worthwhile to conduct such a project for the purpose of finding out what the image of marketing as a career really is among appropriate audiences. It thus would become a means for determining the course of action that the American Marketing Association and others might want to initiate to bring about some change.[17]

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[16]William J. E. Crissy and Ferdinand Mauser, "Careers in Marketing--Public Service and Private Rewards," Sales Management, March 15, 1967, pp. 55-60.

[17]Wendell R. Smith and Blaine Cooke, "Marketing Education and Marketing Personnel as Research Areas," Journal of Marketing, XXXI (October, 1967), 61.

In his commentary on the preceding article, Seymour Banks remarks:

> The second area for increasing the flow of talent into marketing deals with the identification of attitudinal and motivational hindrances to pursuit and adoption of such a career. 'Image' is a much over-used word but it is necessary. What we are referring to here is the determination of the content of the image which marketing has in minds of able, young people--the managers of tomorrow--as compared to other business and non-business functions. Also we should discover how each of these images was formed, if possible.[18]

## Nature and Components of Image

### General Nature of Image

As Seymour Banks indicates in his commentary, "Image" is a much over-used word which has been given several meanings. Kenneth Boulding indicates the nebulous nature of image when he states, "The image is built up as a result of all past experiences of the possessor of the image. Part of the image is the history of the image itself. At one stage the image . . . consists of little more than an undifferentiated blur and movement."[19]

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[18]Seymour Banks, "Commentary on Marketing Education and Marketing Personnel as Research Areas," Journal of Marketing, XXXI (October, 1967), 62.

[19]Kenneth E. Boulding, The Image (Ann Arbor, Michigan: The University of Michigan Press, 1956), p. 6.

Image is also a multi-dimensional concept. Boulding discusses several dimensions: spatial, temporal, relational, personal, value, affectional or emotional, conscious-unconscious-subconscious, certainty-uncertainty or reality-unreality, and public-private.[20] Of these dimensions, two are particularly germane to this study. The value image is concerned with rating various parts of our world according to some scale better or worse and all of us possess valuation scales. Related to the value image is the affectional or emotional image which colors our ratings or valuations. Daniel Boorstin describes image as a multi-dimensional fabrication: synthetic, believable, passive, vivid, simple, and ambiguous.[21]

The subjective nature of image is further emphasized by Herta Herzog in her discussion of product and brand images. She feels, for consumers, products have images composed of both rational and symbolic meanings. Brand images are "the sum total

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[20]Ibid., pp. 47-63.

[21]Daniel J. Boorstin, The Image: A Guide to Pseudo-Events in America (New York: Harper and Row, 1961), pp. 185-193.

of impressions the consumer receives from many sources: from actual experience and hearsay"[22] about a particular brand.

Some authors have considered images as mental reaction to stimuli. For example, Harper Boyd and Ralph Westfall state, "Images are tied closely to sensations: they are the mental pictures that are formed as a result of stimuli. They are closely connected with symbols and associations."[23] William H. Reynolds defines an image as, "the mental construct developed by the consumer on the basis of a few selected impressions among the flood of total impressions; it comes into being through a creative process in which these selected impressions are elaborated, embellished and ordered."[24]

In studies of organizational image, the mental picture approach to defining image is often used. The corporate image is defined by Lee Bristol as "in its

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[22]Herta Herzog, "Behavioral Science Concepts for Analyzing the Consumer," in Readings in Marketing, ed. by Phillip R. Cateora and Lee Richardson (New York: Appleton-Century-Crofts, 1967), pp. 191-192.

[23]Harper W. Boyd, Jr. and Ralph Westfall, Marketing Research (rev. ed.; Homewood, Illinois: Richard D. Irwin, Inc., 1964), p. 594.

[24]William H. Reynolds, "The Role of the Consumer in Image Building," California Management Review, VII (Spring, 1965), 69.

essentials, merely the picture which your organization has created in the minds of your various publics."[25] Edward Robinson concurs and describes the concept of corporate image as "a kind of summing up of how people perceive and react to companies--to their products, personnel, policies, and prospects."[26]

In his study of the concept of image and its application to organizational analysis, Ferris Anthony defines an image as:

> An alterable state of knowledge which governs behavior (subjective knowledge). An image is what is believed by the possessor to be true. It is the result of all the past experiences of the possessor. It is the everyday situations of self and surroundings taken to be reality.[27]

## Attitudes as Components of Image

Attitudes are significant components of image. According to Bardin Nelson, "a composite of the attitudes which a group of people hold toward a product

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[25]Lee H. Bristol ed., Developing the Corporate Image (New York: Charles Scribner's Sons, 1960), p. xiii.

[26]Edward J. Robinson, Communication and Public Relations (Columbus, Ohio: Charles E. Merrill Books, Inc., 1966), p. 386.

[27]Ferris Francis Anthony, "A Study of the Concept of Image and of its Application to Organizational Analysis" (unpublished Ph.D. dissertation, Michigan State University, 1967), pp. 4-5.

constitutes an image. Influence their images and you influence their behavior."[28]

The integral relationship between image and attitudes was illustrated by Louis L. Thurstone who used the term attitude, "to denote the sum total of a man's inclinations and feelings, prejudice or bias, preconceived notions, ideas, fears, threats, and convictions about any specific topic."[29] Thus, a person's attitude toward any object is constituted by how he feels and thinks about that object. His image of that object is created by a composite of his attitudes.

Definitions of attitude, cited in social science literature consistently have adhered closely to Thurstone's earlier definition. Kerlinger, for example, defines an attitude as "a predisposition to think, feel, perceive and behave toward a cognitive object."[30] For Boyd and Westfall, "attitudes represent

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[28]Bardin H. Nelson, "Seven Principles in Image Formation," Journal of Marketing, XXVI (January, 1962), 68.

[29]Louis Leon Thurstone, The Measurement of Values (Chicago: University of Chicago Press, 1959), p. 216.

[30]Fred N. Kerlinger, Foundations of Behavioral Research (New York: Holt, Rinehart and Winston, Inc., 1964), p. 483.

a predisposition to respond to given stimuli."[31] Irving Crespi combines the two preceding definitions and states, "attitudes are predispositions to behave in specific ways to specific stimuli."[32]

A recent definition which illustrates the nature of attitudes as components of image is provided by Leslie Dawson in his study of the image of business among a selected group of college students. Dawson operationally defines attitude as "an aspect of personality involving a persistent mental state of readiness to react to a certain object or class of objects, not as they are, but as they are conceived to be."[33]

## Values as Components of Image

Values are also significant components of image. Kenneth Boulding states, "the value scales of any individual or organization are perhaps the most

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[31]Boyd and Westfall, Marketing Research, p. 592.

[32]Irving Crespi, Attitude Research, (Chicago, Illinois: American Marketing Association, 1965), pp. 9-10.

[33]Dawson, "Social and Professional Dimensions of the Image of Business," p. 31.

important single element determining the effect of the messages it receives on its image of the world."[34] Illustrating the relationship between values and image, Harry K. Schwarzweller defines a value as a conception of the desirable which is implied by a set of preferential responses to symbolic desiderata, and he defines value orientations as empirically measured tendencies to react favorably or unfavorably to certain generalized conceptions.[35] When images are considered "symbolic desiderata" or "generalized conceptions," values attached to these symbols or conceptions determine behavior preferences.

While discussing determinants of occupational entry, Peter Blau and associates indicate people's value orientations determined the relative significance of different types of rewards and the attractive force exerted by these rewards.[36] William Kuvlesky and Robert Bealer consider occupational choice as goal oriented behavior and state, "any individual

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[34]Boulding, The Image, p. 12.

[35]Harry K. Schwarzweller, "Values and Occuptional Choice," Social Forces, XXXIX (December, 1960), 127.

[36]Peter M. Blau, et al., "Occupational Choice: A Conceptual Framework," Industrial and Labor Relations Review, IX (July, 1956), 536.

has a number of goals. An estimation of the strength or weakness of his orientation toward each gives an indication of his valuation of different goals and which alternative he is likely to put before another."[37]

In his study of changing values among college students, Phillip Jacob conceived of values or value patterns as preferences, criteria, or choices of group or personal conduct. Thus a value becomes a standard for decision making held by an individual and normally identified when it is articulated in a verbal statement or overt conduct.[38] Morris Rosenberg felt students tend to consider several values important in making an occupational choice and he developed major "value orientations" or "value foci" which included such groupings as: (1) people oriented, (2) reward oriented, and (3) self-expression oriented.[39]

## Operational Definition of Image

As indicated in literature previously cited,

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[37]William P. Kuvlesky and Robert C. Bealer, "A Clarification of the Concept Occupational Choice," Rural Sociology, XXXI (September, 1966), 271-272.

[38]Phillip E. Jacob, Changing Values in College (New York: Harper and Brothers, 1957), p. xiii.

[39]Rosenberg, Occupations and Values, pp. 11-13.

image is a subjective concept difficult to define. It is created in the mind of individuals by symbols and associations. Composed of both attitudes and values, an image is taken to be reality by any individual in any behavioral situation.

For purposes of this study it is necessary to define image and its components attitudes and values; therefore, the following operational definitions are provided.

Attitudes.--Predispositions to think, feel, perceive, and behave toward given stimuli.

Values.--Preferences, criteria, or choices of personal or group conduct.

Images.--Mental representations of anything not actually present to the senses; mental pictures formed as a result of stimuli.

These definitions indicate that both attitudes and values imply choice among stimuli. If students selected for this study were exposed to stimuli in the form of attitude and value statements related to fields of study in business, responses to these statements should provide insights into student images or mental pictures of any field.

## Methodology for Determination of Image

### Determination of Image by Statement Responses

The use of responses to value statements and attitude statements or scales to determine images of various concepts has been supported by several researchers. Allen Edwards states:

> The usefulness of psychological tests in education, industry and research has been amply demonstrated. It has been a similar desire for a quick and convenient measure of attitudes that could be used with large groups that has led to the development of attitude scales. Attitude scales also provide us with one means of obtaining an assessment of the degree of affect that individuals may associate with some psychological object.[40]

Medical students' image of public health as a career of medicine was studied by a team of researchers headed by Bernard S. Phillips. Students' images were determined by open end questions, attitude statements, and value statements related to several fields of medicine. Responses were tabulated and the image of public health was compared to the images of such fields as surgery, general practice, dermatology, internal medicine, pathology, and psychiatry.[41] Albeno Garbin and

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[40]Allen L. Edwards, Techniques of Attitude Scale Construction (New York: Appleton-Century-Crofts, 1957), p. 9.

[41]Kurt W. Back, et al., "Public Health As a Career of Medicine: Secondary Choice Within A Profession," American Sociological Review, XXIII (October, 1958), 533-541.

Frederick Bates studied occupational prestige by asking a sample of respondents to express their opinions as to the rankings of various occupations with respect to different attributes. Prestige was approached as a kind of attitude which is held toward an occupation.[42]

Attitudes are defined by Fred Kerlinger as predispositions to think, feel, perceive or behave toward an object. Values are defined as inclusive general attitudes or culturally weighted preferences for things.[43] Kerlinger's definitions indicate that both attitudes and values imply choice. Subjects can be presented alternatives of known scale weights and directed to choose among alternatives according to some attitude or value criterion.

Two types of indirect scales, summated rating or Likert, and semantic differential, were used in this study to determine business students' attitudes and values toward marketing and other fields of study in business. By analyzing students' responses, a measure of their image of these fields was provided.

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[42]Albeno Garbin and Frederick L. Bates, "Occupational Prestige: An Empirical Study of Its Correlates," Social Forces, XL (December, 1961), 132.

[43]Kerlinger, Foundations of Behavioral Research, pp. 483-488.

Complete details concerning development of the instrument, administration to respondents, and analysis of responses are outlined in Chapters III and IV. Both Likert and semantic differential techniques are widely used to determine images.

## Appropriateness of Likert Scales

Appropriateness of Likert (summated rating) scales to determine attitudes is supported by behavioral scientists. According to Deobold B. Van Dalen, Likert scales contain a large number of statements which indicate clearly a position for or against a particular issue. After each statement subjects check one of several alternative answers. Weights are given to alternative answers and the same numerical values are always given to responses demonstrating the greatest favorableness toward the phenomena. The total score for each respondent is the sum of the weights assigned to each answer.[44]

Fred Kerlinger describes Likert scales as a set of attitude items, all considered of approximately equal attitude value, to which subjects respond with

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[44]Deobold B. Van Dalen, Understanding Educational Research (New York: McGraw-Hill Book Company, Inc., 1962), p. 271.

varying degrees of agreement or disagreement. Scores of items in the scale are summed or averaged to yield a subject's attitude score. The purpose of the Likert scale is to place an individual somewhere on an agreement continuum of the attitude in question.[45]

The essence of Likert scales is described by Leslie Dawson. A respondent is required to express

> the intensity of his agreement or disagreement with each of a series of opinion statements pertaining to the dimension of attitude under study. Such opinion statements are commonly referred to as items, and the series of statements for a particular dimension of attitude is usually referred to as an attitude scale.[46]

## Appropriateness of Semantic Differential

Osgood, Suci, and Tannenbaum invented the semantic differential technique to measure the connative meanings of concepts as points in "semantic space."[47] The semantic differential is described by Kerlinger as a method of observing and measuring the psychological

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[45]Kerlinger, Foundations of Behavioral Research, p. 484.

[46]Dawson, "Social and Professional Dimensions of the Image of Business," p. 83.

[47]Charles E. Osgood, George J. Suci, and Percy H. Tannenbaum, The Measurement of Meaning (Urbana, Illinois: University of Illinois Press, 1957).

meaning of concepts. Though everyone sees things a bit differently there appears to be a common cultural meaning in all concepts.[48]

Semantic differential techniques have been used extensively in connection with brand and company image studies since they develop descriptive profiles that facilitate comparison of competitive items. Boyd and Westfall describe the procedure.

> The unique characteristic of the semantic differential is the use of a number of bipolar scales . . . to rate any product, company, or concept of interest. Respondents are given a group of these scales and asked to check on each one the point that indicates their opinion of the subject in question.[49]

Advantages of the semantic differential for measuring brand, product, or company images are outlined by William Mindak. It is a quick, efficient means of determining not only the direction but intensity of opinions and attitudes toward a concept. A comprehensive picture of the image or meaning of a product or personality is provided. It represents a standardized technique for getting at the multitude of factors

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[48]Kerlinger, Foundations of Behavioral Research, p. 564.

[49]Boyd and Westfall, Marketing Research, pp. 333-334.

which go to make up a brand or product image. Finally, it is easily repeatable and reliable, allows for individual frames of reference, and eliminates some of the problems of question phrasing.[50]

## Statistical Techniques to Test Hypotheses

### Determination of Appropriate Techniques

Solution to three basic problems were sought in this study. (1) Does the image of marketing held by a selected group of business students differ significantly from these students' images of accounting, economics, finance, and management? (2) Does the image of marketing differ significantly among various classes of students? (3) What are some contributing factors to the formation of favorable or unfavorable images of marketing?

Likert (summated rating) and semantic differential scales were used to obtain responses from which a measure of student images could be obtained. Two very common methods for analyzing data from Likert and semantic differential scales are analysis of variance and t tests. Both of these tests are known as parametric

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[50]William A. Mindak, "Fitting the Semantic Differential to the Marketing Problem," Journal of Marketing, XXV (April, 1961), 28-29.

tests and assume normal distributions and require the use of at least an interval scale.

Neither Likert nor semantic differential scales are interval scales (they are ordinal), and the distribution of scores in this study was skewed; therefore, non-parametric tests were used. Wilcoxon's matched-pairs signed-ranks test was used to determine significant differences between marketing and other fields. Chi square was used to determine significant differences in the image of marketing among various classes of students. Significant differences among classes of students was calculated for every statement or set of scales, thus indicating factors contributing to the formation of image.

In contrast to interval and ratio scales, ordinal scales do not possess equal intervals or absolute zero. R. J. Senter indicates the appropriateness of non-parametric statistical techniques with such scales.

> The kinds of concepts with which psychologists, sociologists, and educators concern themselves--for example, personality traits, learning, intelligence, attitudes, achievement, needs--are often not amenable at the present state of the science to measurement with the more traditional . . . types of scales. . . . Instead, we create various tests, rating scales, attitude and opinion questionnaires . . . many of which have no clear 'anchor' such as an absolute zero point. Since the 'intervalness' of adjacent

integers in such instruments is highly questionable, they are (at best) ordinal.[51]

## Determination of Significant Differences Between Fields

In the present study total scores on attitude, value, and semantic differential scales for marketing and each of the other fields were paired and significant differences determined by use of the Wilcoxon matched-pairs signed-ranks test. Sidney Siegel indicates the Wilcoxon test is useful when a researcher can tell which member of a pair is greater than the other member, and when the differences between members of any pair can be ranked in order of absolute size.[52] Senter considers the Wilcoxon test as "a non parametric substitute for the parametric t-ratio matched pairs analysis and may be used whenever the data are at least ordinal and can be arranged in pairs on some definite a priori basis."[53]

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[51]R. J. Senter, Analysis of Data (Glenview, Illinois: Scott Foresman and Company, 1969), pp. 206-207.

[52]Sidney Siegel, Nonparametric Statistics for the Behavioral Sciences (New York: McGraw-Hill Book Company, Inc., 1956), pp. 75-76.

[53]Senter, Analysis of Data, p. 238.

For the calculation of the Wilcoxon T statistic, matched pair data is used, the difference between each pair is determined by subtraction, and ordinal ranks are assigned to those differences. After the ranks have been assigned, those ranks associated with differences having the same sign which yield the smaller sum are sorted and summed to determine the T statistic which can be evaluated in a table of critical values of T. If N (the number of pairs) is greater than twenty-five as in the present study, the calculated T value can be evaluated in a normal curve table.

### Determination of Significant Differences Between Classes

Respondents were classified into different classes and chi square was used to determine significant differences among classes for <u>each</u> statement. In addition to determination of significant differences this analysis indicated factors contributing to the formation of favorable or unfavorable images.

Chi square is a very useful test because no assumptions are necessary about the shape of the parameter distribution, and two or more differences can be evaluated at the same time. It is primarily used as a test of significance when data is expressed

in frequencies or in percentages that can be reduced to frequencies.[54]

## Summary

The need to determine college students' images of careers, occupations, and fields of study has been consistently supported by social science researchers.

Business, and specifically the field of marketing, appears to have a steadily deteriorating, unfavorable, image among college students. Recent articles in marketing publications strongly indicate the validity of undertaking studies to determine the extent of favorable or unfavorable images of marketing as a field of study among business students. Attempts should also be made to discover attitudinal and value orientations which determine student images.

Student images are determined by examination of their responses to attitude and value statements which, in the present study, are included in Likert (summated rating) scales and semantic differential scales.

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[54]N. M. Downie and R. W. Heath, Basic Statistical Methods (2nd ed.; New York: Harper and Row, 1959), p. 160.

Significance of differences between fields were determined by the Wilcoxon matched-pairs signed-ranks test. Chi square was used to determine significant differences between subgroups.

# CHAPTER III

# PROCEDURES OF RESEARCH

## Introduction

The primary purpose of this study was to determine the image of marketing as a field of study among business students. Achieving this purpose required development of an appropriate research instrument. Guidelines for development of this instrument were drawn from previous research and articles cited in Chapter II. Bardin Nelson defined an image as a composite of people's attitudes. Harry Schwarzweller found value orientations play an influential part in career choice. Phillip Jacob and Morris Rosenberg felt values became standards for decision-making among students. Bernard Phillips used attitude statements and value statements when comparing medical students' images of various fields of medicine.

Further guidelines were provided by the operational definitions of images, attitudes, and values. Images were defined as mental representations of anything not actually present to the senses;

mental pictures formed as a result of stimuli. Attitudes were defined as predispositions to think, feel, perceive, and behave toward given stimuli. Values were defined as preferences, criteria, or choices of personal or group conduct. Both attitudes and values are verbally expressed through opinions. The guidelines provided by previous research and operational definitions indicated that both attitudes and values imply choice among stimuli. If the sample of students selected for this study were presented stimuli in the form of attitude statements and value statements related to fields of study in business, student responses to these statements should provide insights into their image of marketing as a field of study.

Only students' verbally expressed attitudes, values, or images could be determined in this study. No attempt was made to uncover private beliefs or observe the relationship between behavior and verbal expressions. This approach is supported by Lee J. Cronbach who states,

> we know little about a man's attitude except what he tells us, so that there is no sure way of comparing his self-report, his public attitude with his true private beliefs. Some investigators have limited their purpose to determining the subjects' publicly verbalized opinions. If that is the purpose of measurement, the self-report test

has, by definition a high degree of validity.[1]

Louis L. Thurstone concurred.

> We shall assume that it is of interest to know what people say they believe even if their conduct turns out to be inconsistent with their professed opinions. Even if they are intentionally distorting their attitudes, we are measuring at least the attitude which they are trying to make people believe they have.[2]

## Development of the Research Instrument

### Determination of an Appropriate Instrument

Attitudes, values, and images are complex and difficult to measure. One approach, which was adopted in this study, is the use of indirect scales. With this approach, a series of statements related to the concepts under study are developed and subjects are asked to indicate degrees of agreement or disagreement with them. On the basis of responses a score is determined for each subject or group of subjects. Three types of indirect scales prevalent in behavioral research are: Thurstone or method of equal-appearing intervals, Likert or summated rating, and semantic differential. Thurstone scales require the use of

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[1]Lee J. Cronbach, Essentials of Psychological Testing (New York: Harper and Brothers, 1949), p. 375.

[2]Thurstone, The Measurement of Values, p. 217.

judges, the sorting of statements, and finally, the construction of a scale. Both Likert scales and semantic differential scales dispense with judges, are as reliable as Thurstone scales, are simpler to construct, and have been used extensively in image research; therefore, these two methods were chosen over Thurstone scales.

A description of Likert and semantic differential scales was provided in Chapter II. Likert scales are of the ordinal type, enabling ranking of attitudes but not measurement of the difference between attitudes. They are somewhat simpler to construct than Thurstone scales and allow for the intensity of attitude expression thus providing greater variance. Semantic differential scales are: (1) a quick efficient means of getting in readily quantifiable form and for large samples not only the direction but intensity of opinions and attitudes toward a concept, (2) a standardized technique for getting at the multitude of factors which go to make up a brand or product image, (3) a technique which eliminates some of the problems of question phrasing, such as ambiguity and overlapping of statements.[3]

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[3]Mindak, "Fitting the Semantic Differential to the Marketing Problem," pp. 28-29.

Development of Likert scales occurs in the following manner:

1. A series of favorable and unfavorable statements relevant to the attitude in question are collected.

2. A series of responses that represent various degrees of agreement, such as strongly agree, agree, undecided, disagree, and strongly disagree are selected.

3. The collected statements are administered to a group reasonably representative of the universe to be studied and they are instructed to check their degree of agreement with each statement.

4. Statements that do not discriminate between the high and low scores on the total test are eliminated. High and low quartiles of respondents on the total test constitute criteria groups. Average scores on each statement among those in the criteria groups are determined. Statements on which average scores differ by the largest amount are the most discriminating.

## Selection of Statements and Scales

Favorable and unfavorable attitude and value statements expressing students' opinions of fields of study in business were collected from many sources.

Individual discussions were held between the researcher, undergraduate students, graduate students, and faculty members in the College of Business at Louisiana State University. An extensive survey of the literature was conducted for concise statements related to students' images of fields of business. After collection of personal comments and survey of the literature, a preliminary list of fifteen attitude statements and fifteen value statements was prepared.

Along with the preliminary list of fifteen attitude statements and fifteen value statements, a list of ten adjectival pairs of semantic differential scales selected from Osgood, Suci, and Tannenbaum's list of generalized scales was also prepared.[4] The lists of statements and scales were submitted for review to a faculty member in each of the fields of accounting, economics, finance, management, and marketing, and to two undergraduate students majoring in marketing. Reviewers were requested to examine critically and edit statements and scales which:

1. Were liable to be endorsed by individuals with opposed attitudes.
2. Were factual or could be interpreted as such.

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[4]Osgood, Suci, and Tannenbaum, The Measurement of Meaning, p. 37.

3. Were obviously irrelevant to the issue under consideration.
4. Appeared likely to be endorsed by everyone or no one.
5. Seemed subject to varying interpretations for any reason.
6. Contained a word or words not common to the vocabulary of college students.[5]

Revision and elimination of statements and scales were made according to reviewers' recommendations. A revised list of ten attitude statements, ten value statements, and six adjectival pairs of semantic differential scales were used in preparation of the pretest instrument.

