The relationship of selected teacher-coordinator, program, and student variables to the placement status of the 1970 secondary cooperative distributive education graduates in the state of Montana
by Joseph Fredrick Hlebichuk

A thesis submitted to the Graduate Faculty in partial fulfillment of the requirements for the degree of
DOCTOR OF EDUCATION
Montana State University
© Copyright by Joseph Fredrick Hlebichuk (1971)

Abstract:
The purposes of this study were: (a) to determine the relationship or influence of selected teacher-coordinator, program, and student variables to the initial placement of the graduates in distributive occupations and (b) to compile follow-up data related to the distributive education coordinators, programs, and students.

The populations were limited to the 18 teacher-coordinators and 387 cooperative distributive education students of the secondary programs in the State of Montana during the 1969-70 school year. The surveys were conducted approximately six months after the end of the 1969-70 school term.

The conclusions of the study were: (a) less than 40 percent of the statistically significant influence on the initial placement of the graduates in distributive occupations could be attributed to the 38 independent teacher-coordinator, program, and student variables used in this study, (b) the female graduates were more likely to become initially employed in distributive occupations, (c) the occupational area of the student's cooperative work experience influenced his initial placement in a distributive occupation, (d) among the teacher-coordinator's professional areas of preparation, the marketing and distribution technical preparation was the best estimator of the graduate's initial placement in a distributive occupation, and (e) students enrolled in programs that did not have the enrollment requirement that the cooperative student 'be a senior' were more likely to become initially employed in distributive occupations.

THE RELATIONSHIP OF SELECTED TEACHER-COORDINATOR, PROGRAM, AND STUDENT VARIABLES TO THE PLACEMENT STATUS OF THE 1970 SECONDARY COOPERATIVE DISTRIBUTIVE EDUCATION GRADUATES IN THE STATE OF MONTANA

by

JOSEPH FREDRICK HLEBICHUK

A thesis submitted to the Graduate Faculty in partial fulfillment of the requirements for the degree

of

DOCTOR OF EDUCATION

Approved:

Robert J. Theberault
Head, Major Department

Robert J. Theberault
Co-Chairman, Examining Committee

Harvey A. Larson
Co-Chairman, Examining Committee

Henry L Parsons
Graduate Dean

MONTANA STATE UNIVERSITY
Bozeman, Montana

August, 1971

ACKNOWLEDGEMENT

The investigator is grateful to the many persons who assisted and cooperated with him in this study. He wishes to thank Dr. Robert Thibeault, Committee Co-Chairman and Dr. G. Dean Palmer, Distributive Teacher Educator for their special assistance and guidance. He also expresses gratitude to the other committee members and to the Distributive Education students, coordinators, and state supervisor who participated in the study.

The patience, encouragement, and support of his wife Sandra and his family and relatives throughout this study and his educational programs are deeply appreciated.

TABLE OF CONTENTS

CHAPTER		Page
I	INTRODUCTION	1
	Distributive Education and Distribution	5
	Secondary Distributive Education in Montana	6
	Summary	11
	Statement of the Problem	12
	Need for the Study	15
	Limitations	16
	Definition of Terms	17
II	REVIEW OF LITERATURE	19
	Distributive Education and Vocational Education	19
	Patterns of Programs	23
	Coordination	26
	Advisory Committees	27
	Selection of Students	28
	Teacher-Coordinator	30
	Distributive Education Clubs of America (DECA)	35
	Program Outcomes	36
	Employment Opportunity In Montana	39
	Summary	41
III	PROCEDURES	42
	Sources of Data	42
	Construction of the Survey Instruments	42
	Administration of Survey Instruments	45
	Analysis of Data	48
IV	ANALYSIS OF DATA	51
	Section One - Coordinator, Program, and Student Variables	51
	Part One-Coordinator Variables	52
	Part Two- Program Variables	61

Chapter		Page
	Part Three-Student Variables.	70
	Section Two--Multiple Regression Analyses. . .	107
	Summary.	137
V	SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS. . .	138
	Summary	138
	Conclusions	148
	Recommendations	152
LITERATURE CITED		157
APPENDIX		163
	Appendix A - May, 1970 Cover Letter to Coordinators.	163
	Appendix B - Student Address Form.	165
	Appendix C - January 10, 1971 Cover Letter to Coordinators	166
	Appendix D - Coordinator Survey Form	167
	Appendix E - January 10, 1971 Cover Letter to Students	173
	Appendix F - Student Survey Form	174
	Appendix G - February 6, 1971 Cover Letter to Students	181
	Appendix H - February 24, 1971 Cover Letter to Students	182

LIST OF TABLES

Table		Page
1.	The Cooperative Plan in Secondary Schools. . . .	4
2.	Secondary Distributive Education Enrollment in Montana.	7
3.	Location of Distributive Education Programs by Cities in Montana.	9
4.	The Cooperative Method in Secondary Schools. . .	25
5.	Number of Months of Work Experience in Distribution and Marketing by the Coordinator.	58
6.	The Advisory Committee Met:.	64
7.	Number of Programs in Selected School Sizes. . .	65
8.	Requirements to Become Enrolled in the Distributive Education Cooperative Program . .	68
9.	Student Population and Response.	71
10.	Student Population and Responses Summary	72
11.	Class Rank and Grade Point Average for Students in Each Program	74
12.	Initial Placement Status of the 1970 Secondary Cooperative Distribution Education Graduates .	77
13.	Percentage of Graduates Initially Employed in Distributive and Non-Distributive Occupations.	78
14.	Number and Percentage of the Initially Employed Graduates Who Remained in the Same City as the One in Which They Received their Training	80
15.	Length of Initial Employment (Persons Employed in Distributive Occupations)	83
16.	The Reasons That the First Employment After Graduation Was Part-Time (Less Than 40 Hours Per Week).	85
17.	Beginning Hourly Wages of the Graduates Employed in Distributive Occupations and Non-Distributive Occupations	87

Table		Page
18.	Reasons Employment was Not Sought After Graduating From High School	88
19.	Reasons Graduates Left Their Initial Employment After Graduation	90
20.	Occupational Areas of Cooperative Work Experience and Employment	93
21.	Graduates Who Enrolled in Further Education Through December 31, 1970	97
22.	Major Courses of Study Selected by the Post-High Enrollees	100
23.	Employment While Enrolled for Further Schooling After Graduation from High School	102
24.	Employed Students' Opinions About the Relationship of Their Cooperative Work Experience to Their Initial Employment After Graduation.	105
25.	Regression Problem I	113
26.	Regression Problem II	119
27.	Regression Problem III.	123
28.	Regression Problem IV	126
29.	Regression Problem V	130
30.	Regression Problem VI	133
31.	Regression Problem VII.	134
32.	Regression Problem VIII	136

ABSTRACT

The purposes of this study were: (a) to determine the relationship or influence of selected teacher-coordinator, program, and student variables to the initial placement of the graduates in distributive occupations and (b) to compile follow-up data related to the distributive education coordinators, programs, and students.

The populations were limited to the 18 teacher-coordinators and 387 cooperative distributive education students of the secondary programs in the State of Montana during the 1969-70 school year. The surveys were conducted approximately six months after the end of the 1969-70 school term.

The conclusions of the study were: (a) less than 40 percent of the statistically significant influence on the initial placement of the graduates in distributive occupations could be attributed to the 38 independent teacher-coordinator, program, and student variables used in this study, (b) the female graduates were more likely to become initially employed in distributive occupations, (c) the occupational area of the student's cooperative work experience influenced his initial placement in a distributive occupation, (d) among the teacher-coordinator's professional areas of preparation, the marketing and distribution technical preparation was the best estimator of the graduate's initial placement in a distributive occupation, and (e) students enrolled in programs that did not have the enrollment requirement that the cooperative student 'be a senior' were more likely to become initially employed in distributive occupations.

CHAPTER I

INTRODUCTION

This study is concerned with the vocational program of instruction in the state of Montana identified as distributive education. Distributive education, according to Mason and Haines (1965: 335-336), is a program of instruction for persons in or seeking positions in the field of marketing and distribution. Distributive occupations include those followed by proprietors, managers, or employees engaged primarily in marketing or merchandising goods or services. These occupations may be found in various business establishments including retailing, wholesaling, manufacturing, transporting, financing, storing, and risk bearing. In Distributive Education in the High School, preparation of persons for gainful employment in distributive occupations was stated as the dominant objective of vocational instruction in marketing or distribution (United States Department of Health, Education, and Welfare, 1969:29).

The cooperative plan and the project plan are the two plans of instruction used in distributive education. The cooperative plan is the "organizational pattern for preparatory instruction which involves regularly scheduled part-time

employment that gives students an opportunity for experience through supervised training on a job related to their distributive occupational objectives." The cooperative method is part of the cooperative plan and is the "coordination of classroom instruction with a series of on-the-job learning experiences related to each student's occupational objectives (United States Department of Health, Education, and Welfare, 1969:29, 31). The project plan is centered around individually designed learning activities which may include short-term employment. The cooperative plan is used almost exclusively in the State of Montana, thus this study is limited to the cooperative phase of the distributive education program.

The Cooperative Plan in Secondary Schools is presented in Table 1, page 4. This diagram illustrates the interrelationship of the various components of cooperative distributive education (United States Department Department of Health, Education, and Welfare, 1969:48). The desired outcomes for the distributive education students, as shown on Table 1, are employment qualifications. The program, community, teacher-coordinator, and student are among the contributing factors that lead to the occupational development of the trainee.

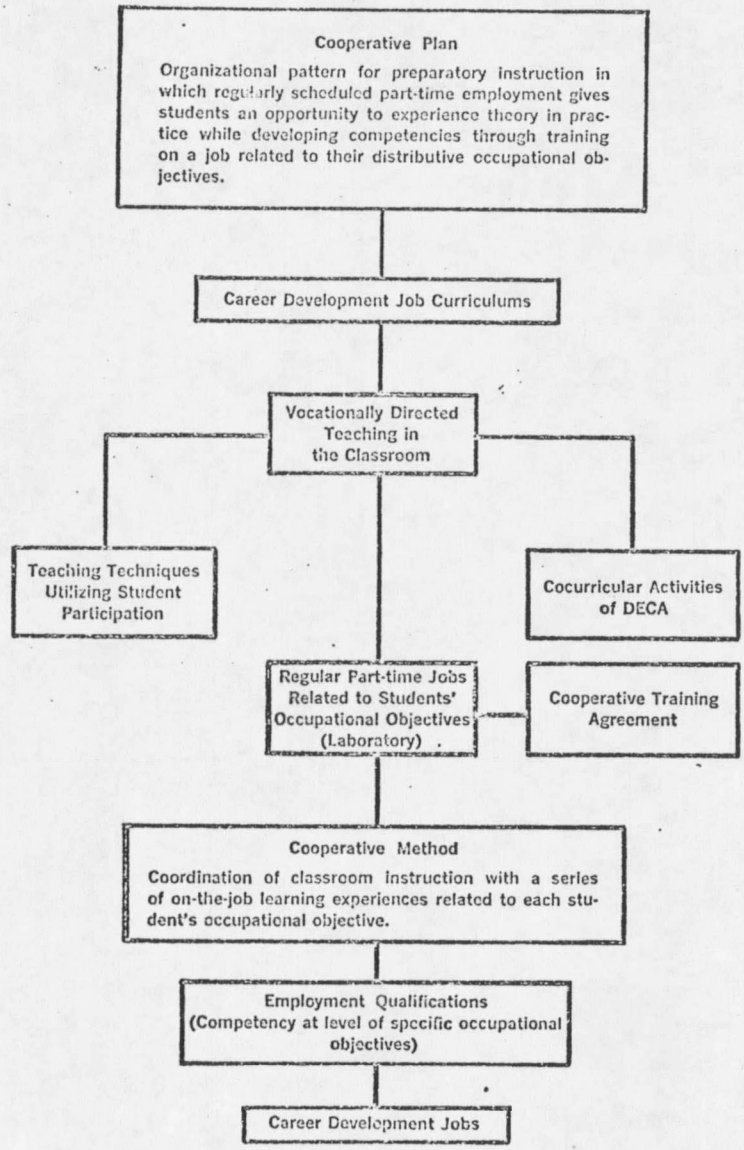
Mason (1962:23) suggested that the key to the success of a local distributive education program was the teacher-coordinator. His activities require him to be a combination of business teacher, guidance counselor, personnel manager and adult educator.

Professional distributive education, specialization by subject matter, and occupational experience are suggested as necessary elements in the preparation of the teacher-coordinator. "He need not be an expert in all distributive functions, but he does need to understand the interrelationships and contribution of these functions to successful marketing practices" (United States Department of Health, Education, and Welfare, 1967:12).

Many variables, as indicated, are present in the administration and organization of distributive education. How do these variables relate to the desired outcome of employment of the graduates in distributive occupations? The desire to determine how these independent variables contributed to the actual outcome (initial employment in distributive occupations) provided the basic thrust into this study.

Table 1

THE COOPERATIVE PLAN IN SECONDARY SCHOOLS



Source: U.S. Department of HEW. Distributive Education in the High School. Office of Education. Washington, D.C. U. S. Government Printing Office. Page 48, 1969.

Distributive Education and Distribution

Distributive education was stimulated by national legislation for vocational education on June 8, 1936. As a result, distributive education has emerged as a program of education concerned with that segment of our economy called distribution. The role of distributive education, therefore, is a significant one. It functions under the forceful influence of an ever-changing, ever-involving, complex system of distribution (United States Department of Health, Education, and Welfare, 1960:1). Every business trend affects distribution. The function or purpose of an economic system is to make available an improved standard of living. Goods and services must be produced, but production is not an end in itself. The goods and services must be distributed. Distribution is the key to the success of our economic system (United States Department of Health, Education, and Welfare, No date). The American economy depends upon mass distribution. Free enterprise must move an ever-increasing flow of goods and services into the hands of consumers to raise our high level of living even higher (Mason, 1962:9). Distributive education's intent is to provide well-qualified and well-trained personnel for distribution. Kaufman (1967:3-1) stated this intent when he said, "The primary purpose of

vocational education, whether offered in a comprehensive or vocational school on the secondary or post-high school level, is to provide students with skills and training to obtain employment."

Secondary Distributive Education in Montana

Table 2, on page 7, which was furnished by the Montana State Supervisor of Distributive Education, indicates the growth of distributive education in Montana since its start in this state in 1939. In 1967-68, there were thirteen approved and reimbursed secondary programs in the state. The School Survey Service (1968:123) found this to be a very inadequate number for a state with over 170 high schools. Palmer (1967:80) found that "there is strong agreement among Montana school administrators and business education teachers that there is a need for additional vocational programs in Montana schools." For the school year 1969-70 there were fifteen approved and reimbursed secondary distributive education programs in the state.

Table 2

SECONDARY DISTRIBUTIVE EDUCATION
ENROLLMENT IN MONTANA

Year	Enrollment
1969	803
1968	719
1967	587
1966	382
1965	361
1964	338
1963	231
1962	211
1961	155
1960	219
1959	213
1958	373
1957	441
1956	433
1955	389
1954	474
1953	514
1952	304
1951	332
1950	373
1949	218
1948	184
1947	305
1946	74
1945	455
1944	446
1943	64
1942	28
1941	44
1940	0
1939	260

Source: State Supervisor of Business and Distributive Education, Office of the State Superintendent of Instruction, Helena. 1970.

The secondary distributive education programs in operation during the 1969-70 school year were located in the following cities: Baker, Billings (2), Glendive, Great Falls (2), Hamilton, Hardin, Havre, Kalispell, Miles City, Missoula (2), Polson, and Sidney. Table 3, page 9 , provides a better prospective as to the location of the schools and the program. Six of the programs were in three of Montana's largest cities.

Trained people were needed in the area of distribution in Montana. The School Survey Service (1968:130) stated that "businessmen in Montana reported many employment opportunities for those with a semi-professional education who are trained in the fields of insurance, banking, wholesaling, hotel and restaurant management, and retailing." A steady demand was also reported for capable retail salespeople and for professional salesmen. The Montana State Employment Service (1970:30) reported that salespeople were among the most needed occupational titles in Montana. Their Labor Market Supplement of March, 1970, indicated that 44 percent of the employees on Montana non-agriculture payrolls were in distributive occupations. Palmer's study (1967:80) indicated this need and he reported that "there is a need for education for distribution in Montana secondary schools."



Locations, by cities, of programs of distributive education in Montana, 1969-70

Source: Montana's State Supervisor of Business and Distributive Education

The National Advisory Council on Vocational Education reported the following (1968):

> Because of the crisis in rural areas, caused in part by sparse population and the lack of business and industrial employment opportunities, certain critical issues must be faced. Among those issues are the relative merits of in-school and on-the-job training programs and evaluation of the effectiveness of existing programs.

The School Survey Service (1968:237) also reported that "there is a great need to improve both the quality and quantity of distributive education in the State. . ." The National Conference on Cooperative Vocational Education report (United States Office of Education, 1969:23) indicated that "rural youth were not adequately served by existing programs. Programs just did not exist in many smaller communities." Vivian (1967:33) stated that:

> The greatest challenge to distributive education educators now is to make the high school program accessible to all high school youth who need it, want it, and can profit from it. There is a need for distributive education to be made available to prospective students in large inner-city schools and rural communities which presently have comparitively few programs.

Venn (1970:39) stated that:

> The combination of work-for-pay, skill development and education, if it can lead to job placement with career ladder possibilities, seems to offer the most promising solution to the needs of this growing number of youth for which the traditional system offers small promise.

Summary

Distributive education can play a vital role in our vast economic system and trained personnel are needed in the areas of distribution to meet the labor demands. In Montana, there was a need for persons trained in distribution. The state had 15 vocationally reimbursed and approved secondary cooperative distributive education programs in 1969-70 with a total enrollment (including preparatory) of 808 students. The 15 programs were located in 12 different cities in the state.

The teacher-coordinator plays an important role toward the success of the distributive education program. His job requires a combination of professional, technical, and occupational experience. These variables and the variables of the community, business, program, and students are combined to attempt to fulfill the prime objective of the vocational distributive education program. This objective is the preparation of persons for employment in distributive occupations.

Merits of the distributive education programs in the rural areas must be faced. Are the youths who are completing the programs being employed in distributive occupations? What are the outcomes of these programs? If, as suggested,

rural communities are not being served adequately by cooperative programs, are there key variables related to the programs, coordinators, and communities that should be considered in program development for these areas? How do these variables relate to the objective of job placement of the graduated? It was with these and other questions and conditions in mind that this study was pursued.

Statement of the Problem

The primary problem of this study was to determine the relationship or explanatory power (the part of the depend- variable that is attributed to the independent variable) of selected coordinator, program, and student variables to the initial placement status of the graduates in distributive related occupations. The following hypotheses were investigated:

1. No relationship exists between the dependent variable (initial placement status of the graduates in distributive related occupations) and the independent variables that follow:
    a. Teacher-coordinators' professional distributive education preparation
    b. Teacher-coordinators' technical preparation
    c. Teacher-coordinators' business work experience
    d. Teacher-coordinators' class load in distributive education

e. Teacher-coordinators' coordination time

f. Teacher-coordinators' teaching experience

g. Teacher-coordinators' final selection privilege

h. Existence or non-existence of advisory committees

i. Population of the community

j. Student enrollment criteria

k. Type of distributive education programs

l. Number of years the distributive education programs had been in the schools

m. Student membership in DECA

n. Number of students in the graduating classes

o. Students' class ranks

p. Students' grade point average

q. Male or female

r. Students' number of years enrolled in distributive education

s. Students' number of years employed in cooperative distributive education

t. Was the cooperative work experience in a distributive related occupation?