## Administration of a Pretest

Administration of the preliminary instrument to a group reasonably representative of the universe was the first step toward development of the final instrument. The population selected for this study was the national membership of Delta Sigma Pi (a professional business fraternity),[6] and Beta Zeta Chapter of this fraternity at Louisiana State University

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[5]Allen L. Edwards and Franklin P. Kilpatrick, "A Technique for the Construction of Attitude Scales," Journal of Applied Psychology, XXXII (August, 1948), 377.

[6]Determination of the population and drawing the sample are discussed later in this chapter.

was selected as subjects for the pretest. The researcher personally attended a chapter meeting, administered the preliminary instrument to thirty-nine students, responded to questions and comments, and picked up completed copies.

Responses to attitude statements and value statements were scored by assigning a score of five for the strongly agree response to favorable statements and a score of one for the strongly agree response to unfavorable statements. Responses to semantic differential scales were scored by assigning a value of seven to the most favorable location on each scale, and a score of one to the least favorable location.

## Determination of Internal Consistency and Validity

One of the primary purposes of a pretest is to determine the discriminatory power of statements or scales included in the research instrument. Allen Edwards outlines an appropriate method:

> We consider the frequency distribution of scores based upon the response to all statements. We may then take the 25 (or some other) per cent of the subjects with the highest total scores and also the 25 per cent of the subjects with the lowest total scores. We assume that these two groups provide criterion groups in terms of which to evaluate the

> individual statements.[7]
> . . . . . .
> As a simple and convenient procedure we might use the difference between the means of the high and low groups on the individual statements as a basis for selecting the . . . items desired for the scale.[8]

Discriminatory power of attitude statements, value statements, and semantic differential scales used in this study was determined according to the method outlined by Edwards. Since the primary purpose of this study was to determine students' image of marketing as a field of study, it was felt subjects' scores on statements and scales related to the concept marketing would be the most meaningful scores for analysis. Therefore, statement scores, scale scores, and total scores for the concept marketing were determined for each subject in the pretest group. The ten subjects with the highest total scores and the ten subjects with the lowest total scores for each group of statements or scales for the concept marketing provided criterion groups in terms of which to evaluate individual statements. Differences between the means of the high and low groups on the individual statements were computed.

When selecting statements, it is generally

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[7]Edwards, Techniques of Attitude Scale Construction, p. 152.

[8]Ibid., p. 155.

desirable that as many statements as possible have a discriminatory power of 1.00 or greater, and no statements which drop below .50 be used.[9] One attitude statement and one value statement indicated a difference between means of less than .90; therefore, these two statements were not included in the final instrument. All semantic differential scales had differences of at least 2.00; therefore, all of these scales were included.

Discriminatory power values (differences between means of high and low criterion groups) on the concept marketing for attitude statements, semantic differential scales, and value statements selected for the final instrument are indicated in Tables 1, 2, and 3.

TABLE 1.--Discriminatory Power for the Concept Marketing of Attitude Statements Included in the Final Research Instrument

| Statement | Discriminatory Power | Statement | Discriminatory Power |
|---|---|---|---|
| A. ..... | 2.12 | F. ..... | .90 |
| B. ..... | 1.79 | G. ..... | 1.13 |
| C. ..... | .96 | H. ..... | 1.33 |
| D. ..... | 1.50 | I. ..... | 1.10 |
| E. ..... | .99 | | |

[9]W. J. Goode and P. K. Hatt, Methods in Social Research (New York: McGraw-Hill Book Company, Inc., 1952), p. 276.

TABLE 2.--Discriminatory Power for the Concept Marketing of Semantic Differential Scales Included in the Final Research Instrument

| Scales | Discriminatory Power |
|---|---|
| Ugly-Beautiful ..... | 2.80 |
| Valuable-Worthless ..... | 2.10 |
| Pleasant-Unpleasant ..... | 3.30 |
| Fair-Unfair ..... | 3.00 |
| Bad-Good ..... | 3.10 |
| Awful-Nice ..... | 2.90 |

TABLE 3.--Discriminatory Power for the Concept Marketing of Value Statements Included in the Final Research Instrument

| Statement | Discriminatory Power | Statement | Discriminatory Power |
|---|---|---|---|
| A. ..... | 2.33 | F. ..... | 1.13 |
| B. ..... | 1.47 | G. ..... | 1.56 |
| C. ..... | 1.88 | H. ..... | 1.63 |
| D. ..... | 1.99 | I. ..... | 1.67 |
| E. ..... | .97 | | |

Determination of the discriminatory power of statements or scales to be included in a measurement instrument provides some measure of the internal consistency of the instrument. An instrument is said to be internally consistent if statements or scales

included demonstrate the power to discriminate between criterion groups. Research instruments are valid if they measure what they claim to measure. Internal consistency and some other type of validity should be used to validate research instruments. Content validity as defined by Fred Kerlinger was used in this study.

> Content validity is the representativeness or sampling adequacy of the content--the substance, the matter, the topics of a measuring instrument. Content validation is guided by the question: Is the substance or content of this measure representative of the content or the universe of content of the property being measured.[10]

Two techniques for insuring content validity are logical or curricular validation, and jury validation.[11] Logical or curricular validity is obtained when investigators analyze abilities, skills, or course content they intend to appraise, then draw upon the literature for questions, problems, or statements to aid in measurement and appraisal. Jury validation is obtained when items to be included on a test or research instrument are submitted to qualified experts who rate them as to their importance in contributing to the factor being

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[10]Kerlinger, Foundations of Behavioral Research, pp. 445-446.

[11]Van Dalen, Understanding Educational Research, pp. 264-265.

measured. Statements and scales included in the research instrument used in this study were subjected to both curricular and jury validation.

To obtain curricular validity, an extensive review of literature related to occupational or major field choice was conducted. From this review a preliminary list of attitude statements, semantic differential scales (descriptive adjectives), and value statements was prepared. Attitude statements were drawn primarily from the following sources: statements concerning students' feelings about college courses and specific occupations provided by James A. Davis in his NORC survey of college students;[12] "A Survey of College Academic Fields" developed by Jack B. Gibson;[13] generalized attitude scales to measure attitudes toward any school subject and toward college courses, cited by Shaw and Wright;[14] and business career and business

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[12]James A. Davis, Undergraduate Career Decisions (Chicago: Aldine Publishing Company, 1965), pp. 296-299.

[13]Jack Baldwin Gibson, "An Inquiry Into Some Aspects of Major Field Affiliation of College Students" (unpublished Ph.D. dissertation, University of Kansas, 1966), pp. 126-136.

[14]Marvin E. Shaw and Jack M. Wright, Scales for the Measurement of Attitudes (New York: McGraw-Hill Book Company, Inc., 1967), pp. 293-300.

education attitude statements developed by Leslie Dawson.[15] Semantic differential scales were drawn from a list of bipolar scales with high factor loadings (.75 or better) on the evaluative factor. Osgood, Suci, and Tannenbaum conceive of attitude as an evaluation, and the evaluative factor seems to measure the direction and intensity of an individual's attitude toward objects being rated.[16] Value statements were drawn primarily from the following sources: The Cornell Values Study in which college students were asked to consider and rank requirements for an ideal job or career;[17] a list of values influencing occupational choice, developed by Richard and Ida Simpson;[18] occupational traits cited by Albeno Garbin and Frederick Bates;[19] and a list of occupational values describing

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[15]Dawson, "Social and Professional Dimensions of the Image of Business," pp. 211-217.

[16]Osgood, Suci, and Tannenbaum, The Measurement of Meaning, p. 37.

[17]Rosenberg, Occupations and Values, p. 12, and Goldsen, et al., What College Students Think, p. 56.

[18]Richard L. Simpson and Ida Harper Simpson, "Values, Personal Influence, and Occupational Choice," Social Forces, XXXIX (December, 1960), 119.

[19]Garbin and Bates, "Occupational Prestige," p. 135.

opportunities provided by study in various fields of medicine, developed by Bernard S. Phillips and his research team.[20]

To obtain jury validation the preliminary list of attitude statements, semantic differential scales, and value statements was submitted to faculty members in the fields of accounting, economics, finance, management, and marketing. These judges considered statements and scales for their content and relevance to the determination of students' images of marketing and other fields of study in business. Statements and scales were revised or eliminated according to judges' recommendations.

## Determination of Reliability

Research instruments should be reliable as well as valid. A research instrument is reliable if it consistently yields the same results when repeated measurements are taken of the same subjects under the same conditions. Reliability is the accuracy or precision of a measuring instrument. It can be defined as the relative absence of errors of measurement in a

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[20]Bernard S. Phillips, "Expected Value Deprivation and Occupational Preference," Sociometry, XXVII (June, 1964), 156.

measuring instrument, and is associated with random or chance error. Three methods of determining reliability are: (1) the test-retest, (2) parallel forms, and (3) split-halves. Since the subjects used in this study were so widespread geographically and a relatively small number of questions were included, none of the above methods were used. A variance method of determining reliability suggested by Fred Kerlinger was substituted.[21]

According to Kerlinger, reliability is defined through error: the more error, the greater the unreliability; the less error, the greater the reliability. Thus, if we can estimate the error variance in any measure we can also estimate the measure's reliability. Using variance terminology, reliability may be defined as the proportion of error variance to the total obtained variance of the data, yielded by a measuring instrument, subtracted from 1.00 (the index 1.00 indicating perfect reliability). If total variance is considered as an index of differences

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[21]All of the presentation concerning determination of reliability by analysis of variance is drawn from Kerlinger, Foundations of Behavioral Research, pp. 429-443.

between individuals, three alternative equations may be used to express the preceding definition.

$$r_{tt} = 1 - \frac{Ve}{Vt} \qquad r_{tt} = \frac{Vt-Ve}{Vt} \qquad r_{tt} = \frac{Vind-Ve}{Vind}$$

where

$r_{tt}$ = the reliability coefficient

Vt = total variance, or the variance computed from the obtained set of original scores

Ve = error or residual variance

Vind = the variance resulting from individual differences. May be substituted for Vt or total variance between individuals.

To determine reliability coefficients for the attitude statements, semantic differential scales, and value statements used in this study, a two-way analysis of variance was performed on the concept marketing between items to be included in the final instrument and the thirty-nine individuals included in the pretest group. Resulting reliability coefficients were:

Attitude Statements $r_{tt} = .783$

Semantic Differential Scales $r_{tt} = .903$

Value Statements $r_{tt} = .852$

Since all of these reliability coefficients approximate the .85 typically reported, the statements and scales used in the final research instrument were accepted as reliable measurement instruments. Summary tables for this analysis of variance are indicated in Tables 4, 5, and 6.

TABLE 4.--Summary of Two-Way Analysis of Variance Between Items and Individuals, on the Concept Marketing, to Determine Reliability Coefficients for Attitude Statements

| Source of Variation | Sum of Squares | df | Mean Square | F |
|---|---|---|---|---|
| Items | 13.18 | 8 | 1.647 | 2.7 |
| Individuals | 106.42 | 38 | 2.800 | 4.6 |
| Residual (Items X Ind.) | 185.82 | 304 | .61 | ... |
| Total | 305.42 | 350 | ..... | ... |

$$r_{tt} = 1 - \frac{Ve}{Vind} = 1 - \frac{.61}{2.80} = .783$$

$$r_{tt} = \frac{Vind-Ve}{Vind} = \frac{2.80-.61}{2.80} = .782$$

After tests for validity and reliability performed on the preliminary instrument indicated one attitude statement and one value statement should be eliminated

TABLE 5.--Summary of Two-Way Analysis of Variance Between Items and Individuals, on the Concept Marketing, to Determine Reliability Coefficients for Semantic Differential Scales

| Source of Variation | Sum of Squares | df | Mean Square | F |
|---|---|---|---|---|
| Items | 36.65 | 5 | 7.33 | 10.22 |
| Individuals | 282.06 | 38 | 7.42 | 10.34 |
| Residual (Items X Ind.) | 136.35 | 190 | .717 | ..... |
| Total | 455.06 | 233 | ..... | ..... |

$$r_{tt} = 1 - \frac{Ve}{Vind} = 1 - \frac{.717}{7.42} = .903$$

$$r_{tt} = \frac{Vind-Ve}{Vind} = \frac{7.42-.717}{7.42} = .903$$

(since they lacked discriminatory power), this instrument was revised and became the final research instrument. This final research instrument was then administered to the student sample described in the following section.

## Description and Selection of Subjects

### Selection of an Appropriate Population

Criteria suggested by Wendell Smith, Blaine

TABLE 6.--Summary of Two-Way Analysis of Variance Between Items and Individuals, on the Concept Marketing, to Determine Reliability Coefficients for Value Statements

| Source of Variation | Sum of Squares | df | Mean Square | F |
|---|---|---|---|---|
| Items | 29.33 | 8 | 3.67 | 6.1 |
| Individuals | 154.54 | 38 | 4.07 | 6.8 |
| Residual (Items X Ind.) | 182.90 | 304 | .60 | ... |
| Total | 366.77 | 350 | .... | ... |

$$r_{tt} = 1 - \frac{Ve}{Vind} = 1 - \frac{.60}{4.07} = .85$$

$$r_{tt} = \frac{Vind-Ve}{Vind} = \frac{4.07-.60}{4.07} = .85$$

Cooke, and Seymour Banks, in their article concerning "Marketing Education and Marketing Personnel as Research Areas," were used to select subjects for this study.

1. Subjects should be young people.
2. Subjects should be college trained.
3. Subjects should be appropriate audiences.
4. Subjects should be able.
5. Subjects should be managers of tomorrow.

Meeting these criteria necessitated selection of subjects who were college students or recent graduates, concerned with the image of various fields of study in business, and were average or above average students planning to enter business careers. The criteria that subjects should be managers of tomorrow, narrowed the choice to students majoring in some field of business. The criteria that subjects should be able, suggested students belonging to an honorary or professional fraternity with average or above average admission standards. One group which met all the criteria suggested by Smith, Cooke, and Banks was Delta Sigma Pi professional business fraternity; therefore, it was decided to use active chapters of this fraternity during academic year 1968-69 as a possible source of subjects.

After the decision was made to use Delta Sigma Pi as a source of subjects, it was necessary to develop a list of members comprising a well defined population from which a sample might be drawn. As a first step a total list of members of Delta Sigma Pi by name, chapter, and address was requested from the Executive Director of Delta Sigma Pi. His office furnished a list of chapter advisors by chapter and

school address from whom membership lists might be obtained. Each of the chapter advisors was contacted beginning in September, 1968, and asked to provide a current list of individual student members by school mailing address. Membership lists were ultimately received from 110 chapters or 78 per cent of the total 141 undergraduate chapters.

The population of subjects for this study is defined as 3,530 student members of Delta Sigma Pi professional business fraternity listed on membership lists provided the researcher by chapter advisors or chapter presidents of 110 separate chapters of Delta Sigma Pi. Chapter names, school name, and number of members in each chapter are indicated as part of Appendix I. No attempt is made to imply that findings from this study are applicable to any individual or groups of individuals other than those members of Delta Sigma Pi selected as subjects for this study. However, since the population for this study consisted of 3,530 students, enrolled in 110 colleges and universities located in 39 states, and studying many fields of business, this study may well have wide applicability and hopefully would be replicated with different populations at different points in time.

## Determination of the Sampling Technique

Two considerations were involved in selecting a sample of subjects for this study. First, what sampling technique should be used, and second, what size sample should be selected? Several alternative sampling techniques were considered: simple random sampling, stratified random sampling, cluster sampling or systematic sampling. Cluster sampling was ruled out since this technique required sampling groups of subjects and there was no way to determine the degree of homogeneity or heterogeneity of subject characteristics. Systematic sampling was ruled out since this technique might lead to hidden "periodicities" and would automatically exclude many subjects from possible selection in the sample. Stratified random sampling was a strong possibility but this technique was ruled out for several reasons. First, any gains in reliability over simple random sampling would be moderate. Second, it was difficult to determine a meaningful basis for stratification. Finally, with the large number of possible strata, computational problems would arise when attempting to apply appropriate weights to each strata.

Simple random sampling was selected as the most appropriate sampling technique. In simple random sampling every subject in the population has an equal chance of being drawn into the sample. An unbiased sample is provided by random sampling since this technique does not permit the researcher's biases or any other systematic selection factors to operate. Boyd and Westfall state simple random samples might be useful when: (1) the universe of items is small, (2) a satisfactory list of universe items exist, (3) cost per response is practically independent of the location of sample items, (4) the only information available about the universe is the list of items.[22]

## Determination of Sample Size

The second consideration in selecting a sample for this study involved determination of sample size. Several factors affect the sample size: (1) homogeneity or heterogeneity of the population, (2) the breakdown planned in tabulation, (3) collection problems, and (4) type of sampling.

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[22]Boyd and Westfall, Marketing Research, p. 384.

Since the population chosen for this study was so wide-spread geographically and included individuals of varied characteristics, there was little basis for assuming homogeneity; therefore, a larger rather than a smaller size sample seemed feasible. Findings from this study were to be grouped and analyzed into many different categories and classes, thus again the use of a large sample was supported. Data for this study was to be collected by mail which commonly creates a low to moderate rate of return; therefore, it was necessary to oversample. Finally, simple random sampling was the sampling technique selected and this technique requires a larger sample than other techniques.

Several statistical formulas and tables are available for determining necessary sample size when using simple random sampling. The following general sample size formula suggested by Boyd and Westfall was used in this study. This formula assumes the population size is large relative to the projected sample size. If the projected sample size is greater than 5 per cent of the population, sample size may be revised downward by use of a correction factor. In this study a larger sample than needed was purposely drawn; therefore, the correction factor was ignored.

$$n = \frac{k^2C^2}{r^2}$$

Where

n = necessary sample size, assuming simple random sampling.
k = 2 or 3 depending on whether one wishes to take a 1 in 20 chance of not having an adequate sample size (k = 2) or wishes to be virtually certain of the result (k = 3).
C = universe coefficient of variation, expressed in percentage.
r = percentage within which universe mean is to be estimated.[23]

To solve the above equation it is necessary to have an adequate estimate of C. By letting C = $\frac{\text{Standard Deviation}}{\text{Mean}}$ (100%), an estimate may be determined from pretest data. A pretest was administered to thirty nine members of Beta Zeta Chapter of Delta Sigma Pi at Louisiana State University. Three different sets of scales: attitude scales, semantic differential scales, and value scales related to the concepts accounting, economics, finance, management, and marketing comprise the research instrument. Total scores, mean scores, and standard deviations for each set of scales on the concept marketing were calculated for the thirty nine pretest subjects. Mean scores, standard deviations, and estimates of C are indicated in Table 7.

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[23] Ibid., p. 379.

TABLE 7.--Mean Scores, Standard Deviations, and Estimates of C for Pretest Subjects on the Concept Marketing (n = 39)

| Scales | Mean | Standard Deviation | Estimate of C |
|---|---|---|---|
| Attitudes | 33.76 | 4.97 | .147 |
| Semantic Differential | 30.87 | 6.58 | .213 |
| Values | 33.35 | 6.10 | .183 |

Once the estimates of C were obtained appropriate sample sizes for each set of scales could be determined. When k was assigned the value three, r assigned the value 2.5 per cent, and using the estimates of C given in Table 7, the following sample sizes were obtained:

| | |
|---|---|
| Attitude Scales | n = 311 |
| Semantic Differential | n = 653 |
| Value Scales | n = 481 |

Thus, for three separate areas of interest, to be virtually certain (k = 3), that the universe mean can be estimated within 2.5 per cent (r = .025), sample size should be at least 653 subjects.

Other considerations influenced the decision to draw a larger sample than 653 subjects. First,

other concepts than marketing were to be considered. Second, during this study or in future studies subjects would be classified in many different categories and there should be enough subjects to include in each category. Third, in a nationwide mail survey with college students as subjects, the percentage of return was potentially low to moderate and oversampling would be helpful. A decision was made to draw a simple random sample of 1,225 subjects out of the population of Delta Sigma Pi members previously alphabetized and listed from 0001-3530.

Selection of the 1,225 sample subjects was made with the use of a table of random numbers. Subjects in the Delta Sigma Pi population with the randomly selected numbers were used as members of the sample. Appendix I indicates population and sample size by chapter and school name.

## Collection and Treatment of Data

### Collection of Responses

Mail survey was selected as the most appropriate method of collecting data for this study. With mail it was possible to cover a wide geographical area and reach a large population. Neither human nor financial resorces were available to permit the use of personal

or telephone interviews. Non-response is considered a serious disadvantage of mail surveys; however, it was felt if conscientious efforts were made to contact non-respondents through follow-up mailings, a high percentage of returns could be obtained.

On February 15, 1969, the first mailing of a cover letter, the research instrument, and a self addressed postage paid reply envelope was forwarded to the 1,225 members of Delta Sigma Pi selected in the sample. After the original and 2 follow-up mailings and a letter to chapter presidents soliciting returns, a total of 877 returns were received. These returns constituted 71.59 per cent of the sample and far more than the 653 subjects required for a reliable sample. The remaining 28.41 per cent of the sample should not truly be considered as non-respondents. For example, 49 instruments, or 4 per cent, were returned to sender after 3 attempts to reach the addressee and were classified as unable to locate. Other subjects may have withdrawn from their schools for various reasons. Some may have graduated or been drafted and left no forwarding address. Still other names might have been included on membership lists when these subjects were no longer active members of Delta Sigma Pi. An enumeration of returns by number and percentage per chapter

and school is included as part of Appendix I.

## Editing and Scoring Responses

After the 877 responses were received, each was edited. Those responses illegible, incomplete, obviously patterned (same answers to all statements) or obviously untrue (fictitious classification data) were withdrawn. After editing, 833 completed instruments remained to be scored and to provide data for analysis.

Scoring of individual instruments was accomplished according to the scoring key indicated in Appendix II B. For favorable attitude or value statements the strongly agree (SA) answer received a score of five, agree (A) a score of four, undecided (U) a score of three, disagree (D) a score of two, and strongly disagree (SD) a score of one. For unfavorable attitude or value statements, a score of five was assigned to the strongly disagree (SD) answer and a score of one to the strongly agree (SA) answer. For each field of study, there were nine attitude statement scores, nine value statement scores, a total attitude score, and a total value score.

Score values of semantic differential scales also were assigned according to the scoring key in

Appendix II B. Each field of study was considered a separate concept and was followed by six adjectival pairs or scales. Scores of one through seven were assigned as in the following example.

ACCOUNTING

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| BEAUTIFUL | : 7 | : 6 | : 5 | : 4 | : 3 | : 2 | : 1 | : UGLY |
| BAD | : 1 | : 2 | : 3 | : 4 | : 5 | : 6 | : 7 | : GOOD |

The location of respondents' X's provided a score for each adjectival pair or set of scales. For each field of study there were six scale scores and a total score.

The preceding scoring procedures for attitude scores, semantic differential scores, and value scores were repeated for all 833 respondents. Scoring was done by hand and randomly verified by two different individuals. In addition to the scoring of statements and scales it was necessary to code classification data. A coding guide was prepared and appropriate symbols were entered on each respondent's classification data sheet. Scores were tallied and classification data coded for all 833 respondents.

## Statistical Tests of Hypotheses

Scores and classification data obtained from research instruments were used to test the two major

hypotheses and several sub-hypotheses of this study. The major hypotheses were:

I. The image of marketing as a field of study held by business students will not differ significantly from these students' images of accounting, economics, finance, and management as fields of study.

II. The image of marketing as a field of study held by various classes from within the population of business students will not differ significantly among classes.

Images are mental pictures formed as a result of stimuli. In this study subjects were exposed to stimuli in the form of attitude statements, value statements, and descriptive adjectives related to accounting, economics, finance, management, and marketing as fields of study. Subjects' responses to these statements thus indicated their images of each field.

Appropriate statistical techniques for testing hypotheses in this study and the rationale behind each test were discussed in Chapter II. In Chapters IV and V each major and sub-hypothesis is restated in null form in order to test for significance of differences. For all significance tests a statistical probability level of .05 was considered the minimum requirement

for acceptance or rejection of a hypothesis.

To test major hypothesis I and its related sub-hypotheses, the fields of accounting, economics, finance, management, and marketing were considered as separate groups. Significance of differences in total scores, between marketing and each of the other fields of study, on attitude statements, semantic differential scales, and value statements was determined by use of Wilcoxon's matched-pairs signed-ranks test.

To test major hypothesis II and its related sub-hypotheses, students were classified as follows: according to major field to test hypothesis IIA, according to grade-point average to test hypothesis IIB, according to plans to attend graduate school to test hypothesis IIC, and according to academic honors or awards to test hypothesis IID. Significance of differences between classifications of students on individual statement scores for attitude statements, semantic differential scales, and value statements related to marketing as a field of study was determined by use of chi square analysis.

# CHAPTER IV

## ANALYSIS OF DIFFERENCES BETWEEN FIELDS

### Introduction

In Chapter IV major hypothesis I and its related sub-hypotheses were tested to determine if the image of marketing held by business students differs from their images of accounting, economics, finance, and management as fields of study.

Major Hypothesis I. The image of marketing as a field of study held by business students will not differ significantly from these students' images of accounting, economics, finance, and management as fields of study.

Sub-Hypothesis IA. Attitudes toward marketing as a field of study held by business students, measured by responses to attitude statements related to fields of study in business, will not differ significantly from these students' attitudes toward accounting, economics, finance, and management as fields of

study.

Sub-Hypothesis IB. Attitudes toward marketing as a field of study held by business students, measured by responses to semantic differential scales (descriptive adjectives) related to fields of study in business, will not differ significantly from these students' attitudes toward accounting, economics, finance, and management as fields of study.

Sub-Hypothesis IC. Values of marketing as a field of study held by business students, measured by responses to value statements related to fields of study in business, will not differ significantly from these students' values of accounting, economics, finance, and management as fields of study.

As indicated in Chapters II and III the Wilcoxon matched-pairs signed-ranks test was used to determine significance of differences in total scores between marketing and each of the other fields of

study on attitude statements, semantic differential scales, and value statements. For each set of statements, each student's total marketing scores were paired, in turn, with his total scores on accounting, economics, finance, and management. Then the difference between each pair of total scores was determined by subtraction and ordinal ranks assigned to the differences. When the difference between any pairs of scores equals zero (tied scores), these pairs are dropped from the analysis. After ranks were assigned, those ranks associated with differences having the same sign which yielded the smaller sum were sorted and summed to determine the T statistic. Since N (the number of pairs minus the number of pairs whose difference = 0) in this study was greater than twenty-five the calculated T values were evaluated in a normal curve table by calculation of a z score using the following formulas:

$$\bar{X}_T = \frac{N^2+N}{4} \qquad SD_T = \sqrt{\frac{N(N+1)(2N+1)}{24}} \qquad z_T = \frac{T-\bar{X}_T}{SD_T}$$

where

$\bar{X}_T$ = the mean of any distribution of all

possible values calculable from a given set of ranks

$SD_T$ = the standard deviation applicable to the computed $\bar{X}_T$

N = the number of matched pairs minus the number of pairs whose difference = 0

T = the smaller sum of the ranks associated with the differences having the same sign

After z scores for matched pairs were calculated, their associated probabilities (P) were determined from the normal curve table. Tests in this study were two-tailed (non-directional); therefore, associated probabilities (P) were doubled. If the obtained P was equal to or less than .05, the null hypothesis of no differences between total scores was rejected. Symbolically stated, if $P \leq .05$ reject $H_0$ and accept $H_1$.

Associated probabilities determined in the following analysis were very low because z scores were very high. The deviation of any score from its mean in standard deviation units is called z. Thus, in the Wilcoxon test, z represents the deviation of T from its mean ($\bar{X}_T$) in standard deviation units. For two-tailed (non-directional) tests z of 1.96 has an associated

probability of .05, while z of 2.57 has an associated probability of .01. Higher z values provide correspondingly low associated probabilities.

Efforts were made in designing the research instrument to minimize patterned responses or to prevent students from providing answers they thought the researcher wanted. Students were advised there were no right or wrong answers, their answers were absolutely confidential, and no individual student's answers would be revealed. Favorable and unfavorable statements or scales were randomly arranged. Finally, names of fields of study were placed randomly over each group of statements or scales. A weakness of self administered questionnaires and oral responses to an interview is that people may distort their response. When using these techniques, researchers can only measure verbalized opinions.

## Differences Between Fields on Attitude Statements

Sub-hypothesis IA states: Attitudes toward marketing as a field of study held by business students, measured by responses to attitude statements related to fields of study in business, will not differ significantly from these students' attitudes toward accounting, economics, finance, and management as fields of study.

The following procedures were used to test hypothesis IA.

Nine attitude statements, or statements which described students' feelings about various fields of study, were listed on the first page of the research instrument. Beside these statements were placed the names of five fields of study in business: economics, management, finance, marketing, and accounting. Students were directed to place after each statement, under the appropriate field, the letters which best described their feelings. Specifically, they were directed to place SA if they strongly agreed the statement applied to a field, to place A if they agreed, U if undecided, D if they disagreed, and SD if they strongly disagreed.

Some attitude statements were favorable and illustrated advantageous aspects of fields of study in business. Other statements were unfavorable, illustrating adverse aspects of fields of study in business. For favorable statements SA responses received a score of five, A responses four, U responses three, D responses two, and SD responses one. For unfavorable statements SA responses received a score of one, A responses two, U responses three, D responses four, and SD responses five. Responses after each statement under each field were scored, then summed to provide both individual statement

scores and a total score for each field. Scoring of one student's responses to attitude statements to obtain his individual and total statement scores is illustrated in Table 8.

For determination of significant differences between fields by use of the Wilcoxon test, each student's total attitude statement scores for marketing were matched with his total scores for accounting, economics, finance, and management. Differences between these scores were determined for all students, and ordinal ranks assigned to differences. Differences having the same sign and yielding the smaller sum were sorted and summed to determine Wilcoxon's T which was evaluated in a normal curve table by calculation of z scores according to formulas previously cited. Associated probabilities were then determined to indicate significance levels of differences.

### Differences Between Marketing and Accounting

Analysis of differences between students' matched total scores for marketing and accounting on attitude statements provided the following findings.

When accounting total scores were subtracted from marketing total scores for all 833 student respondents, there were 438 positive differences, 342 negative

TABLE 8.--Scoring Procedures for One Student's Responses to Attitude Statements to Obtain Individual and Total Statement Scores

| Statement | Economics | | Management | | Finance | | Marketing | | Accounting | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Response | Score | Response | Score | Response | Score | Response | Score | Response | Score |
| A | D | 2 | SA | 5 | A | 4 | SA | 5 | D | 2 |
| B | SA | 1 | D | 4 | SD | 5 | D | 4 | SA | 1 |
| C | D | 2 | A | 4 | A | 4 | SA | 5 | D | 2 |
| D | D | 4 | D | 4 | D | 4 | D | 4 | D | 4 |
| E | A | 4 | A | 4 | A | 4 | A | 4 | A | 4 |
| F | D | 4 | D | 4 | D | 4 | D | 4 | D | 4 |
| G | U | 3 | A | 4 | A | 4 | A | 4 | U | 3 |
| H | D | 4 | D | 4 | D | 4 | D | 4 | D | 4 |
| I | A | 4 | A | 4 | A | 4 | A | 4 | A | 4 |
| Total Score | .. | 28 | .. | 37 | .. | 37 | .. | 38 | .. | 28 |

differences, and 53 tied scores. Positive differences indicated marketing scores were higher, negative differences indicated higher accounting scores. Thus, on the basis of total attitude statement scores, 96 (12.3 per cent) of the 780 eligible students in this analysis scored marketing more favorable than accounting.

Significance of differences between matched total scores for marketing and accounting on attitude statements was determined by use of the Wilcoxon matched-pairs signed-ranks test. Procedures and formulas previously outlined for this test were used and the following results were obtained:

$T = 130{,}013$ $\quad \bar{X}_T = 152{,}295$ $\quad SD_T = 6{,}295$

$z_T = -3.53$ $\quad P = .0004$

Since P is considerably less than the .05 rejection level, the null hypothesis of no significant differences between total scores for marketing and accounting on attitude statements was rejected.

## Differences Between Marketing and Economics

Analysis of differences between students' matched total scores for marketing and economics on attitude statements provided the following findings.

When economics total scores were subtracted from marketing total scores for all 833 student

respondents, there were 526 positive differences, 255 negative differences, and 52 tied scores. Thus, on the basis of total attitude statement scores, 271 (34.6 per cent) of the 781 eligible students in this analysis scored marketing more favorable than economics.

Significance of differences between matched total scores for marketing and economics was determined by use of the Wilcoxon matched-pairs signed-ranks test and the following results were obtained:

$T = 81{,}645$ $\quad \overline{X}_T = 152{,}686$ $\quad SD_T = 6{,}306$

$z_T = -11.26$ $\quad P = .0002$

Since P is considerably less than the .05 rejection level, the null hypothesis of no significant differences between total scores for marketing and economics on attitude statements was rejected.

## Differences Between Marketing and Finance

Analysis of differences between students' matched total scores for marketing and finance on attitude statements provided the following findings.

When finance total scores were subtracted from marketing total scores for all 833 student respondents, there were 394 positive differences, 370 negative differences, and 69 tied scores. Thus, on the basis of total attitude statement scores, 24 (3.3 per cent) of the 764 eligible students in this analysis scored

marketing less favorable than finance.

Significance of differences between matched total scores for marketing and finance was determined by use of the Wilcoxon matched-pairs signed-ranks test and the following results were obtained:

$T = 140,732$ $\bar{X}_T = 146,115$ $SD_T = 6,101$

$z_T = -.882$ $P = .3788$(N.S.)

Since P is greater than the .05 rejection level, the null hypothesis of no significant differences between total scores for marketing and finance on attitude statements was accepted.

Differences Between Marketing and Management

Analysis of differences between students' matched total scores for marketing and management on attitude statements provided the following findings.

When management total scores were subtracted from marketing total scores for all 833 student respondents, there were 311 positive differences, 404 negative differences, and 118 tied scores. Thus, on the basis of total attitude statement scores, 93 (13.0 per cent) of the 715 eligible students in this analysis scored marketing less favorable than management.

Significance of differences between matched total scores for marketing and management was determined

by use of the Wilcoxon matched-pairs signed-ranks test and the following results were obtained:

$T = 108,800$ $\quad \bar{X}_T = 127,985$ $\quad SD_T = 5,525$

$z_T = -3.47$ $\quad P = .0005$

Since P is considerably less than the .05 rejection level, the null hypothesis of no significant differences between total scores for marketing and management on attitude statements was rejected.

### Summary of Differences Between Fields on Attitude Statements

When total attitude statement scores were analyzed to test sub-hypothesis IA, significant differences were found between marketing and accounting scores, between marketing and economics scores, and between marketing and management scores. Differences between marketing and finance scores were not significant at the .05 level.

On the basis of total attitude statement scores, more student respondents scored marketing higher than they scored accounting, economics, or finance. More students scored marketing lower than they scored management.

## Differences Between Fields on Semantic Differential Scales

Sub-hypothesis IB states: Attitudes toward marketing as a field of study held by business students, measured by responses to semantic differential scales (descriptive adjectives) related to fields of study in business, will not differ significantly from these students' attitudes toward accounting, economics, finance, and management as fields of study. The following procedures were used to test hypothesis IB.

Five fields of study in business were randomly listed on the second page of the research instrument. Under each field were placed six adjectival pairs or scales selected from Osgood, Suci, and Tannenbaum's list of generalized scales. Students were asked to judge each field of study by placing an X on one of the spaces provided for each pair of descriptive adjectives. The location of their X's thus indicated their feelings about each of the fields of study and provided a score for each adjectival pair or set of scales.

Score values for scales were assigned according to the scoring key in Appendix IIB. For each field of study the six scale scores were summed to provide a total score for that field. These total scores were

then used to determine significant differences between fields. Each student's total semantic differential scale score for marketing was matched with his total scores for accounting, economics, finance, and management. Then the Wilcoxon test, as earlier described, was applied to these matched scores to determine significant differences between total scores for marketing and each of the other fields.

## Differences Between Marketing and Accounting

When differences between students' matched total scores for marketing and accounting on semantic differential scales were analyzed, the following findings were provided.

Subtraction of accounting total scores from marketing total scores for all 833 student respondents indicated 466 positive differences, 331 negative differences, and 36 tied scores. Positive differences indicated higher marketing scores, negative differences indicated higher accounting scores, and tied scores were dropped. Thus, on the basis of total semantic differential scale scores, marketing was scored more favorable than accounting by 135 (16.9 per cent) of the 797 eligible students in this analysis.

Determination of significant differences between

matched total semantic differential scale scores for marketing and accounting by use of Wilcoxon's matched-pairs signed-ranks test provided the following results:

$T = 118{,}918$ $\quad \bar{X}_T = 159{,}002$ $\quad SD_T = 6{,}501$

$z_T = -6.16$ $\quad P = .0002$

The null hypothesis of no significant differences between total scores for marketing and accounting on semantic differential scales was rejected since P was considerably less than the .05 rejection level specified.

## Differences Between Marketing and Economics

When differences between students' matched total scores for marketing and economics on semantic differential scales were analyzed, the following findings were provided.

Subtraction of economics total scores from marketing total scores for all 833 student respondents indicated 485 positive differences, 296 negative differences, and 52 tied scores. Thus, on the basis of total semantic differential scale scores, marketing was scored more favorable than economics by 189 (24.2 per cent) of the 781 eligible students in this analysis.

Determination of significant differences between matched total semantic differential scale

scores for marketing and economics by use of Wilcoxon's matched-pairs signed-ranks test provided the following results:

$T = 105,300$ $\bar{X}_T = 152,686$ $SD_T = 6,306$

$z_T = -7.51$ $P = .0002$

The null hypothesis of no significant differences between total scores for marketing and economics on semantic differential scales was rejected since P was considerably less than the .05 rejection level specified.

Differences Between Marketing and Finance

When differences between students' matched total scores for marketing and finance on semantic differential scales were analyzed, the following findings were provided.

Subtraction of finance total scores from marketing total scores for all 833 student respondents indicated 399 positive differences, 365 negative differences, and 69 tied scores. Thus, on the basis of total semantic differential scores, marketing was scored less favorable than finance by 33 (4.3 per cent) of the 764 eligible students in this analysis.

Determination of significant differences between matched semantic differential scale scores

for marketing and finance by use of Wilcoxon's test provided the following results:

$T = 137,498$ $\bar{X}_T = 146,115$ $SD_T = 6,102$

$z_T = -1.41$ $P = .1586$ (N.S.)

The null hypothesis of no significant differences between total scores for marketing and finance on semantic differential scales was accepted since P was greater than the .05 rejection level specified.

## Differences Between Marketing and Management

When differences between students' matched total scores for marketing and management on semantic differential scales were analyzed, the following findings were provided.

Subtraction of management total scores from marketing total scores for all 833 student respondents indicated 307 positive differences, 449 negative differences, and 77 tied scores. Thus, on the basis of total semantic differential scale scores, marketing was scored less favorable than management by 142 (18.7 per cent) of the 756 eligible students in this analysis.

Determination of significant differences between matched total semantic differential scale

scores for marketing and management by use of Wilcoxon's matched-pairs signed-ranks test provided the following results:

$T = 115,792$ $\bar{X}_T = 142,884$ $SD_T = 5,649$

$z_T = -4.79$ $P = .0002$

The null hypothesis of no significant differences between total scores for marketing and management on semantic differential scales was rejected since P was less than the .05 rejection level specified.

### Summary of Differences Between Fields on Semantic Differential Scales

When total semantic differential scores were analyzed to test sub-hypothesis IB, significant differences were found between marketing and accounting scores, between marketing and economics scores, and between marketing and management scores. Differences between marketing and finance scores were not significant at the .05 level.

On the basis of total semantic differential scale scores, more student respondents scored marketing higher than they scored accounting, economics, or finance. More students scored marketing lower than they scored management.

Findings from analysis of total semantic differential scale scores between fields follow precisely the

same pattern as findings from analysis of total attitude statement scores between fields.

Differences Between Fields on Value Statements

Sub-hypothesis IC states: Values of marketing as a field of study held by business students, measured by responses to value statements related to fields of study in business, will not differ significantly from these students' values of accounting, economics, finance, and management as fields of study. The following procedures were used to test hypothesis IC.

Nine value statements, or statements which describe students' feelings about opportunities provided by study in various fields, were listed on the third page of the research instrument. Beside these statements were placed the names of five fields of study in business: finance, marketing, economics, accounting, and management. Students were directed to place after each statement, under the appropriate field, the letters which best describe their feelings.

Some value statements were favorable, illustrating advantageous aspects of fields of study in business. Other statements were unfavorable, illustrating adverse aspects of fields of study in business. Scoring of statements, both for individual statements and total

scores, followed the same procedures used for attitude statements. The Wilcoxon matched-pairs signed-ranks test was again used to determine significant differences between matched total scores on value statements for marketing and each of the other fields. Scoring of one student's responses to value statements to obtain his individual and total statement scores is illustrated in Table 9.

### Differences Between Marketing and Accounting

Analysis of differences between students' matched total scores for marketing and accounting on value statements provided the following findings.

When accounting total scores were subtracted from marketing total scores for all 833 student respondents, there were 602 positive differences, 186 negative differences, and 45 tied scores. Positive differences indicated higher marketing scores, negative differences indicated higher accounting scores, and tied scores were dropped from the analysis. Thus, on the basis of total value statement scores, 414 (52.6 per cent) of the 788 eligible students in this analysis scored marketing more favorable than accounting.

Significance of differences between matched total scores for marketing and accounting on value statements was determined by use of the Wilcoxon test and the following results were obtained:

TABLE 9.--Scoring Procedures for One Student's Responses to Value Statements to Obtain Individual and Total Statement Scores

| Statement | Finance | | Marketing | | Economics | | Accounting | | Management | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Response | Score | Response | Score | Response | Score | Response | Score | Response | Score |
| A | U | 3 | SD | 5 | SA | 1 | SA | 1 | SD | 5 |
| B | A | 4 | A | 4 | D | 2 | A | 4 | D | 2 |
| C | D | 4 | D | 4 | D | 4 | D | 4 | D | 4 |
| D | A | 4 | A | 4 | A | 4 | A | 4 | A | 4 |
| E | A | 2 | D | 4 | SA | 1 | SA | 1 | SD | 5 |
| F | D | 4 | D | 4 | D | 4 | D | 4 | D | 4 |
| G | A | 4 | A | 4 | A | 4 | A | 4 | A | 4 |
| H | U | 3 | A | 4 | D | 2 | D | 2 | SA | 5 |
| I | D | 4 | D | 4 | A | 2 | A | 2 | SD | 5 |
| Total Score | .. | 32 | .. | 37 | .. | 24 | .. | 26 | .. | 38 |

$T = 57,440$ $\bar{X}_T = 155,433$ $SD_T = 6,392$

$z_T = -15.33$ $P = .0002$

Since P is considerably less than the .05 rejection level, the null hypothesis of no significant differences between total scores for marketing and accounting on value statements was rejected.

### Differences Between Marketing and Economics

Analysis of differences between students' matched total scores for marketing and economics on value statements provided the following findings.

When economics total scores were subtracted from marketing total scores for all 833 student respondents, there were 621 positive differences, 147 negative differences, and 65 tied scores. Thus, on the basis of total value statement scores, 474 (61.7 per cent) of the 768 eligible students in this analysis scored marketing more favorable than economics.

Significance of differences between matched total scores for marketing and economics on value statements was determined by use of the Wilcoxon test and the following results were obtained:

$T = 39,318$ $\bar{X}_T = 147,648$ $SD_T = 6,150$

$z_T = -17.61$ $P = .0002$

Since P is considerably less than the .05 rejection level, the null hypothesis of no significant differences between total scores for marketing and economics on value statements was rejected.

Differences Between Marketing and Finance

Analysis of differences between students' matched total scores for marketing and finance on value statements provided the following findings.

When finance total scores were subtracted from marketing total scores for all 833 student respondents, there were 520 positive differences, 233 negative differences, and 80 tied scores. Thus, on the basis of total value statement scores, 287 (38.1 per cent) of the 753 eligible students in this analysis scored marketing more favorable than finance.

Significance of differences between matched total scores for marketing and finance on value statements was determined by use of the Wilcoxon test and the following results were obtained:

$T = 69,742$ $\quad \bar{X}_T = 141,941$ $\quad SD_T = 5,971$

$z_T = -12.09$ $\quad P = .0002$

Since P is considerably less than the .05 rejection level, the null hypothesis of no significant differences

between total scores for marketing and finance on value statements was rejected.

Differences Between Marketing and Management

Analysis of differences between students' matched total scores for marketing and management on value statements provided the following findings.

When management total scores were subtracted from marketing total scores for all 833 student respondents, there were 247 positive differences, 468 negative differences, and 118 tied scores. Thus, on the basis of total value statement scores, 221 (30.9 per cent) of the 715 eligible students in this analysis scored marketing less favorable than management.

Significance of differences between matched total scores for marketing and management on value statements was determined by use of the Wilcoxon test and the following results obtained:

$T = 74{,}176$ $\quad \bar{X}_T = 127{,}985$ $\quad SD_T = 5{,}525$

$z_T = -9.74$ $\quad P = .0002$

Since P is considerably less than the .05 rejection level, the null hypothesis of no significant differences between total scores for marketing and management was rejected.

### Summary of Differences Between Fields on Value Statements

When total value statement scores were analyzed to test sub-hypothesis IC, significant differences were found between marketing and each of the other fields of accounting, economics, finance, and management.

On the basis of total value statement scores, more students scored marketing higher than they scored accounting, economics, or finance. However, more students scored marketing lower than they scored management.

Findings from analysis of total value statement scores between fields indicate a significant difference between marketing and finance scores. Otherwise, findings from this analysis follow the same pattern as findings from analysis of both total attitude and total semantic differential scale scores.

### Summary of Analysis of Differences Between Fields

Each of the sub-hypotheses related to major hypothesis I was tested and the results indicated in the preceding sections. Tables 10 and 11 summarize those results.

Examination of Table 10 reveals that on the basis of total attitude statement scores, total semantic differential scale scores, and total value statement

TABLE 10.--Differences Between Marketing and Other Fields on Total Statement Scores (N = 833)

| Paired Scores | Positive Differences | Per Cent | Tied Scores | Per Cent | Negative Differences | Per Cent | Total No. | Total Per Cent |
|---|---|---|---|---|---|---|---|---|
| Attitude Statements | | | | | | | | |
| Marketing Minus Accounting | 438 | 52.6 | 53 | 6.4 | 342 | 41.0 | 833 | 100 |
| Marketing Minus Economics | 526 | 63.2 | 52 | 6.2 | 255 | 30.6 | 833 | 100 |
| Marketing Minus Finance | 394 | 47.3 | 69 | 8.3 | 370 | 44.4 | 833 | 100 |
| Marketing Minus Management | 311 | 37.3 | 118 | 14.2 | 404 | 48.5 | 833 | 100 |
| Semantic Differential Scales | | | | | | | | |
| Marketing Minus Accounting | 466 | 55.9 | 36 | 4.3 | 331 | 39.8 | 833 | 100 |
| Marketing Minus Economics | 485 | 58.2 | 52 | 6.2 | 296 | 35.6 | 833 | 100 |
| Marketing Minus Finance | 399 | 47.9 | 69 | 8.3 | 365 | 43.8 | 833 | 100 |
| Marketing Minus Management | 307 | 36.9 | 77 | 9.2 | 449 | 53.9 | 833 | 100 |
| Value Statements | | | | | | | | |
| Marketing Minus Accounting | 602 | 72.3 | 45 | 5.4 | 186 | 22.3 | 833 | 100 |
| Marketing Minus Economics | 621 | 74.5 | 65 | 7.8 | 147 | 17.7 | 833 | 100 |
| Marketing Minus Finance | 520 | 62.4 | 80 | 9.6 | 233 | 28.0 | 833 | 100 |
| Marketing Minus Mangement | 247 | 29.7 | 118 | 14.2 | 468 | 56.1 | 833 | 100 |

scores, more student respondents in this study rated marketing higher than any field except management.

Analysis of total scores indicate the image of marketing held by students in this study does differ from their image of other fields of study as follows. Significance of differences were tested by the Wilcoxon matched-pairs signed-ranks test and results indicated in Table 11. Symbols used are those previously defined in formulas to calculate Wilcoxon's T.

Tests of sub-hypothesis IA indicated that attitudes toward marketing as a field of study held by business students, measured by responses to attitude statements related to fields of study in business, will not differ significantly from these students' attitudes toward finance, but will differ significantly from their attitudes toward accounting, economics, and management. Attitudes toward marketing are more favorable than toward accounting or economics but less favorable than toward management.