Data relating to the placement status of the 1970 secondary cooperative distributive education graduates were sought. Specifically the problems were:

1. What was the placement status of the students

after graduation?

a. Catagories--male, female, and grouped

b. Number and percentage employed--full-time and part-time

c. Number and percentage employed in distributive and non-distributive occupations in their initial employment

d. Length of time of the initial employment after graduation (through December 31, 1970)

e. Length of time before the graduates become initially employed

f. Number and percentage of graduates unemployed during the period through December 31, 1970

g. The reasons for initial part-time employment

h. Number and percentage of students who remained in the same city as trained to obtain their initial employment

i. Number and percentage of students who remained in the same business as trained for their initial employment

j. Occupational areas of cooperative work experience and initial employment

k. Beginning wage of the graduates in their initial employment--those in distributive and non-distributive occupations

l. Number and percentage of students who were employed in their business lab two months or more before the school term began

m. Reasons for leaving the initial employment after graduation

n. If employment was not sought after graduation, what were the reasons

o. If employment was sought but not found, what were the reasons

p. Number and percentage who enrolled for additional education after graduation

q. The major courses of study in the post-high schooling

r. If employed during this post-high schooling, was the employment full-time or part-time

2. Opinions of the graduates of the relationship of their cooperative work experience to their initial employment after graduation.

Need for the Study

The need for this type of research was reported in the Guide for Cooperative Vocational Education (University of Minnesota, 1969:110-111) as follows:

> It is necessary to describe and measure program characteristics, as well as student outcomes, in order to determine what combination of these factors achieve the desired program objectives. Presumably, there is a relationship between the presence of certain characteristics and outcomes, even though research is needed to verify this relationship.

No recent distributive education follow-up studies had been completed on a state-wide basis in Montana. Further investigation revealed that no research in distributive education was available which determined the relationship of coordinator, program, and student variables to the initial placement status of the graduates.

Limitations

This study was limited to the reimbursed and approved high school cooperative distributive education programs that were in operation during the 1969-70 school year in the State of Montana. The coordinators who were surveyed were those persons who were professional teacher-coordinators of secondary cooperative distributive education programs in Montana during the 1969-70 school year. Student teachers were not included. The students who were surveyed were the 387 individuals who: (1) were enrolled in the secondary distributive education programs during the 1969-70 school year; (2) were employed in cooperative on-the-job work experience; and (3) were graduated at the end of the school year in 1970.

The placement status was limited to the first employment, after graduation, of the distributive education graduate and/or his enrollment in a two year or four year college, school or university or a special training program. The status included the period of time from the students' graduation from high school through December 31, 1970. The first employment was used as a basis for the success of the programs as was reflected in Kaufman's study (1968:13-7) when he proposed that the effectiveness of school training was most clearly seen in the first job held after graduation,

since in subsequent jobs it was difficult to determine the relative influence of training and post-high school work experience. Sharp (1966:6) in The Use of Follow-up Studies in the Evaluation of Vocational Education reacted to initial placement in reporting by stating that "the basic assumption operative here is the idea that initial placement is crucial in determining long-term occupational choice and career patterns."

Definition of Terms

In order to clarify some of the terminology used in this study, the following terms and definitions are given. Those definitions are drawn from Crawford's comprehensive research study and "reflect the thinking of the large majority of the leadership in distributive education throughout the nation" (1967:16-30).

Distributive Education - A vocational instructional program designed to meet the needs of persons who have entered or are preparing to enter a distributive occupation or an occupation requiring a competency in one or more of the marketing functions and offering instruction in marketing, merchandising, related management and personal development.

Distributive Occupations - Those occupations followed by persons engaged primarily in marketing or merchandising of goods and services, at both management and non-management levels.

Distributive Education Teacher-Coordinator - A member of the local school staff who teaches distributive and related subject matter to students preparing for employment and

coordinates classroom instruction with on-the-job training or with occupationally oriented learning activities of students. He is responsible for the distributive education program in the school.

Cooperative Plan - An organizational pattern of instruction which envolves regularly scheduled part-time employment and which gives students an opportunity to apply classroom learnings in practice. It enables them to develop occupational competencies through training on jobs related to their distributive occupational interests.

Project Plan - An organizational pattern of instruction which involves a series of selected learning activities or projects related to the field of marketing, merchandising and management and which are related to a student's occupational interests.

Distributive Occupational Objective - A current career goal, selected by the student, the preparation for which is the purpose for his vocational instruction in distribution and marketing.

Coordination - The process of organizing, developing and maintaining effective relationships among all groups involved in the distributive education program to the end that the student receives the best possible preparation for a career in distribution.

Distributive Education Clubs of America (DECA) - A youth organization providing a program of activities which compliments and enriches distributive curriculums.

Advisory Committee - A group of persons representative of both the school and the business community which gives recommendations that may be used for the development and improvement of the distributive education program.

Training Station or (Business Laboratory) - The place of employment of the distributive education student where he receives on-the-job training and supervision by his employer and/or training sponsor.

CHAPTER II

REVIEW OF LITERATURE

The first part of this chapter is concerned with the review of the trends in distributive education and vocational education during the past decade. In the second part, distributive education program characteristics, coordinator characteristics and qualifications, related student activities, program outcomes, and employment opportunities are reviewed.

Distribution Education and Vocational Education

The United States is presently on the threshold of the greatest era of specialization we have known, "A little more than a hundred years ago, a resident of the United States was considered to be about ninety percent self-sufficient. Today, man is about ten percent self-sufficient" (Lowe, 1968:300). The change now is from an emphasis on production to an emphasis on distribution. Man is being forced to upgrade his technical know-how because of the work of machines. More and more jobs are becoming available in marketing and distribution. This is the setting for distributive education and vocational education. The distributive

education program is here to be of service to the people and to distribution and marketing.

The high school is a place where vocational education should be offered and as Venn (1964:166) stated, "Programs should be established which offer all youth leaving high school marketable occupational skills or preparation for further occupational education." Venn continued by saying that "for the majority of youth, the high school experience is the basis for entry into the world of work." A massive increase is necessary in vocational education in the high schools of the nation. Conant expressed this idea when he said, "To my mind, it is desirable for as many boys and girls in high school as possible to have an ultimate vocational goal." He also felt that the vocational work should be included in a comprehensive high school (1959:127).

Mason (1962:8) stated that "an important characteristic of distributive education has been the necessity for rapid adjustment to changing business conditions. This characteristic of being able to be adjusted rapidly has been a principal element in the success of the program." But if we are to meet the challenge which the field of distribution places upon us, "we must sharply upgrade the image of the educational program and the career idea for which it prepares

students" (Edgerton, 1961:28).

Vocational education must be expanded and one of the crisis areas as stated by the National Advisory Council on Vocational Education (1968) is in the rural areas. The lack of business and industrial employment opportunities and the spares population make the situation even more critical. Within the mandate for education of all youth, cooperative distributive education can play its part.

The term 'cooperative' reflects the working relationship in distributive education which exists between the secondary school and the business community to achieve the basic objective of preparing young people for careers in distribution. The United States Congress (1968-23) in Public Law 90-756, Section 171, found that:

> Cooperative work-study programs offer many advantages in preparing young people for employment. Through such programs, a meaningful work experience is combined with formal education enabling students to acquire knowledge, skills and appropriate attitudes. Such programs remove the artificial barriers which separate work and education and, by envolving educators with employers, create interaction whereby the needs and problems of both are made known.

Allen (1968:47) stated that "as a technique for preparing people for the world of work, the cooperative part-time program has perhaps been the most successful model ever developed in vocational-technical education." Distributive

education was confined to the cooperative approach until 1963 when the Panel of Consultants appointed by President Kennedy discovered that only about five percent of the schools in the survey sample offered distributive education. This indicated that only about .3 percent of the nations' high school youth were enrolled in distributive education courses. This was considered a low percentage since sales workers alone accounted for over six percent of the labor force. The Panel's recommendations are found in the Vocational Education Act of 1963. This act is considered to be one of the most significant developments in the history of distributive education. One of the provisions that is considered to have had a great impact for people in distributive occupations is the provision that enrollment is no longer limited to employed persons. "This provision permits greater flexibility in using employment experiences in programs organized in rural areas and other situations where the requirement of continuous employment has been made difficult" (Vivian, 1967:32).

President Johnson's signing of the Vocational Education Amendments of 1968 did much for the goal of vocational education. We are closer to reality, as Allen (1968:45) stated, to providing vocational offerings so that:

> Persons of all ages in all communities of the state will have ready access to vocational training or

> retraining which is of high quality, which is realistic in the light of actual or anticipated opportunities for gainful employment, and which is suited to their needs, interests, and ability to benefit from such training.

Not to have vocational education in the high school would deprive the students of an opportunity to obtain essential and highly valuable skills and experiences. It would also deprive society at large of the services of many young people who want to enter the business world upon high school graduation, who are needed in the business world and who can make an important contribution to our social and economic needs (Gruber, 1965:52). Distributive education has a program of instruction that can provide these opportunities and services.

Patterns of Programs

The State of Montana (1969:84), in its state plan for vocational education, defined 'cooperative occupation program' as follows:

> An occupational training program carried on through a cooperative arrangement between schools and employers. Persons enrolled in this type of program will receive vocational training by combining academic and related institutional work in school with on-the-job experience as an employee in an occupational field. Such experiences will be supervised by a qualified cooperative vocational education coordinator and/or school personnel and the employer, to insure successive learning steps that contribute to the student's education and his employability. A time schedule for on-the-job and school experiences shall be flexible to insure maximum student progress.

Established programs generally reflect the patterns of programs defined by Mason and Haines (1965:99-100) as:

Plan A - A two year program which consists of related classroom instruction for a single period daily for each of the two years. This is accompanied by on-the-job training during both years.

Plan B - A one year program in the senior year consisting of a double period daily of related instruction plus on-the-job training during the year.

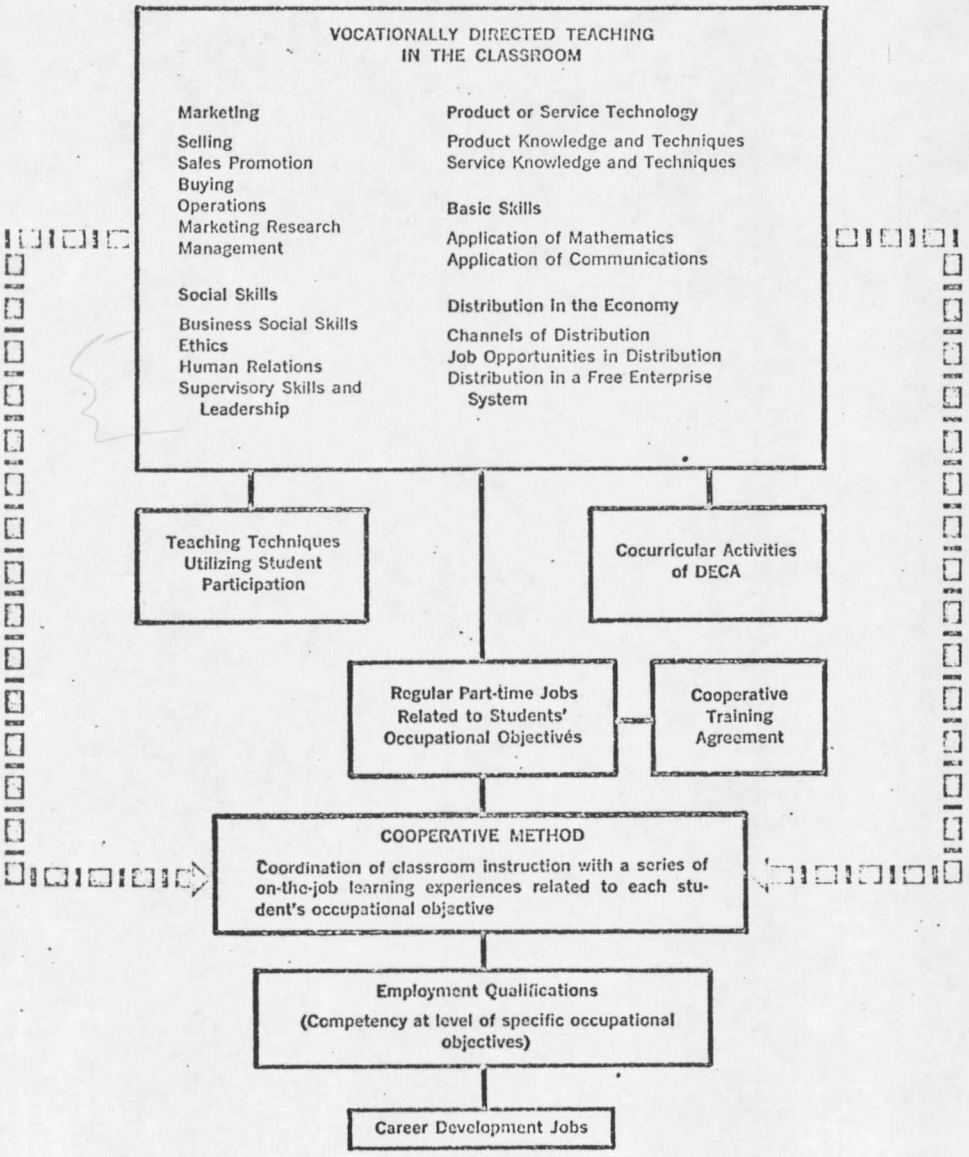
Plan C - A one year program in the senior year. The related instruction is for one period per day and on-the-job training is included. A praparatory curriculum is required prior to the senior year.

Montana's distributive education programs do not include a Plan B version. No research evidence is available to support one plan over another as each plan or versions thereof can have its own merits in certain schools and areas.

Table 4, page 25, illustrates the coordination of the vocationally directed classroom teaching, the DECA activities, and the on-the-job business laboratory experience. The illustration shows how the cooperative method enables the student to become qualified for distributive employment. The teacher-coordinator's role is that of a facilitator of those experiences of participation, practice and application. Vocational teaching and learning is provided through this method and qualification for employment is the desired outcome (United

Table 4

THE COOPERATIVE METHOD IN SECONDARY SCHOOLS



Source: U.S. Department of HEW. Distributive Education in the High School. Office of Education. Washington, D.C. U. S. Government Printing Office. Page 48, 1969.

States Department of Health, Education, and Welfare, 1969:35-38). The process used to correlate all of the activities of the cooperative method is called coordination.

Coordination

Coordination is the process of building a harmonious relationship among all groups involved in the cooperative program. It means that the administrative, organizational and instructional activities are integrated so that the student receives realistic preparation for entry employment.

How much time is needed by the coordinator to affectively carry out his coordination duties? This will vary according to the type of students and the situation, but Mason and Haines (1965:180) recommend approximately thirty minutes per week per student. Administrators should be aware that not all hours of the day are suitable for coordination visits. Above all, care should be taken to assure the coordinator sufficient free time for coordination during the hours that the cooperative students are employed (Mason and Haines, 1965).

Usually the students will take their course work in the morning and their afternoons are available for on-the-job training. Problems may arise if the student is not given sufficient school time for on-the-job training. These and

other problems may be dealt with more effectively if there is total cooperation. The total effort may be enhanced by the work of the advisory committee.

Advisory Committees

The advisory committee, representing students, school, parents, business and industry, should be appointed to serve in an advisory capacity to the superintendent and teacher-coordinator (Mason and Haines, 1965:95). This committee serves to bridge the interests and the needs of the business community and the school to the benefit of the student. The committee helps to provide assistance and direction and helps make the best use of the resources that are available.

It was suggested by Mason and Haines that in a small community, one joint committee might serve the office, distributive and industrial programs. In a medium sized city, it is suggested that there be a separate committee for each type of program. Masons and Haines (1965:156) do not define a small or medium sized city.

Two other important issues that were found in the review of literature regarding advisory committees were: (1) the number of members who should serve and (2) the number of meetings that should be held in a year. Mason and Haines (1965:165) suggest that the advisory group should

consist of 7-12 persons. Warmke's study (1961:44) suggests 5-7 members. They are in basic agreement because Warmke did not include the school officials in his figures and Mason and Haines did. Mason and Haines (1965:157) feels that the committee should meet as often as once a month if worthwhile projects or activities are planned. Warmke (1961:44) found that the distributive education leaders that he surveyed favored 2-3 meetings a year and more only if necessary.

The chief purpose of the advisory committee is to establish the environment necessary for effective programs. The criteria suggested above is a means of achieving the goals of the program through committee involvement.

Selection of Students

Distributive education has an awesome challenge. As Edgerton (1961:26) states, "It must meet the needs of the nation's economy through a more effective program of selecting and training young people to supply the manpower demands of distribution." The selection of students is an important part of the vocational program. To be selected, Mason (1962: 49) believes that the student "should express a career interest in the field chosen, with a willingness and aptitude for studying the related course content." He also indicated that the student should be employable from the stand point of

having the personality traits (especially dependability) and skills, with adequate health and school achievements. Warmke (1961:21) found that a majority of the nation's leaders in distributive education felt that cooperative distributive education classes should be open to "those who want the instruction, are considered employable, and who plan to pursue a career in distribution." In any case, encouraging a student to enroll in the vocational program should be done only upon the basis of reasonable evidence that he can successively complete the program (Colver, 1961).

A considerable amount of data will be accumulated in a good selection program. This data should be used to assist the student in the educational program. When a teacher analyzes this data for each student, he should have a fair idea of where each student is in his total development, what the student's limitations might be, where the student needs particular help, and what strengths he might have.

A good selection program is concerned with the welfare of the student and, therefore, of the school. Second, to be effective, a good selection program requires clear understanding and evaluation of objectives and, third, it provides an improved atmosphere for instruction (Colver, 1961:25). But, whatever method of selection is used, Mason

and Haines (1965:362) stated:

> The teacher-coordinator shall have the final approval priviledge . . . for accepting or rejecting the applicants for his program . . . The cooperative program involves the community as a classroom, and the student must be acceptable to the cooperating employer.

The teacher-coordinator has the key to the program.

Teacher-Coordinator

Danneberg (1968:130) states that "the strength of current distributive education is found in the emphasis upon: (a) the cooperative and/or project method, (b) a well-rounded curriculum, and (c) a well-prepared distributive education teacher-coordinator."

The role of the teacher-coordinator in the cooperative method is a "director of learning." He draws on a variety of resources and individuals to direct a program of instruction and training which helps students achieve a satisfying and satisfactory work role. He helps the student in arranging the combination of materials, methods, and sources of help needed to prepare him for occupational entry, adjustment, and advancement (United States Office of Education, 1969:28).

Some of the necessary teacher-coordinator qualifications which are stated in the Guide for Cooperative Vocational Education (University of Minnesota, 1969:95) were as follows: The technical course area, which should be related to the

occupational field, usually requires a minimum of 12 to 18 semester hours of course work. The minimum requirements for business work experience range from 1 to 3 years. The work experience should be evaluated in terms of quantity (years or hours), quality, variety, and recency that is relevant for teaching the competencies needed by students in the occupational field to be taught. Nine to 12 semester hour credits or 3 to 5 courses are usually recommended in vocational education course work. General professional course requirements would be similar to those of teachers in general.

State Boards for Vocational Education establish certification requirement for vocational education staff members and according to the Montana State Plan for Vocational Education (State of Montana, 1969: 1.33-3.17), the following are the qualifications of cooperative vocational education teacher-coordinators in Montana: (distributive education):

1. Experience

   Such coordinator shall have had at least two years of occupational experience at wage-earning pursuits other than the professions.

2. Education

   He shall hold a valid Montana certificate and shall have earned a minimum of fifteen quarter credits in vocational education including administration of cooperative education and coordinating practices.

In Jackson's D-5 A Milepost and a Guidpost (1961) she states that the well prepared distributive educator has preparation in such fields as economics, marketing, management, finance, credit, and salesmanship; has preparation in the methods of teaching distributive education; has had wage earning experience in the field of marketing and merchandising; has preparation in such related areas as vocational guidance, job analysis, and occupational information; and has preparation in such general education as English and mathematics.

Crawford's study (1969) organizes the professional competencies deemed necessary for distributive teacher-coordinators. The five major categories listed are teaching, guidance, coordination, public relations, and administration. The technical teaching concepts are categorized around ten areas of study: selling, display, advertising, communications, mathematics, human relations, operations and management, product and/or service technology, merchandising, and economics and marketing.

The United States Office of Education indicates that professional courses for the teacher-coordinator involve three areas: (1) the philosophy and organization of distributive education, (2) the curriculum, methods, and

coordination of preparatory instruction, and (3) supervised experience in teaching. Technical courses and occupational experience provide the specialization in distribution and marketing so that the teacher-coordinator might understand and evaluate distributive processes as training problems and opportunities (United States Department of Health, Education, and Welfare, 1967).

Warmke's study revealed that a majority of the nation's leaders in distributive education felt that teacher-coordinators should have a minimum of 15 quarter hours of general professional education. The minimum number of quarter hours of technical education recommended in Warmke's study (1961:2, 4) is 20.

Meyer and Logan (1966:89, 113) report that the guidance duties and responsibilities of a distributive education teacher-coordinator seem to be more extensive than for most teachers because placement of cooperative program students in training positions in the business community is an integral part of his job. They also reported that "the counseling functions of the distributive education teacher and teacher-coordinator have not been clearly defined." Samson (1964) did find that some of the effective behaviors for Iowa teacher-coordinators were that they (1) counsel with

students and provide individual help on problems connected with jobs, training sponsors, or other related actions; (2) conduct individual conferences with students on their personal problems; and (3) counsel with students on educational plans.

There are many opinions about the number of months of occupational experience needed by the teacher-coordinator. The feeling is that the occupational experience is necessary and is highly important, but the type and amount is questionable. The United States Office of Education (United States Department of Health, Education, and Welfare, 1967:12) states that "occupational experience has an essential place in the preparation of a distributive education coordinator." This experience provides background skills and knowledge about marketing. Warmke (1961:5) found that a minimum of 24 months of occupational experience was recommended. Montana makes no special provision for renewal of the business work experience, but Warmke (1961:34) found that teacher-coordinator should renew his business experience every three to five years.

Many persons feel that an extended contract for the teacher-coordinator is an important factor and that it contributes to program success. Warmke (1961:33) found that the coordinator should be employed 10 months a year. According

to the Guide for Cooperative Vocational Education (University of Minnesota, 1969:91), "In most schools it is necessary for the coordinator to be on a 10 or 11 month contract to achieve the desired placements and follow-up of students."

These coordinator qualifications are suggested to be important to the success of the cooperative program. His preparation and experience are utilized in the classroom, in the community and within the third area of the distributive education program, namely DECA.

Distributive Education Clubs of America (DECA)

The Distributive Education Clubs of America is a grass-roots organization that grew up in response to students' needs for social and professional growth and their desire to participate in co-curricular activities. DECA is organized for and by the program members and is to these members what a civic or professional organization is to a group of businessmen. The club is a phase of the total educational program and adds to the classroom instruction and the on-the-job training. The purposes of DECA are: vocational understanding, civic consciousness, social intelligence, and leadership development (Vivian, 1967:36).

"It is through the club organization that students have the greatest opportunity to develop leadership and

organizational ability, practice good citizenship traits, and develop 'esprit de corps'" (Mason, 1962:35). It is through the various contests, awards programs, leadership conferences, meetings and other activities that the program members have an opportunity to apply what they have learned in the classroom and on the job.

Applegate, (1961:29), the Executive Secretary of DECA, Inc., looks at the distributive education clubs in this way. He says,

> The clubs are the show-window of distributive education; the public relations tool of DE; the student interest too for DE coordinators . . . and an excellent avenue for the teaching of America's base - our free, competitive enterprise system.

The role of the clubs is important and is intended to contribute to a well-rounded individual and to a well-balanced distributive education program.

Program Outcomes

The primary goal of the vocational education program is to provide students with skills and training needed to obtain employment (Kaufman, 1967:3-1). Burkett (1970:5-6) reflected this same thought when he said, "Chief and foremost, the aim of vocational education is jobs for its graduates." He goes on further by stating, "We may be in danger of letting the expanding role of vocational education divert us

from our objective--to prepare people for employment."

The President's Commission on Law Enforcement and Administration of Justice made specific recommendations on the school's role in securing jobs for youth (Venn, 1970:38):

> . . . the school be primarily responsible for occupational placement and for subsequent guidance among work-bound youth. Moreover, part of the school's accountability should be its record in sending non-college bound youth into labor markets.

The National Advisory Council on Vocational Education (1970:4) states that "schools which provide vocational education without also providing a job do not have a complete program." Starr (1970:3) says, ". . . the value and effectiveness of a program can be determined only with respect to outcomes."

Sharp (1966:1) quoted from the report of the 1963 Panel of Consultants on Vocational Education that:

> The employment of a graduate in a job for which he received training is the accepted ultimate indicator of successful vocational training, although experts recognize that many indicators other than training-related employment-for example enrollment in post-high school training, or simple retention in high school through graduation--might be used to measure the success of vocational training.

Starr (1970) suggests that the status of students may be determined within six months after completing program requirements. State vocational education reports were due in the United States Office of Education approximately six months after the school year ended. The states were forced

to reflect accountability within this period of time.

In view of the outcomes, Duis (1970:15-16) reports that in Montana for the fiscal year 1969, the total number of completions in all vocational programs was 3108. The number that were placed in the field trained or in a related area was 754 or 24.3 percent. Of the total number completing program requirements, 23.7 percent continued in full-time school and 31.6 percent were available for placement. Of the total number of persons that were available for placement, 76.5 percent were placed in the field for which they were trained or in a related field. The unemployment figure for these available persons was 4.2 percent.

The problems of assessment of the need for distributive education is reflected by Nelson (1970:1) when he states that "the relative inability to describe accurately and completely the field of employment associated with distributive education has been a vexing problem . . ." Marks (1970:1-16) prepared a descriptive report of distributive education which provides an overview of distributive education in all of the Untied States. The report disclosed that in 1969, 80 percent of those persons completing the secondary programs and available for employment were placed in the occupations for which they were trained or in a related occupation. Twenty-two percent continued in full-time school and 4.6 percent were unemployed. Enrollments in the secondary program grew 4.8 percent from 1968 to 1969.

Employment Opportunity In Montana

The employment conditions in the state were relevant to the placement of the graduates after they had completed the program. The 1970 students graduated in the last week of May or the first part of June depending on the city in the state. The Montana State Employment Service (1970:1-2) published a report of the employment levels in Montana for May 15 - June 14, 1970. The report indicated that the employment levels in all categories statewide showed some improvement, but unsettled weather conditions hindered advance in a few areas. Also included in the report was information about some of the cities that had distributive education programs. Information in the report related to distributive occupations was stated as follows:

Billings	"Upturn in economy is considerably slower than last year. Residential and commercial building is not up to par and retail sales and service have been affected accordingly."
Glendive	"Some shortages anticipated in service trades as tourist season gets underway."
Great Falls	"Demands good in service industry, steady in wholesale-retail trades."
Hamilton	"Employment activity relatively dormant due to unsettled weather conditions. Some stirring noted in retail trades and and service industries."

Havre	"Slight increase in service and retail trades noted but no labor shortages have developed except in agricultural occupations."
Miles City	"Local labor adequate in most categories . . ."
Missoula	"A general spring hiring upturn appears to have gotten underway in most industrial groups. Worker shortages include real estate salesmen."
Polson	". . . cafe and retail trade relatively active."

The above information indicates the situation in parts of the state as the 1970 summer session began.

According to the Employment Service Division (1970:2) with regard to summer job opportunities; "The number of students entering the Montana labor force each spring is on the increase with the result that . . . there simply are not sufficient jobs for all." Job classifications which were generally in short supply in the state included commission salesmen.

The Employment Service Division (1970:1-2) reported that the unemployment in the civilian work force in July, 1970 was 5.3 percent. Employment in marketing and distributive occupations remained relatively stable as compared to July, 1969. The unemployment rate in 1970 reached its high in March 26 at 7.6 percent and a low in August at 4.4 percent.

The Employment Security Commission (1970) published the unemployment rates for 1970 in the state as follows: June--6.2 percent, July--5.0 percent, August--4.2 percent, and September--4.2 percent.

Those distributive education graduates that were available for employment, were exposed to the labor situation that was described above.

Summary

Chapter II presented a review of the related literature pertaining to this study. The role of distributive education is important in our ever-expanding business world. Cooperative distributive education is part of the vocational program that has been successful in fulfilling training objectives. Selected program and teacher-coordinator variables were also presented, and the program outcomes were reviewed. The state employment opportunities in Montana during the initial placement time of the graduates completed the chapter.

CHAPTER III

PROCEDURES

The major problem of this study was to determine the relationships of selected coordinator, program and student independent variables to the initial placement status (dependent variable) of the 1970 cooperative distributive education graduates.

The purposes of this chapter were (1) to describe the sources of data, (2) to explain the construction of the survey instruments, and (4) to describe the procedure for the analyses of data.

Sources of Data

All of the statistical data were obtained from the following two sources:

1. All of the 1970 cooperative distributive education graduates (387) of secondary distributive education programs in the State of Montana.
2. All of the individuals who were professional teacher-coordinators (18) of secondary distributive education programs in the state of Montana during the 1969-70 school.

Construction of the Survey Instruments

Two survey forms were used in this study. The review

of literature provided the basis for the content sought in each of the survey forms.

Survey Form A (appendix D, page 167) was sent to the 17 teacher-coordinators who participated in this study. This instrument contained questions relating to the coordinators' qualifications and to the distributive education program characteristics in their schools. Specifically the questions related to the following areas:

A. Coordinators

1. Teaching experience
2. Business work experience
3. Professional distributive preparation
4. Class teaching load
5. Coordination schedule

B. Distributive Education Programs

1. Type of program
2. Advisory committee
3. Selection of students
4. Class size
5. Enrollment in DECA

The initial form was reviewed for clarity and completeness by five professionals in the Division of Vocational and Technical Education (DVTE) in the United States Office of Education. (This study was not pursued under any type of contract with the United States Office of Education. Although the assistance of the professionals in the Division of Vocational and Technical was greatly appreciated, their points of view and

association in this project did not, therefore, necessarily represent official Office of Education position or policy.) Several of the questions were revised and questions were added relating to the selection of students and to DECA. The revised form was reviewed by two distributive education professionals at DVTE to determine whether the instrument was valid and reliable. Discussions about the instrument led to further changes. Valuable suggestions were also provided by the investigator's doctoral committee at Montana State University.

Survey Form B (appendix F, page 174) was sent to the 387 cooperative distributive education students who graduated in 1970. This form contained questions relating to the following areas:

A. High school cooperative work experience

B. Initial placement status after graduation (follow-up data)

C. Two open-ended opinion questions

The initial survey form was reviewed by three professionals in DVTE. Several revisions were made to clarify the questions and to include statements necessary to obtain the desired information. Questions seven and nine were changed to correspond with question 5-d on the coordinator's form. The

revised form was administered to three individuals who had just recently graduated from high school. Their comments and suggestions were considered in making changes in the wording of some of the questions. After review by the doctoral committee and review by two distributive education professionals in DVTE, the final form was considered to be valid and reliable and the form was adopted.

Administration of the Survey Instruments

In May, 1970, each coordinator was sent a cover letter and forms from which the following information was requested: (appendixes A and B, pages 163-165).

A. The names and addresses of the 1970 cooperative distributive education graduates in his program,
   1. The grade point average of each individual,
   2. The class rank of each individual,

B. The total number of seniors in the graduating class,

C. The address to which the coordinator's survey form was to be sent later in the year.

If more than one coordinator was employed in a school system, each coordinator was asked to furnish the information about his students. A stamped self-addressed envelope was included for the use of the coordinators when they returned the completed forms. Within three weeks after the initial mailing,

those coordinators whose forms were not yet returned were called and encouraged to respond. Seventeen out of the eighteen coordinators responded with completed forms. This was a 94.4 percent return.

On January 16, 1971, the survey instruments were sent to (1) the 387 cooperative distributive education students whose names were included on the forms returned by the coordinators in May, and (2) the 17 professional teacher-coordinators who were employed during the 1969-70 school year. The forms were constructed so that the school and coordinators could be identified for the purpose of group comparisons. Cover letters, (appendixes C, E, pages 166,173) explained the purposes of the study and survey instruments. A stamped self-addressed envelope was included for the convenience of the coordinators and the students when they returned the completed survey forms.

After three weeks, 170 student forms (43.9 percent) had been returned. Only 14 of the 170 were returned because the addresses were not at the designated addresses. On February 8, 1971, three weeks after the first mailing, 217 returns were sent to the graduates who had not responded. A stamped self-addressed envelope was enclosed with the survey form and a new cover letter (appendix G, page 181). By

February 27, 84 additional completed forms were returned and 12 letters were returned because the graduate had moved and had left no forwarding address. In an attempt to increase the 65.6 percent return six weeks after the initial mailing, a third mailing was completed on February 27. At this time, 123 forms were sent out to the non-respondents. As before, a stamped self-addressed envelope and a new cover letter (appendix H, page 182) were enclosed with the survey form. Three weeks after the third mailing, 46 additional survey forms had been returned.

Nine weeks after the initial mailing, 314 or 81.1 percent of the survey forms had been returned. Twelve of the returned forms were not useable because the students indicated that they were not employed (not cooperative students) in the high school program. Twenty-eight forms were returned because of a wrong address or a change of address. The 274 or 70.8 percent useable returns were ascertained to be an adequate percentage of returns to justify a representative sample of the total population of graduates.

Three weeks after the initial mailing of 17 coordinator forms, seven completed survey forms had been returned. The coordinators who had not responded were telephoned and encouraged to complete their forms. Fifteen or 88.2 percent

of the coordinators responded after nine weeks from the time of the initial mailing. Five of the 14 coordinators who responded were telephoned and asked to change their response to questions 5-d from a check mark to the number of months of employment in each area. Two coordinators did not complete the last page of the form and they were telephoned for their response to this section.

Analysis of Data

The primary problem of this study was to determine the relationship or explanatory power of selected coordinator, program, and student variables to the initial placement of the cooperative distributive education graduates. The initial placement status of the graduates in distributive related occupations was the dependent variable. The independent variables were selected coordinator qualifications, program characteristics, and student characteristics.

The dependent variable was stated in percentage form. The percentage was computed from the number of graduates who were available for employment and the number of graduates who became employed in distributive related occupations. The 7 student variables, 13 coordinator variables, and 18 program variables were treated as the independent variables.

The relationship or influence of the independent

variables to the dependent variable was determined by multiple regression analysis. According to Tatauoka and Tiedeman in Gage's, Handbook of Research on Teaching (1963:153-154), the multiple regression model is used where the single dependent variable and two or more independent variables are considered and where a relationship to the dependent is desired. Snedecor and Cochran (1967:381-418) in Statistical Methods also stated that the analysis that determines the explanatory power of variables in this type of study demands the use of multiple regression analysis. Fearn (1969:20-49) in his study entitled, Labor Markets, Incentives and Occupational Education used the multiple regression model to assess the influence of the independent variables on the existence of the relevant curriculum.

The mean, standard deviation, regression coefficient, standard error of the regression coefficient, and the T value were computed for each independent variance in the tests with the dependent variable. The analysis of variance for the regression included computation of the sum of the squares, and F value. The R^2 computations determined the influence of the combined variables in each of the partial correlations. The explanatory power of each of the independent variables was determined by the estimators and

standard error of the coefficient in its development of the T value.

Secondly, data relating to the placement status of the graduates were compiled. These data were used for follow-up information and also the independent and dependent variables were included in this analysis. The totals and percentages were stated. Where appropriate, the means and standard deviations were determined. Tables were used to present the data where the use of this technique enhanced the presentation of the data. The information in several cases was presented on a program-by-program basis and also for the state as a whole.

The data were tabulated and coded by the investigator. The statistical computations relating to the analysis as well as the key punching and programing were completed by the Mathematics Department and the Computer Center at Montana State University.

CHAPTER IV

ANALYSIS OF DATA

The purpose of this chapter is to present the findings of the research of the study. The two basic premises of the study were to gather followup data related to the teacher-coordinators, programs, and students, and to determine the relationship of selected teacher-coordinator, program, and student variables to the placement status of the graduates.

Chapter IV contains two sections. In Section One, the coordinator, program, and student variables are summarized and analyzed on an individual basis. This data provides followup information related to each of the 15 programs in the state and to the state as a whole. The data were also sourcebanks for the regression analyses in Section Two. Section One contains three parts. Part one presents the analyses of the coordinator variables. Part two presents the program information variables. Part three provides the analyses of the student variables.

In Section Two, the relationship of the independent coordinator, program, and student variables to the initial placement status of the graduates is reported.

Section One

Part One----Coordinator Variables

Seventeen of the 18 secondary distributive education teacher-coordinators in the State of Montana responded initially to the request for participation in the study and information about their students. They provided the names, addresses, class rank, and grade point averages of each of their distributive education students who graduated in May or June, 1970. This phase of the study was completed in July, 1970.

These 17 teacher-coordinators were each sent a survey form in January, 1971. Fifteen or 88.2 percent of these coordinators responded. These 15 respondents provided the information for the independent variables relating to their teaching experience, business work experience, professional and technical preparation, and their distributive education programs.

Employment Under an Extended Contract (X_7, X_8)

Employment as a teacher-coordinator on an extended contract basis was determined in the review of literature (see page 29) to be an important variable. An extended contract meant being employed beyond the 'regular' nine

months school year. Six of the 15 teacher-coordinators or 40 percent were employed on this basis. The six coordinators were employed in their distributive education duties for a period of 10 months.

The 10 months contract of the six coordinators is what was recommended by research (Warmke, 1961:33). Forty percent of the coordinators on an extended contract is a low percentage based on the research recommendations that all coordinators should be employed on this basis. No specific reasons were determined for the remaining 60 percent of the coordinators not employed on an extended contract basis.

Total Number of Years of Teaching Experience (X_9)

Ninety-five years of teaching experience were accumulated by the 15 teacher-coordinators. The mean number of years of experience was 6.3 years for each coordinator. The standard deviation was 8.02.

Three of the coordinators experienced their first year of teaching during the 1969-70 school year. A total of eight or 53.5 percent of the 15 coordinators had four years or less of teaching experience by the end of the school year.

---

[a]The figures in parentheses identify the variables used in the multiple regression analyses in Section Two.

This figure is slightly higher than the 41.5 percent obtained in a national survey by the United States Department of Health, Education, and Welfare in 1969.

When the 32 years of teaching experience of the one coordinator was excluded in the data analysis, the mean years of teaching experience was lowered to 4.5 years. The standard deviation dropped to 4.1.

Total Number of Years of Teaching Experience in Distributive Education (X_{10})

Fifty-nine years of distributive education teaching experience were accumulated by the 15 coordinators. The mean number of years was 3.9 years. The standard deviation was 5.5.

Four of the 15 coordinators were first year distributive education personnel. One of these four coordinators had taught in other discipline areas, but was a first year coordinator in distributive education. Twelve or 80 percent of the coordinators had taught distributive education for four years or less. This compares to a 1969 national sample percentage of 62.9 percent.

Business Work Experience (X_{11}, X_{12}, X_{13})

The Montana State Plan (State of Montana, 1969:1.33-3.17) indicates that the teacher-coordinator shall have at

least two years of occupational experience. The total business work experience was used as a variable along with the work experience related to marketing and distribution to determine the explanatory power of both variables.

The coordinators accumulated 78.3 years of total business work experience outside of the teaching profession. The mean was 5.3 years of business work experience. Eleven coordinators or 73.3 percent had six years or less of business work experience. The work experience was computed on a full-time equivalent basis. Full-time equals 40 hours or more per week.

The length of time since the last business work experience was also included as an independent variable. The mean number of months since the last business work experience was 29.6 months. Three coordinators had two weeks or more of work experience within the 12 month period between June 1969 and June 1970.

Warmke (1961:34) found that the coordinator should work in business at least every 36 to 60 months. Within the 60 month maximum of this suggested perameter, 13 or 86.7 percent of the coordinators had business work experience for three weeks or more. This work experience was not necessarily limited to the marketing and distribution areas.

The coordinators responded to their marketing and distribution business work experience by indicating the number of months (full-time equivalent) in the types of business or areas in which they were employed.