Tests of sub-hypothesis IB indicated that attitudes toward marketing as a field of study held by business students, measured by responses to semantic differential scales related to fields of study in business, will not differ significantly from these students' attitudes

TABLE 11.--Results of Wilcoxon Matched-Pairs Signed-Ranks Test To Determine Significant Differences Between Marketing and Other Fields on Total Statement Scores

| Matched Scores | N | T | $\bar{X}_T$ | $SD_T$ | $z_T$ | P |
|---|---|---|---|---|---|---|
| Total Attitude Statement Scores | | | | | | |
| Marketing and Accounting | 780 | 130,013 | 152,295 | 6,295 | - 3.53 | .0004 |
| Marketing and Economics | 781 | 81,645 | 152,686 | 6,306 | -11.26 | .0002 |
| Marketing and Finance | 764 | 140,732 | 146,115 | 6,101 | - .88 | .3788(N.S.) |
| Marketing and Management | 715 | 108,800 | 127,985 | 5,525 | - 3.47 | .0005 |
| Total Semantic Differential Scale Scores | | | | | | |
| Marketing and Accounting | 797 | 118,918 | 159,002 | 6,501 | - 6.16 | .0002 |
| Marketing and Economics | 781 | 105,300 | 152,686 | 6,306 | - 7.51 | .0002 |
| Marketing and Finance | 764 | 137,498 | 146,115 | 6,102 | - 1.41 | .1586(N.S.) |
| Marketing and Management | 756 | 115,792 | 142,884 | 5,649 | - 4.79 | .0002 |
| Total Value Statement Scores | | | | | | |
| Marketing and Accounting | 788 | 57,440 | 155,433 | 6,392 | -15.33 | .0002 |
| Marketing and Economics | 768 | 39,318 | 147,648 | 6,150 | -17.61 | .0002 |
| Marketing and Finance | 753 | 69,742 | 141,941 | 5,971 | -12.09 | .0002 |
| Marketing and Management | 715 | 74,176 | 127,985 | 5,525 | - 9.74 | .0002 |

toward finance, but will differ significantly from their attitudes toward accounting, economics, and management. Attitudes toward marketing are more favorable than toward accounting or economics but less favorable than toward management.

Tests of sub-hypothesis IC indicated that values of marketing as a field of study held by business students, measured by responses to value statements related to fields of study in business, will differ significantly from these students' values of accounting, economics, finance, and management. Values of marketing are more favorable than those of accounting, economics, or finance but less favorable than those of management.

Results of significance tests are consistent except for the three tests between marketing and finance. Attitudes toward marketing and finance, as measured by responses to attitude statements and semantic differential scales, do not differ significantly. Values of marketing and finance, as measured by responses to value statements, do differ significantly.

Responses to attitude statements and semantic differential scales indicate students' feelings toward marketing and finance as fields of study, while responses to value statements indicate students' feelings about opportunities provided by study in marketing and finance. Thus, two different components of the images of marketing

and finance are being measured by attitude statements and value statements. Student respondents in this study do not differ significantly in their feelings toward marketing and finance as fields of study, but they do differ significantly in their feelings about opportunities provided by study in marketing and finance with opportunities in marketing rated more favorable than those in finance.

Wilcoxon's matched-pairs signed-ranks test is a statistical test of the magnitude and direction of differences between matched scores. A greater number of differences (either positive or negative differences) leads to a higher level of significance. There were very few differences between marketing and finance on attitude statement scores (24 or 3.3 per cent), or on semantic differential scale scores (33 or 4.3 per cent) and these differences were not significant. Between finance and marketing on value statements there were many differences (287 or 38.1 per cent) and these differences were significant.

# CHAPTER V

## ANALYSIS OF DIFFERENCES AMONG CLASSES OF STUDENTS

### Introduction

In Chapter V major hypothesis II and its related sub-hypotheses were tested to determine if the image of marketing as a field of study held by various classes from within the population of business students differs significantly among classes.

Major Hypothesis II. The image of marketing as a field of study held by various classes from within the population of business students will not differ significantly among classes.

Sub-Hypothesis IIA. The image of marketing as a field of study held by students with marketing as their major field will not differ significantly from the image of marketing held by students who are majoring in accounting, economics, finance, management, or other fields.

IIA1. Attitudes, measured by responses to attitude statements related to marketing as a field of study, will not differ significantly among students who are majoring in different fields.

IIA2. Attitudes, measured by responses to semantic differential scales (descriptive adjectives) related to marketing as a field of study, will not differ significantly among students who are majoring in different fields.

IIA3. Values, measured by responses to value statements related to marketing as a field of study, will not differ significantly among students who are majoring in different fields.

Sub-Hypothesis IIB. The image of marketing as a field of study held by students with high (4.0 - 3.1) grade point averages will not differ significantly from the image of marketing held by students with grade point averages of 3.0 or below.

IIB1. Attitudes, measured by responses to attitude statements related to marketing as a field of study, will not differ significantly among students with different grade point averages.

IIB2. Attitudes, measured by responses to semantic differential scales (descriptive adjectives) related to marketing as a field of study, will not differ significantly among students with different grade point averages.

IIB3. Values, measured by responses to value statements related to marketing as a field of study, will not differ significantly among students with different grade point averages.

Sub-Hypothesis IIC. The image of marketing as a field of study held by students planning to attend graduate or professional school will not differ significantly from the image of marketing held by students who do not plan to attend

graduate or professional schools or who are undecided about attending.

IIC1. Attitudes, measured by responses to attitude statements related to marketing as a field of study, will not differ significantly among students planning to attend, not planning to attend, and undecided about plans to attend graduate or professional school.

IIC2. Attitudes, measured by responses to semantic differential scales (descriptive adjectives) related to marketing as a field of study, will not differ significantly among students planning to attend, not planning to attend, and undecided about plans to attend graduate or professional school.

IIC3. Values, measured by responses to value statements related to marketing as a field of study, will not differ significantly among students

planning to attend, not planning to attend, and undecided about plans to attend graduate or professional school.

Sub-Hypothesis IID. The image of marketing held by students with several (two or more) academic honors or awards will not differ significantly from the image of marketing held by students with few (less than two) or no academic honors.

IID1. Attitudes, measured by responses to attitude statements related to marketing as a field of study, will not differ significantly among students with varying numbers of academic honors or awards.

IID2. Attitudes, measured by responses to semantic differential scales (descriptive adjectives) related to marketing as a field of study, will not differ significantly among students with varying numbers of academic honors or awards.

IID3. Values, measured by responses to value statements related to marketing as a field of study, will not differ significantly among students with varying numbers of academic honors or awards.

Chi square analysis was used to determine significance of differences between classifications of students on individual statement and scale scores for attitude statements, semantic differential scales, and value statements related to marketing as a field of study. Students were classified according to major field to test hypothesis IIA, according to grade point average to test hypothesis IIB, according to plans to attend graduate school to test hypothesis IIC, and according to number of academic honors or awards to test hypothesis IID. Then students' responses to individual statements and scales on the concept marketing were categorized as unfavorable (scores of one or two), undecided (scores of three), or favorable (scores of four or five). Classifications of students and categories of responses were used to develop contingency tables for each statement. Chi square tests were

applied to each contingency table using the following formulas:

$$\chi^2 = \Sigma \frac{(O-E)^2}{E} \qquad df = (r-1)(c-1)$$

where

$\chi^2$ = obtained chi square values

$\Sigma$ = to sum over all rows and columns in a contingency table

O = observed frequencies in each cell of a contingency table

E = expected frequencies in each cell of a contingency table

df = degrees of freedom

r = the number of rows in a contingency table

c = the number of columns in a contingency table

According to these formulas chi square is obtained by taking each observed frequency, subtracting from it the corresponding expected frequency, squaring the difference, and dividing the result by the expected frequency. The sum of the results of these calculations is chi square. After chi square values for individual statements were calculated, their associated probabilities (P) for the appropriate degrees of freedom were determined from a table of chi square values. If the obtained P was equal

to or less than .05, the null hypothesis of no significant differences between classifications of students was rejected. Symbolically, if $P \leq .05$, reject $H_0$ and accept $H_1$.

## Differences Among Students with Different Major Fields

Sub-hypothesis IIA states: the image of marketing as a field of study held by students with marketing as their major field will not differ significantly from the image of marketing held by students who are majoring in accounting, economics, finance, management, or other fields. The following procedures were used to test hypothesis IIA.

Students were first classified according to whether they majored in accounting, economics, finance, management, marketing, or other fields. Responses to individual attitude statements, semantic differential scales, and value statements related to marketing as a field of study were tallied and categorized as unfavorable, undecided, or favorable. Contingency tables for each statement or scale were then developed. Observed values (O) for each cell were determined by tallying frequencies of appropriate responses by each classification of majors. Expected values (E) for

each cell were determined by multiplying the two marginal totals common to a particular cell, and then dividing this product by the total number of students responding. Since there were six major fields (rows) and three levels of response (columns) in these contingency tables, there were ten degrees of freedom. After chi square values were calculated, their associated probabilities for ten degrees of freedom were determined from the table of chi square values to indicate significance level of differences.

## Differences on Attitude Statements

Students were classified by major field and their responses to statements which described their feelings (attitude statements) about marketing as a field of study were used to obtain the following contingency tables and chi square values.

Table 12 indicates highly significant differences among students majoring in different fields. Discrepancies between observed and expected frequencies which contribute more heavily to these differences are among accounting and marketing majors. As might be anticipated, marketing majors provide disproportionately more favorable scores and disproportionately less unfavorable scores. With accounting majors the situation is just reversed.

TABLE 12.--Chi Square Calculation by Major Field for the Statement; This Field (Marketing) Is Very Interesting and Challenging to Me

| Major Field | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| Accounting | O = 52[a]<br>E = 29[b] | O = 69<br>E = 42.8 | O = 84<br>E = 133.2 | 205 |
| Economics | O = 5<br>E = 6.9 | O = 20<br>E = 10.3 | O = 24<br>E = 31.8 | 49 |
| Finance | O = 16<br>E = 9.8 | O = 23<br>E = 14.4 | O = 30<br>E = 44.8 | 69 |
| Management | O = 21<br>E = 26.7 | O = 33<br>E = 39.6 | O = 135<br>E = 122.7 | 189 |
| Marketing | O = 5<br>E = 26.2 | O = 5<br>E = 38.6 | O = 175<br>E = 120.2 | 185 |
| Other | O = 19<br>E = 19.3 | O = 24<br>E = 28.4 | O = 93<br>E = 88.3 | 136 |
| Total | 118 | 174 | 541 | 833 |

df = 10 $\quad \chi^2 = 154.03 \quad$ P < .001

[a]O = Observed frequencies in each cell.

[b]E = Expected frequencies in each cell.

TABLE 13.--Chi Square Calculation by Major Field for the Statement; This Field (Marketing) Requires Me to Spend Too Much Time and Energy on Insignificant or Trivial Material and Assignments

| Major Field | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| Accounting | O = 55<br>E = 40.1 | O = 58<br>E = 37.4 | O = 92<br>E = 127.5 | 205 |
| Economics | O = 10<br>E = 9.6 | O = 16<br>E = 8.9 | O = 23<br>E = 30.5 | 49 |
| Finance | O = 15<br>E = 13.5 | O = 23<br>E = 12.6 | O = 31<br>E = 42.9 | 69 |
| Management | O = 36<br>E = 37 | O = 30<br>E = 34.5 | O = 123<br>E = 117.5 | 189 |
| Marketing | O = 16<br>E = 36.3 | O = 6<br>E = 33.7 | O = 163<br>E = 115 | 185 |
| Other | O = 31<br>E = 26.6 | O = 19<br>E = 24.8 | O = 86<br>E = 84.6 | 136 |
| Total | 163 | 152 | 518 | 833 |

df = 10 $\quad \chi^2 = 103.4 \quad$ P < .001

Highly significant differences are also indicated in Table 13. Marketing and accounting majors again contribute most heavily to these differences with marketing majors giving disproportionately more favorable scores and accounting majors giving disproportionately less favorable scores.

Differences indicated in Table 14 are significant for the statement analyzed. It is obvious marketing and accounting majors provide the major discrepancies between observed and expected cell values with marketing majors providing more favorable scores than expected and accounting majors less favorable scores.

Although significant differences are indicated in Table 15 for this statement, the largest contributors to these differences are the undecided scores for accounting and marketing majors. Accounting majors provided less favorable scores and more undecided scores than expected, while marketing majors provided less undecided and more favorable scores than expected.

Findings in Table 16 follow the same pattern as preceding statements. Significant differences exist but students majoring in accounting and marketing are the major contributors to these differences. Scores indicate less accounting majors than expected, and more marketing majors than expected, admire marketing educators

TABLE 14.--Chi Square Calculation by Major Field for the Statement; I Respect and Like to Associate with Students in This Field (Marketing)

| Major Field | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| Accounting | O = 15<br>E = 9.6 | O = 36<br>E = 25.1 | O = 154<br>E = 170.3 | 205 |
| Economics | O = 3<br>E = 2.3 | O = 6<br>E = 6 | O = 40<br>E = 40.7 | 49 |
| Finance | O = 6<br>E = 3.2 | O = 9<br>E = 8.4 | O = 54<br>E = 57.4 | 69 |
| Management | O = 7<br>E = 8.8 | O = 21<br>E = 23.1 | O = 161<br>E = 157.1 | 189 |
| Marketing | O = 3<br>E = 8.7 | O = 10<br>E = 22.7 | O = 172<br>E = 153.6 | 185 |
| Other | O = 5<br>E = 6.4 | O = 20<br>E = 16.7 | O = 111<br>E = 112.9 | 136 |
| Total | 39 | 102 | 692 | 833 |

df = 10 $\chi^2 = 26.88$ $P < .01$

TABLE 15.--Chi Square Calculation by Major Field for the Statement: This Field (Marketing) Is Too Abstract and Theoretical for Me. I Feel It is Inapplicable to the "Real" World

| Major Field | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| Accounting | O = 23<br>E = 15.5 | O = 41<br>E = 24.4 | O = 141<br>E = 165.1 | 205 |
| Economics | O = 1<br>E = 3.7 | O = 4<br>E = 5.8 | O = 44<br>E = 39.5 | 49 |
| Finance | O = 6<br>E = 5.2 | O = 11<br>E = 8.2 | O = 52<br>E = 55.6 | 69 |
| Management | O = 15<br>E = 14.3 | O = 21<br>E = 22.5 | O = 153<br>E = 152.2 | 189 |
| Marketing | O = 9<br>E = 14 | O = 7<br>E = 22 | O = 169<br>E = 149 | 185 |
| Other | O = 9<br>E = 10.3 | O = 15<br>E = 16.2 | O = 112<br>E = 109.6 | 136 |
| Total | 63 | 99 | 671 | 833 |

df = 10 $\quad \chi^2 = 37.89 \quad$ P < .001

TABLE 16.--Chi Square Calculation by Major Field for the Statement: I Admire Many of the Educators in This Field (Marketing) As Persons Not Just As Professors

| Major Field | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| Accounting | O = 26<br>E = 19.9 | O = 66<br>E = 47 | O = 113<br>E = 138 | 205 |
| Economics | O = 8<br>E = 4.8 | O = 10<br>E = 11.2 | O = 31<br>E = 33 | 49 |
| Finance | O = 9<br>E = 6.7 | O = 21<br>E = 15.8 | O = 39<br>E = 46.5 | 69 |
| Management | O = 14<br>E = 18.4 | O = 43<br>E = 43.3 | O = 132<br>E = 127.3 | 189 |
| Marketing | O = 11<br>E = 18 | O = 21<br>E = 42.4 | O = 153<br>E = 124.6 | 185 |
| Other | O = 13<br>E = 13.2 | O = 30<br>E = 31.2 | O = 93<br>E = 91.6 | 136 |
| Total | 81 | 191 | 561 | 833 |

df = 10 $\quad \chi^2 = 41.44 \quad$ P < .001

TABLE 17.--Chi Square Calculation by Major Field for the Statement: I Would Have to Invest More Time and Money in Preparing for Occupations in This Field (Marketing) Than I Feel I Could Afford

| Major Field | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| Accounting | O = 27<br>E = 25.6 | O = 49<br>E = 39.1 | O = 129<br>E = 140.3 | 205 |
| Economics | O = 5<br>E = 6.1 | O = 9<br>E = 9.4 | O = 35<br>E = 33.5 | 49 |
| Finance | O = 7<br>E = 8.6 | O = 19<br>E = 13.2 | O = 43<br>E = 47.2 | 69 |
| Management | O = 27<br>E = 23.6 | O = 38<br>E = 36.1 | O = 124<br>E = 129.3 | 189 |
| Marketing | O = 19<br>E = 23 | O = 19<br>E = 35.3 | O = 147<br>E = 126.6 | 185 |
| Other | O = 19<br>E = 17 | O = 25<br>E = 26 | O = 92<br>E = 93 | 136 |
| Total | 104 | 159 | 570 | 833 |

df = 10 $\chi^2$ = 19.59 $\chi^2$ 18.31 = P .05

$\chi^2$ 21.16 = P .02

as persons and not just as professors.

The chi square value calculated for Table 17 indicates the existence of significant differences. However, discrepancies between observed and expected frequencies for marketing majors are the largest contributors to these differences.

In Table 18 discrepancies between observed and expected frequencies for marketing majors were the primary contributors to the high chi square value. In addition to marketing majors' disproportionately high number of favorable scores, both accounting and finance majors exhibited less favorable scores than expected for this statement.

Scores for accounting and marketing majors are the largest contributors to the high chi square value for Table 19. Economics majors also indicate a higher than expected number of undecided answers and a lower than expected number of favorable answers.

Marketing and accounting majors indicate the greatest discrepancies between observed and expected frequencies in Table 20. More favorable scores than expected are provided by marketing majors while accounting majors provide less favorable scores than expected.

Analysis of differences among students majoring in different fields indicated that sub-hypothesis IIA1

TABLE 18.--Chi Square Calculation by Major Field for the Statement: This Field (Marketing) Leads to Occupations in Which I'd Like the Life I'd Lead Outside the Job

| Major Field | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| Accounting | O = 43<br>E = 28.5 | O = 68<br>E = 47.3 | O = 94<br>E = 129.2 | 205 |
| Economics | O = 8<br>E = 6.8 | O = 12<br>E = 11.3 | O = 29<br>E = 30.9 | 49 |
| Finance | O = 15<br>E = 9.7 | O = 25<br>E = 15.9 | O = 29<br>E = 43.4 | 69 |
| Management | O = 24<br>E = 26.3 | O = 39<br>E = 43.6 | O = 126<br>E = 119.1 | 189 |
| Marketing | O = 6<br>E = 25.8 | O = 20<br>E = 42.6 | O = 159<br>E = 116.6 | 185 |
| Other | O = 20<br>E = 18.9 | O = 28<br>E = 31.3 | O = 88<br>E = 85.7 | 136 |
| Total | 116 | 192 | 525 | 833 |

df = 10 $\chi^2 = 83.44$ $P < .001$

TABLE 19.--Chi Square Calculation by Major Field for the Statement: I Do Not Feel This Field (Marketing) Has A Good Reputation or High Prestige Among Other Students

| Major Field | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| Accounting | O = 64<br>E = 49.2 | O = 32<br>E = 28.3 | O = 109<br>E = 127.5 | 205 |
| Economics | O = 10<br>E = 11.7 | O = 13<br>E = 6.8 | O = 26<br>E = 30.5 | 49 |
| Finance | O = 18<br>E = 16.6 | O = 13<br>E = 9.5 | O = 38<br>E = 42.9 | 69 |
| Management | O = 44<br>E = 45.4 | O = 22<br>E = 26.1 | O = 123<br>E = 117.5 | 189 |
| Marketing | O = 34<br>E = 44.4 | O = 15<br>E = 25.5 | O = 136<br>E = 115 | 185 |
| Other | O = 30<br>E = 32.6 | O = 20<br>E = 18.8 | O = 86<br>E = 84.6 | 136 |
| Total | 200 | 115 | 518 | 833 |

df = 10 $\chi^2 = 27.97$ $P < .01$

TABLE 20.--Chi Square Calculation by Major Field for the Statement; I Feel Material Learned in This Field (Marketing) Has a Great Deal of Practical Application

| Major Field | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| Accounting | O = 42<br>E = 22.6 | O = 38<br>E = 26.8 | O = 125<br>E = 155.5 | 205 |
| Economics | O = 4<br>E = 5.4 | O = 7<br>E = 6.4 | O = 38<br>E = 37.1 | 49 |
| Finance | O = 13<br>E = 7.6 | O = 12<br>E = 9 | O = 44<br>E = 52.4 | 69 |
| Management | O = 15<br>E = 20.8 | O = 24<br>E = 24.7 | O = 150<br>E = 143.3 | 189 |
| Marketing | O = 4<br>E = 20.4 | O = 7<br>E = 24.2 | O = 174<br>E = 140.3 | 185 |
| Other | O = 14<br>E = 15 | O = 21<br>E = 17.8 | O = 101<br>E = 103.2 | 136 |
| Total | 92 | 109 | 632 | 833 |

df = 10 $\chi^2 = 71.47$ $P < .001$

should be rejected. Attitudes, measured by responses to attitude statements related to marketing as a field of study, did differ significantly among students who are majoring in different fields. The predominant differences, however, were among those students majoring in accounting and those students majoring in marketing. Accounting majors provided less favorable scores than theoretically expected, while marketing majors provided more favorable scores than theoretically expected.

## Differences on Semantic Differential Scales

Students were classified by major field and their responses to semantic differential scales (descriptive adjective pairs) which indicated their feelings about marketing as a field of study were used to obtain the following contingency tables and chi square values.

Table 21 indicates basically the same pattern of responses as earlier tables. Marketing majors provide more favorable scores than expected while accounting and finance majors provide less favorable and more unfavorable scores than expected.

The high observed frequency of favorable scores exhibited by marketing majors are by far the largest contributors to the high chi square value of Table 22.

TABLE 21.--Chi Square Calculation by Major Field for the Semantic Differential Scale Pair Describing Marketing As: UGLY-BEAUTIFUL

| Major Field | Unfavorable Scores (1-2-3) | Undecided (4) | Favorable Scores (5-6-7) | Total |
|---|---|---|---|---|
| Accounting | O = 34<br>E = 27.1 | O = 78<br>E = 57.1 | O = 93<br>E = 120.8 | 205 |
| Economics | O = 5<br>E = 6.5 | O = 24<br>E = 13.6 | O = 20<br>E = 28.9 | 49 |
| Finance | O = 16<br>E = 9.1 | O = 25<br>E = 19.2 | O = 28<br>E = 40.6 | 69 |
| Management | O = 30<br>E = 24.9 | O = 47<br>E = 52.6 | O = 112<br>E = 111.4 | 189 |
| Marketing | O = 5<br>E = 24.4 | O = 21<br>E = 51.5 | O = 159<br>E = 109 | 185 |
| Other | O = 20<br>E = 17.9 | O = 37<br>E = 37.9 | O = 79<br>E = 80.2 | 136 |
| Total | 110 | 232 | 491 | 833 |

df = 10 $\quad \chi^2 = 99.17 \quad$ P < .001

TABLE 22.--Chi Square Calculation by Major Field for the Semantic Differential Scale Pair Describing Marketing As: UNPLEASANT-PLEASANT

| Major Field | Unfavorable Scores (1-2-3) | Undecided (4) | Favorable Scores (5-6-7) | Total |
|---|---|---|---|---|
| Accounting | O = 42<br>E = 23.9 | O = 40<br>E = 31 | O = 123<br>E = 150.1 | 205 |
| Economics | O = 9<br>E = 5.7 | O = 9<br>E = 7.4 | O = 31<br>E = 35.9 | 49 |
| Finance | O = 9<br>E = 8 | O = 17<br>E = 10.4 | O = 43<br>E = 50.5 | 69 |
| Management | O = 20<br>E = 22 | O = 31<br>E = 28.6 | O = 138<br>E = 138.4 | 189 |
| Marketing | O = 0<br>E = 21.5 | O = 8<br>E = 28 | O = 177<br>E = 135.5 | 185 |
| Other | O = 17<br>E = 15.8 | O = 21<br>E = 20.6 | O = 98<br>E = 99.6 | 136 |
| Total | 97 | 126 | 610 | 833 |

df = 10 $\quad \chi^2 = 78.47 \quad$ P < .001

TABLE 23.--Chi Square Calculation by Major Field for the Semantic Differential Scale Pair Describing Marketing As: WORTHLESS-VALUABLE

| Major Field | Unfavorable Scores (1-2-3) | Undecided (4) | Favorable Scores (5-6-7) | Total |
|---|---|---|---|---|
| Accounting | O = 31<br>E = 18.5 | O = 25<br>E = 17 | O = 149<br>E = 169.5 | 205 |
| Economics | O = 8<br>E = 4.4 | O = 4<br>E = 4 | O = 37<br>E = 40.5 | 49 |
| Finance | O = 8<br>E = 6.2 | O = 10<br>E = 5.7 | O = 51<br>E = 57.1 | 69 |
| Management | O = 17<br>E = 17 | O = 9<br>E = 15.6 | O = 163<br>E = 156.3 | 189 |
| Marketing | O = 2<br>E = 16.7 | O = 5<br>E = 15.3 | O = 178<br>E = 153 | 185 |
| Other | O = 9<br>E = 12.2 | O = 16<br>E = 11.3 | O = 111<br>E = 112.5 | 136 |
| Total | 75 | 69 | 689 | 833 |

df = 10 $\quad \chi^2 = 52.29 \quad$ P < .001

TABLE 24.--Chi Square Calculation by Major Field for the Semantic Differential Scale Pair Describing Marketing As: UNFAIR-FAIR

| Major Field | Unfavorable Scores (1-2-3) | Undecided (4) | Favorable Scores (5-6-7) | Total |
|---|---|---|---|---|
| Accounting | O = 21<br>E = 19.4 | O = 57<br>E = 45.5 | O = 127<br>E = 140 | 205 |
| Economics | O = 6<br>E = 4.6 | O = 17<br>E = 10.9 | O = 26<br>E = 33.5 | 49 |
| Finance | O = 15<br>E = 6.5 | O = 15<br>E = 15.3 | O = 39<br>E = 47.1 | 69 |
| Management | O = 17<br>E = 17.9 | O = 45<br>E = 42 | O = 127<br>E = 129.1 | 189 |
| Marketing | O = 11<br>E = 17.5 | O = 17<br>E = 41.1 | O = 157<br>E = 126.4 | 185 |
| Other | O = 9<br>E = 12.9 | O = 34<br>E = 30.2 | O = 93<br>E = 92.9 | 136 |
| Total | 79 | 185 | 569 | 833 |
| | df = 10 | $\chi^2 = 48.11$ | P < .001 | |

Accounting majors again provide more unfavorable scores and less favorable scores than expected. Finance majors provide less favorable and more undecided scores than expected.