The responses were categorized according to the United States Office of Education codes presented in Vocational Education and Occupations (United States Department of Health, Education, and Welfare, 1969).

Table 5, page 58, presents a summary of the code areas, number of months of work experience, the number of coordinators with at least one month of experience in the code, and the breakdown per individual.

The mean number of months of business work experience in marketing and distribution was 54.7 months or well over the suggested 24 months minimum. Only three coordinators indicated that they had less than 24 months of work experience in marketing or distribution occupations.

Seven of the coordinators had work experience in code area 4.02 (Apparel and Accessories). Six coordinators indicated at least one month of work experience in areas 4.06 (Food Distribution) and 4.08 (General Merchandising). One to four coordinators had at least one month of work experience in the following code areas: 4.01 (Advertising Services),

4.03 (Automotive), 4.04 (Credit and Finance), 4.07 (Food Services), 4.09 (Hardware), 4.10 (Home Furnishings), 4.11 (Hotel and Lodging), 4.13 (Insurance), 4.15 (Personal Services), and 4.99 (other). No coordinator reported business work experience in areas 4.05 (Floristry), 4.18 (Recreation and Tourism), 4.19 (Transportation), and 4.31 (Wholesale).

Coordinator Class Load (X_{18}, X_{19})

The percentage of the class load of the coordinator that was considered to be distributive education was determined as follows (all in number of periods): DE I, DE II, Marketing courses identified by the coordinator as DE preparatory, and coordination time divided by the total class load.

Table 5

NUMBER OF MONTHS (FULL-TIME EQUIVALENT) OF WORK EXPERIENCE IN DISTRIBUTION AND MARKETING BY THE COORDINATORS

Occupational Areas	Total Number of Months of Experience	Number of Coordinators with at Least 1 month Experience in the Code Area	Number of Months of Experience per Coordinator
4.02 - Apparel & Accessories	103	7 (14.7)[a]	24,12,3,10,5 18,31
4.06 - Food Distribution	284	6(47.3)	24,204,2,36, 12, 6
4.03 - General Merchandising	100	6(16.7)	3,58,24,3,7, 6
4.10 - Home Furnishings	33	4(08.3)	12,6,9,6
4.13 - Insurance	27	4(06.8)	12,12,1,2
4.15 - Personal Services	66	4(16.5)	36,12,12,6
4.16 - Petroleum	41	4(10.3)	24,8,6,3
4.04 - Credit & Finance	23	3(07.7)	12,9,2
4.07 - Food Services	14	3(04.7)	9,3,2
4.99 - Other	28	3(09.3)	12,8,8
4.03 - Automotive	13	2(06.5)	12,1
4.09 - Hardware	21	2(10.5)	18,3
4.01 - Advertising Service	60	1(60.0)	60
4.11 - Hotel & Lodging	3	1(03.0)	3
4.20 - Retail (Dairy)	4	1(04.0)	4

Table 5 - Continued

Number of Months (Full-Time Equivalent) of Work Experience In Distribution and Marketing by the Coordinators

Occupational Areas	Total Number of Months of Experience	Number of Coordinators with at least 1 month Experience in the Code Area	Number of Months of Experience per Coordinator
4.05 - Floristry	0		
4.12 - Industrial Marketing	0		
4.18 - Recreation & Tourism	0		
4.19 - Transportation	0		
4.31 - Wholesale	0	(54.7)[b]	

[a]Mean number of months per coordinator in each area
[b]Mean number of months per coordinator

Seven of the 15 coordinators or 46.7 percent were able to devote 100 percent of their class load time to distributive education. Four coordinators or 26.7 percent had a distributive education class load of 60 to 80 percent and and four coordinators had a distributive education class load of 33 to 43 percent.

Other classes taught by the coordinators were typing,

data processing, bookkeeping, shorthand, business law, economics, general business, office education, and business machines.

Coordinators should be available to coordinate the students' cooperative work experience when the students are working. The data revealed that 4 of the 15 coordinators had students employed during the school day while they were teaching. Three of the coordinators had one period each in which they could not coordinate and one coordinator had three class periods in which students were employed and he did not have coordination time.

Professional Preparation (X_{14}, X_{15}, X_{16}, X_{17})

The coordinators' responses to their undergraduate and graduate professional preparation were grouped as follows:

(1) Administration of Cooperative Education
(2) Coordination Techniques
(3) Vocational Education (including (1) and (2) above)
(4) Technical courses (marketing and distribution courses)

The grouped data were used as variables in the following manner: (1) and (2) above were tabulated as to whether the coordinator had preparation in each area or did not have preparation in each area. The Montana State Plan (State of Montana, 1969) requires (1) and (2) above and also requires

at least 15 quarter hours credit in vocational education courses. Number (3) above was identified by a yes if the coordinator had 15 or more credit hours (quarter hours) and no if he had 14 or less credit hours. In number (4) above, 20 quarter hours credit were used as the basis for meeting the minimum requirements.

The results showed that 16 of the 17 coordinators had preparation in the Administration of Coorperative Education. Fourteen of the coordinators had at least one college course in Coordination Techniques. Thirteen of the 17 coordinators meet the minimum requirements of having 15 or more credit hours of preparation in vocational education. Sixteen of the coordinators met the minimum requirements for having 20 or more credit hours of technical preparation in marketing and distribution.

Part Two---Program Variables (X_{20}, X_{21}, X_{22})

In this study, each coordinator was identified with a program. Consequently, schools with two coordinators who had their own related classes and cooperative students were credited with having two programs.

Seven programs were classified by the coordinators as Junior Preparatory--Senior Cooperative programs. Four programs were classified as Senior-One Year Cooperative programs.

Four programs were classified as Junior Preparatory/Cooperative--Senior Project/Cooperative programs.

The data indicate that the majority of the programs limit the cooperative experience for the student to the senior year. Some type of preparatory experience might be required. This preparatory experience was in one or more marketing or business courses or a class specifically called Distributive Education I.

Total Number of Years Cooperative Distributive Education Has Been in the School System (X_{23})

One new program was added for the school year 1969-70 over the 1968-69 school year. The mean number of years that distributive education has been offered in the 15 school programs through 1970 was 10.3 years. Eight programs had been in operation six years or less. One program had been in operation for 27 years.

Part of the program operation concerns the establishment of the necessary rapport in the community. This variable disregards administrative changes, coordinator changes and other community factors and relies on the length of time of program operation as being related to the program outcomes.

Advisory Committee (X_{24})

Meeting with an advisory committee does not in itself necessarily establish effective outcomes. But determining the number of times an advisory committee met does present a means of measuring the use of community personnel in an advisory capacity.

Four coordinators indicated that their advisory committees met once during the year. Three committees met two or three times during the year. One committee did not meet and six programs did not have advisory committees. None of the advisory committees met over three times during the year.

Of the eight programs that did have advisory committees, the number of members included (excluding school officials, guidance personnel or the coordinator) on the committee varied from three to six. The mean number of members was 4.75. This compares to research suggestions of five to seven members. Five of the programs were in this suggested five to seven member range. Table 6 presents the data.

Table 6

THE ADVISORY COMMITTEE MET:

	Number of Programs
Once during the year	4
Two-three times during the year	3
Four-six times during the year	0
More than six times during the year	0
Did not meet	1
Did not have an advisory committee	6

Size of the School and Community (X_{25})

The school size (grades 9-12) and the community size (population) data were obtained from the coordinators.

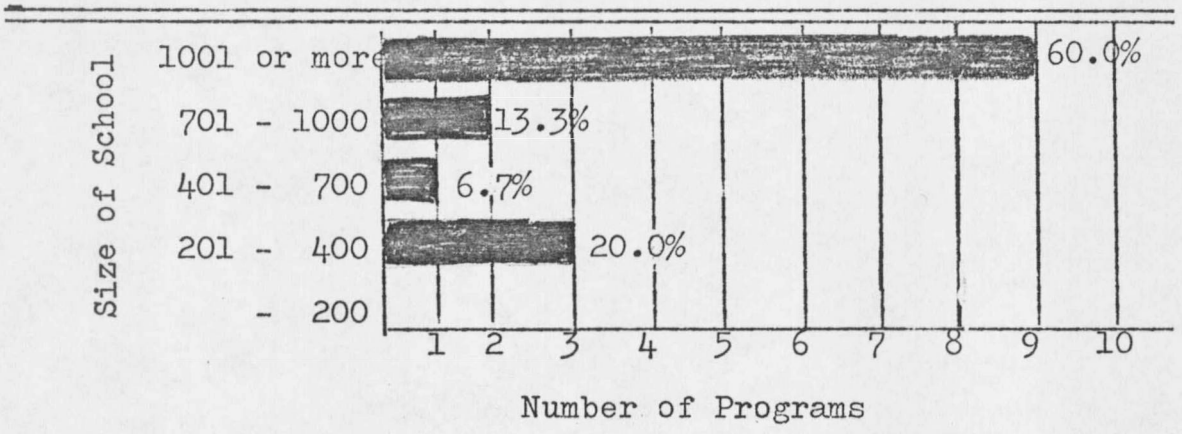
Three programs were operated in schools with 201-400 students in grades 9-12. One school had an enrollment of 401-700 students. Two schools had 701-1000 students and nine programs were in schools of an enrollment of over 1000 students. This data is presented in Table 7.

In the 1001 or more enrollment category, three of the schools had two coordinators each and in such cases, each coordinator's program was treated separately. Conse-

quently five high schools in three cities accounted for eight of the programs. Only four programs were in schools of 700 or less enrollments.

Table 7

NUMBER OF PROGRAMS IN SELECTED SCHOOL SIZES (GRADES 9-12)



Twelve different communities had distributive education programs. Missoula (40,000) had the equivalent of three program, Great Falls (80,000), had three programs, Billings (78,000) had three programs, and Havre (15,000), Miles City (10,000), Glendive (7,000), Sidney (7,000), Polson (5,000), Hardin (3,000), and Baker (3,000) had one program each. The community size was used as an assumed measure of the training opportunities and outcome potential.

Did the Teacher-Coordinator Have the Final Approval Privilege for Accepting or Rejecting All Applicants for the Cooperative Distributive Education Program? (X_{26})

Nine of the 15 coordinators had the final approval for accepting or rejecting the applicants to the cooperative program. The six remaining coordinators who did not have the final approval privilege came from four different schools. In these four schools, someone other than the coordinator made the final decision in many cases as to who should be in the program. The literature recommends that all the coordinators should have the final approval privilege. The implications of the 40 percent of the coordinators who did not have this privilege were not sought in this study.

Requirements to Become Enrolled in the Distributive Education Cooperative Program. ($X_{27} - X_{35}$)

Eight specific choices were given to the coordinators for their response to the requirements for the students to become enrolled in the cooperative program. They also had the option to list additional requirements under the 'other' section. These variables reflect the selection criteria for the type of student that would enroll in a program and have a possible effect on the program outcomes. Each criterion was treated as a variable in itself to determine the relationship of each to the program outcomes.

Table 8, page 68, gives the summary of the requirements in each program as expressed by the coordinator of that program. The totals for the state are also given.

The type of programs in the state is reflected in the response 'Be a senior'. Eleven or 73.3 percent of the programs had this requirement. Ten or 66.7 percent of the programs required selection A and D which are 'Express a career interest in distribution or marketing' and 'Be employable (adequate health, ability to be trained)' respectively. Only 3 or 20 percent of the coordinators stated that selection C or 'Having the aptitude to study the related course content' was a requirement. Based on a comparison of selection C and on selection B 'Be willing to study the related course content', it would appear that the willingness to study the related course content (eight responses) was more significant than having the aptitude to study the related area (three responses).

In the 'Other' category, the response was 'Have a good attendance record'. No coordinator indicated that selection G 'Have an accumulative grade point average of C or better' were required in his program. Another stated requirement was that an interview must be conducted with the coordinator.

Table 8

REQUIREMENTS TO BECOME ENROLLED IN THE DISTRIBUTIVE EDUCATION COOPERATIVE PROGRAM

	Program																
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	State
Express a career interest in distribution or marketing (A)	x			x	x	x	x	x			x		x	x			x	10
Be willing to study the related course content (B)		x	x	x			x	x	x		x		x					8
Have the aptitude to study the related course content (O)				x				x			x							3
Be employable (adequate health, ability to be trained (D)		x	x	x		x	x	x				x	x	x			x	10
Be employed before enrolling in the program (E)																		0
Be a senior (F)		x	x		x	x	x	x	x	x			x	x			x	11
Have an accumulative grade point average of 'C' or better (G)																		0
Have completed DE I or special preparatory course(s) (H)			x			x			x	x								4
Other--Have a good Attendance record/(I) interview with coord		x	x									x						3
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	State
	Program																	

Were All of the Cooperative Distributive Education Students Members of the Deca Program? (X_{36})

Eight or 53.3 percent of the programs had 100 percent of their cooperative students as members of DECA.

Is DECA a co-curricular activity and an integral part of the distributive education program if all of the students do not belong to the club? The degree of participation and the reasons for not participating were not sought in this study. The influence of 100 percent membership was sought in the regression analyses.

Was a Placement Service Available for the Distributive Education Graduates? (X_{37})

Only two or 13.3 percent of the programs had a placement service for their graduates. Both placement services were available to the graduates who stayed in the community. The literature suggests that the placement service must be an integral part of the program. All of the students may not realize their full potential in employment opportunities if they are left to themselves after graduation. The question is also asked as to whether the training program is really complete without a placement service.

This variable places a weight factor on the employment of students who have the assistance of the placement

services. The specific value of the placement service in each of the two programs was assumed in this study to be beneficial.

Part Three---Student Variables

The student population as presented by the coordinators of each school totaled 387 graduates who had been cooperative distributive education students during the 1969-70 school year. The female population totaled 204 or 52.7 percent and the male population totaled 183 or 47.3 percent of the total population of 387.

For the state, 151 of the 204 or 74.0 percent of the females responded with useable returns. Out of the 183 males, 121 or 66.1 percent replied with useable returns. The combined useable response was 272 or 70.3 percent of the 387 total population. The 70.3 percent was deemed to be a representative sample of the total population.

The summary for each program in the state and for the state as a whole are presented in Table 9, page 63 for comparative purposes so that the distribution of the population and the representative responses could be determined and analyzed. The percentage of useable responses varied from a high of 90.9 percent in Program D to a low of 33.3 percent in

Table 9

STUDENT POPULATION AND RESPONSES

Programs	Total Population	Responses				
		Total Returned		Not Useable	Useable	
I	50	35	70.0%	8	27	54.0%
N	48	41	85.4	1	40	83.3
Q	41	36	87.8	10	26	63.4
F	38	33	86.6	2	31	81.6
J	38	32	84.2	4	28	73.7
B	37	32	86.5	3	29	78.4
H	21	18	85.7	4	14	66.7
E	18	11	61.1	1	10	55.5
L	15	13	86.7	1	12	80.0
O	12	8	66.7	0	8	66.7
K	12	7	58.3	3	4	33.3
D	11	11	100.0	1	10	90.9
G	11	10	90.9	1	9	81.8
M	10	7	70.0	0	7	70.0
C	9	9	100.0	2	7	77.8
A	8	7	87.5	0	7	87.5
P	8	6	75.0	3	3	37.5
State	387	316	81.7%	44	272	70.3%

Table 10

STUDENT POPULATION AND RESPONSES
(MALE - FEMALE POPULATION)

Total Population	387	
Total Returns	316	81.7%
Useable Returns	272	70.3
Total Male Population	183	47.3
Useable Male Responses	121	66.1 (percent of 183)
Total Female Population	204	52.7
Useable Female Responses	151	74.0 (percent of 204)

Program K. Only two programs had a return of useable responses below 54.0 percent.

The total number of responses returned was 316 or 81.7 percent. Forty-four returns were not useable. Of the 44 not useable responses, 13 graduates had indicated that they were not cooperative students, 3 returns were received too late to be used, and 28 forms were returned primarily because of address changes.

Availability for Employment (Male-Female) (X_1)

Out of the 272 respondents, 230 or 84.7 percent were available for employment after graduation. The number of available individuals included 105 or 45.7 percent males and 125 or 54.3 percent females.

Class Rank (X_2) Grade Point Average (X_3)

The mean class rank and grade point averages of the students are presented in Table 11, page 74 for each program. The class rank is presented in percentage figures. The class rank of each student was divided by the number of students in his graduating class. In this manner a comparison could be made between schools and relevant figures could be used in the regression analyses.

The mean class rank varied from .364 to .734 with .364 being the higher mean rank. The means tend to be most frequent in the .50 to .65 range. A .50 on an individual rank would be, for example, a rank of 15th out of 30 in the class. The .60 would be 18th out of 30.

The mean grade point scores show that 2.0085 or 'C' is the mean for the state. The range used was A=4.00 and D =1.00.

Table 11

CLASS RANK AND GRADE POINT AVERAGE FOR STUDENTS IN EACH PROGRAM
(N = 261 Total Respondents)

Program	Number in Class	Class Rank	Grade Point Average
M	7	.364[a]	2.757[b]
F	31	.454	2.400
C	7	.483	2.414
B	29	.545	2.234
K	4	.553	2.375
N	40	.588	2.052
E	10	.590	2.117
Q	26	.591	2.217
L	12	.609	2.032
I	27	.641	1.804
G	9	.649	1.893
J	28	.652	1.916
D	10	.664	2.134
A	7	.734	1.907
H	14	----	-----
State	261	.549	2.009

[a]Means. Class rank divided by the number in the graduating class

[b]Means. A = 4.00 --- D = 1.00

Initial Placement Status of the Graduates (Y)

Table 12, page 77, gives the initial placement status of the graduates during the period of time from the students graduation in May or June, 1970 through December 31, 1970. The placement is reflected in the graduates' first jobs after graduation. If the graduate initially went on to school without becoming employed, entered military service or did not seek employment, this statistic is reflected in the not available category.

The individuals responded to the questions on the type of business and the type of work performed in their initial employment. The investigator based the categorizing of employment into distributive related or non-distributive related occupations on the type of work performed in the business indicated by the respondents.

The table indicates the total number of: (1) respondents, (2) those persons available for employment, (3) those persons whose initial employment was in a non-distributive occupation and (5) the unemployed. This data is presented for each program and for the state as a whole.

In the state as a whole, 230 or 34.7 percent of the 272 respondents were available for employment. Of the 230 individuals, 139 or 60.4 percent were employed in distributive

occupations. Eighty-two or 35.7 percent were employed in non-distributive occupations. Only nine persons or 3.9 percent were unemployed. Ten of the 17 programs did not have unemployed graduates in the time period studied. The percentage of persons employed in distributive occupations varied from none to 90 percent. The percentage of persons employed in non-distributive occupations varied from none to 83.3 percent.

The data for the various programs are presented for comparison purposes and because the placement status was used as a dependent variable for each program. Table 13, page 78, present the percentages of the placement status of the graduation. The placement percentage is presented alone so that a clearer comparison may be made between various programs in the state. The percentage figures for employment in distributive occupations is the dependent variable or accountability number for each program.

Table 12

INITIAL PLACEMENT STATUS OF THE 1970 SECONDARY COOPERATIVE DISTRIBUTIVE EDUCATION GRADUATES

Programs	Total Useable Responses	Available for Employment	Employed in Distributive Occupations	Employed In Non-Distributive Occupations	Unemployed
N	40	37	23	13	1
F	31	23	16	12	0
B	29	27	18	7	2
J	28	20	8	11	1
I	27	23	9	14	0
Q	26	22	15	6	1
H	14	14	8	6	0
L	12	10	9	1	0
D	10	8	6	2	0
E	10	6	5	1	0
G	9	8	7	1	0
O	8	6	4	0	2
A	7	5	4	1	0
C	7	5	1	3	1
M	7	6	5	1	0
K	4	2	0	1	1
P	3	3	1	2	0
State	272	230 (84.6)[a]	139 (60.4)[b]	82 (55.7)	9 (039

[a]Percentage of the total respondents (272)

[b]Percentage of the available for employment (230)-- Last three columns.