Discrepancies between observed and expected frequencies for marketing contribute heavily to the significant differences found in Table 23. Finance majors provide less favorable scores and more undecided scores than expected, while management majors provide less undecided and more favorable scores than expected. Accounting majors give marketing less favorable scores than expected.

Patterns of responses in Table 24 follow closely the pattern exhibited in previous tables with one exception. Finance majors indicate disproportionately more unfavorable scores than expected. Marketing majors indicate more favorable scores, and accounting majors indicate less favorable scores, then expected.

Table 25 reveals that accounting majors provided more unfavorable or undecided, and less favorable scores than expected. Finance majors provided more undecided, and less favorable scores than expected. Marketing majors provided more favorable scores than expected.

A major change in the usual pattern of responses is seen in Table 26. The largest single contributor to the high chi square value is the higher than expected

TABLE 25,--Chi Square Calculation by Major Field for the Semantic Differential Scale Pair Describing Marketing As; AWFUL-NICE

| Major Field | Unfavorable Scores (1-2-3) | Undecided (4) | Favorable Scores (5-6-7) | Total |
|---|---|---|---|---|
| Accounting | O = 26<br>E = 19.4 | O = 64<br>E = 52.2 | O = 115<br>E = 133.4 | 205 |
| Economics | O = 5<br>E = 4.6 | O = 17<br>E = 12.5 | O = 27<br>E = 31.9 | 49 |
| Finance | O = 8<br>E = 6.5 | O = 28<br>E = 17.6 | O = 33<br>E = 44.9 | 69 |
| Management | O = 22<br>E = 17.9 | O = 46<br>E = 48.1 | O = 121<br>E = 123 | 189 |
| Marketing | O = 5<br>E = 17.5 | O = 19<br>E = 47.1 | O = 161<br>E = 120.3 | 185 |
| Other | O = 13<br>E = 12.9 | O = 38<br>E = 34.6 | O = 85<br>E = 88.5 | 136 |
| Total | 79 | 212 | 542 | 833 |

df = 10 $\quad \chi^2 = 63.84 \quad$ P < .001

TABLE 26.--Chi Square Calculation by Major Field for the Semantic Differential Scale Pair Describing Marketing As: BAD-GOOD

| Major Field | Unfavorable Scores (1-2-3) | Undecided (4) | Favorable Scores (5-6-7) | Total |
|---|---|---|---|---|
| Accounting | O = 23<br>E = 19.7 | O = 53<br>E = 41.1 | O = 129<br>E = 144.2 | 205 |
| Economics | O = 4<br>E = 4.7 | O = 20<br>E = 9.8 | O = 25<br>E = 34.5 | 49 |
| Finance | O = 12<br>E = 6.6 | O = 15<br>E = 13.8 | O = 42<br>E = 48.5 | 69 |
| Management | O = 18<br>E = 18.2 | O = 33<br>E = 37.9 | O = 138<br>E = 132.9 | 189 |
| Marketing | O = 11<br>E = 17.8 | O = 20<br>E = 37.1 | O = 154<br>E = 130.1 | 185 |
| Other | O = 12<br>E = 13.1 | O = 26<br>E = 27.3 | O = 98<br>E = 95.6 | 136 |
| Total | 80 | 167 | 586 | 833 |

df = 10 $\quad \chi^2 = 40.20 \quad$ P < .001

number of undecided responses for economics majors. Disproportionately more favorable scores than expected are provided by marketing majors and disproportionately less favorable scores than expected are provided by accounting majors.

Analysis of differences among students majoring in different fields indicated that sub-hypothesis IIA2 should be rejected. Attitudes, measured by responses to semantic differential scales (descriptive adjectives) related to marketing as a field of study, did differ significantly among students who are majoring in different fields. Differences appear to be polarized between two groups, accounting and finance majors versus marketing majors. Marketing majors provided more favorable scores than expected, while accounting and finance majors provided less favorable and more undecided scores than expected.

### Differences on Value Statements

Students were classified by major field and their responses to statements which described their feelings about opportunities provided (value statements) by study in marketing were used to obtain the following contingency tables and chi square values.

The usual pattern of responses is again indicated in Table 27. Accounting and finance majors provide more unfavorable and undecided scores, but less favorable

TABLE 27.--Chi Square Calculation by Major Field for the Statement: This Field (Marketing) Leads to Occupations Which Would Not Provide Opportunities for Me to Use My Special Abilities or Aptitudes

| Major Field | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| Accounting | O = 69<br>E = 38.9 | O = 48<br>E = 30.3 | O = 88<br>E = 135.8 | 205 |
| Economics | O = 8<br>E = 9.3 | O = 8<br>E = 7.2 | O = 33<br>E = 32.5 | 49 |
| Finance | O = 20<br>E = 13.1 | O = 15<br>E = 10.2 | O = 34<br>E = 45.7 | 69 |
| Management | O = 30<br>E = 35.8 | O = 29<br>E = 27.9 | O = 130<br>E = 125.2 | 189 |
| Marketing | O = 6<br>E = 35.1 | O = 5<br>E = 27.3 | O = 174<br>E = 122.6 | 185 |
| Other | O = 25<br>E = 25.8 | O = 18<br>E = 20.1 | O = 93<br>E = 90.1 | 136 |
| Total | 158 | 123 | 552 | 833 |

df = 10 $\chi^2$ = 125.06 P < .001

TABLE 28.--Chi Square Calculation by Major Field for the Statement: This Field (Marketing) Leads to Occupations Which Would Provide Me Relative Freedom from Supervision in My Work

| Major Field | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| Accounting | O = 74<br>E = 63.2 | O = 54<br>E = 41.8 | O = 77<br>E = 99.9 | 205 |
| Economics | O = 26<br>E = 15.1 | O = 12<br>E = 10 | O = 11<br>E = 23.9 | 49 |
| Finance | O = 29<br>E = 21.3 | O = 18<br>E = 14.1 | O = 22<br>E = 33.6 | 69 |
| Management | O = 63<br>E = 58.3 | O = 46<br>E = 38.6 | O = 80<br>E = 92.1 | 189 |
| Marketing | O = 27<br>E = 57.1 | O = 17<br>E = 37.7 | O = 141<br>E = 90.2 | 185 |
| Other | O = 38<br>E = 42.0 | O = 23<br>E = 27.7 | O = 75<br>E = 66.3 | 136 |
| Total | 257 | 170 | 406 | 833 |

df = 10 $\chi^2 = 95.31$ P < .001

scores than expected. Marketing majors provide more favorable scores than expected.

In Table 28 accounting and finance majors indicate less than expected favorable scores and more than expected unfavorable scores. With marketing majors, the reverse is true. Discrepancies between observed and expected score frequencies also were provided by economics majors who indicate more unfavorable and less favorable scores than expected.

Accounting, finance, and marketing majors provide the major discrepancies between observed and expected score frequencies in Table 29. Marketing majors indicated more favorable scores than expected, while accounting and finance majors indicated less favorable but more unfavorable and undecided scores than expected.

More favorable scores than expected are indicated in Table 30 by marketing majors. Less accounting and finance majors than expected provide favorable responses to the statement; marketing leads to occupations which would provide a stable secure future.

Significant differences are indicated in Table 31 among students with different majors, although chi square is lower than any calculated thus far. The same pattern of responses continues, with accounting majors indicating less favorable scores than expected,

TABLE 29.--Chi Square Calculation by Major Field for the Statement: This Field (Marketing) Leads to Occupations Which Would Not Provide Me Social Status and Prestige

| Major Field | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| Accounting | O = 40<br>E = 31 | O = 37<br>E = 27.8 | O = 128<br>E = 146.2 | 205 |
| Economics | O = 9<br>E = 7.4 | O = 8<br>E = 6.6 | O = 32<br>E = 34.9 | 49 |
| Finance | O = 17<br>E = 10.4 | O = 13<br>E = 9.4 | O = 39<br>E = 49.2 | 69 |
| Management | O = 27<br>E = 28.6 | O = 27<br>E = 25.6 | O = 135<br>E = 134.8 | 189 |
| Marketing | O = 13<br>E = 28 | O = 15<br>E = 25.1 | O = 157<br>E = 131.9 | 185 |
| Other | O = 20<br>E = 20.6 | O = 13<br>E = 18.4 | O = 103<br>E = 97 | 136 |
| Total | 126 | 113 | 594 | 833 |

df = 10 $\chi^2 = 35.47$ P < .001

TABLE 30.--Chi Square Calculation by Major Field for the Statement; This Field (Marketing) Leads to Occupations Which Would Provide Me a Stable Secure Future

| Major Field | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| Accounting | O = 38<br>E = 36.2 | O = 62<br>E = 45.5 | O = 105<br>E = 123.3 | 205 |
| Economics | O = 12<br>E = 8.6 | O = 9<br>E = 10.9 | O = 28<br>E = 29.5 | 49 |
| Finance | O = 16<br>E = 12.2 | O = 24<br>E = 15.3 | O = 29<br>E = 41.5 | 69 |
| Management | O = 36<br>E = 33.3 | O = 44<br>E = 42 | O = 109<br>E = 113.7 | 189 |
| Marketing | O = 26<br>E = 32.6 | O = 18<br>E = 41.1 | O = 141<br>E = 111.3 | 185 |
| Other | O = 19<br>E = 24 | O = 28<br>E = 30.2 | O = 89<br>E = 81.8 | 136 |
| Total | 147 | 185 | 501 | 833 |

df = 10 $\chi^2 = 45.00$ P < .001

TABLE 31.--Chi Square Calculation by Major Field for the Statement; This Field (Marketing) Leads to Occupations Which Would Not Provide Opportunities for Me to Be Creative and Original

| Major Field | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| Accounting | O = 15<br>E = 9.8 | O = 19<br>E = 12.8 | O = 171<br>E = 182.4 | 205 |
| Economics | O = 3<br>E = 2.3 | O = 6<br>E = 3.1 | O = 40<br>E = 43.6 | 49 |
| Finance | O = 6<br>E = 3.3 | O = 7<br>E = 4.3 | O = 56<br>E = 61.4 | 69 |
| Management | O = 5<br>E = 9.1 | O = 11<br>E = 11.8 | O = 173<br>E = 168.1 | 189 |
| Marketing | O = 4<br>E = 8.9 | O = 2<br>E = 11.5 | O = 179<br>E = 164.6 | 185 |
| Other | O = 7<br>E = 6.5 | O = 7<br>E = 8.5 | O = 122<br>E = 121 | 136 |
| Total | 40 | 52 | 741 | 833 |

df = 10 $\quad \chi^2 = 27.94 \quad$ P < .01

TABLE 32.--Chi Square Calculation by Major Field for the Statement: This Field (Marketing) Leads to Occupations Which Would Not Provide Opportunities for Me to Be Helpful to Others or Useful to Society

| Major Field | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| Accounting | O = 21<br>E = 15.7 | O = 23<br>E = 20.7 | O = 161<br>E = 168.6 | 205 |
| Economics | O = 8<br>E = 3.8 | O = 8<br>E = 4.9 | O = 33<br>E = 40.3 | 49 |
| Finance | O = 10<br>E = 5.3 | O = 14<br>E = 7 | O = 45<br>E = 56.7 | 69 |
| Management | O = 10<br>E = 14.5 | O = 15<br>E = 19.1 | O = 164<br>E = 155.4 | 189 |
| Marketing | O = 7<br>E = 14.2 | O = 6<br>E = 18.6 | O = 172<br>E = 152.1 | 185 |
| Other | O = 8<br>E = 10.4 | O = 18<br>E = 13.7 | O = 110<br>E = 111.8 | 136 |
| Total | 64 | 84 | 685 | 833 |

df = 10 $\chi^2 = 43.33$ $P < .001$

TABLE 33.--Chi Square Calculation by Major Field for the Statement; This Field (Marketing) Leads to Occupations Which Would Provide Me an Opportunity to Earn a High Income

| Major Field | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| Accounting | O = 17<br>E = 15.7 | O = 44<br>E = 28 | O = 144<br>E = 161.1 | 205 |
| Economics | O = 3<br>E = 3.8 | O = 9<br>E = 6.7 | O = 37<br>E = 38.5 | 49 |
| Finance | O = 8<br>E = 5.3 | O = 17<br>E = 9.4 | O = 44<br>E = 54.3 | 69 |
| Management | O = 10<br>E = 14.5 | O = 15<br>E = 25.9 | O = 164<br>E = 148.6 | 189 |
| Marketing | O = 9<br>E = 14.2 | O = 7<br>E = 25.3 | O = 169<br>E = 145.5 | 185 |
| Other | O = 17<br>E = 10.4 | O = 22<br>E = 18.6 | O = 97<br>E = 106.9 | 136 |
| Total | 64 | 114 | 655 | 833 |

df = 10 $\chi^2 = 54.53$ $P < .001$

and marketing majors indicating more favorable scores.

In Table 32 there is a slightly different pattern of responses. Marketing majors continue to indicate more favorable responses than expected. However, finance majors, rather than accounting majors, contribute the other major discrepancies between observed and expected score frequencies.

Examination of Table 33 reveals the major discrepancies between observed and expected score frequencies occur, first, for marketing majors who indicate more favorable scores than expected, and secondly, among accounting and finance majors who indicate less favorable scores than expected toward marketing as a field leading to occupations which would provide high income opportunities.

Although a majority of students agree that marketing leads to opportunities to work with people rather than things, significant differences exist among majors in different fields. Table 34 indicates marketing majors are the primary contributors to the high chi square value with accounting and finance majors secondary contributors.

Table 35 indicates accounting and finance majors provide less favorable scores than expected while marketing majors provide more favorable scores than expected.

TABLE 34.--Chi Square Calculation by Major Field for the Statement: This Field (Marketing) Leads to Occupations Which Would Provide Opportunities for Me to Work Mainly with People Rather Than with Things

| Major Field | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| Accounting | O = 25<br>E = 15.3 | O = 14<br>E = 13.5 | O = 166<br>E = 176.2 | 205 |
| Economics | O = 6<br>E = 3.6 | O = 5<br>E = 3.2 | O = 38<br>E = 42.1 | 49 |
| Finance | O = 9<br>E = 5.1 | O = 5<br>E = 4.5 | O = 55<br>E = 59.3 | 69 |
| Management | O = 11<br>E = 14 | O = 18<br>E = 12.5 | O = 160<br>E = 162.5 | 189 |
| Marketing | O = 2<br>E = 13.8 | O = 3<br>E = 12.2 | O = 180<br>E = 159 | 185 |
| Other | O = 9<br>E = 10.1 | O = 10<br>E = 9 | O = 117<br>E = 116.9 | 136 |
| Total | 62 | 55 | 716 | 833 |

df = 10 $\quad \chi^2 = 36.11 \quad$ P < .001

TABLE 35.--Chi Square Calculation by Major Field for the Statement: This Field (Marketing) Leads to Occupations Which Would Not Provide Me a Chance to Exercise Leadership

| Major Field | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| Accounting | O = 24<br>E = 25.3 | O = 34<br>E = 24.1 | O = 147<br>E = 155.5 | 205 |
| Economics | O = 9<br>E = 6 | O = 3<br>E = 5.8 | O = 37<br>E = 37.2 | 49 |
| Finance | O = 14<br>E = 8.5 | O = 13<br>E = 8.1 | O = 42<br>E = 52.4 | 69 |
| Management | O = 29<br>E = 23.4 | O = 19<br>E = 22.2 | O = 141<br>E = 143.3 | 189 |
| Marketing | O = 11<br>E = 22.9 | O = 12<br>E = 21.8 | O = 162<br>E = 140.3 | 185 |
| Other | O = 16<br>E = 16.8 | O = 17<br>E = 16 | O = 103<br>E = 103.2 | 136 |
| Total | 103 | 98 | 632 | 833 |

df = 10 $\chi^2 = 31.90$ $P < .001$

Analysis of differences among students majoring in different fields indicated that sub-hypothesis IIA3 should be rejected. Individual statement scores obtained on a series of value statements related to marketing as a field of study did differ significantly among students who are majoring in different fields. Patterns of responses to value statements follow closely patterns exhibited by responses to attitude statements and semantic differential scales. Accounting and finance majors provide less favorable scores than expected while marketing majors provide more favorable scores than expected.

### Summary of Differences Among Students with Different Major Fields

Sub-hypothesis IIA and related sub-hypotheses IIA1, IIA2, and IIA3, were tested and the results indicated in Tables 12-35 and the discussion associated with each table. Analysis of individual statement and scale scores on a series of attitude statements, semantic differential scales, and value statements related to marketing as a field of study revealed significant differences among students who are majoring in different fields. Significance of differences on individual statement and scale scores was calculated by chi square and in every case obtained P's were considerably less than the

.05 rejection level. Differences were most apparent between marketing majors and accounting majors. Marketing majors provided more favorable scores than expected, while accounting majors provided less favorable scores than expected. Moderate discrepancies between observed and expected score frequencies occurred among finance majors, who also provided less favorable scores than expected. Observed score frequencies for economics, management, and other field majors tended to conform very closely to expected frequencies.

Images are mental pictures formed as a result of stimuli. Students from different major fields were exposed to stimuli in the form of attitude statements, semantic differential scales, and value statements related to marketing as a field of study. Responses to statements and scales indicated these students' image of marketing as a field of study. Since responses differ significantly, students' images also differ significantly and sub-hypothesis IIA can be rejected. The image of marketing as a field of study held by students with marketing as their major field does differ significantly from the image of marketing held by students who are majoring in accounting, economics, finance, management, and other fields.

## Differences Among Students with Different Grade Point Averages

Sub-hypothesis IIB states: the image of marketing as a field of study held by students with high (4.0 - 3.1) grade point averages will not differ significantly from the image of marketing held by students with grade point averages of 3.0 or below. The following procedures were used to test hypothesis IIB.

Students were first classified according to whether they had grade point averages of 4.0 - 3.1, 3.0 - 2.6, or 2.5 and below. Responses to individual attitude statements, semantic differential scales, and value statements related to marketing as a field of study were categorized as unfavorable, undecided, or favorable. Contingency tables for each statement or scale were then developed. Observed values (O) for each cell were determined by tallying frequencies of appropriate responses by each grade point average classification. Expected values (E) for each cell were determined by multiplying the two marginal totals common to a particular cell, and then dividing this product by the total number of students responding. Since there were three classifications of grade point averages (rows) and three levels of responses (columns) in the contingency tables, there were four degrees of freedom. After chi square values were calculated, their associated probabilities for

four degrees of freedom were determined from a table of chi square values to indicate significance level of differences.

## Differences on Attitude Statements

Students were classified according to grade point average and their responses to statements which described their feelings (attitude statements) about marketing as a field of study were used to obtain contingency tables and chi square values. Only those statements for which significant differences were determined are discussed in the following analysis.

Table 36 indicates significant differences among students with different grade point averages for the statement analyzed. Among students with higher grade point averages, there are less favorable and more unfavorable scores than expected. Among students with lower grade point averages, there are more favorable and less unfavorable scores than expected. Among students with lower grade point averages, there are more favorable and less unfavorable scores than expected. The distribution of scores indicate the higher their grade point average, the less favorable students are toward marketing as an interesting and challenging field.

Significant differences among students with different grade point averages are indicated in Table

TABLE 36.--Chi Square Calculation by Grade Point Average for the Statement: This Field (Marketing) Is Very Interesting and Challenging to Me

| Grade Point Average | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| (4.0 - 3.1) | O = 30<br>E = 25.1 | O = 45<br>E = 36.9 | O = 102<br>E = 115 | 177 |
| (3.0 - 2.6) | O = 46<br>E = 41.9 | O = 67<br>E = 61.8 | O = 183<br>E = 192.2 | 296 |
| (2.5 and below) | O = 42<br>E = 50.9 | O = 62<br>E = 75.2 | O = 256<br>E = 233.8 | 360 |
| Total | 118 | 174 | 541 | 833 |

df = 4 $\chi^2 = 11.41$ $\chi^2$ 9.49 = P .05

$\chi^2$ 11.67 = P .02

TABLE 37.--Chi Square Calculation by Grade Point Average for the Statement: This Field (Marketing) Is Too Abstract and Theoretical for Me, I Feel It Is Inapplicable to the "Real" World

| Grade Point Average | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| (4.0 - 3.1) | O = 7<br>E = 13.4 | O = 23<br>E = 21 | O = 147<br>E = 142.6 | 177 |
| (3.0 - 2.6) | O = 27<br>E = 22.4 | O = 45<br>E = 35.2 | O = 224<br>E = 238.4 | 296 |
| (2.5 and below) | O = 29<br>E = 27.2 | O = 31<br>E = 42.8 | O = 300<br>E = 289.9 | 360 |
| Total | 63 | 99 | 671 | 833 |

df = 4 $\chi^2 = 11.65$ $\chi^2$ 9.49 = P .05

$\chi^2$ 11.67 = P .02

37. The pattern of response is unique. Both students with higher and lower grade point averages provide more favorable responses than expected. Students in the middle range of grade point averages provide more undecided scores than expected. Responses to this statement indicate that students, regardless of grade point average, feel that marketing is not too abstract or theoretical and is applicable to the real world.

Discrepancies between observed and expected score frequencies among students with high grade point averages contribute most to the highly significant differences obtained from Table 38. These students indicate considerably less favorable scores and more undecided or unfavorable scores than expected. The higher their grade point average, the less favorable students are toward marketing as a field which leads to occupations in which they'd like the life they'd lead outside the job.

A very clear pattern of responses is indicated by Table 39. Students with high grade point averages indicate less favorable and more unfavorable scores than expected, while students with lower grade point averages indicate more favorable and less unfavorable scores than expected. Responses indicate the higher their grade point, the less favorable students are

TABLE 38.--Chi Square Calculation by Grade Point Average for the Statement; This Field (Marketing) Leads to Occupations in Which I'd Like the Life I'd Lead Outside the Job

| Grade Point Average | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| (4.0 - 3,1) | O = 33<br>E = 24.6 | O = 58<br>E = 40.8 | O = 86<br>E = 111.5 | 177 |
| (3,0 - 2,6) | O = 50<br>E = 41.2 | O = 51<br>E = 68.2 | O = 195<br>E = 186.5 | 296 |
| (2,5 and below) | O = 33<br>E = 50.1 | O = 83<br>E = 82.9 | O = 244<br>E = 226.9 | 360 |
| Total | 116 | 192 | 525 | 833 |

df = 4 $\quad \chi^2 = 18,46 \quad$ P < ,001

TABLE 39.--Chi Square Calculation by Grade Point Average for the Statement: I Do Not Feel This Field (Marketing) Has a Good Reputation or High Prestige Among Other Students

| Grade Point Average | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| (4.0 - 3.1) | O = 51<br>E = 42.5 | O = 30<br>E = 24.4 | O = 96<br>E = 110.1 | 177 |
| (3.0 - 2.6) | O = 81<br>E = 71.1 | O = 32<br>E = 40.9 | O = 183<br>E = 184.1 | 296 |
| (2.5 and below) | O = 68<br>E = 86.4 | O = 53<br>E = 49.6 | O = 239<br>E = 223.9 | 360 |
| Total | 200 | 115 | 518 | 833 |

df = 4 $\quad \chi^2 = 13.27 \quad$ P < .02

toward marketing as a field with a good reputation or high prestige among other students.

Analysis of differences among students with different grade point averages indicated that sub-hypothesis IIB1 could only be partially rejected. Individual statement scores obtained on four attitude statements related to marketing as a field of study differed significantly, but individual statement scores on five attitude statements did not differ significantly among students with different grade point averages. Patterns of responses to attitude statements indicated that students with higher grade point averages provide less favorable scores than expected, while students with lower grade point averages provided more favorable scores than expected.