Table 13

PERCENTAGE OF GRADUATES INITIALLY EMPLOYED IN DISTRIBUTIVE AND NON-DISTRIBUTIVE OCCUPATIONS (ONLY THOSE AVAILABLE FOR EMPLOYMENT)

Programs	Employed in Distributive Occupations	Employed in Non-Distributive Occupations	Unemployed
L	90.0%	10.0%	00.0%
G	87.5	12.5	00.0
E	83.3	16.7	00.0
M	83.3	16.7	00.0
A	80.0	20.0	00.0
D	75.0	25.0	00.0
Q	68.2	27.3	04.5
O	66.7	00.0	33.3
B	66.7	25.9	07.4
N	62.2	35.1	02.7
H	57.1	42.9	00.0
F	57.1	42.9	00.0
J	40.0	55.0	05.0
I	39.2	60.8	00.0
C	20.0	60.0	20.0
P	16.7	83.3	00.0
K	00.0	50.0	50.0
State	60.4	35.7	03.9

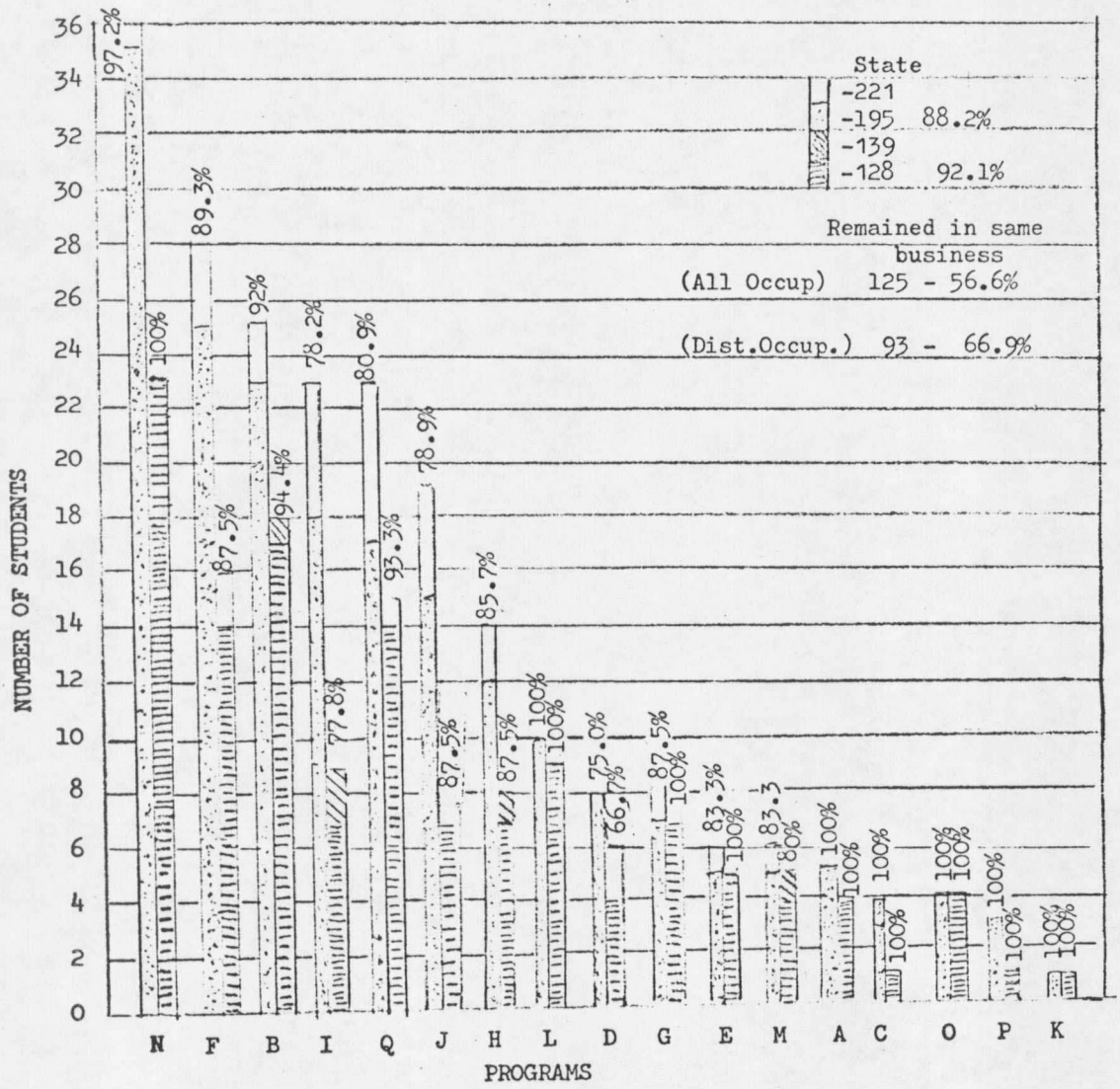
Graduates Who Were Initially Employed in the Same City in Which They Were Trained.

Table 14, page 80, indicates the number and percent of graduates who remained in the same city for their initial employment as the one in which they were trained. In the state as a whole, 195 or 88.2 percent remained in the same city for their initial employment. This figure includes all the persons who became employed in distributive and non-distributive occupations. Of the 139 graduates who were initially employed in distributive occupations, 128 or 92.1 percent remained in the same community.

Since the communities varied in population from 3,000 to 80,000, Table 13, page 80, presents the summary for each city. In this manner, a comparison was made to determine the variation in the percent of the graduates who remained in the various cities. Since the lowest percentage of graduates who remained in the same community was 78.2 percent, no one community appeared to lack the opportunity for initial employment for a majority of the cooperative graduates. No minimum length of time of employment was set for the graduates included in the table figures.

TABLE 14

NUMBER AND PERCENTAGE OF THE INITIALLY EMPLOYED GRADUATES WHO REMAINED INTHE SAME CITY AS THE ONE IN WHICH THEY RECEIVED THEIR TRAINING



Number initially employed in all occupations
Number who remained in the same city - all occupations

Number initially employed in distributive occupations
Number who remained in the same city - distributive occupations

Persons Whose Initial Employment was in the Same Business as the One in Which They Received Their Cooperative Work Experience.

In the state, 195 of the 221 or 82.2 percent of those persons initially employed in all occupations remained in the same city as the one in which they were trained. One-hundred-twenty-five or 56.6 percent of the 221 persons remained in the same business as the one in which they received their cooperative work experience.

For those persons initially employed in distributive occupations, 128 of the 139 or 92.1 percent remained in the same city. Ninety-three or 67.9 percent of the 139 persons remained in the same business as the one in which they were trained. At least 35 of the 139 persons remained in the same town but changed places of employment.

Length of Time to Become Employed After Graduation

One hundred six or 77.4 percent of the 137 graduates who became employed in distributive related occupations-either full-time or part-time-were employed within one week after their graduation. Of this number, 90 or 84.9 percent remained in the same business in which they were trained. Thirty-one or 22.6 percent of the graduates became employed within the next 28 weeks. Of this number, only three returned to the same business as the one in which they were

trained.

Only 15.1 percent of the graduates who became employed within one week left their place of training. Most of the graduates continued their cooperative work experience employment. The length of the initial employment is presented in the next section.

Length of Initial Employment

The length of the graduates initial employment was determined so that an indication of time on the first job could be computed. Table 15, page 83, shows the length of time of the initial employment and the number and percentage that terminated their employment before December 31, 1970. The data refers to those graduates whose initial employment was in a distributive occupation.

Only 9 or 13.1 percent of the 69 persons employed 20 weeks or less before December 31, did not terminate their employment in their initial job. Of the 55 persons who were employed for 21-30 weeks through December 31, 1970, 51 or 92.7 percent did not terminate their employment.

Table 15

LENGTH OF INITIAL EMPLOYMENT
(PERSONS EMPLOYED IN DISTRIBUTIVE OCCUPATIONS)
THROUGH DECEMBER 31, 1970

Total Number Employed = 139				
Employed for 4 weeks or less	8	(.058)[a]	8[b]	(.058)[c]
Employed for 5-8 weeks	13	(.094)	11	(.137)
Employed for 9-12 weeks	22	(.158)	21	(.288)
Employed for 13-16 weeks	12	(.086)	11	(.367)
Employed for 17-20 weeks	14	(.101)	8	(.425)
Employed for 21-30 weeks	55	(.395)	4	(.454)
Unable to determine	(15)	(.108)		
		Total	63	(.454)

[a]Percent of 139

[b]Number who terminated their employment by December 31, 1970

[c]Accumulative percent of the 139 who terminated their employment

Part-Time -- Full-Time Initial Employment in Distributive Occupations

One-hundred-thirty-nine of the graduates became employed initially in distributive occupations. Of this number, 89 or 64 percent were initially employed full-time. Thirty-six percent were initially employed part-time. Further data reveals that 56 of the 139 persons were male. Of this number, 73.2 percent became employed full-time. Of the 83 females,

only 57.8 percent became employed full-time.

The length of time of the initial part-time employment could be determined for 46 of the 50 persons. Of the 46 individuals, at least 16 or 34.8 percent were still employed part-time as of December 31, 1970. Twelve or 75 percent of these 16 persons were females. Only 13 or 28.3 percent were employed part-time less than 10 weeks.

The Reasons Why the First Employment After Graduation was Part-Time (Less Than 40 Hours Per Week)

The responses were based on the graduates' first employment after completing high school. They were requested to indicate their reason for being employed part-time in their initial employment.

Some of these persons later became full-time employees in the same business and others terminated their employment in their first business. Others continued working part-time through December 31. No distinction is made here as to the length of the part-time employment.

Of the 58 persons who responded, 16 or 27.6 percent indicated that they were 'unable to find a full-time job.' Eleven persons or 18.9 percent either entered or expected to enter a 4-year college or university. These and the other reasons are listed in Table 16, page 85.

No person indicated that the reason for part-time employment was because of physical or other handicaps.

Table 16

THE REASONS THAT THE FIRST EMPLOYMENT AFTER GRADUATION WAS PART-TIME (LESS THAN 40 HOURS PER WEEK)

Frequency	Reasons
16	Unable to find a full-time job
11	Expected to or entered a 4-year college or university
7	Expected to or entered a 2-year post secondary institution
6	Not interested in a full-time job
6	*Most hours allowed by the employer
5	*Type of employment
3	*Business had enough help
2	Expected to enter military service
1	Housewife or about to be married
1	*Employee returned from the military
0	Physical or other handicaps

*These reasons were listed by the graduates under Other. The other reasons were given to the persons for their possible selection.

Beginning Hourly Wage of the Graduates in Their Initial Employment After Leaving High School

A majority or 54.5 percent of the persons employed in distributive occupations in their initial employment after graduation earned between $1.60 - 1.99 per hour beginning wage. Twenty-five or 18.9 percent earned $2.00 or more per hour. Less than half or 39.2 percent of those persons whose initial employment after graduation was in non-distributive occupations earned $1.60 - 1.99 per hour beginning wage. But 31 or 39.2 percent earned $2.00 per hour or more. Four persons in the non-distributive occupations earned $4.00 per hour or more and no person in distributive occupations earned this amount. The $4.00 or more per hour was earned by persons in the mining and construction industry. The highest wages in the distributive occupations area were earned by persons who worked in sales and delivery but combined this with carpet laying and mechanical work. Table 17, page 87, gives the comparative for the beginning hourly wage.

In the non-distributive occupations area, 14 persons earned $2.50 or more per hours. Did these persons take the higher paying jobs outside of the distributive occupations to earn more money for college? The question cannot be answered completely with the data available, but 8 or 57.1 percent of these 14 persons did not go on to college or further schooling

before December 31, 1970.

Table 17

BEGINNING HOURLY WAGE OF THE GRADUATES EMPLOYED IN DISTRIBUTIVE OCCUPATIONS AND NON-DISTRIBUTIVE OCCUPATIONS (INITIAL EMPLOYMENT AFTER GRADUATION)

N=132 Distributive Occupations			Wages		Non-Distributive Occupations N=79	
35[a]	(26.5)[b]		$1.59 or less		17[a]	(21.6)[b]
72	(54.6)		1.60 - 1.99		31	(39.2)
18			2.00 - 2.49		17	
4			2.50 - 2.99		3	
3		(18.9)	3.00 - 3.99	(39.2)	7	
0			4.00 or more		4	

[a]Number of persons in each group

[b]Percentage of persons in the group indicated

If Employment Was Not Sought After Graduated From High School, What were the Reasons?

Of the 272 respondents, 39 or 14.3 percent did not seek employment after graduating from high school. Table 18, page 88, presents the reasons for not seeking employment.

Of the 39 who did not seek employment, 18 or 46.1 percent persons continued their education after graduation

without the initial employment. Eight of the 39 persons or 20.5 percent entered the military service. The most frequent reasons stated for not seeking employment was that eleven or 28.2 percent were housewives or were about to be married.

Table 18

REASONS EMPLOYMENT WAS NOT SOUGHT AFTER GRADUATING FROM HIGH SCHOOL

Frequency N=39	Reasons
11 (28.2)[a]	Housewife or about to be married
10 (25.6)	Expected to or entered a 2-year post secondary institution
8 (20.5)	Expected to or entered a 4-year college or university
8 (20.5)	Expected to or entered military service
1 (02.6)	Needed at home
1 (02.6)	Travel

[a]Percentage of the 39 persons who did not seek employment

Reasons For Leaving the First Employment After Graduation

The reason that was indicated most frequently for leaving the initial employment after graduation was that the individuals expected to or entered a 4-year college or university. No distinction was made between full-time and part-time employees. Three of the graduates indicated that

the pay was too low and also that they were not interested in the job. No persons indicated that they did not have adequate training for the position. This reason could be hidden in some of the other statements that were checked by the individuals, if the need for additional training could be a factor in the period of time that was relevant in the study. Eight of the persons stated that they were layed off. The only reason given for being layed off was that there was not enough business to warrant keeping them employed.

Table 19, page 90, gives the reasons that the graduates indicated as to why they left their initial employment after graduation. These reasons are presented in rank order.

Table 19

REASONS GRADUATES LEFT THEIR INITIAL EMPLOYMENT AFTER GRADUATION
(State as a Group)

Number of Times Reasons Were Indicated	Reasons
25	Expected to or entered a 4-year college or university
8	Expected to or entered a 2-year post-secondary institution
8	Housewife or about to be married
8	*Layed Off
7	The pay was too low
6	Not interested in the job
5	Expected to or entered military service
3	*Temporary job
3	*Needed at home
2	*Not enough hours
2	*Farming
2	*Business closed
1	Physical or other handicaps
1	*Position filled by a man
1	*Travel
1	*Moved
1	*Limited employment
0	Didn't have adequate training for the position

*These reasons were presented by the graduates next to the 'other' choice.
The remaining reasons were given to the graduates for their possible selection.

Occupational Areas of Cooperative Work Experience and Initial Employment

Table 20, page 93, gives the data on: (1) the number and percentage of persons who had cooperative work experience in each occupational area; (2) the number of persons whose initial employment after graduation was in each occupational area; and (3) the number and percentage of persons whose initial employment and cooperative work experience were in the occupational area.

The occupational area and codes were taken from Vocational Education and Occupations (United States Department of Health, Education, and Welfare, and United States Department of Labor, 1969: 19-38).

Area 4.06 - Food Distribution - had the most trainees. Fifty-two or 19.1 percent of the students received their cooperative work experience in this area. Included in this area are boxboys and bakery sales persons. Twenty-one of the 52 persons became employed initially in this area. But of the 21 persons whose initial employment was in this area, all had received cooperative work experience in the area.

Area 4.07 - Food Services - ranked second with the number of cooperative work experience trainees. Forty-four or 16.2 percent of the total number of respondents worked in this area in high school. Of the 28 persons initially

employed in Food Service occupations, 19 or 67.8 percent had also received their cooperative work experience in this area. Nine persons had completed their cooperative work experience in another occupational code area. The waitress and waiter positions are included in this code area although this work area is also included in the Trade and Industry section--code 17.2904.

The remaining occupational areas are broken down in the table and may be compared. Forty-four or 16.2 percent of the students received cooperative work experience in non-distributive occupations. These areas included nurses' aides, cooks, secretaries, dental office assistants, office cleaners, and TV productionists.

More than half or 54.3 percent of the persons received their cooperative work experience in the area in which they became initially employed. Twenty of these persons had been employed in occupations outside of the distributive area. Of the 139 persons initially employed in distributive occupations, 100 or 72 percent had received cooperative work experience in the occupational area in which they were employed.

Table 20

OCCUPATIONAL AREAS OF COOPERATIVE WORK EXPERIENCE AND EMPLOYMENT

Occupational Areas (U.S.O.E. Codes)	Number of Persons who Had Coop Experience in Area	Number of Persons Whose First Employment was in Area	Number of Persons Whose First Employment and Coop Experience Were In Area
4.06 - Food Distribution	52 (19.1)[a]	21	21 (100)[b]
4.07 - Food Service*	44 (16.2)	28	19 (67.8)
4.08 - General Merchandising	32 (11.8)	18	15 (83.3)
4.02 - Apparel & Accessories	32 (11.8)	22	19 (86.4)
4.16 - Petroleum	14 (05.1)	11	5 (45.5)
4.18 - Recreation & Tourism	11 (04.4)	6	3 (50.0)
4.15 - Personal Services	10 (03.7)	5	4 (80.0)
4.09 - Hardware	7 (02.5)	6	4 (66.7)
4.03 - Automotive	6 (02.2)	6	1 (16.7)
4.31 - Wholesale	6 (02.2)	4	4 (100)
4.10 - Home Furnishings	5 (01.8)	3	3 (100)
4.05 - Floristry	3 (01.1)	1	1 (100)
4.11 - Hotel & Lodging	2 (00.7)	1	1 (100)
4.99 - Other	2 (00.7)	5	0 (000)
4.20 - Retail (Dairy)	1 (00.4)	0	0 (000)
4.04 - Credit & Finance	1 (00.4)	1	0 (000)
4.12 - Industrial Marketing	0 (0000)	0	0 (000)
4.19 - Transportation	0 (0000)	2	0 (000)
4.13 - Insurance	0 (0000)	0	0 (000)
4.01 - Advertising Services	0 (0000)	0	0 (000)
		139	100 (72.0)
- Non-distributive occupations	44 (16.2)	82	20 (24.3)
	272	221	120 (54.3)

* Waitress work is included in the area

[a] Percentage of the total number of respondents (272)

[b] Percentage of the number of persons whose first employment was in the occupational area (column 2)

Persons Who Were Employed Two months or More Before September 1, 1969 (Before the Beginning of the School Year)

Many students become employed in their cooperative position near the opening day of school. Others may become employed at various times during the school year. Still others are employed well before the school year begins and continue in the job or same business for their cooperative work experience.

The following summary indicates the number of students who were employed two months or more before September 1, 1969 (June, 1969 or earlier).

N=272

Employed before July 1, 1969	107	(39.3 percent)
Employed after June 30, 1969	155	(58.0 percent)
Unable to determine	10	(03.7 percent)

The intent of this section was not to evaluate further the effects of the 39.3 percent figure. The purpose was to expose this figure so that further study might be affected by the findings if deemed necessary. If the students are employed several months before school begins and then continue in the same place of work or the same job, how much new training is received? Further investigation is needed if this figure is to be completely meaningful.

Enrollment For Additional Education After Graduation From High School

This section provides the information concerning the enrollment of the graduates in further education after graduation from high school. The group includes all the persons who enrolled prior to January 1, 1971. Most of the enrollees had been employed prior to their enrolling in the school. Enrollment included all types of schools including 4-year and 2-year institutions, trade schools, and business schools. No further follow-up was conducted as to the length of time these individuals were enrolled.

Table 21, page 97, presents a summary of the enrollment data. Out of the 272 respondents, 122 or 44.9 percent enrolled in a school after graduation for further education.

The males included 45.6 percent of the total population. Of those who enrolled for further education, 53 or 43.4 percent were males. Similarly, 148 or 54.4 percent of the population were females. Of those who went on to further education, 67 or 54.9 percent were females. A proportionate number of males and females went on to further schooling.

The second category was the data for only those persons who were initially employed in distributive occupations (139). Fifty-six or 40.3 percent were males and 83 or 59.7 percent were females. Of the 66 persons who enrolled for

further schooling, 29 or 43.9 percent were males. Thirty-seven or 56.1 percent of the enrollees were females. As with the total group, a proportionate number of males and females who had initially been employed in distributive occupations did enroll for further schooling.

Table 21

GRADUATES WHO ENROLLED IN FURTHER EDUCATION THROUGH December 31, 1970 (INCLUDES THOSE WHO WERE INITIALLY EMPLOYED AND THOSE WHO WERE NOT)

Programs	All DE Graduates				Graduates Whose Initial Employment was in Distribution			
	Male	Female	Total	Percent of Total	Male	Female	Total	Percent of Total
L	5 (4)[a]	7 (4)	12 (8)	66.7	3(4)	6 (3)	9(7)	77.8
F	12 (7)	19 (15)	31(22)	70.7	7(4)	9 (8)	16(12)	75.0
E	3 (2)	7 (4)	10(6)	60.0	2(1)	3 (2)	5(3)	60.0
C	1 (1)	6 (3)	7(4)	57.1	0(0)	1 (1)	1(1)	100.0
G	5 (3)	4 (2)	9(5)	55.6	4(2)	3 (2)	7(4)	57.1
K	2 (1)	2 (1)	4(2)	50.0	0(0)	0 (0)	0 (0)	00.0
Q	11 (5)	15 (7)	26(12)	46.2	3(3)	12 (6)	15(9)	60.0
H	7 (5)	7 (1)	14(6)	42.9	3(2)	5 (1)	8(3)	37.5
B	12 (7)	17 (5)	29(12)	41.4	9(5)	9 (2)	18(7)	38.9
N	16 (7)	24 (9)	40(16)	40.0	8(4)	15 (5)	23(9)	39.1
D	5 (2)	5 (2)	10(4)	40.0	5(2)	1 (0)	6(2)	33.3
O	4 (2)	4 (1)	8(3)	37.5	1(1)	3 (1)	4(2)	50.0
I	12 (3)	15 (7)	27(10)	37.0	2(1)	7 (5)	9(6)	66.7
P	3 (1)	0 (0)	3(1)	33.3	1(0)	0 (0)	1(0)	00.0
A	5 (0)	2 (2)	7(2)	28.7	1(0)	3 (0)	4(0)	00.0
M	4 (0)	3 (2)	7(2)	28.7	4(0)	1 (0)	5(0)	00.0
J	17 (5)	11 (2)	28(7)	25.0	3(0)	5 (1)	8(1)	12.5
State	124 55	148 67	272 122	44.9	56 29	83 57	139 66	47.5

a ( ) Numbers in parentheses indicate those persons who enrolled in further education

Summary of Table 21, page 97.

Total number of respondents	272	
Male respondents	124	(45.6 percent)
Female respondents	148	(54.4 percent)
Total number of enrollees in further schooling	122	(44.9 percent)
Male enrollees	55	(45.1 percent)
Female enrollees	67	(54.9 percent)
Persons initially employed in distributive occupations	139	
Male	56	(40.3 percent)
Female	83	(59.7 percent)
Enrollees for further schooling	66	
Male	29	(43.9 percent)
Female	83	(56.1 percent)

Post High School Enrollment - Major Courses of Study and Types of Schools

If the graduates enrolled in further education sometime after graduation and before December 31, they were asked to specify the type of school and their choice of a major course of study. A majority or 75 of the 122 enrollees

(61.5 percent) selected a 4-year institution. The specialized schools such as Business Colleges and Beauty Colleges (17), the Vocational-Technical Centers (16), and the Community Colleges (14) completed the other 47 or 38.5 percent who enrolled.

Further analysis indicated that 104 or 85.2 percent of the 122 enrollees selected institutions located in the State of Montana.

There were many major areas of study indicated and Table 22, page 100, presents the summary. The area of Business and/or Business Administration had at least 2½ times as many enrollees as any one other selected area. Four persons indicated that Distributive Education was their major area. Thirty-five or 29.7 percent of the 118 persons who indicated a major area of study specified an area that could be categorized as distributive or marketing related. In this 29.7 percent were included the majors of Business and/or Business Administration, Mid-Management, Fashion Buying, and Distributive Education.

Table 22

MAJOR COURSES OF STUDY SELECTED BY THE POST HIGH ENROLLED

Number of Times Selected	Major Courses of Study
25	Business and/or Business Administration
5	Mid-Management
4	Distributive Education
1	Fashion Buying
10	General Studies
6	Data Processing, Programing
6	Secretarial
6	English/Education
5	Elementary Education
5	Liberal Arts/Psychology
4	Nursing
4	Bookkeeping/Accounting
3	Cosmotology
2	Automotive
1	Business Education
1	Education
30	Other (20 areas such as art and history)

Employment While Enrolled for Further Schooling After Graduation From High School

Of the 122 persons enrolled in further education after graduation from high school, the number employed while attending school was 59 or 48.4 percent. Fifty-four or 91.5 percent of the 59 who were employed worked part-time (less than 40 hours per week). Five or 8.5 percent were employed full-time. Table 23, page 102, presents the numbers for each

program and the numbers and percentages for the state as a whole.

The enrollees were asked, "Was this employment (while attending school) related to your DE cooperative work experience in high school?" As may be noted in the table, 30 or 50.8 percent stated that this employment, whether full-time or part-time was related to their high school cooperative work experience. No definition was given for the word related and the graduates were allowed to interpret this statement in their own manner. Approximately one-half of the enrollees were of the opinion then, that in some way their high school work experience and their employment while attending further schooling had some relationship.

Table 23

EMPLOYMENT WHILE ENROLLED FOR FURTHER SCHOOLING AFTER GRADUATION FROM HIGH SCHOOL

	Programs																
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	State
Employed	1	8	2	2	2	9	4	5	3	1	1	6	1	5	0	1	8	59 (48.4)[a]
Not Employed	1	4	2	2	4	13	1	1	7	6	1	2	1	12	2	0	4	63 (51.6)
Employed Full-time	0	0	0	0	1	1	1	2	0	0	0	0	0	0	0	0	0	5 (08.5)
Employed Part-Time	1	8	2	2	1	8	3	3	3	1	1	6	1	5	0	1	8	54 (91.5)
**Yes	0	4	2	1	1	4	3	3	0	0	0	3	1	3	0	1	4	30 (50.8)
**No	1	4	0	1	1	5	1	2	3	1	1	3	0	2	0	0	4	29 (49.2)

[a]Percentage in the state in each category

**Response to the question, "Was this employment (while attending school) related to your DE cooperative work experience in high school?"

QUESTION: My DE On-The-Job Cooperative Work Experience in Was: (As Related to Your First Employment After Graduation)

The question asked the graduates was, "My DE on-the-job cooperative work experience in high school was: (As related to your first employment after graduation)." The choices given were: Highly beneficial in my first job after graduation; Somewhat beneficial in my first job after

graduation; Not beneficial in my first job after graduation; I cannot say because I have not been employed since graduation; and Other (specify).

One-hundred-ninety-seven students who had been employed responded to this question. These employed graduates were asked to express their opinion about how the cooperative work experience benefited them on their first employment after graduation. Table 24, page 105, presents the data.

In the state as a whole, 84 or 42.7 percent of the 197 respondents selected the Highly Beneficial choice. Sixty-seven or 34.0 percent selected the Somewhat Beneficial choice and 44 or 22.3 percent selected the Not Beneficial choice.

Of the 121 respondents to this question whose first jobs were in distributive occupations, 67 or 55.4 percent indicated that their cooperative work experience was highly beneficial in their first employment. Forty or 33.1 percent stated that their work experience was somewhat benefical and only 14 or 11.5 percent said that it was not beneficial.

Of the 76 respondents to this question whose first employment was in non-distributive occupations, 17 or 22.4 percent believed that their high school cooperative work experience was highly beneficial in their first employment.

Twenty-seven or 35.5 percent indicated that their training was somewhat beneficial and 30 or 39.5 percent felt that it was not beneficial. The category of other brought the response of indirect connection, and in future jobs.

Responses of highly beneficial in the non-distributive occupations group included persons who in the high school cooperative work experience were nurses aides, secretaries, and cooks. These persons then continued in this type of work in their first employment.

In the distributive occupations area, responses of not beneficial included graduates who were continuing in the same type of work as in their cooperative experience.

Table 24 gives the data for each program and for the state as a whole. This is done so that a program-by-program comparison may be made.

Table 24

EMPLOYED STUDENTS OPINIONS ABOUT THE RELATIONSHIP OF THEIR COOPERATIVE WORK EXPERIENCE TO-THEIR INITIAL EMPLOYMENT AFTER GRADUATION

Opinions[a]	N=121	Programs																
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	State
Highly Beneficial	2	9	1	3	4	8	2	2	3	2	0	2	1	13	2	0	10	67 (55.4)*
Somewhat Beneficial	0	3	0	2	1	5	3	3	2	3	0	5	2	6	0	1	3	40 (33.1)
Not Beneficial	1	2	0	0	0	2	1	1	1	1	0	1	0	2	0	0	2	14 (11.5)

[a]Opinions of the graduates initially employed in distributive occupations.
*Percentage

Opinions[b]	N=76	Programs																
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	State
Highly Beneficial	1	4	0	0	1	2	0	0	4	1	0	0	1	2	1	0	0	17 (22.4)
Somewhat Beneficial	0	3	0	0	0	4	0	3	5	3	1	0	0	5	0	1	2	27 (35.5)
Not Beneficial	1	2	2	1	0	2	1	2	6	6	0	0	0	3	0	1	3	30 (39.5)
Other				1	1													

[b]Opinions of the graduates initially employed in non-distributive occupations.

Table 24 - continued

EMPLOYED STUDENTS OPINIONS ABOUT THE RELATIONSHIP OF THEIR COOPERATIVE WORK EXPERIENCE TO THEIR INITIAL EMPLOYMENT AFTER GRADUATION

Opinions[c] N=197	State as a Whole
Highly beneficial	84 (42.7)
Somewhat beneficial	67 (34.0)
Not beneficial	44 (22.3)
Other	2 (01.0)

[c]Opinions of the 197 initially employed persons who responded to this question.

Would You Recommend Distributive Education to Other High School Students?

Ninety-eight percent of the graduates indicated that they would recommend distributive education to other high school students. Many reasons were given and a summary of the most frequent responses are indicated below: (not in rank order)

- A valuable experience if you are going into the business world
- Learn how to get along with people
- Helps a person to learn how to sell himself
- Have a chance to get a better job after graduation

- Learn job responsibilities
- Learn about retailing, merchandising, and business
- Earn money while in school
- Develop the proper attitude about employers, employees, -- people
- Good experience for whatever a person will do
- Indicators such as useful, beneficial, interesting, learn and grow, meet people, work with others, life saver, and help in the future were used quite frequently.

The few persons who did say 'no', most frequently criticized the teacher for not knowing the subject matter or for not caring.

When comments were made about the classroom activities, few were positive. The cooperative work experience was reflected in most of the comments.

Section Two

The purpose of this section was to determine the influence or explanatory power of selected teacher-coordinator, program, and student variables. The primary emphasis in this section was to determine the influence of these independent variables on the dependent variable of initial placement of the graduates in distributive related occupations.

Section One contains the data related to the variables and to additional follow-up information. Slight differences occur between the mean values tabulated in Sections One and Two. These variances occur because Programs O and P were not included in the regression runs while the student responses from these programs were included in the first section. The coordinators from these two programs did not respond to the survey forms. Consequently, the program and coordinator variables were not available. Secondly, the means in the regression runs were weighted by the reciprocal of the sample size. This, according to Snedecor and Cochran (1967:246-247), allows variable analyses weighted by the proportion of the graduates who become employed in distributive occupations.

In the analyses of the data, both the negative and positive coefficients were utilized. The two-tailed test of significance at the .05 level of significance was used.

The major hypothesis was:

No relationship exists between the dependent variable (initial placement status of the graduates in distributive related occupations) and the independent variables of:

Student Variables
1. Sex
2. Class rank
3. Grade Point average
4. Number of years enrolled in distributive education

	5.	Number of years employed in cooperative work experience
	6.	Was the cooperative work experience in a distributive related occupation
Coordinator Variables	7.	Employed with an extended contract
	8.	Number of months of the coordinator's contract
	9.	Number of years of teaching experience
	10.	Number of years of distributive education teaching experience
	11.	Number of years of business work experience (all areas)
	12.	Number of months since the last business work experience
	13.	Number of months of marketing and distributive business work experience
	(14-17)	Teacher-coordinators' professional and technical preparation (courses or credits)
	14.	Organization of Distributive Education
	15.	Coordination Techniques in Cooperative Education
	16.	15 or more credit hours of Vocational Education (including X_{14} and X_{15})
	17.	20 or more credit hours of Technical courses
	18.	Class load
	19.	Number of periods the students were on cooperative work experience and the coordinators did not have coordination time
	(20-22)	Type of distributive education program
Program Variables	20.	Senior-one year cooperative program
	21.	Jr. preparatory - senior cooperative program
	22.	Jr. preparatory/cooperative - senior project/cooperative
	23.	Number of years distributive education had been the school system
	24.	Existence or non-existence of an advisory committee.

	25.	Population of the community
	26.	Did the coordinator have the final selection priviledge of his students
	(27-35)	Requirements for the student to become enrolled in the cooperative distribution education phase of the program
Enrollment Variables	27.	Express a career interest in distribution or marketing
	28.	Be willing to study the related course
	29.	Have the aptitude to study the related course
	30.	Be employable
	31.	Be employed before enrolling in the program
	32.	Be a senior
	33.	Have an accumlative grade point average of 'C' or better
	34.	Have completed DE I or a preparatory class(es)
	35.	Other (Good attendance record, interview)
Program Variables	36.	Did the program have 100 percent enrollment in DECA
	37.	Was a placement service available for the graduates (part of the distributive education or school program)
	38.	Number of students in the graduating class

The 38 independent variables (X_1 through X_{38}) were selected to determine what influence was being exerted on the dependent variable.

To accomplish the type of analysis necessary for this study, the multiple regression analytical approach was used. Partial correlations were used to determine the explanatory power of the student variables, student and coordinator variables, student and program variables, and student and

enrollment variables. Various combinations of selected independent variables were then used in additional partial regression runs.

The total population in this investigation for the hypothesis was N=221. This 221 figure represents the number of graduates that were available for employment.

Analyses of The Hypothesis

I. Initial placement in distributive occupations versus the student variables.

Six independent student variables were included in this regression run. These were the variables of the students who were available for employment.

X_1 Stated as a dummy variable Male 1, Female 0

X_2 The class rank of the students was computed as a percentage figure (the class rank of the student was divided by the number of students in his graduating class).

X_3 The grade point average for the students

X_4 The number of years the students were employed in cooperative work experience

X_5 The number of years the students were employed in cooperative work experience.

X_6 This dummy variable was stated as 1 if the student's cooperative work experience was in a distributive related occupation and as 0 if the cooperative experience was in a non-distributive area.

Table 25, page 113, presents the mean, standard deviation, regression coefficient, standard error of the regression coefficient, the computed T value, and the computed F value for this first partial regression run.

The analysis of variance of the regression produced the following results: The Null Hypothesis was stated that every regression coefficient was not significantly different from zero. For the F value to be significant, $F \geq 2.14$ was needed for 6, 214 degrees of freedom at the .05 level of significance. The F value exceeded this value, so the Null Hypothesis was rejected. At least one of the variables was significantly different from zero.

Table 25

REGRESSION PROBLEM I

INITIAL EMPLOYMENT IN DISTRIBUTIVE OCCUPATIONS VERSUS THE STUDENT VARIABLES

Variable	Mean	Standard Deviation	Regression Coefficient	Standard Error of Regress. Coeffic.	Computed T Value
X_1	.4480	.4984	-.1439	.0607	-2.371*
X_2	.5382	.2829	.0017	.1078	.016
X_3	2.011	.7516	.0242	.0414	.585
X_4	1.290	.4546	-.0573	.0764	-.751
X_5	1.095	.2939	.1121	.1139	.984
X_6	.8326	.3742	.6596	.0797	8.282**
Y	.6063	.4897	(Dependent)		

R^2= .2592

Analysis of Variance for the Regression F Value = 12.4765**

* Significant at .05 level of significance ($T \geq 1.960$)
**Significant at .01 level of significance ($T \geq 2.576$)

The T value took into account the other variables in the regression analysis. To determine the significance of the regression coefficient for each variable, the following Null Hypothesis was stated: The regression coefficient is not significantly different from zero. To be significant, the value of $T \geq 1.960$ at the .05 level of significance had to be obtained.

Variable X_1 with a T value of -2.371 and variable X_6 with a T value of 8.282 were both significant. For X_1 and X_6, the Null Hypothesis was rejected. It could be stated that the coefficients for these two variables were significantly different from zero.

The statistically significant negative coefficent for X_1 implied that the females had an advantage in becoming employed in distributive related occupations. The fact that the females were more willing to become employed part-time initially may have contributed to this influence on Y. Only 57 percent of the females in distributive occupations became employed full-time initially compared to over 73 percent of the males. Distributive occupations also have seemingly lent themselves to good opportunities for females.

X_6 is the variable that indicated whether or not the students' cooperative training was in distributive related

occupations. Approximately 16 percent of the students indicated that their cooperative experience was outside of the distributive area. The remaining 84 percent of the students apparently were employed in distributive cooperative work experience. This figure should be high if the intent of the vocational program is being adhered to. The significance of X_6 is particularly appropriate since the initial employment, 72 percent of these graduates remained in the distributive area for which they received their cooperative work experience.

X_3 had a mean of 2.011. The 2.011 figure was based on the standard of 4.00 equals A, 3.00 equals B, etc. The coefficient was quite low and this variable was not statistically significant.

The low negative coefficient for X_4 would mean to indicate that being enrolled in distributive education for more than one year did not influence Y statistically. Did this then mean that one year of distributive was sufficient? Not necessarily so, but the coefficient for X_5 was slightly higher than for X_4. Observing these two variables, it would appear that being employed cooperatively for more than one year was somewhat more influential than one year of enrollment with one year or less of cooperative work experience.

These observations were made although the lack of statistical significance of either variable indicated that they were poor estimators of Y.

The R^2 for this correlation was .2592. This figure indicated that approximately 25 percent of the explanatory power or influence on Y could be attributed to the six variables included in this problem. The bulk of this influence was produced by X_1 and X_6.

II. Initial placement in distributive occupations versus the variables and coordinator variables.

Variables X_1 through X_6 were the student variables discussed in Problem I and they remain the same throughout these analyses.

Thirteen additional variables, X_7 through X_{19}, were added to this analysis to determine their interaction and explanatory power. These coordinator variables were the following:

X_7 This variable indicated whether or not the coordinators were employed with extended contracts (over nine months). A dummy variable was used (1 = employed with an extended contract, 0 = not employed with an extended contract).

X_8 The figure indicates the number of months of the teacher-coordinators' teaching contract. In all cases, either 9 or 10 months were indicated.

X_9 The total number of years of teaching experience was represented in X_9. The included distributive

education and non-distributive education experience.

X_{10} A separate figure here indicated the number of years of distributive education teaching experience. In this manner, the influence of the distributive education teaching experience was isolated to determine its direct explanatory power.

X_{11} The total number of years of business work experience was included to determine the influence of work experience related to distribution and marketing and work experience outside the area.

X_{12} The total number of months since the coordinators' last business work experience was indicated. The influence of the recency of employment was sought.

X_{13} The total number of months of only distribution and marketing work experience was stated in X_{13}. One of the requirements for state vocational certification is reflected in this variable.

X_{14} The dummy variable, 1= had preparation in the Administration of Distributive Education, 0= no preparation, was used. Preparation was determined by college credits in this area.

X_{15} The dummy variable, 1= has preparation in Coordination Techniques in Cooperative Education, 0= no preparation , was used. College credits were were used as the indicators.