### Differences on Semantic Differential Scales

Students were classified according to grade point average and their responses to semantic differential scales (descriptive adjective pairs), which indicated their feelings about marketing as a field of study, were used to obtain contingency tables and chi square values. Scores on only two semantic differential scales differed significantly among students with different grade point averages.

TABLE 40.--Chi Square Calculation by Grade Point Average for the Semantic Differential Scale Pair Describing Marketing As: UGLY-BEAUTIFUL

| Grade Point Average | Unfavorable Scores (1-2-3) | Undecided (4) | Favorable Scores (5-6-7) | Total |
|---|---|---|---|---|
| (4.0 - 3.1) | O = 29<br>E = 23.3 | O = 61<br>E = 49.2 | O = 87<br>E = 104.3 | 177 |
| (3.0 - 2.6) | O = 42<br>E = 39.1 | O = 73<br>E = 82.4 | O = 181<br>E = 174.5 | 296 |
| (2.5 and below) | O = 39<br>E = 47.5 | O = 98<br>E = 100.3 | O = 223<br>E = 212.2 | 360 |
| Total | 110 | 232 | 491 | 833 |

df = 4 $\chi^2 = 10.74$ $\chi^2$ 9.49 = P .05

$\chi^2$ 11.67 = P .02

Table 40 indicates the largest discrepancies between observed and expected score frequencies are among students with the highest grade point averages. These students indicate less favorable scores than expected and more undecided or unfavorable scores than expected. In contrast, students with lower grade point averages indicate more favorable and less undecided or unfavorable scores than expected.

Differences between observed and expected frequencies of undecided scores are the largest contributors to the high chi square value obtained from Table 41. Students with higher grade point averages indicate less favorable scores than expected, and students with lower grade point averages indicate more favorable scores than expected.

Analysis of differences among students with different grade point averages indicated that sub-hypothesis IIB2 could be accepted. Individual scale scores obtained on only two semantic differential scales related to marketing as a field of study differed significantly, while individual scale scores on four semantic differential scales did not differ significantly among students with different grade point averages. Major contributors to significant

TABLE 41.--Chi Square Calculation by Grade Point Average for the Semantic Differential Scale Pair Describing Marketing As: UNFAIR-FAIR

| Grade Point Average | Unfavorable Scores (1-2-3) | Undecided (4) | Favorable Scores (5-6-7) | Total |
|---|---|---|---|---|
| (4,0 - 3,1) | O = 14<br>E = 16.8 | O = 52<br>E = 39.3 | O = 111<br>E = 120.9 | 177 |
| (3,0 - 2,6) | O = 26<br>E = 28.0 | O = 69<br>E = 65.7 | O = 201<br>E = 202.2 | 296 |
| (2,5 and below) | O = 39<br>E = 34.1 | O = 64<br>E = 79.9 | O = 257<br>E = 245.9 | 360 |
| Total | 79 | 185 | 569 | 833 |

df = 4 $\chi^2$ = 10,03 $\chi^2$ 9.49 = P ,05

$\chi^2$ 11,67 = P ,02

differences for individual scales appeared to be discrepancies between observed and expected frequencies of undecided scores. Students with higher grade point averages provided less favorable scores than expected, while students with lower grade point averages provided more favorable scores than expected.

## Differences on Value Statements

Students were classified by grade point average and their responses to statements which described their feelings about opportunities provided (value statements) by study in marketing were used to obtain the following contingency tables and chi square values. Again, only those statements for which significant differences were determined are discussed.

Examination of Table 42 reveals a definite contrast between score distributions for students with higher and lower grade point averages. Less favorable scores and more unfavorable scores than expected are provided by students with high grade point averages, while more favorable scores and less unfavorable scores than expected are provided by students with lower grade point averages. More students than expected with higher grade point averages indicate that marketing leads to occupations

TABLE 42.--Chi Square Calculation by Grade Point Average for the Statement: This Field (Marketing) Leads to Occupations Which Would Not Provide Opportunities for Me to Use My Special Abilities or Aptitudes

| Grade Point Average | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| (4.0 - 3.1) | O = 43<br>E = 33.5 | O = 33<br>E = 26.1 | O = 101<br>E = 117.3 | 177 |
| (3.0 - 2.6) | O = 64<br>E = 56.1 | O = 36<br>E = 43.8 | O = 196<br>E = 196.1 | 296 |
| (2.5 and below) | O = 51<br>E = 68.2 | O = 54<br>E = 53.2 | O = 255<br>E = 238.6 | 360 |
| Total | 158 | 123 | 552 | 833 |

df = 4 $\quad \chi^2 = 14.75 \quad$ P < .02

which would not permit them to use their special abilities or aptitudes.

Table 43 indicates students with high grade point averages provide less favorable and more unfavorable scores than expected, while students with lower grade point averages indicate more favorable and less unfavorable scores than expected. Responses indicate the higher their grade point average, the less students feel that marketing leads to occupations which provide a stable secure future.

Table 44 reveals that a majority of student respondents give favorable scores to this statement, indicating they feel that marketing as a field of study leads to occupations which would provide them an opportunity to earn a high income. However, discrepancies between observed and expected score frequencies are indicated for the higher and lower grade point classifications. Students in the lower classification give more favorable scores than expected, while students in the higher classifications give less favorable scores than expected. The barely significant chi square value indicates the comparatively minor discrepancies between observed and expected score frequencies of Table 44.

The barely significant chi square value calculated from Table 45 and the large number of favorable

TABLE 43.--Chi Square Calculation by Grade Point Average for the Statement; This Field (Marketing) Leads to Occupations Which Would Provide Me A Stable Secure Future

| Grade Point Average | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| (4.0 - 3.1) | O = 37<br>E = 31.2 | O = 53<br>E = 39.3 | O = 87<br>E = 106.5 | 177 |
| (3.0 - 2.6) | O = 51<br>E = 52.2 | O = 62<br>E = 65.7 | O = 183<br>E = 178 | 296 |
| (2.5 and below) | O = 59<br>E = 63.5 | O = 70<br>E = 79.9 | O = 231<br>E = 216.5 | 360 |
| Total | 447 | 185 | 501 | 833 |

df = 4 $\quad \chi^2 = 12.32 \quad$ P < .02

TABLE 44.--Chi Square Calculation by Grade Point Average for the Statement; This Field (Marketing) Leads to Occupations Which Would Provide Me an Opportunity to Earn a High Income

| Grade Point Average | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| (4.0 - 3.1) | O = 16<br>E = 13.6 | O = 34<br>E = 24.2 | O = 127<br>E = 139.2 | 177 |
| (3.0 - 2.6) | O = 27<br>E = 22.7 | O = 38<br>E = 40.5 | O = 231<br>E = 232.7 | 296 |
| (2.5 and below) | O = 21<br>E = 27.7 | O = 42<br>E = 49.3 | O = 297<br>E = 283.1 | 360 |
| Total | 64 | 114 | 655 | 833 |

df = 4 $\chi^2 = 9,83$ $\chi^2$ 9,49 = P .05

$\chi^2$ 11,67 = P ,02

TABLE 45.--Chi Square Calculation by Grade Point Average for the Statement; This Field (Marketing) Leads to Occupations Which Would Provide Opportunities for Me to Work Mainly with People Rather Than with Things

| Grade Point Average | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| (4.0 - 3.1) | O = 12<br>E = 13.2 | O = 20<br>E = 11.7 | O = 145<br>E = 152.1 | 177 |
| (3.0 - 2.6) | O = 26<br>E = 22 | O = 18<br>E = 19.5 | O = 252<br>E = 254.4 | 296 |
| (2,5 and below) | O = 24<br>E = 26.8 | O = 17<br>E = 23.7 | O = 319<br>E = 309.4 | 360 |
| Total | 62 | 55 | 716 | 833 |

df = 4 $\chi^2 = 9.83$ $\chi^2$ 9.49 = P .05

$\chi^2$ 11.67 = P .02

scores indicate that student respondents feel that study in marketing does lead to opportunities for them to work mainly with people rather than with things. Again students with higher grade point averages show less favorable and students with lower grade point averages show more favorable scores than expected.

Analysis of differences among students with different grade point averages indicate that sub-hypothesis IIB3 could be only partially rejected. Individual statement scores obtained on four value statements related to marketing as a field of study differed significantly, but individual statement scores on five value statements did not differ significantly among students with different grade point averages. Patterns of responses to value statements corresponded very closely to the patterns of responses to attitude statements and semantic differential scales. In general, students with higher grade point averages provided less favorable scores than expected, and students with lower grade point averages provided more favorable scores than expected.

### Summary of Differences Among Students with Different Grade Point Averages

Sub-hypothesis IIB and related sub-hypotheses IIB1, IIB2, and IIB3, were tested and the results for

those statements with significant differences indicated in Tables 36-45 and the discussion associated with each table. Chi square analysis of individual statement and scale scores on attitude statements, semantic differential scales, and value statements related to marketing as a field of study revealed significant differences among students with different grade point averages on four attitude statements, two semantic differential scales, and four value statements. Differences were most apparent between students with grade point averages of 4.0 - 3.1, and students with grade point averages of 2.5 and below. Students with the higher grade point averages provided less favorable scores than expected, and students with the lower grade point averages provided more favorable scores than expected.

Students with different grade point averages were exposed to stimuli in the form of attitude statements, semantic differential scales, and value statements related to marketing as a field of study. Images are mental pictures formed as a result of stimuli. Responses to statements and scales thus indicated the image of marketing held by students with different grade point averages. Since responses to only ten statements and scales differed significantly, students' images differed significantly only in respect to those

statements and scales. Sub-hypothesis IIB can be partially accepted and restated. The image of marketing as a field of study held by students with high (4.0 - 3.1) grade point averages does not differ significantly from the image of marketing held by students with grade point averages of 3.0 and below for some characteristics which contribute to the formulation of the image of marketing, but does differ significantly for other characteristics. Individual statement scores indicate students with higher grade point averages provide less favorable scores than expected toward marketing as an interesting and challenging field, a field with high prestige among other students, a field leading to opportunities to use their special abilities, a field leading to occupations providing a stable secure future, and a field providing opportunities to earn a high income.

## Differences Among Students with Different Graduate School Plans

Sub-hypothesis IIC states: the image of marketing as a field of study held by students planning to attend graduate or professional school will not differ significantly from the image of marketing held by students who do not plan to attend graduate or professional school or who are undecided about attending. The following procedures were used to test sub-hypothesis IIC.

Students were first classified according to yes, no, or undecided regarding their plans to attend graduate school. Responses to individual attitude statements, semantic differential scales, and value statements related to marketing as a field of study were categorized as unfavorable, undecided, or favorable. Contingency tables for each statement or scale were then developed. Since there were three levels of plans to attend graduate school (rows) and three levels of responses (columns) in the contingency tables, there were four degrees of freedom. After chi square values were calculated, their associated probabilities for four degrees of freedom were determined from a table of chi square values.

Analysis of individual statements and scales when students were classified according to plans to attend graduate school revealed significant differences (.05 level) for three attitude statements, one semantic differential scale, and two value statements. Since there were so few statements or scales with significant differences, they are analyzed and discussed together rather than in separate categories.

Discrepancies between observed and expected score frequencies in Table 46 are most apparent among those students who plan to attend graduate school and

TABLE 46.--Chi Square Calculation by Graduate School Plans for the Statement: This Field (Marketing) Is Very Interesting and Challenging to Me

| Plans to Attend Graduate School | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| Yes | O = 69<br>E = 58.4 | O = 89<br>E = 86 | O = 254<br>E = 267.6 | 412 |
| No | O = 33<br>E = 29.6 | O = 41<br>E = 43.6 | O = 135<br>E = 135.7 | 209 |
| Undecided | O = 16<br>E = 30 | O = 44<br>E = 44.3 | O = 152<br>E = 137.7 | 212 |
| Total | 118 | 174 | 541 | 833 |

df = 4 $\chi^2$ = 11.28 $\chi^2$ 9.49 = P .05

$\chi^2$ 11.67 = P .02

those who are undecided. Students who plan to attend graduate school provide more unfavorable and less favorable scores than expected. Among students who are undecided, the situation is just reversed. Responses indicate that among students who plan to attend graduate school, marketing as an interesting and challenging field received less favorable scores than expected.

In Table 47 those students who are undecided about plans to attend graduate school indicate only about half the expected number of unfavorable scores, but more favorable scores than expected. In contrast, both students who plan, and those who do not plan to attend graduate school provide less favorable scores than expected. Responses in Table 47 indicate that students who plan to attend graduate school provide less favorable scores than expected to marketing as a field which leads to occupations in which they would like the life they would lead outside the job.

Table 48 indicates obvious and significant differences in score frequencies among students with differing graduate school plans. Those students planning to attend graduate school provide more unfavorable and less favorable scores than expected. Students who do not plan to attend graduate school conform very closely to expected frequencies. Those students who

TABLE 47.--Chi Square Calculation by Graduate School Plans for the Statement: This Field (Marketing) Leads to Occupations in Which I'd Like the Life I'd Lead Outside the Job

| Plans to Attend Graduate School | Unfavorable Scores | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| Yes | O = 65<br>E = 57.4 | O = 97<br>E = 94.9 | O = 250<br>E = 259.6 | 412 |
| No | O = 35<br>E = 29.1 | O = 46<br>E = 48.2 | O = 128<br>E = 131.7 | 209 |
| Undecided | O = 16<br>E = 29.5 | O = 49<br>E = 48.9 | O = 147<br>E = 133.6 | 212 |
| Total | 116 | 192 | 525 | 833 |

df = 4 $\chi^2$ = 11.62 $\chi^2$ 9.49 = P .05

$\chi^2$ 11.67 = P .02

TABLE 48.--Chi Square Calculation by Graduate School Plans for the Statement: I Do Not Feel This Field (Marketing) Has a Good Reputation or High Prestige Among Other Students

| Plans to Attend Graduate School | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| Yes | O = 120<br>E = 98.9 | O = 64<br>E = 56.9 | O = 228<br>E = 256.2 | 412 |
| No | O = 48<br>E = 50.2 | O = 22<br>E = 28.9 | O = 139<br>E = 129.9 | 209 |
| Undecided | O = 32<br>E = 50.9 | O = 29<br>E = 29.2 | O = 151<br>E = 131.8 | 212 |
| Total | 200 | 115 | 518 | 833 |

df = 4 $\quad \chi^2 = 20.6 \quad$ P < .001

are undecided provide less unfavorable and more favorable scores than expected. Students who plan to attend graduate school feel less favorable than expected toward marketing as a field with a good reputation or high prestige among students.

A barely significant chi square value was calculated from Table 49. Major contributors to this value were the discrepancies between observed and expected score frequencies for students who were undecided about attending graduate school. These students provide less unfavorable scores than expected and more favorable scores than expected.

Response patterns in Table 50 indicate students who are undecided about attending graduate school provide less unfavorable scores and more favorable scores than expected, while among students planning to attend graduate school the situation is reversed. Students planning to attend graduate school provide less favorable scores than expected toward marketing as a field leading to occupations which would provide opportunities for them to use their special abilities or aptitudes.

Students who do not plan to attend graduate school contribute the largest discrepancies between observed and expected frequencies in Table 51. In contrast to responses to earlier statements, students

TABLE 49.--Chi Square Calculation by Graduate School Plans for the Semantic Differential Scale Pair Describing Marketing As: AWFUL-NICE

| Plans to Attend Graduate School | Unfavorable Scores (1-2-3) | Undecided (4) | Favorable Scores (5-6-7) | Total |
|---|---|---|---|---|
| Yes | O = 39<br>E = 39 | O = 114<br>E = 104.9 | O = 259<br>E = 268.1 | 412 |
| No | O = 27<br>E = 19.8 | O = 51<br>E = 53.2 | O = 131<br>E = 136 | 209 |
| Undecided | O = 13<br>E = 20.1 | O = 47<br>E = 53.9 | O = 152<br>E = 137.9 | 212 |
| Total | 79 | 212 | 542 | 833 |

df = 4 $\chi^2 = 9.63$ $\chi^2$ 9.49 = P .05

$\chi^2$ 11.67 = P .02

TABLE 50.--Chi Square Calculation by Graduate School Plans for the Statement; This Field (Marketing) Leads to Occupations Which Would Not Provide Opportunities for Me to Use My Special Abilities or Aptitudes

| Plans to Attend Graduate School | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| Yes | O = 81<br>E = 78.1 | O = 66<br>E = 60.8 | O = 265<br>E = 273 | 412 |
| No | O = 50<br>E = 39.6 | O = 30<br>E = 30.9 | O = 129<br>E = 138.4 | 209 |
| Undecided | O = 27<br>E = 40.2 | O = 27<br>E = 31.3 | O = 158<br>E = 140.5 | 212 |
| Total | 158 | 123 | 552 | 833 |

df = 4 $\chi^2$ = 11.28 $\chi^2$ 9.49 = P .05

$\chi^2$ 11.67 = P .02

TABLE 51.--Chi Square Calculation by Graduate School Plans for the Statement: This Field (Marketing) Leads to Occupations Which Would Not Provide Me a Chance to Exercise Leadership

| Plans to Attend Graduate School | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| Yes | O = 54<br>E = 50.9 | O = 38<br>E = 48.5 | O = 320<br>E = 312.6 | 412 |
| No | O = 31<br>E = 25.8 | O = 33<br>E = 24.6 | O = 145<br>E = 158.5 | 209 |
| Undecided | O = 18<br>E = 26.2 | O = 27<br>E = 24.9 | O = 167<br>E = 160.8 | 212 |
| Total | 103 | 98 | 632 | 833 |

df = 4 $\chi^2$ = 10.82 $\chi^2$ 9.49 = P .05

$\chi^2$ 11.67 = P .02

who are planning to attend graduate school indicate more favorable scores than expected. Students who are undecided about attending graduate school provide less unfavorable but more undecided and favorable scores than expected. Students not planning to attend graduate school appear to have shifted their favorable scores to undecided.

### Summary of Differences Among Students with Different Graduate School Plans

Sub-hypothesis IIC and related sub-hypotheses IIC1, IIC2, and IIC3, were tested and the results for those statements and scales with significant differences indicated in Tables 46-51 and the discussion associated with each table. Chi square analysis of individual statement and scale scores on a series of attitude statements, semantic differential scales, and value statements related to marketing as a field of study revealed significant differences among students with different graduate school plans on three attitude statements, one semantic differential scale, and two value statements. Differences were most apparent between students planning to attend graduate school and students who were undecided about attending graduate school. Students planning to attend graduate school provided less

favorable scores than expected while students who were undecided provided less unfavorable scores than expected.

Responses to stimuli in the form of attitude statements, semantic differential scales, and value statements related to marketing as a field of study indicated the image of marketing held by students with different graduate school plans. Since responses to only six statements and scales differed significantly, students' images differed significantly only in respect to those statements and scales. Sub-hypothesis IIC can be primarily accepted and restated. The image of marketing as a field of study held by students planning to attend graduate or professional school does not differ significantly, from the image of marketing held by students who do not plan to attend graduate school or who are undecided about attending, for some characteristics which contribute to the formulation of the image of marketing, but does differ significantly for other characteristics. Individual statement scores indicate students who are planning to attend graduate school provided less favorable scores than expected toward marketing as an interesting and challenging field, a field with high prestige among students, a NICE field, and a field leading to occupations providing opportunities to use their special abilities or exercise leadership.

## Differences Among Students with Varying Numbers of Honors or Awards

Sub-hypothesis IID states: the image of marketing held by students with several (two or more) academic honors or awards will not differ significantly from the image of marketing held by students with few (less than two) or no academic honors. Procedures to test sub-hypothesis IID were similar to those used to test previous hypotheses.

Students were first classified according to whether they held none, one, or two or more academic honors or awards. Responses to individual statements and scales related to marketing as a field of study were again categorized as unfavorable, undecided, or favorable. Contingency tables were then developed. Since there were three levels of honors or awards (rows) and three levels of responses (columns) in the contingency tables, there were four degrees of freedom. Chi square values were calculated from each table and their associated probabilities for four degrees of freedom were determined from a table of chi square values.

When students were classified according to numbers of honors or awards received, analysis of individual statement and scale scores revealed significant differences (.05 level) for two attitude statements,

no semantic differential scales, and one value statement. Since there were so few statements with significant differences, they are analyzed and discussed together.

Students with two or more honors or awards contribute the greatest discrepancies between observed and expected score frequencies for Table 52. These students indicate less favorable scores and more unfavorable scores than expected. In contrast, students with no honors or awards indicate more favorable and less unfavorable scores than expected. Responses in Table 52 indicates students with academic honors or awards provide less favorable scores than expected for marketing as a field which leads to occupations in which they would like their life outside the job.

Undecided scores are the greatest contributors to the significant chi square value of Table 53. Students with no honors or awards provide less unfavorable and undecided scores but more favorable scores than expected. Students with one honor or award provide less favorable and more undecided or unfavorable scores than expected. Among students with two or more honors or awards less favorable scores than expected were indicated.

Examination of Table 54 reveals a definite contrast between scores for students who have no honors or

TABLE 52.--Chi Square Calculation by Number of Academic Honors or Awards for the Statement: This Field (Marketing) Leads to Occupations in Which I'd Like the Life I'd Lead Outside the Job

| Number of Honors or Awards | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| None | O = 54<br>E = 61.8 | O = 91<br>E = 102.3 | O = 296<br>E = 279.8 | 444 |
| One | O = 34<br>E = 35.4 | O = 62<br>E = 58.5 | O = 158<br>E = 160.1 | 254 |
| Two or More | O = 28<br>E = 18.8 | O = 36<br>E = 31.1 | O = 71<br>E = 85.1 | 135 |
| Total | 116 | 192 | 525 | 833 |

df = 4 $\chi^2 = 10.45$ $\chi^2$ 9,49 = P .05

$\chi^2$ 11.67 = P .02

TABLE 53.--Chi Square Calculation by Number of Academic Honors or Awards for the Statement: I Do Not Feel This Field (Marketing) Has a Good Reputation or High Prestige Among Other Students

| Number of Honors or Awards | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| None | O = 97<br>E = 106.6 | O = 48<br>E = 61.3 | O = 295<br>E = 276.1 | 444 |
| One | O = 66<br>E = 61 | O = 45<br>E = 35.1 | O = 143<br>E = 157.9 | 254 |
| Two or More | O = 37<br>E = 32.4 | O = 18<br>E = 18.6 | O = 80<br>E = 83.9 | 135 |
| Total | 200 | 115 | 518 | 833 |

df = 4 $\chi^2$ = 10.49 $\chi^2$ 9.49 = P .05

$\chi^2$ 11.67 = P .02

TABLE 54.--Chi Square Calculation by Number of Academic Honors or Awards for the Statement: This Field (Marketing) Leads to Occupations Which Would Provide Me a Stable Secure Future

| Number of Honors or Awards | Unfavorable Scores (1-2) | Undecided (3) | Favorable Scores (4-5) | Total |
|---|---|---|---|---|
| None | O = 76<br>E = 78.3 | O = 84<br>E = 98.6 | O = 284<br>E = 267 | 444 |
| One | O = 41<br>E = 44.8 | O = 65<br>E = 56.4 | O = 148<br>E = 152.7 | 254 |
| Two or More | O = 30<br>E = 23.8 | O = 36<br>E = 30 | O = 69<br>E = 81.1 | 135 |
| Total | 147 | 185 | 501 | 833 |

df = 4 $\chi^2 = 9.69$ $\chi^2$ 9.49 = P .05

$\chi^2$ 11.67 = P .02

awards and students with two or more honors or awards. Those students with no honors provide more favorable and less unfavorable scores than expected, while students with two or more honors provide less favorable and more unfavorable scores than expected. As students receive increased honors or awards, they indicate less favorable scores toward marketing as leading to occupations which would provide a stable secure future.

### Summary of Differences Among Students with Varying Numbers of Honors or Awards

Sub-hypothesis IID and related sub-hypotheses IID1, IID2, and IID3, were tested and the results for those statements with significant differences indicated in Tables 52-54 and the discussion associated with each table. Chi square analysis on individual attitude statements, value statements, and semantic differential scales related to marketing as a field of study revealed significant differences among students with varying numbers of honors or awards on two attitude statements and one value statement. Differences were most apparent between students who had no honors or awards and students with two or more honors or awards. Students with no honors provided more favorable and less unfavorable scores than expected and students with two or more honors or awards provided less favorable and more unfavorable

scores than expected.

Responses to stimuli in the form of attitude statements, semantic differential scales, and value statements related to marketing as a field of study indicated the image of marketing held by students with varying numbers of honors or awards. Since responses to only three statements differed significantly, students' images differed significantly only in respect to those statements. Sub-hypothesis IID can be primarily accepted and restated. The image of marketing as a field of study held by students with several (two or more) academic honors or awards does not differ significantly from the image of marketing held by students with few (less than two) or no academic honors for some characteristics which contribute to the formulation of the image of marketing, but does differ significantly for other characteristics. Analysis of scores revealed that students with several academic honors or awards provided less favorable scores than expected toward marketing as a field with high prestige among students, a field leading to occupations in which they would like the life outside the job, and a field leading to occupations providing a stable secure future.

## Summary of Differences Among Classes of Students

To test major hypothesis II and its related sub-hypotheses, students in this study were classified according to major field, grade point average, plans to attend graduate school, and number of academic honors or awards. Responses to individual statements or scales related to marketing as a field of study were categorized as unfavorable, undecided, or favorable. Classifications of students and categories of responses were used to develop contingency tables for each statement. Chi square tests were applied to each table to determine significance of differences between classifications of students on individual statement and scale scores. Results of these tests were indicated in preceding tables and discussions.

Tests of hypotheses indicated the image of marketing as a field of study held by various classes from within the population of business students will differ significantly among classes as follows:

The image of marketing as a field of study held by students with marketing as their major field will differ significantly from the image of marketing held by students who are majoring in accounting, economics, finance, management, and other fields.

Attitudes, measured by responses to attitude

statements related to marketing as a field of study, will differ significantly among students who are majoring in different fields.

Attitudes, measured by responses to semantic differential scales (descriptive adjectives) related to marketing as a field of study, will differ significantly among students who are majoring in different fields.

Values, measured by responses to value statements related to marketing as a field of study, will differ significantly among students who are majoring in different fields.

The image of marketing as a field of study held by students with high (4.0 - 3.1) grade point averages will differ significantly from the image of marketing held by students with grade point averages of 3.0 or below, as follows: (In every case, students with high grade point averages provided less favorable responses than expected, while students with lower grade point averages provided more favorable responses than expected.)

Attitudes, measured by responses to attitude statements related to marketing as a field of study, will differ significantly among students with different grade point averages for the following statements:

1. This field (marketing) is very interesting and challenging to me.

2. This field (marketing) is too abstract and theoretical for me. I feel it is inapplicable to the "real" world.

3. This field (marketing) leads to occupations in which I'd like the life I'd lead outside the job.

4. I do not feel this field (marketing) has a good reputation or high prestige among other students.

Attitudes, measured by responses to semantic differential scales (descriptive adjectives) related to marketing as a field of study, will differ significantly among students with different grade point averages for the following scales:

1. Scale pair describing marketing as: Ugly-Beautiful.

2. Scale pair describing marketing as: Unfair-Fair.

Values, measured by responses to value statements related to marketing as a field of study, will differ significantly among students with different grade point averages for the following statements:

1. This field (marketing) leads to occupations which would not provide opportunities for me to use my special abilities or aptitudes.

2. This field (marketing) leads to occupations which would provide me a stable secure future.

3. This field (marketing) leads to occupations which would provide me an opportunity to earn a high income.

4. This field (marketing) leads to occupations which would provide opportunities for me to work mainly with people rather than with things.

The image of marketing as a field of study held by students planning to attend graduate or professional school will differ significantly from the image of marketing held by students who do not plan to attend graduate or professional schools or who are undecided about attending, as follows: (In each case, students who were planning to attend graduate school provided less favorable responses than expected, while students who were not planning to attend or were undecided about attending graduate school provided more favorable responses than expected.)

Attitudes, measured by responses to attitude statements related to marketing as a field of study, will differ significantly among students planning to attend, not planning to attend, and undecided about plans to attend graduate or professional school for the following statements:

1. This field (marketing) is very interesting and challenging to me.

2. This field (marketing) leads to occupations in which I'd like the life I'd lead outside the job.

3. I do not feel this field (marketing) has a good reputation or high prestige among other students.

Attitudes, measured by responses to semantic differential scales (descriptive adjectives) related to marketing as a field of study, will differ significantly among students planning to attend, not planning to attend, and undecided about plans to attend graduate or professional school for the scale pair describing marketing as: Awful-Nice.

Values, measured by responses to value statements related to marketing as a field of study, will differ significantly among students planning to attend, not planning to attend, and undecided about plans to attend graduate or professional school for the following statements:

1. This field (marketing) leads to occupations which would not provide opportunities for me to use my special abilities or aptitudes.

2. This field (marketing) leads to occupations which would not provide me a chance to exercise leadership.

The image of marketing held by students with several (two or more) academic honors or awards will

differ significantly from the image of marketing held by students with few (less than two) or no academic honors, as follows: (In each case, students with several honors provided less favorable responses than expected, while students with few or no honors provided more favorable responses than expected.)

Attitudes, measured by responses to attitude statements related to marketing as a field of study, will differ significantly among students with varying numbers of academic honors or awards for the following statements:

1. This field (marketing) leads to occupations in which I'd like the life I'd lead outside the job.

2. I do <u>not</u> feel this field (marketing) has a good reputation or high prestige among other students.

Attitudes, measured by responses to semantic differential scales (descriptive adjectives) related to marketing as a field of study, will not differ significantly among students with varying numbers of academic honors or awards.

Values, measured by responses to value statements related to marketing as a field of study, will differ significantly among students with varying numbers of academic honors or awards for the statement: This field (marketing) leads to occupations which would provide me a stable secure future.

# CHAPTER VI

# SUMMARY AND CONCLUSIONS

## Introduction

During the next few decades a high demand for personnel trained in marketing will exist. A likely source for such personnel is the colleges and universities offering marketing curricula. One task of marketing education is to consider the image of marketing as a field of study among college students.

Several marketing authorities in recent years have stressed the need for determining the image of marketing among college students. Two articles in the October, 1967, Journal of Marketing provided the primary impetus for the present study. In their article "Marketing Education and Marketing Personnel as Research Areas," Wendell Smith and Blaine Cooke indicate the value of conducting a project to find out what the image of marketing as a career really is among appropriate audiences.[1] Seymour Banks,

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[1]Smith and Cooke, "Marketing Education and Marketing Personnel as Research Areas," pp. 59-61.

commenting on the above article, stresses the necessity of determining the image which marketing has in the minds of managers of tomorrow as compared to other business and non-business functions.[2]

Determination of the image of marketing as a field of study among business students was the primary purpose of the present study. Accomplishment of this purpose would hopefully meet the need for such a study expressed by Smith, Cooke, and Banks.

## Review of the Study

Solutions to three basic problems were sought in this study.

1. Does the image of marketing held by business students differ significantly from these students' images of accounting, economics, finance, and management as fields of study?

2. Does the image of marketing as a field of study differ significantly among various classes from within the population of business students?

3. What are some specific characteristics which contribute to the formulation of favorable and

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[2]Banks, "Commentary on Marketing Education and Marketing Personnel as Research Areas," pp. 61-63.

unfavorable images of marketing as a field of study?

To aid in finding solutions to these problems and to serve as guides for analysis, two major hypotheses were formulated.

Major Hypothesis I. The image of marketing as a field of study held by business students will not differ significantly from these students' images of accounting, economics, finance, and management as fields of study.

Major Hypothesis II. The image of marketing as a field of study held by various classes from within the population of business students will not differ significantly among classes.

Images were operationally defined as mental representations of anything not actually present to the senses; mental pictures formed as a result of stimuli. Attitudes were defined as predispositions to think, feel, perceive, and behave toward given stimuli. Values were defined as preferences, criteria, or choices of personal or group conduct. Both attitudes and values are verbally expressed through opinions. Guidelines provided by previous research and operational definitions indicated that both attitudes and values imply choice among stimuli.

The sample of students selected for this study were presented stimuli in the form of attitude statements, descriptive adjectives, and value statements related to fields of study in business.

Some attitude and value statements were favorable and illustrated advantageous aspects of fields of study in business. Other statements were unfavorable, illustrating adverse aspects of fields of study in business. Favorable images were revealed by responses indicating agreement (Strongly Agree, Agree) with favorable statements and disagreement (Strongly Disagree, Disagree) with unfavorable statements. Students' responses to statements and adjectives thus indicated their image or mental picture of each field. Only students' verbally expressed attitudes, values, or images were determined in this study. No attempt was made to uncover private beliefs or observe the relationship between behavior and verbal expressions.

Data concerning students' images of marketing and other fields of business was collected by means of mailed questionnaires to a random sample of the national membership of Delta Sigma Pi, a professional business fraternity. Useable responses were received from 833 students representing 110 colleges and

universities located in 39 states, and studying in many fields of business. This group of students met the criteria suggested by Smith, Cooke, and Banks.[3] They were young people, college trained, appropriate audiences, able, and managers of tomorrow.

To test major hypothesis I and its related sub-hypotheses, the fields of accounting, economics, finance, management, and marketing were considered as separate groups. Significance of differences in total scores between marketing and each of the other fields of study for attitude statements, semantic differential scales, and value statements was determined by use of Wilcoxon's matched-pairs signed-ranks test.

To test major hypothesis II and its related sub-hypotheses, students were classified according to major field, grade point average, graduate school plans, or number of academic honors or awards obtained. Significance of differences between classifications of students on individual statement scores for attitude statements, semantic differential scales, and value statements related to marketing as a field of study was determined by use of chi square analysis. For all significance tests a statistical probability level

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[3]Smith and Cooke, "Marketing Education and Marketing Personnel as Research Areas," p. 61, and Banks, "Commentary on Marketing Education and Marketing Personnel as Research Areas," p. 62.

of .05 was considered the minimum requirement for acceptance or rejection of a hypothesis.

## Findings of the Study

### Differences Between Fields

Major hypothesis I and its related sub-hypotheses were tested and the following results obtained.

On the basis of total attitude statement scores, total semantic differential scale scores, and total value statement scores, more student respondents in this study rated marketing higher than accounting, economics, or finance, but more respondents rated management higher than marketing.

Analysis of total scores and tests of significant differences by Wilcoxon's matched-pairs signed-ranks test indicated the image of marketing as a field of study held by business students will differ from these students' images of accounting, economics, finance, and management as follows:

Attitudes toward marketing as a field of study held by business students, and measured by responses to attitude statements related to fields of study in business, will not differ significantly from these students' attitudes toward finance, but will differ significantly from their attitudes toward accounting,

economics, or management. Responses indicated attitudes toward marketing are more favorable than toward accounting or economics, but less favorable than toward management.

Attitudes toward marketing as a field of study held by business students, and measured by responses to semantic differential scales related to fields of study in business, will not differ significantly from these students' attitudes toward finance but will differ significantly from their attitudes toward accounting, economics, and management. Responses indicated attitudes toward marketing are more favorable than toward accounting or economics but less favorable than toward management.

Values of marketing as a field of study held by business students, and measured by responses to value statements related to fields of study in business, will differ significantly from these students' values of accounting, economics, finance, and management. Responses indicate values of marketing are rated more favorable than values of accounting, economics, or finance but less favorable than values of management.

Wilcoxon's matched-pairs signed-ranks test is a statistical test of the magnitude and direction of differences between matched scores. A greater number

of either positive or negative differences leads to a higher level of significance. Since there were few differences between marketing and finance on attitude statement and semantic differential scale scores, no significant differences between attitudes (students' feelings toward study in these two fields) were determined. Significant differences between values (students' feelings about opportunities provided by study in marketing or finance) were indicated since there were many differences in value statement scores. Opportunities provided by study in marketing were rated more favorable than those in finance.

### Differences Between Classes of Students

Major hypothesis II and its related sub-hypotheses were tested and the following results obtained.

Analysis of individual statement and scale scores and tests of significant differences by chi square analysis indicated the image of marketing as a field of study held by various classes from within the population of business students will differ significantly among classes, as follows:

The image of marketing as a field of study held by students with marketing as their major field will differ significantly from the image of marketing held

by students who are majoring in accounting, economics, finance, management, and other fields.

Attitudes, measured by responses to attitude statements related to marketing as a field of study, will differ significantly among students who are majoring in different fields.

Attitudes, measured by responses to semantic differential scales (descriptive adjectives) related to marketing as a field of study, will differ significantly among students who are majoring in different fields.

Values, measured by responses to value statements related to marketing as a field of study, will differ significantly among students who are majoring in different fields.

The image of marketing as a field of study held by students with high (4.0 - 3.1) grade point averages will differ significantly from the image of marketing held by students with grade point averages of 3.0 or below, as follows: (In each case of significant differences, students with high grade point averages provided less favorable responses than expected, while students with lower grade point averages provided more favorable responses than expected.)

Attitudes as measured by responses to attitude statements related to marketing as a field of study will differ significantly among students with different grade point averages for the following statements:

1. This field (marketing) is very interesting and challenging to me.

2. This field (marketing) is too abstract and theoretical for me. I feel it is inapplicable to the "real" world.

3. This field (marketing) leads to occupations in which I'd like the life I'd lead outside the job.

4. I do not feel this field (marketing) has a good reputation or high prestige among other students.

Attitudes as measured by responses to semantic differential scales (descriptive adjectives) related to marketing as a field of study will differ significantly among students with different grade point averages for the following scale pairs:

1. Scale pair describing marketing as: Ugly-Beautiful.

2. Scale pair describing marketing as: Unfair-Fair.

Values as measured by responses to value statements related to marketing as a field of study will

differ significantly among students with different grade point averages for the following statements:

1. This field (marketing) leads to occupations which would not provide opportunities for me to use my special abilities or aptitudes.

2. This field (marketing) leads to occupations which would provide me a stable secure future.

3. This field (marketing) leads to occupations which would provide me an opportunity to earn a high income.

4. This field (marketing) leads to occupations which would provide opportunities for me to work mainly with people rather than with things.

The image of marketing as a field of study held by students planning to attend graduate or professional school will differ significantly from the image of marketing held by students not planning to attend graduate or professional schools or who are undecided about attending, as follows: (In each case, students who were planning to attend graduate school provided less favorable responses than expected while students who were not planning to attend or were undecided about attending graduate school provided more favorable responses than expected.)

Attitudes as measured by responses to attitude statements related to marketing as a field of study will differ significantly among students planning to

attend, not planning to attend, and undecided about plans to attend graduate or professional school for the following statements:

1. This field (marketing) is very interesting and challenging to me.

2. This field (marketing) leads to occupations in which I'd like the life I'd lead outside the job.

3. I do not feel this field (marketing) has a good reputation or high prestige among other students.

Attitudes, measured by responses to semantic differential scales (descriptive adjectives) related to marketing as a field of study, will differ significantly among students planning to attend, not planning to attend, and undecided about plans to attend graduate or professional school for the scale pair describing marketing as: Awful-Nice.

Values, measured by responses to value statements related to marketing as a field of study, will differ significantly among students planning to attend, not planning to attend, and undecided about plans to attend graduate or professional school for the following statements:

1. This field (marketing) leads to occupations which would not provide opportunities for me to use my special abilities or aptitudes.

2. This field (marketing) leads to occupations which would not provide me a chance to exercise leadership.

The image of marketing held by students with several (two or more) academic honors or awards will differ significantly from the image of marketing held by students with few (less than two) or no academic honors, as follows: (In each case, students with several honors provided less favorable responses than expected, while students with few or no honors provided more favorable responses than expected.)

Attitudes, measured by responses to attitude statements related to marketing as a field of study, will differ significantly among students with varying numbers of academic honors or awards for the following statements:

1. This field (marketing) leads to occupations in which I'd like the life I'd lead outside the job.

2. I do not feel this field (marketing) has a good reputation or high prestige among other students.

Attitudes, measured by responses to semantic differential scales (descriptive adjectives) related to marketing as a field of study, will not differ

significantly among students with varying numbers of academic honors or awards.

Values, measured by responses to value statements related to marketing as a field of study, will differ significantly among students with varying numbers of academic honors or awards for the statement: This field (marketing) leads to occupations which would provide me a stable secure future.

Of the nine attitude statements and six semantic differential scale pairs used to measure attitudes toward marketing as a field of study, three attitude statements indicated significant differences among at least three different classifications of students. When students were classified by major field, by grade point average, by graduate school plans, or by numbers of honors, responses to the following statements differed significantly:

1. This field (marketing) leads to occupations in which I'd like the life I'd lead outside the job.

2. I do <u>not</u> feel this field (marketing) has a good reputation or high prestige among other students.

When students were classified by major field, by grade point average, or by graduate school plans, responses to the following statement differed significantly: This field (marketing) is very interesting and challenging

to me.

Of the nine value statements used to measure values of marketing as a field of study, two value statements indicated significant differences among at least three different classifications of students. When students were classified by major field, by grade point average, or by graduate school plans, responses to the following statement differed significantly: This field (marketing) leads to occupations which would not provide opportunities for me to use my special abilities or aptitudes. When students were classified by major field, by grade point average, or by number of honors, responses to the following statement differed significantly: This field (marketing) leads to occupations which would provide me a stable secure future.

As a further step in determining significant differences among classes of students and in determining specific characteristics which contribute to the formulation of favorable and unfavorable images of marketing, student respondents with grade point averages of 4.0 - 3.1, with plans to attend graduate school, and with two or more honors were identified and labeled as "higher academic level students." Eighteen or 8.8 per cent of all accounting majors, nine or 18.4 per cent

of all economics majors, ten or 14.5 per cent of all finance majors, nine or 4.7 per cent of all management majors, sixteen or 8.7 per cent of all marketing majors, and twelve or 8.8 per cent of all other majors comprised this higher academic level group. These higher academic level students were then classified according to major field and chi square analysis was used to determine significant differences among students majoring in different fields for the three attitude statements and two value statements which had previously indicated significant differences among at least three different classifications of students. Significant differences were indicated among "higher academic level students" majoring in different fields for the following statements: (In every case, those students majoring in marketing provided more favorable responses than expected, while accounting majors provided less favorable responses than expected.)

1. This field (marketing) is very interesting and challenging to me.

2. This field (marketing) leads to occupations in which I'd like the life I'd lead outside the job.

3. This field (marketing) leads to occupations which would <u>not</u> provide opportunities for me to use my special abilities or talents.

## Limitations of the Study

The sample of subjects for this study consisted of 833 students randomly selected from a total population of 3,530 student members of Delta Sigma Pi professional business fraternity listed on membership lists provided the researcher by chapter advisors or chapter presidents of 110 separate chapters of Delta Sigma Pi. Although findings from this study may not be directly applicable to any group other than those members of Delta Sigma Pi used as subjects for this study, these students should be representative of able, college trained young people who plan to become managers of tomorrow. Since the population for this study consisted of 3,530 students, enrolled in 110 colleges and universities located in 39 states, and studying many fields of business, this study may well have wide applicability and, hopefully, would be replicated with different populations at different points in time.

Only students' verbally expressed attitudes, values, or images at one given point in time were determined in this study. No attempt was made to uncover private beliefs, observe the relationship between behavior and verbal expressions, or observe changes in images over a period of time.

Wilcoxon's matched-pairs signed-ranks test

was used to determine significance of differences in total scores between marketing and each of the other fields of study on attitude statements, semantic differential scales, and value statements. Chi square analysis was used to determine significance of differences between classifications of students on individual statements and scale scores related to marketing as a field of study. Other statistical techniques might be used to replicate the study and compare results.

In this study two components of image, attitudes and values, were considered. Responses to attitude statements and semantic differential scales (descriptive adjectives) were used to determine students' attitudes or feelings about study in marketing and other fields of business. Responses to value statements were used to determine students' values or feelings about opportunities provided by study in marketing and other fields of business. Logical or curricular validation and jury validation were used as criteria to select statements and scales used in this study. To the extent these statements and scales did not uncover the full range of respondents' attitudes and values, their complete image of marketing was not revealed.

When testing significance of differences between classes of students, only four characteristics were used;

major field, grade point average, graduate school plans, and number of honors or awards. Other characteristics of students may influence their attitudes and values. For example, students majoring in different fields have different I.Q.'s, different degrees of academic or work experience, different family backgrounds, different levels of income, or different types of instructors. To the extent characteristics such as these influenced students' responses to attitude and value statements, spurious results from significance tests may have been obtained.

## Implications of the Study

### Value of Methodology Used to Determine Image

Image is a subjective concept difficult to define. It is created in the mind of individuals by symbols and associations. Composed of both attitudes and values, an image is taken to be reality by an individual in any behavioral situation. In this study images were defined as mental representations of anything not actually present to the senses; mental pictures formed as a result of stimuli. Attitudes were defined as predispositions to think, feel, perceive, and behave toward given

stimuli. Values were defined as preferences, criteria, or choices of personal or group conduct. These definitions indicate that both attitudes and values imply choice among stimuli. If students selected for this study were exposed to stimuli in the form of attitude and value statements related to fields of study in business, responses to these statements should provide insights into student images or mental pictures of any field.

The primary purpose of this study was to determine the image, or mental picture formed as a result of stimuli, of marketing as a field of study among business students. Determination of this image required exposing these students to stimuli and noting their responses. Therefore, students were exposed to stimuli in the form of attitude statements and semantic differential scales, which described students' feelings about marketing and other fields of study in business. Students were also exposed to stimuli in the form of value statements, which described students' feelings about opportunities provided by study in marketing and other fields of study in business. Responses to statements and scales provided insights into students' images or mental picture of marketing as a field of study.

Several researchers have supported the use of

responses to attitude statements and scales to determine images of various concepts. Edwards states: "Attitude scales provide us with one means of obtaining an assessment of the degree of affect that individuals may associate with some psychological object."[4] In a study of medical students' image of public health as a career of medicine, students' images were determined by responses to open end questions, attitude statements, and value statements related to several fields of medicine. Responses were tabulated and the image of public health was compared to the images of other fields of medicine.[5] Rosenberg and his colleagues felt students tend to consider several values important in making an occupational choice and they developed "value orientations" or "value foci" such as people oriented, reward oriented, and self expression oriented.[6]

Methodology and tests of significance used in this study are applicable in many different studies of the image of any field of study in business. For example, data collected for this study offers an opportunity for any researcher to determine, by the same

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[4]Edwards, Techniques of Attitude Scale Construction, p. 9.

[5]Back et al., "Public Health as a Career of Medicine," pp. 533-541.

[6]Rosenberg, Occupations and Values, pp. 11-13.

methodology and tests of significance, not only the image of marketing, but also the images of accounting, economics, finance, or management as fields of study. Attitude statements and semantic differential scales (descriptive adjectives) are generalized and may be used to describe students' feelings about any field of study in business. Value statements are also generalized and may be used to describe students' feelings about opportunities provided by study in any field of business. Wilcoxon's matched-pairs signed-ranks test is a non-parametric test and may be used to determine significant differences between matched pairs of scores when the data is at least ordinal. Chi square may be used when the data is expressed in frequencies or percentages, when the shape of the parameter distribution is unknown, and when two or more differences must be evaluated at the same time. Hopefully, other researchers will use statements, scales, and methodology developed for this study to replicate this study or determine images of other fields of study in business.

## Evaluation of Business Students' Image of Marketing

Marketing educators and practitioners are

particularly concerned with determining and, hopefully, improving the image of marketing as a field of study and/or a career. Findings from this study should alleviate some of their concern. When fields of study in business were compared, only management was scored significantly more favorable than marketing as a field of study. When students were classified according to major field, grade point average, graduate school plans, or numbers of honors, students, regardless of their classifications, indicated more favorable than unfavorable attitudes toward and values of marketing as a field of study. Among higher academic level students (those with GPA of 4.0 - 3.1, plans to attend graduate school and two or more honors) only accounting majors indicated more unfavorable than favorable attitudes toward and values of marketing as a field of study. Higher academic level students from all other major fields indicated more favorable than unfavorable attitudes toward and values of marketing as a field of study.

Several distinct patterns of responses are revealed in the findings from this study. First, there is a polarization of the image of marketing between accounting majors and marketing majors. Among accounting majors the image of marketing is significantly less favorable than expected, while among marketing majors

the image of marketing is significantly more favorable than expected. Second, among students with high grade point averages (4.0 - 3.1) the image of marketing is less favorable than expected, while among students with lower grade point averages (2.5 or below) the image of marketing is more favorable than expected. Third, among students planning to attend graduate school the image of marketing is less favorable than expected, while among students not planning to attend graduate school the image of marketing is more favorable than expected. Finally, among students with two or more honors or awards the image of marketing is less favorable than expected, while among students with no honors or awards the image of marketing is more favorable than expected.

Specific characteristics which contribute most significantly to the formulation of favorable or unfavorable images were indicated by responses to three attitude statements and two value statements. These statements provided significant differences in responses among at least three different classifications of students, and are as follows:

1. This field (marketing) is very interesting and challenging to me.

2. This field (marketing) leads to occupations

in which I'd like the life I'd lead outside the job.

3. I do not feel this field (marketing) has a good reputation or high prestige among other students.

4. This field (marketing) leads to occupations which would not provide opportunities for me to use my special abilities or aptitudes.