X_{16} If the coordinator had 15 quarter hours or more of college credit in vocational education, the variable 1 was the indicator. Fourteen quarter hours or less was indicated by 0. These quarter hours of credits included the X_{14} and X_{15} credits if such were present.

X_{17} If the coordinator had 20 quarter hours or more of college credit in technical preparation (in distribution and marketing) the variable 1 was used. 0 indicated 19 quarter hours or less of preparation.

X_{18} The class load was stated as a percentage figure. Distributive education courses and coordination time were divided by the total class load to determine the percentage of the teaching load available for distributive education.

X_{19} Coordinators could not coordinate their cooperative students' work experience if they had in-school duties while the students were employed. This variable indicated the number of class periods in the day in which the coordinators did not have coordination time while the students were employed.

Table 26, page 119, presents the data for this regression run. The analysis of variance determined the F value of 5.21508 for all of the variables. The Null Hypothesis was that every regression coefficient was not significantly different from zero. To be significant, $F \geq 1.63$ was needed for 19, 201 degrees of freedom. The F value was significant and the Null Hypothesis was rejected. At least one of the variables was significantly different from zero.

The T value for each variable was tested for significance. The Null Hypothesis was that the regression coefficent was not significantly different from zero.

The T values needed were 1.960 at .05 and 2.576 at the .01 level of significance. The analysis revealed that the same two variables as in Problem I were statistically significant. The Null Hypothesis for these two variables was rejected.

Table 26

REGRESSION PROBLEM II

INITIAL EMPLOYMENT IN DISTRIBUTIVE OCCUPATIONS VERSUS STUDENT AND COORDINATOR VARIABLES

Variable	Mean	Standard Deviation	Regression Coefficient	Standard Error of Regress. Coeffic.	Computed T Value
X_1	.4480	.4984	-.1541	.0605	-2.544*
X_2	.5382	.2829	.2997	.3506	.855
X_3	2.011	.7516	.1419	.1537	.923
X_4	1.290	.4546	-.0133	.1164	-.114
X_5	1.095	.2939	.0896	.1152	.770
X_6	.8326	.3742	.6322	.0800	7.908**
X_7	.4208	.4948	-.3054	.3213	.951
X_8	9.394	.4397	.2549	.5382	.474
X_9	6.950	8.981	-.1381	.2635	-.524
X_{10}	4.715	6.507	.1887	.2584	.730
X_{11}	3.952	3.856	.0714	.0714	.999
X_{12}	35.76	35.18	-.0002	.0114	-.017
X_{13}	43.43	42.41	-.0078	.0122	-.643
X_{14}	.991	.0949	1.360	.6463	1.808
X_{15}	.8235	.3821	-.6397	.6224	-1.028
X_{16}	.7873	.4101	-.1317	.7203	-.183
X_{17}	.8959	.3060	-.2015	1.921	-.105
X_{18}	.8780	.2217	-1.699	1.904	-.893

Table 26 - Continued

REGRESSION PROBLEM II - INITIAL EMPLOYMENT IN DISTRIBUTIVE OCCUPATIONS VERSUS STUDENT AND COORDINATOR VARIABLES

Variable	Mean	Standard Deviation	Regression Coefficient	Standard Error of Regress. Coeffic.	Computed T Value
X_{19}	.5656	.9916	.0300	.1114	-.180
R^2= .3302		F Value = 5.215**			

* Significant at .05 level of significance
**Significant at .01 level of significance

The explanatory power of X_1 and X_6 remained at relatively the same level with the addition of the coordinator variables as they were alone. For the coordinator variables, only X_{14} was close to being significant. The coordinator variable X_{14} was the indication of the coordinators who had preparation in Administration of Distributive Education. Fourteen of the 15 coordinators were prepared in this area. Even though most of the coordinators were qualified with X_{14}, the lack of statistical significance implies that this variable was not a good estimator of Y--at least not in this combination of variables. If statistical significance had been obtained, the 1.360 regression coefficient would have

indicated a very strong estimator.

Variable X_{13}, which was required by the state (24 months of business work experience in distribution and marketing) carried a coefficient near zero. There was almost no influence being exerted by this variable. The variances in X_{11} and X_{12} which also dealth with the business work experience were also quite high. The regression coefficients for all three of these variables reflected this high variance and this lack of explanatory power.

Although only one coordinator variable was close to being statistically significant toward Y, the R^2 for the combined explanatory of the 19 variables was .3302. Approximately 33 percent of the influcence on Y could be attributed to X_1 through X_{19}. Adding the 13 coordinator variables to the six student variables increased the explanatory power by only .0710. The coordinator variables added little to the influential power of the X's on Y.

III. Initial placement in distributive occupations versus the student and program variables.

Variables X_{20} through X_{26} and X_{36} through X_{38} were added to the student variables in this regression analysis.

X_{20} Senior-one year cooperative program. Yes = 1, N = 0.

X_{21} Jr. preparatory - Senior cooperative program. Yes 1, No 0.

X_{22} Jr. preparatory/cooperative - Senior project/ cooperative program. Yes 1, No 0.

X_{23} This variable represents the number of years that distributive education had been in the school system through 1970.

X_{24} This data on the advisory committees reflected an existence (1) or non-existence (0) of the committees in the programs.

X_{25} The population of the community was indicated in thousands. This variable weighted the employment opportunities and training opportunities from the standpoint of the communities size. The assumption was made that a larger sized community presented more possibilities for the students and graduates than the smaller cities.

X_{26} Did the teacher-coordinators have the final approval priviledge for accepting or rejecting all the applicants to their programs? Yes 1, No 0.

X_{36} The yes or no dummy variable was to indicate whether or not all of the students were members of the DECA club program.

X_{37} The yes or no dummy variable was to indicate whether or not a placement service was available for the graduates. This placement service was part of the school program.

X_{38} The number of students in the graduating class was indicated by this variable. The figure also served as an indicator of the size of the school.

Table 27, page 123, presents the data for this regression run.

Table 27

REGRESSION PROBLEM III

INITIAL EMPLOYMENT IN DISTRIBUTIVE OCCUPATIONS VERSUS STUDENT AND PROGRAM VARIABLES

Variable	Mean	Standard Deviation	Regression Coefficient	Standard Error of Regress. Coeffic.	Computed T Value
X_1	.4480	.4984	-.1587	.0603	-2.630*
X_2	.5382	.2828	.2129	.1483	1.436
X_3	2.011	.7516	.0844	.0595	1.420
X_4	1.290	.4546	-.0988	.0937	-1.053
X_5	1.095	.2939	.1101	.1138	.968
X_6	.8326	.3742	.6240	.0801	7.787**
X_{20}	.3167	.4663	.1537	.1782	.863
X_{21}	.4932	.5011	.2542	.1622	1.568
X_{23}	12.41	8.775	-.0027	.0094	-.2898
X_{24}	.3710	.4842	-.1239	.2425	-.5109
X_{25}	52.67	29.70	.0053	.0095	.5534
X_{26}	.6063	.4897	.0438	.1501	.2920
X_{36}	.4525	.4989	.2642	.1962	1.346
X_{37}	.1448	.3527	.1417	.1752	.8088
X_{38}	403.6	153.2	-.0013	.0018	-.7311

R^2=.3167 Analysis of Variance for Regression F Value 6.335*
*Significant at .05 level of significance ** Significant at .01 level of significance

In the analysis of variance for the regression, an F value of 1.69 with 15, 205 degrees of freedom was needed at the .05 level of significance. F was significant and the Null Hypothesis was rejected.

The T test of significance for each variable indicated that X_1 and X_6 contained the only coefficients that were significantly different from zero. For the program variables, only X_{21} and X_{36} were close to being significant.

The coefficients for X_1 and X_6 changed little with the removal of the coordinator variables and the addition of the program variables. Based on this regression analysis, the program variables could not be considered to be statistically significant estimators of Y.

The R^2 for the combined influence of the 15 variables was .3167. R^2 for the student variables alone was .2592, so .0575 was the change exerted by adding the program variables. The program variables exerted only slightly less additional influence than did the coordinator variables.

IV. Initial placement in distributive occupations versus the student and enrollment variables.

Variables X_{27} through X_{35} were added to X_1 through X_6 in this analysis. The enrollment variables were those requirements that the coordinators expressed the students

needed to become enrolled in the cooperative program. There was no limitation as to the number of requirements that could be checked by each coordinator. The regression analysis data are presented in Table 28, page 126.

X_{27} Express a career interest in distribution or marketing

X_{28} Be willing to study the related course content

X_{29} Have the aptitude to study the related course content

X_{30} Be employable (adequate health, ability to be trained)

X_{31} Be employed before enrolling in the program

X_{32} Be a senior

X_{33} Have an accumulative grade point average of 'C' or better

X_{34} Have completed Distributive Education I or special preparatory course(s).

X_{35} Good attendance record/be interviewed by the coordinator

The analysis of variance for the regression produced an F value of 6.43. For 15, 205 degrees of freedom an F value of 1.69 was needed at the .05 level of significance. The Null Hypothesis that every regression coefficient was not significantly different from zero was rejected.

The T value for the student variables indicated that X_1 and X_6 coefficients were significant at the .05 level.

Table 28

REGRESSION PROBLEM IV

INITIAL EMPLOYMENT IN DISTRIBUTIVE OCCUPATIONS VERSUS STUDENT AND ENROLLMENT VARIABLES

Variable	Mean	Standard Deviation	Regression Coefficient	Standard Error of Regress Coeffic.	Computed T Value
X_1	.4480	.4984	-.1445	.0599	-2.412*
X_2	.5382	.2829	-.0988	.1471	- .6721
X_3	2.011	.7516	-.0413	.0642	- .6429
X_4	1.290	.4546	-.0614	.0823	- .7468
X_5	1.095	.2939	.1030	.1137	.9058
X_6	.8326	.3742	.6180	.0792	7.807**
X_{27}	.5882	.4933	-.2365	.2025	-1.168
X_{28}	.4208	.4948	.0940	.0878	1.071
X_{29}	.1086	.3118	-.3369	.2081	-1.618
X_{30}	.7466	.4359	.3839	.1992	1.927
X_{31}	.0000				
X_{32}	.8597	.3481	-.3530	.1421	-2.485*
X_{33}	.0000				
X_{34}	.3439	.4761	-.1223	.0841	-1.454
X_{35}	.1900	.3932	-.3895	.2428	-1.605

R^2= .3197 Analysis of Variance for the Regression F Value = 6.423*

* Significant at .05 level of significance
**Significant at .01 level of significance

The Null Hypothesis for these two variables was rejected.

The T value for X_{32} exceeded the $T \geq 1.960$ needed at the .05 level, and the Null Hypothesis for this variable was rejected. This variable's coefficient was significantly different from zero. The -.3530 regression coefficient indicated some degree of inverse influence. Programs that did not have the 'Be a Senior' requirement had more success with the placement of their graduates in distributive occupations. Although, a majority of the schools required their cooperative students to be seniors, only three of the six programs with the highest initial placement percentage in distributive occupations had this enrollment requirement. The programs with the highest placement percentage and the program with the lowest placement percentage did not require the cooperative students to be seniors.

X_{30} was close to being significant. Not all of the coordinators indicated this requirement, but the coefficient was positive and relatively strong. Although only one of the enrollment variables was statistically significant, five of the nine requirements carried negative coefficients. X_{23} and X_{30} were the only two variables that seemed to be

approaching a positive significant influence on Y.

The X_1 and X_6 regression coefficient remained relatively stable and were not affected by the addition of the enrollment variables.

R^2 was .3197 for this regression run. The influence of the enrollment variables increased the student variables influence by .0605 percent. The program, coordinator, and enrollment variables exerted approximately the same amount of influence on Y when combined with the student variables.

Selected Regression Analyses

In an attempt to determine the explanatory power of selected variables, additional partial regressions were run. The selection of these variables was based on their statistical significance in the previous runs and/or their presumed degree of relationship to Y.

In the first regression run in this series, the independent variables of X_1, X_2, X_3, X_6, X_{14} and X_{32} were selected. X_1, X_6, and X_{32} were statistically significant in the previous runs. X_{14} was very close to being significant. X_2 and X_3 were added to determine the influence of the grade point average and the class rank.

Table 29, page 130, shows the results of this regression run.

Table 29

REGRESSION PROBLEM V

INITIAL EMPLOYMENT IN DISTRIBUTIVE OCCUPATIONS VERSUS SELECTED COMBINATION OF VARIABLES

Variable	Mean	Standard Deviation	Regression Coefficient	Standard Error of Regres. Coeffic.	Computed T Value
X_1	.4480	.4984	-.1326	.0592	-2.238*
X_2	.5382	.2829	-.0317	.1066	- .2975
X_3	2.011	.7516	.0143	.0398	.3581
X_6	.8326	.3742	.6431	.0771	8.338**
X_{14}	.9910	.0949	.5852	.3083	1.898
X_{32}	.8597	.3481	-.2248	.0846	-2.657*

R^2 = .2848

Analysis of Variance for the Regression F Value = 14.202**

*Significant at .05 level of significance
**Significant at .01 level of significance

The F value in the analysis of variance was significant for 6, 214 degrees of freedom was significant and the Null Hypothesis was rejected.

The T test for each regression coefficient produced significant values for X_1, X_6, and X_{32}. These were the only variables that had statistically significant coefficients in

the previous regression runs.

The coefficients for X_1 and X_6 have remained at about the same level of influence as estimators. X_2 and X_3 have not emerged as good estimators of Y. X_{14} was again close to being statistically significant although the coefficient was lower than it was in its previous run. The coefficient of X_{32} dropped from -.3530 to -.2248 but kept its inverse explanatory power on Y.

The R^2 for this set of variables was .2848. Only 28 percent of the influence of Y could be attributed to the six variables in this analysis. It appeared that only three of the 38 variables were exerting statistically significant influence on Y.

Additional regression runs were needed to determine if there were other influential variables or if the degree of influence would change when the variables were carrying the effects of various other variables.

VI. Initial placement in distributive occupations versus variables X_{13} through X_{17}.

Variables X_{13} through X_{17} represented the distributive work experience and the professional and technical preparation of the coordinators (see page 117 for a detailed explanation of each variable).

In the initial regression problem that included these variables, (see Table 26, page 119), only variable X_{14} was close to meeting the T test for statistical significance. Combined, these variables represented qualifications or the professional preparation of the coordinators.

The analysis of variance for the regression produced a significant F value at 5, 215 degrees of freedom. The Null Hypothesis that no regression coefficient was significantly different from zero was rejected since $F \geq 2.26$ was needed at the .05 level. Table 30, page 133, provides the regression analysis.

The regression coefficient for variable X_{17} (20 or more hours of credit in technical courses) was statistically significant at the .05 level. Without the influence of the other 14 coordinator and student variables, the preparation in marketing and distribution variable influenced Y most significantly of the five variables in this regression run. The regression coefficient indicated that at least a portion of the influence on Y could be attributed to X_{17} when only these five variables were considered.

$R^2 = .05386$ indicated a low total influence on Y by these five variables. With 95 percent of the influence on Y being attributed to other variables, the variables in this

regression run could not by themselves be considered sufficient estimators of Y.

Table 30

REGRESSION PROBLEM VI

INITIAL EMPLOYMENT IN DISTRIBUTIVE OCCUPATIONS VERSUS SELECTED COMBINATION OF VARIABLES

Variable	Mean	Standard Deviation	Regression Coefficient	Standard Error of Regres. Coeffic.	Computed T Value
X_{13}	43.43	42.41	.0020	.0016	1.275
X_{14}	.9910	.0949	.6681	.3517	1.900
X_{15}	.8235	.3821	-.1645	.3777	-1.4355
X_{16}	.7873	.4101	.1418	.3507	.4045
X_{17}	.8959	.3060	.2178	.1090	1.970*

R^2=.05386

Analysis of Variance for the Regression F=2.4476*

*Significant at .05 level of significance

VII. Initial placement in distributive occupations versus variables X_{13}, X_{14}, X_{15}.

In this regression problem, variables X_{13}, X_{14}, and X_{15} were studied without the influence of other variables.

Table 31, page 134, shows the results of this regression run. The analysis of variance for the regression for 3,

217 degrees of freedom was considered significant at the .05 level.

The T tests on the regression coefficients produced a statistically significant value for X_{13} (business work experience in marketing and distribution). X_{13} may be considered to be the best estimator of Y when influenced only by X_{14} and X_{15}. X_{13} gained this degree of explanatory power as a result of X_{16} and X_{17} being removed as estimators of Y in the same regression.

Table 31

REGRESSION PROBLEM VII

INITIAL EMPLOYMENT IN DISTRIBUTIVE OCCUPATIONS VERSUS SELECTED COMBINATION OF VARIABLES

Variable	Mean	Standard Deviation	Regression Coefficient	Standard Error of Regress. Coeffic.	Computed T Value
X_{13}	43.43	42.41	.0017	.000079	2.137*
X_{14}	.9910	.0949	.6606	.3521	1.876
X_{15}	.8235	.3821	-.0492	.0891	-.5524

R^2 = .03483

Analysis of Variance for the Regression F = 2.650*

*Significant at .05 level of significance.

R^2=.0348 represented a loss of approximately 2 percent of the attributable influence of these variables when X_{16} and X_{17} were removed.

VIII. Initial placement in distributive occupations versus variables X_1, X_6, X_{32}.

Variables X_1, X_6, and X_{32} represent two students and one enrollment variable. These variables were significant in the combined student and enrollment variables regression run (see Table 28, page 126).

Table 32, page 136, shows the results of this regression problem. The F value in the analysis of variance for the regression was significant for 3, 217 degrees of freedom. The T tests indicated that each of the three regression coefficients was statistically significant.

Table 32

REGRESSION PROBLEM VIII

INITIAL EMPLOYMENT IN DISTRIBUTIVE OCCUPATIONS VERSUS SELECTED COMBINATION OF VARIABLES

Variable	Mean	Standard Deviation	Regression Coefficient	Standard Error of Regress. Coeffic.	Computed T Value
X_1	.4480	.4984	-.1435	.0573	-2.504*
X_6	.8326	.3742	.6510	.0763	8.535**
X_{32}	.8597	.3481	-.1858	.0815	-2.280*

R^2 = .2719
Analysis of Variance for the Regression F=27.0058**

* Significant at .05 level of significance
**Significant at .01 level of significance

X_1 (male-female) and X_6 (distributive related cooperative work experience) maintained approximately their same regression coefficients values as were obtained in previous runs. X_6 maintained the stronger explanatory power. X_{32} continued with its negative coefficient suggesting an inverse influence on Y if the enrollment requirement-Be a senior-was part of the program.

R^2=.2719 indicated that approximately 4 percent of

the 31 percent explanatory power that was obtained in the combined regression (Regression Problem IV, page 124) could be attributed to these three variables.

Summary - Chapter IV

Chapter IV contained two sections. Section One included the information related to the independent and dependent variables and additional follow-up data. Section Two provided the analyses of the tests of the relationship of the independent student, coordinator, and program variables to the initial placement of the graduates in distributive related occupations.

Multiple regression was the statistical tool used to determine the explanatory power or influence of the independent variables. Eight regressions were conducted to determine the influence of the variables. The analyses determined that five of the 38 independent variables were statistically significant estimators of the dependent variable. Less than 40 percent of the influence on the dependent variable could be attributed to the 38 independent variables used in this study. These five variables included one enrollment, two student, and two coordinator variables.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The primary problem of this study was to determine the relationship or influence of selected teacher-coordinator, program, and student variables to the initial placement of the graduates in distributive related occupations. The other significant part of the study was to compile follow-up data related to the cooperative distributive education graduates, teacher-coordinators, and programs.

The population studied was the 387, cooperative distributive education graduates of secondary distributive education programs in the State of Montana in 1970. Also participating in the study were the 17 teacher-coordinators of these secondary students.

The populations were surveyed approximately six months after the end of the 1969-70 school term. Fifteen or 88.2 percent of the teacher-coordinators and 274 or 70.8 percent of the graduates responded with useable returns.