5. This field (marketing) leads to occupations which would provide me a stable secure future.

In his commentary on marketing education and marketing personnel as research areas, Seymour Banks asks for research to identify attitudinal and motivational hindrances to pursuit of a career in marketing.[7] This study has identified such hindrances in the five statements indicated above. In addition, this study has identified classifications of students who have less favorable images of marketing than expected. Hopefully, other researchers among marketing educators and practitioners will undertake studies to reconcile differences in the image of marketing between accounting and marketing majors, between students with high

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[7]Banks, "Commentary on Marketing Education and Marketing Personnel as Research Areas," p. 62.

and lower grade point averages, between students planning to attend graduate school and those not planning to attend graduate school, and between students with honors and those without honors. Researchers should also replicate this study among other populations of business students to determine if attitudinal and motivational hindrances to pursuit of a career in marketing parallel those determined in this study.

This study sought: to determine significant differences in the image of marketing and other fields, to determine significant differences in the image of marketing among various classes of students, and to identify characteristics contributing to these differences. Other researchers should expand this study using other tests of significance, other classifications of students, and other components of image, to further clarify the image of marketing as a field of study among business students.

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# APPENDIX I -

Members of Delta Sigma Pi Used in This Study by Chapter, School, Members per Chapter, Sample Size per Chapter, Number and Percentage Return per Chapter.

APPENDIX I - Members of Delta Sigma Pi Used in This Study by Chapter, School, Members per Chapter, Sample Size per Chapter, Number and Percentage Return per Chapter

| Chapter | School | Members | Sample | Returns | |
|---|---|---|---|---|---|
| | | | | Number | Percentage |
| Beta | Northwestern University | 10 | 3 | 2 | 66.6 |
| Gamma | Boston University | 35 | 12 | 9 | 75.0 |
| Epsilon | University of Iowa | 56 | 20 | 14 | 70.0 |
| Kappa | Georgia State College | 26 | 13 | 8 | 61.5 |
| Lambda | University of Pittsburgh | 41 | 15 | 11 | 73.3 |
| Rho | University of California Berkley | 19 | 10 | 5 | 50.0 |
| Upsilon | University of Illinois Urbana | 67 | 16 | 13 | 81.2 |
| Psi | University of Wisconsin Madison | 32 | 10 | 6 | 60.0 |
| Omega | Temple University | 25 | 10 | 5 | 50.0 |
| Alpha Beta | University of Missouri Columbia | 51 | 16 | 12 | 75.0 |
| Alpha Gamma | Pennsylvania State University | 49 | 17 | 13 | 76.5 |
| Alpha Delta | University of Nebraska | 49 | 22 | 16 | 72.7 |
| Alpha Epsilon | University of Minnesota | 52 | 16 | 13 | 81.2 |
| Alpha Zeta | University of Tennessee Knoxville | 12 | 3 | 3 | 100.0 |
| Alpha Eta | University of South Dakota | 40 | 10 | 7 | 70.0 |
| Alpha Theta | University of Cincinnati | 89 | 33 | 24 | 72.7 |
| Alpha Iota | Drake University | 45 | 20 | 15 | 75.0 |
| Alpha Kappa | State University of New York Buffalo | 40 | 12 | 6 | 50.0 |
| Alpha Lambda | University of North Carolina Chapel Hill | 20 | 5 | 3 | 60.0 |

APPENDIX I Continued

| Chapter | School | Members | Sample | Returns | |
|---|---|---|---|---|---|
| | | | | Number | Percentage |
| Alpha Mu | University of North Dakota | 19 | 2 | 2 | 100.0 |
| Alpha Nu | University of Denver | 21 | 9 | 9 | 100.0 |
| Alpha Xi | University of Virginia | 34 | 17 | 13 | 76.5 |
| Alpha Pi | Indiana University | 36 | 13 | 10 | 76.9 |
| Alpha Rho | University of Colorado Boulder | 20 | 9 | 8 | 88.9 |
| Alpha Sigma | University of Alabama | 43 | 10 | 7 | 70.0 |
| Alpha Upsilon | Miami University-Oxford | 20 | 8 | 5 | 62.5 |
| Alpha Phi | University of Mississippi | 68 | 18 | 12 | 66.6 |
| Alpha Omega | De Paul University | 26 | 5 | 3 | 60.0 |
| Beta Gamma | University of South Carolina | 50 | 21 | 14 | 66.6 |
| Beta Epsilon | University of Oklahoma | 16 | 6 | 5 | 83.3 |
| Beta Zeta | Louisiana State University Baton Rouge | 35 | 13 | 11 | 84.6 |
| Beta Theta | Creighton University | 42 | 11 | 6 | 54.5 |
| Beta Iota | Baylor University | 45 | 11 | 4 | 36.4 |
| Beta Kappa | University of Texas-Austin | 51 | 22 | 17 | 77.2 |
| Beta Xi | Rider College | 42 | 14 | 10 | 71.4 |
| Beta Pi | Kent State University | 22 | 5 | 3 | 60.0 |
| Beta Rho | Rutgers University | 28 | 7 | 5 | 71.4 |
| Beta Tau | Western Reserve University | 10 | 5 | 5 | 100.0 |
| Beta Chi | Texas Technological College | 15 | 5 | 3 | 60.0 |
| Beta Upsilon | University of Tulsa | 28 | 12 | 9 | 75.0 |
| Beta Psi | Louisiana Polytechnic Institute | 41 | 13 | 11 | 84.6 |
| Beta Omega | University of Miami | 31 | 13 | 9 | 69.2 |

APPENDIX I Continued

| Chapter | School | Members | Sample | Returns | |
|---|---|---|---|---|---|
| | | | | Number | Percentage |
| Gamma Epsilon | Oklahoma State University | 41 | 11 | 8 | 72.7 |
| Gamma Zeta | Memphis State University | 24 | 10 | 9 | 90.0 |
| Gamma Eta | University of Omaha | 36 | 12 | 8 | 66.6 |
| Gamma Theta | Wayne State University | 53 | 13 | 6 | 46.1 |
| Gamma Iota | University of New Mexico | 34 | 8 | 6 | 75.0 |
| Gamma Kappa | Michigan State University | 32 | 13 | 6 | 46.1 |
| Gamma Lambda | Florida State University | 45 | 11 | 7 | 63.6 |
| Gamma Nu | Wake Forest College | 41 | 10 | 7 | 70.0 |
| Gamma Xi | University of Santa Clara | 29 | 12 | 8 | 66.6 |
| Gamma Omicron | University of San Francisco | 20 | 11 | 9 | 81.8 |
| Gamma Sigma | University of Detroit | 46 | 10 | 7 | 70.0 |
| Gamma Rho | University of Maryland | 57 | 20 | 9 | 45.0 |
| Gamma Tau | University of Southern Mississippi | 37 | 12 | 10 | 83.3 |
| Gamma Upsilon | Babson Institute | 44 | 15 | 2 | 13.3 |
| Gamma Phi | University of Texas El Paso | 31 | 12 | 5 | 41.6 |
| Gamma Omega | Arizona State University | 33 | 20 | 15 | 66.6 |
| Delta Zeta | East Carolina University | 20 | 3 | 3 | 100.0 |
| Delta Eta | Lamar State College of Technology | 22 | 9 | 7 | 77.7 |
| Delta Kappa | Boston College | 37 | 7 | 2 | 28.5 |
| Delta Lambda | Ithaca College | 12 | 3 | 3 | 100.0 |
| Delta Mu | University of the Americas | 20 | 6 | 2 | 33.3 |
| Delta Nu | Loyola University New Orleans | 33 | 12 | 10 | 83.3 |
| Delta Xi | East Tennessee State University | 20 | 6 | 6 | 100.0 |

APPENDIX I Continued

| Chapter | School | Members | Sample | Returns | |
|---|---|---|---|---|---|
| | | | | Number | Percentage |
| Delta Omicron | San Francisco State College | 18 | 5 | 4 | 80.0 |
| Delta Pi | University of Nevada-Reno | 15 | 5 | 4 | 80.0 |
| Delta Rho | Ferris State College | 33 | 10 | 9 | 90.0 |
| Delta Tau | Indiana State University | 38 | 17 | 12 | 70.6 |
| Delta Upsilon | Texas Christian University | 24 | 8 | 8 | 100.0 |
| Delta Phi | East Texas State University | 28 | 10 | 5 | 50.0 |
| Delta Chi | Washburn University | 24 | 8 | 7 | 87.5 |
| Delta Psi | Suffolk University | 49 | 15 | 9 | 60.0 |
| Delta Omega | West Liberty State College | 28 | 11 | 10 | 90.9 |
| Epsilon Zeta | Midwestern University | 26 | 10 | 8 | 80.0 |
| Epsilon Eta | Eastern New Mexico University | 31 | 13 | 4 | 30.7 |
| Epsilon Theta | Chico State College | 54 | 28 | 24 | 85.7 |
| Epsilon Iota | Mankato State College | 41 | 8 | 5 | 62.5 |
| Epsilon Lambda | Rochester Institute of Technology | 22 | 5 | 4 | 80.0 |
| Epsilon Nu | Louisiana State University New Orleans | 27 | 11 | 10 | 90.9 |
| Epsilon Xi | Ball State University | 22 | 8 | 5 | 62.5 |
| Epsilon Omicron | Western Michigan University | 28 | 10 | 8 | 80.0 |
| Epsilon Pi | Monmouth College | 24 | 8 | 2 | 25.0 |
| Epsilon Rho | University of Tampa | 19 | 5 | 4 | 80.0 |
| Epsilon Sigma | La Salle College | 20 | 9 | 8 | 88.8 |
| Epsilon Tau | University of Dayton | 26 | 7 | 3 | 42.8 |
| Epsilon Upsilon | New Mexico State University | 28 | 7 | 6 | 85.7 |
| Epsilon Phi | Sacramento State College | 34 | 13 | 11 | 84.6 |
| Epsilon Psi | Christian Brothers College | 36 | 15 | 11 | 73.3 |

APPENDIX I Continued

| Chapter | School | Members | Sample | Returns | |
|---|---|---|---|---|---|
| | | | | Number | Percentage |
| Epsilon Omega | Eastern Illinois University | 26 | 11 | 10 | 90.9 |
| Zeta Eta | Saint Peters College | 27 | 7 | 7 | 100.0 |
| Zeta Theta | Western Kentucky University | 33 | 15 | 12 | 80.0 |
| Zeta Iota | Mississippi College | 27 | 8 | 7 | 87.5 |
| Zeta Kappa | Western State College Gunnison | 24 | 9 | 7 | 77.7 |
| Zeta Lambda | Georgia Institute of Technology | 35 | 8 | 7 | 87.5 |
| Zeta Mu | University of Texas Arlington | 31 | 14 | 8 | 57.1 |
| Zeta Nu | Texas A&I University | 35 | 10 | 8 | 80.0 |
| Zeta Xi | Lewis College | 50 | 26 | 17 | 65.3 |
| Zeta Omicron | C. W. Post College | 8 | 5 | 5 | 100.0 |
| Zeta Pi | Saint Josephs College | 40 | 13 | 8 | 61.5 |
| Zeta Rho | Menlo College | 18 | 6 | 5 | 83.3 |
| Zeta Sigma | Southeastern Louisiana College | 26 | 12 | 8 | 66.6 |
| Zeta Upsilon | Virginia Polytechnic Institute | 31 | 12 | 12 | 100.0 |
| Zeta Phi | Florida Atlantic University | 30 | 13 | 10 | 76.9 |
| Zeta Psi | State University of New York | 15 | 10 | 9 | 90.0 |
| Zeta Omega | Northern Arizona University | 14 | 5 | 4 | 80.0 |
| Eta Iota | Nicholls State College | 26 | 8 | 5 | 62.5 |
| Eta Kappa | Troy State University | 24 | 7 | 6 | 85.7 |
| Eta Mu | Northern Illinois University | 27 | 13 | 12 | 92.3 |
| Eta Lambda | Weber State College | 20 | 9 | 8 | 88.8 |
| Total | | 3,530 | 1,225 | 877 | 71.59 |

APPENDIX II -

II A. - The Final Research Instrument, Including Cover Letter

II B. - Scoring Keys for the Final Research Instrument.

VIRGINIA POLYTECHNIC INSTITUTE
COLLEGE OF BUSINESS
BLACKSBURG, VIRGINIA 24061

Department of Business Administration

February 15, 1969

Student Members
Delta Sigma Pi

Gentlemen:

Professor W. Daniel Rountree of the College of Business faculty is conducting a research study to determine, "Student's Image of Selected Fields of Study in Business." As part of his research, Professor Rountree is sending a questionnaire, concerning student attitudes toward various fields of business, to a random sample of the membership of Delta Sigma Pi. Your cooperation with Professor Rountree by promptly completing and returning his questionnaire will be greatly appreciated.

Findings from this study should be helpful and informative, not only to the membership of Delta Sigma Pi, but to all business students, by indicating to business educators "what students think." Thank you for your helpfulness to Professor Rountree.

Sincerely,

Robert K. Coe - Advisor
Zeta Upsilon Chapter
Delta Sigma Pi

RKC:klf

College students have often said, "Nobody cares what the students think." The purpose of this research is to find out what YOU as an able, college trained, potential business executive, think about various fields of study in business. There are no right or wrong answers. Please answer the questions honestly and objectively to reflect YOUR true thoughts and feelings. Information obtained is valuable and useful only to the extent that sincere, objective answers are given. Your answers will be absolutely confidential, and no individual student's answers will be revealed.

PLEASE complete the questionnaire (approximately 15 minutes), place it in the self-addressed return envelope and drop it in the mail. YOUR RESPONSES ARE NEEDED TO PROVIDE MEANINGFUL RESULTS. Thank you very much for your assistance. If you would like a summary of the findings, please enclose a written request and your home mailing address and upon completion of the study, a summary will be mailed to you.

Following is a list of statements which describe students' feelings about various fields of study. After each statement please place under the appropriate field the letters which best describe your feelings. Please be sure you place letters under every field after each statement.

PLACE SA - under the appropriate field if you STRONGLY AGREE the statement applies to that field.
PLACE A - under the appropriate field if you AGREE the statement applies to that field.
PLACE U - under the appropriate field if you are UNDECIDED whether the statement applies to that field.
PLACE D - under the appropriate field if you DISAGREE the statement applies to that field.
PLACE SD - under the appropriate field if you STRONGLY DISAGREE the statement applies to that field.

| | ECONOMICS | MANAGEMENT | FINANCE | MARKETING | ACCOUNTING |
|---|---|---|---|---|---|
| A. This field is very interesting and challenging to me. | | | | | |
| B. This field requires me to spend too much time and energy on insignificant or trivial material and assignments. | | | | | |
| C. I respect and like to associate with students in this field. | | | | | |
| D. This field is too abstract and theoretical for me. I feel it is inapplicable to the "real" world. | | | | | |
| E. I admire many of the educators in this field as persons, not just as professors. | | | | | |

Continued

| | ECONOMICS | MANAGEMENT | FINANCE | MARKETING | ACCOUNTING |
|---|---|---|---|---|---|
| F. I would have to invest more time and money in preparing for occupations in this field than I feel I could afford. | | | | | |
| G. This field leads to occupations in which I'd like the life I'd lead outside the job. | | | | | |
| H. I do not feel this field has a good reputation or high prestige among other students. | | | | | |
| I. I feel material learned in this field has a great deal of "practical" application. | | | | | |

Below are listed five fields of study, each followed by six pairs of descriptive adjectives. Please judge each field of study by placing an X on one of the spaces provided for each pair of descriptive adjectives. The location of your X's will thus indicate your feelings about each of the fields of study.

## IMPORTANT INSTRUCTIONS

1. Place your X in the middle of a space.
   :_____:__X__:_____:  :_____:___X:_____:
   This  Not this
2. Please place an X within EVERY pair of adjectives for EVERY field of study. Therefore, you should have a total of thirty X's after completing this page.
3. Never put more than one X for a single pair of adjectives.
4. Work fast - do not ponder, yet try to be as accurate as possible, for we need your true impressions.
5. Judge each field INDEPENDENTLY - do not try to match or compare what you did before. There is no "right" answer.

### ACCOUNTING

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| BEAUTIFUL | : | : | : | : | : | : | : | UGLY |
| UNPLEASANT | : | : | : | : | : | : | : | PLEASANT |
| VALUABLE | : | : | : | : | : | : | : | WORTHLESS |
| FAIR | : | : | : | : | : | : | : | UNFAIR |
| AWFUL | : | : | : | : | : | : | : | NICE |
| BAD | : | : | : | : | : | : | : | GOOD |

### MARKETING

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| UGLY | : | : | : | : | : | : | : | BEAUTIFUL |
| VALUABLE | : | : | : | : | : | : | : | WORTHLESS |
| PLEASANT | : | : | : | : | : | : | : | UNPLEASANT |
| FAIR | : | : | : | : | : | : | : | UNFAIR |
| BAD | : | : | : | : | : | : | : | GOOD |
| AWFUL | : | : | : | : | : | : | : | NICE |

Continued

FINANCE

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| GOOD | : | : | : | : | : | : | : | BAD |
| FAIR | : | : | : | : | : | : | : | UNFAIR |
| UNPLEASANT | : | : | : | : | : | : | : | PLEASANT |
| UGLY | : | : | : | : | : | : | : | BEAUTIFUL |
| NICE | : | : | : | : | : | : | : | AWFUL |
| WORTHLESS | : | : | : | : | : | : | : | VALUABLE |

MANAGEMENT

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NICE | : | : | : | : | : | : | : | AWFUL |
| WORTHLESS | : | : | : | : | : | : | : | VALUABLE |
| GOOD | : | : | : | : | : | : | : | BAD |
| UNFAIR | : | : | : | : | : | : | : | FAIR |
| PLEASANT | : | : | : | : | : | : | : | UNPLEASANT |
| UGLY | : | : | : | : | : | : | : | BEAUTIFUL |

ECONOMICS

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| GOOD | : | : | : | : | : | : | : | BAD |
| BEAUTIFUL | : | : | : | : | : | : | : | UGLY |
| WORTHLESS | : | : | : | : | : | : | : | VALUABLE |
| PLEASANT | : | : | : | : | : | : | : | UNPLEASANT |
| AWFUL | : | : | : | : | : | : | : | NICE |
| UNFAIR | : | : | : | : | : | : | : | FAIR |

Following is a list of statements which describe students' feelings about opportunities provided by study in various fields. After each statement please place under the appropriate field the letters which best describe your feeling. Please be sure you place letters under every field after each statement.

PLACE SA - under the appropriate field if you STRONGLY AGREE the statement applies to that field.
PLACE A - under the appropriate field if you AGREE the statement applies to the field.
PLACE U - under the appropriate field if you are UNDECIDED whether the statement applies to that field.
PLACE D - under the appropriate field if you DISAGREE the statement applies to that field.
PLACE SD - under the appropriate field if you STRONGLY DISAGREE the statement applies to that field.

| | FINANCE | MARKETING | ECONOMICS | ACCOUNTING | MANAGEMENT |
|---|---|---|---|---|---|
| A. This field leads to occupations which would not provide opportunities for me to use my special abilities or aptitudes. | | | | | |
| B. This field leads to occupations which would provide me relative freedom from supervision in my work. | | | | | |
| C. This field leads to occupations which would not provide me social status and prestige. | | | | | |
| D. This field leads to occupations which would provide me a stable secure future. | | | | | |

Continued

| | FINANCE | MARKETING | ECONOMICS | ACCOUNTING | MANAGEMENT |
|---|---|---|---|---|---|
| E. This field leads to occupations which would not provide opportunities for me to be creative and original. | _____ | _____ | _____ | _____ | _____ |
| F. This field leads to occupations which would not provide opportunities for me to be helpful to others or useful to society. | _____ | _____ | _____ | _____ | _____ |
| G. This field leads to occupations which would provide me an opportunity to earn a high income. | _____ | _____ | _____ | _____ | _____ |
| H. This field leads to occupations which would provide opportunities for me to work mainly with people rather than with things. | _____ | _____ | _____ | _____ | _____ |
| I. This field leads to occupations which would not provide me a chance to exercise leadership. | _____ | _____ | _____ | _____ | _____ |

Classification Data

1. Name the College or University you attend _____
   Public _____ Private _____
   Accredited _____ Not Accredited _____ by the American Association of Collegiate Schools of Business.
2. What is your present academic classification?
   Freshman _____ Master's Student _____
   Sophomore _____ Doctoral Student _____
   Junior _____ Other _____
   Senior _____
3. Name your present major field (Accounting, Marketing, etc.) _____
   Do you plan to change? _____ To what? _____
   Have you changed previously? _____ From what? _____
4. Name your anticipated career field or objective _____
5. What is your overall (cumulative) grade point average (A=4.0, B=3.0, C=2.0, D=1.0)?
   4.0 - 3.6 _____ 2.5 - 2.1 _____
   3.5 - 3.1 _____ 2.0 - 1.6 _____
   3.0 - 2.6 _____ 1.5 or below _____
6. Do you plan to attend graduate or professional school? Yes ___ No ___
   Undecided ___ What will be your major? _____
7. Which of the awards and honors listed below have you received or will you receive by the time you graduate?
   Deans List _____
   Academic Honor Society _____
   Graduation with Honors _____
   National Merit Scholarship Holder _____
   Academic Scholarship Holder _____
   Participant in School "Honors" Program _____
   Other Academic Honors and/or Awards _____
8. What is your date of birth? _____

Classification Data Continued

9. Please indicate by checking in the appropriate blank the number of COURSES you have previously taken or are presently taking in each of the following fields:

Quarter system _____ Semester system _____

| | NONE | 1-2 | 3-4 | 5-6 | More than 6 |
|---|---|---|---|---|---|
| Accounting | ____ | ____ | ____ | ____ | ____ |
| Economics | ____ | ____ | ____ | ____ | ____ |
| Finance | ____ | ____ | ____ | ____ | ____ |
| Management | ____ | ____ | ____ | ____ | ____ |
| Marketing | ____ | ____ | ____ | ____ | ____ |

10. Please indicate by checking in the appropriate blank the strength of influence each of the following sources has had upon your choice of major field.

| | Strongly | Some, but not so strongly | None at all |
|---|---|---|---|
| People in the occupation | _____ | _____ | _____ |
| Teacher or other faculty member | _____ | _____ | _____ |
| Parents | _____ | _____ | _____ |
| Relatives | _____ | _____ | _____ |
| Close friends of same sex | _____ | _____ | _____ |
| Close friends of opposite sex | _____ | _____ | _____ |

APPENDIX II B. - Scoring Keys for the Final Research Instrument.

Appendix II B1. - Scoring Key for Attitude Statements

| Statement | Strongly Agree | Agree | Undecided | Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| A. | 5 | 4 | 3 | 2 | 1 |
| B. | 1 | 2 | 3 | 4 | 5 |
| C. | 5 | 4 | 3 | 2 | 1 |
| D. | 1 | 2 | 3 | 4 | 5 |
| E. | 5 | 4 | 3 | 2 | 1 |
| F. | 1 | 2 | 3 | 4 | 5 |
| G. | 5 | 4 | 3 | 2 | 1 |
| H. | 1 | 2 | 3 | 4 | 5 |
| I. | 5 | 4 | 3 | 2 | 1 |

Appendix II B2. - Scoring Key for Semantic Differential Scales

| Adjective | Score | | | | | | | Adjective |
|---|---|---|---|---|---|---|---|---|
| Beautiful | 7 | 6 | 5 | 4 | 3 | 2 | 1 | Ugly |
| Unpleasant | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Pleasant |
| Valuable | 7 | 6 | 5 | 4 | 3 | 2 | 1 | Worthless |
| Fair | 7 | 6 | 5 | 4 | 3 | 2 | 1 | Unfair |
| Awful | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Nice |
| Bad | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Good |

Appendix II B3. - Scoring Key for Value Statements

| Statement | Strongly Agree | Agree | Undecided | Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| A. | 1 | 2 | 3 | 4 | 5 |
| B. | 5 | 4 | 3 | 2 | 1 |
| C. | 1 | 2 | 3 | 4 | 5 |
| D. | 5 | 4 | 3 | 2 | 1 |
| E. | 1 | 2 | 3 | 4 | 5 |
| F. | 1 | 2 | 3 | 4 | 5 |
| G. | 5 | 4 | 3 | 2 | 1 |
| H. | 5 | 4 | 3 | 2 | 1 |
| I. | 1 | 2 | 3 | 4 | 5 |

# VITA

Wallace Daniel Rountree, son of Wallace C. and Mary A. Rountree was born in Portsmouth, Virginia, on September 10, 1929. He completed elementary and secondary education in Portsmouth, graduating from high school in 1946.

He received a Bachelor of Arts degree from Duke University in 1958 and a Master of Arts degree from the University of North Carolina at Greensboro in 1965.

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