The data were complied in narrative and table form. The analyses of the relationship of the independent coordinator, program, and student variables to the dependent variable

(initial employment of the graduates in distributive related occupations) were determined by the use of multiple regression. Partial correlations were run using the 38 independent variables to determine the explanatory power (statistical influence of the independent variables on the dependent variable) of these variables.

The findings of this study relate to the teacher-coordinator, program, and student variables of Montana's distributive education programs.

I. Teacher-Coordinator Variables

1. Six or 40 percent of the teacher-coordinators were employed under an extended 10 month contract.

2. The teacher-coordinators in the state were limited in teaching experience. Slightly over 50 percent of the teacher-coordinators had four years or less of teaching experience by the end of the 1969-70 school year. Three of the 15 teacher-coordinators were first-year teachers.

3. Twelve or 80 percent of the teacher-coordinators had taught distributive education for four years or less and this was 18 percent higher than a national sampling compiled by the United States Office of Education in 1969. Four of these teacher-coordinators completed their first year of teaching distributive education.

4. Twelve or 80 percent of the teacher-coordinators had 24 months or more of full-time equivalent business work experience in marketing or distribution occupations.

5. Business work experience of one month or more was specified most frequently by the teacher-coordinators in the Apparel and Accessories, Food Distribution, and General Merchandise occupational areas.

6. No teacher-coordinators indicated business work experience in the marketing and distribution occupational areas of Floristry, Industrial Marketing, Recreation and Tourism, and Wholesale.

7. The mean number of months since the last business work experience of three weeks or more was 29.6 months. Thirteen or 86.7 percent of the teacher-coordinators had business work experience within a research suggested 36 to 60 months parameter.

8. Nearly one-half of the teacher-coordinators had class schedules that allowed 100 percent of their teaching load for distributive education. The remaining 50 percent of the teacher-coordinators taught primarily business education subjects in addition to their distributive education duties.

9. Ninety-four percent of the 17 teacher-coordinators had professional preparation in the Administration of

Cooperative Education and had at least 20 quarter credit hours or more of technical preparation in marketing distribution courses.

10. Fourteen of the 17 teacher-coordinators had preparation in Coordination Techniques in Coorperative Education.

11. Thirteen of the 17 teacher-coordinators had 15 quarter credit hours or more of vocational education.

II. Program Variables

12. Almost one-half (46.7 percent) of the distributive educations programs in the state were classified as Junior Preparatory - Senior Cooperative Programs.

13. Although the mean number of years that each of the programs had been in existence was 10.3 years, eight or 53.3 percent of the programs had been in operation six years or less.

14. Only 57.2 percent of the programs in the state had an advisory committee. Of the programs that did have an advisory committee, only 50 percent met more than once during the year.

15. Schools with enrollments of 1001 or more students in grades 9 through 12 contained 60 percent of the distributive education programs. Twenty-seven percent of the

distributive education programs were in schools with enrollments of 201 to 700 students in grades 9 through 12. Eight of the programs were in three of Montana's largest cities, namely, Billings, Great Falls, and Missoula.

16. Sixty percent of the teacher-coordinators had the final approval privilege for accepting or rejecting all applicants for their cooperative distributive education programs.

17. Four requirements to become enrolled in the cooperative programs were expressed most frequently: (1) Be a senior, (2) Express a career interest in marketing or distribution, (3) Be employable (adequate health, ability to be trained . . .), and (4) Be willing to study the related course content.

18. Fifty-three percent of the programs had 100 percent membership in DECA.

19. Only two of the 15 teacher-coordinators indicated that a placement service for their graduates was part of their distributive education programs, and the service that was provided was limited.

III. Student Variables

20. More females graduated from the cooperative distributive education programs in the state than males as

52.7 percent of the total population for this study were females. Fifty-five percent of the respondents were females.

21. The class rank of each student was divided by the number of students in his class. The mean state percentage class rank was .549 or slightly below the 50 percent class rank figure for all of the classes.

22. The graduates' mean grade point average was 2.009 or 'C'.

23. Eight-four percent of the respondents were available for employment after graduation.

24. The dependent variable used in the multiple regression analyses of this study was the percentage of the graduates who became initially employed in distributive or distributive related occupations. The data revealed that 60.4 percent of the graduates who were available for employment became initially employed in distributive or distributive related occupations.

25. In the six-month period from June through December, 1970, only 3.9 percent of the graduates were unemployed.

26. Eighty-eight percent of those persons initially employed in all occupations remained in the same city as the one in which they were trained.

27. Ninety-two percent of those persons initially

employed in distributive occupations remained in the same city as the one in which they were trained.

28. Fifty-six percent of those persons initially employed in all occupations remained in the same business as the one in which they received their cooperative work experience.

29. Nearly 68 percent of those persons initially employed in distributive occupations remained in the same business as the one in which they received their cooperative work experience.

30. Seventy-seven percent of those persons initially employed in distributive occupations became employed (either full-time or part-time) within one week after their graduation from high school. Nearly 85 percent of these persons remained in the same business as the one in which they received their cooperative work experience.

31. Forty-five percent of those persons initially employed in distributive occupations terminated their employment by December 31, 1970 or within the six-month period after their graduation.

32. Sixty-four percent of those persons initially employed in distributive occupations were initially employed full-time. Seventy-three percent of the males and only 57.8

percent of the females in this group became employed full-time.

33. Of those persons initially employed part-time in distributive occupations, 34.8 percent were still employed part-time as of December 31, 1970. Of this group, 75 percent were females. Only 28.3 percent of the persons were employed part-time for less than 10 weeks.

34. Forty-six percent of the persons who became initially employed part-time (all occupations) listed 'unable to find a full-time job' and 'expected to or entered a four year college or university' as the major reasons that the initial employment was part-time instead of full-time.

35. Of those persons initially employed in distributive occupations, 54.6 percent had a beginning hourly wage of $1.60 - 1.99 per hour. This compares to 39.2 percent of those persons initially employed in non-distributive occupations. Nearly 19 percent of those persons initially employed in distributive occupations had a beginning hourly wage of $2.00 or more compared to 39.2 percent of those persons in non-distributive occupations.

36. Thirty-nine or 14.3 percent of the respondents did not seek employment after graduation. In this group, 46 percent continued their education, 28 percent were married or

about to be married, and 20.5 percent expected to or entered military service.

37. The reason the graduates most frequently indicated for leaving their initial employment was that they expected to or entered a four-year college or university.

38. In the high school cooperative work experience, the Food Distribution occupational area had the most trainees (19.1 percent). Food Services ranked second in the number of trainees with 16.2 percent.

39. The Food Services occupational area ranked first in the number of persons who became initially employed in the area. Food Distribution ranked second in the number of persons who became initially employed in the occupational area.

40. Fifty-four percent of the persons became initially employed in the occupational code area in which they received their cooperative work experience (all occupations). For the persons who are initially employed in distributive occupations, 72 percent had received their cooperative work experience in the same occupational code area as the one in which they became initially employed.

41. Even though the objective of distributive education is to provide training opportunities in distributive occupations, 16.2 percent of the graduates did not receive

their cooperative work experience in distributive related occupations. These non-distributive jobs included nurses aides, cooks, secretaries, and office cleaners.

42. Thirty-nine percent of the students who had been employed two months or more prior to the beginning of their senior year continued in the same business for their cooperative work experience.

43. Nearly 45 percent of all of the respondents enrolled in further education prior to January 1, 1971. Sixty-one percent of these persons selected four-year institutions.

44. Nearly 48 percent of the persons initially employed in distributive occupations enrolled in further education prior to January 1, 1971.

45. Eighty-five percent of these graduates who enrolled in further education selected institutions located in Montana.

46. The most frequently selected major course of study of the enrollees in further education was Business and/or Business Administration.

47. Forty-eight percent of the graduates who enrolled in further education were employed (either full-time or part-time) while attending school. Nearly 51 percent of these persons indicated that this employment was related to their

cooperative work experience in high school. The type of relationship was not sought or indicated.

48. Of the persons initially employed in distributive occupations, 55.4 percent were of the opinion that their high school cooperative work experience was highly beneficial to their initial employment. Less than 12 percent indicated that the cooperative experience was not beneficial.

50. Nearly 43 percent of all of the initially employed graduates indicated that their cooperative work experience was highly benefical in their first employment after graduation.

51. Ninety-eight percent of the respondents indicated that they would recommend distributive education to other high school students.

Conclusions

1. The female graduates were more likely to become initially employed in distributive occupations than the male graduates. The regression coefficients indicated that the explanatory power of this independent variable was not extremely strong but it was consistantly statistically significant.

2. If the graduates were employed in distributive related occupations in their cooperative work experience in

high school (84 percent in this study), they were more likely to continue in distributive related work in their initial employment after graduation.

3. Five variables concerned with the professional preparation of the teacher-coordinators were treated separately from the other variables. These variables were (1) the total number of months of distribution and marketing business work experience, (2) college credit in the Administration of Distributive Education, (3) college credit in Coordination Techniques in Cooperative Education, (4) 15 quarter hours or more of college credit in technical (marketing and distribution) preparation. The analysis showed that the technical preparation of 20 quarter hours or more of college credit was a better estimator of the dependent variable than the other four variables. Yet less than two percent of the influence on the dependent variable could be attributed to this variable.

4. The teacher-coordinator variables of (1) the total number of months of marketing and distribution business work experience, (2) college credit in the Administration of Distributive Education, and (3) college credit in Coordination Techniques in Cooperative Education were isolated. In this case, the total number of months of business work experience in marketing and distribution was statistically

significant. Approximately three percent of the influence on the dependent variable could be attributed to these three variables.

5. The initial placement of the graduates in distributive occupations was inversely influenced in programs that required their cooperative enrollees to be seniors. Students that were in programs that did not have this requirement were more likely to become initially employed in distributive occupations.

6. None of the 10 program variables, type of program, existence or non-existence of an advisory committee, number of years distributive education had been in the school systems, community population, number of graduates, teacher-coordinator final approval privilege in selection, placement service, and membership in DECA, were statistically significant estimators of the dependent variable.

7. The variable of the students' receiving their cooperative work experience in distributive related occupations was determined to be the only statistically strong estimator of the dependent variable.

8. Twenty-six percent of the explanatory power or influence on the initial placement of the graduates in distributive related occupations could be attributed to the six

student variables. These variables were (1) sex, (2) class rank, (3) grade point average, (4) number of years the students were enrolled in distributive education, (5) the number of years the students were employed in cooperative work experience, and (6) the cooperative work experience of the students being in distributive related occupations. The greatest portion of this influence could be attributed to the variable of the students' cooperative being in distributive related occupations. When the separate coordinator, program, and enrollment variables were analyzed with the student variables, there was only approximately a six percent increase in the explanatory power of the student variables.

9. The statistically significant variables of male or female, cooperative work experience in a distributive related occupation, and the enrollment requirement of 'be a senior' attributed 27.2 percent of the explanatory power on the dependent variable when these variables were treated separately from the remainder of the variables.

10. Less than 40 percent of the influence of the independent variables on the initial placement of the graduates in distributive occupations could be attributed to the 38 variables used in this study.

11. The majority of the independent coordinator,

program, and student variables were not found to be statistically significant in this study. This finding did not necessarily indicate a lack of importance or need of the variables. What was determined was that the explanatory power of these variables on the initial placement of the graduates in distributive related occupations could not be considered to be statistically significant for the number of observations in the sample.

Recommendations

The recommendations were based on the findings and the conclusions of the study.

1. More females than males were enrolled in the secondary distributive education program in the State of Montana and the females were more likely to become initially employed in distributive occuaptions. Longitudenal studies need to be made to determine the significance of this female 'advantage' after various durations of employment.

2. If students are enrolled in Distributive Education, training opportunities must be provided in marketing and distribution occupations. The cooperative work experience must not be allowed to be in just any type of occupation.

3. Teacher-coordinators must have at least 20 quarter hours of college credit in technical courses (marketing and distribution). The type of courses and the number of credit hours needed beyond the minimum requirement need to be thoroughly investigated.

4. More of the programs in the state should expand the cooperative phase of the program to junior class members. Preparatory classes must be provided to lower class levels.

5. Since the length of cooperative work experience was not a statistically significant estimator, what factors of work experience need to be considered over length of employment? The competence approach to cooperative work experience needs to be implemented.

6. The preparatory potential of more than one year of Distributive Education should be investigated so that maximum training and preparation may be realized.

7. The value of an extended contract for the teacher-coordinator should be investigated further. The feasibility of the extended contract and program gains must be determined in the smaller communities as well as the larger communities.

8. Initial employment is only one of many measures of program outcomes. Further follow-up and analyses are needed at different intervals in the student's career.

9. Only the number of months of business work experience was treated in the regression analyses in this study. The specific occupational areas of business work experience should be analyzed to determine the relative merits of the types of occupational areas of work experience and the length of the work experience.

10. The merits of the existence and utilization of advisory committees should be reviewed in the state. Nearly 43 percent of the programs did not have advisory committees and only one-half of those programs that did have advisory committees met more than once during the year.

11. The size of the community or the enrollment in the school did not satistically influence the program outcomes measured in this study. Means for providing Distributive Education opportunities should be developed in more of the communities in Montana.

12. The significance of a 60 percent initial placement in distributive occupations should be analyzed. The initial placement percentage and extended placement for one year, three years, and five years need to be computed.

13. Many students are employed in a business prior to enrolling in cooperative distributive education. When these students are in distributive education, the values of

continued employment in the same business must be evaluated. Training opportunities rather than just convenient or continued employment must be the reason for the students remaining in these same businesses.

14. Teacher-coordinators must be provided incentives to return to business to update their work experience.

15. The role of the DECA program should be reviewed in the state. The effect of organized DECA activities in Montana should be related to occupational placement.

16. Even though the placement of the graduates in distributive occupations was significant, the placement of the students in the proper occupational programs in high school needs investigation. The distributive education program demands students with an interest in marketing and distribution and this program should not be made to be just a work experience opportunity.

17. Schools must include placement as a vital part of the total distributive program.

18. The unemployment rate for the 1970 cooperative distributive education graduates was only 3.9 percent and the demand for marketing and distribution personnel in Montana was steady. There is a need for trained distributive personnel in the state. These trained personnel must be provided

through expanded and improved distributive education programs.

19. Nearly 40 percent of the graduates who were available for employment did not obtain initial employment in distributive occupations. Research should be conducted to determine if these persons return to distributive occupations at a later date.

20. The teacher-coordinators need to determine the reasons why some of their graduates are initially employed in non-distributive occupations.

21. Further follow-up data is needed to determine the factors relating to those graduates who enrolled in further education. The affect of the secondary distributive education program on the further education should be determined.

LITERATURE CITED

APPLEGATE, HARRY. "DECA." American Vocational Journal. 36:29-31, March, 1961.

ALLEN, MARY P. "Vast New Resources for Vocational-Technical Education-President Signs Vocational Amendments of 1968." American Vocational Journal. 43:45-48, November, 1968.

BURKETT, LOWELL A. "Latest Word from Washington." American Vocational 45:5-6, November, 1970.

COLVER, ROBERT M. "The Importance of Student Selection for Quality Instruction." American Vocational Journal. 36:15-17, 25. May, 1961.

CONANT, JAMES B. The American High School Today. New York: McGraw-Hill Book Company, Inc. 1959.

CRAWFORD, LUCY C. A Competency Pattern Approach to Curriculum Construction in Distributive Teacher Education. Blacksburg: U.S.O.E. Grant No. OE-6-85-044, Volume I. December 31, 1967.

CRAWFORD, LUCY C. A Competency Patter Approach to Curriculum Construction in Distributive Teacher Education. Blackburg: U.S.O.E. Grant No. OE-6-85-044, Volume V, Pages 1195-1287. June, 1969.

DANNEBERG, RAYMOND A. "Strengths of the Past and Present." Business Education: An Evaluative Inventory. National Business Education Association, Yearbook No. 6, Wash., D. C. 1968.

DUIS, HAROLD F. State Vocational Education Statistics--Fiscal Year 1969. Preliminary Report. Planning and Evaluation Branch, Division of Vocational and Technical Education, United States Department of Health, Education, and Welfare. July, 1970.

EDGERTON, JOHN W. "Distribution-Responsibility and Opportunity." American Vocational Journal. 36:26-28. February, 1961.

EMPLOYMENT SECURITY COMMISSION. Montana Civilian Work Force. Helena: November 23, 1970.

EMPLOYMENT SERVICE DIVISION. Employment Information. Helena: Employment Security Commission of Montana. August, 1970.

FERGUSON, GEORGE A. Statistical Analysis in Psychology and Education. New York: McGraw-Hill Book Company. 2nd Edition. 430 pages. 1966.

GRUBER, JOSEPH. "Delay Vocational Business Education? An Emphatic No!" The Balance Sheet. 47:52-54. October, 1965.

JACKSON, MILDRED. "D-5 A Milepost and a Guidepost." American Vocational Journal. 36:26-27. May, 1961.

KAUFMAN, JACOB J.; SCHAEFER, CARL J.; LEWIS, MORGAN V.; STEVENS, DAVID W.; and HOUSE, ELAINE W. The Role of the Secondary Schools in the Preparation of Youth for Employment. University Park, Pennsylvania: Institute for Research on Human Resources. Pennsylvania State University. February, 1967.

LOWE, CALVIN D. "Vocational Education and the Occupational Mix." The Balance Sheet. 47:300-302. March, 1968.

MARKS, MARY. "Distributive Education, 1968-69." Division of Vocational and Technical Education, United States Office of Education. A Special Report. August, 1970.

MASON, RALPH E. Methods in Distributive Education. Danville: The Interstate Printers and Publishers, Inc. 1962.

MASON, RALPH E. AND HAINES, PETER G. Cooperative Occupational Education and Work Experience in the Curriculum. Danville: The Interstate Printers and Publishers, Inc. 1965.

MEYER, WARREN G. AND LOGAN, WILLIAM. Review and Synthesis of Research in Distributive Education. Columbus: The Center for Research and Leadership Development in Vocational and Technical Education. The Ohio State University. August 1966.

MONTANA STATE EMPLOYMENT SERVICE. Montana Labor Market-Supplement. Helena: Employment Security Commission of Montana. March, 1970.

MONTANA STATE EMPLOYMENT SERVICE. Montana Labor Supply and Demand. Helena: Employment Security Commission of Montana. May 15-June 14, 1970.

NATIONAL ADVISORY COUNCIL ON VOCATIONAL EDUCATION. Vocational Education-The Bridge Between Man and His Work. Summary and Recommendations, United States Government Printing Office. 1968.

NATIONAL ADVISORY COUNCIL ON VOCATIONAL EDUCATION. Third Report. United States Department of Health, Education, and Welfare, Office of Education. July 10, 1970.

NELSON, EDWIN, L. "A Conceptual Framework for Curriculum Development in Distributive Education." Business Education Forum. 20:10-13. April, 1966.

NELSON, EDWIN L. "The Taxonomy of Distributive Education and Distributive Occupations." National Business Education Association, Yearbook No. 8, Washington, D. C. 1970.

PALMER, GLEN DEAN. "Opinions of Montana Secondary School Administrators and Business Education Teachers on the Montana Distributive Education Program." Unpublished Doctoral Dissertation, Montana State University. 1967.

SAMSON, HARLAND E. Critical Requirements for Distributive Education Teacher-Coordinators. Unpublished Doctoral Dissertation. Minneapolis: University of Minnesota. 1964.

SAX, GILBERT. Empirical Foundations of Educational Research. Englewood Cliffs: Prentice-Hall, Inc. 1968.

SCHOOL SURVEY SERVICE. Improving Opportunities for Vocational-Technical Education in Montana. Report of a Statewide Survey. 1968.

SNEDECOR, GEORGE W. AND COCHRAN, WILLIAM G. Statistical Methods. Ames: The Iowa State University Press. 6th Edition. Pages 246-248, 381-418. 1967.

STARR, HAROLD; DIEFFENDERFER, RICHARD; ARCHER, B.; ERNST, MIRELILLE. A System for State Evaluation of Vocational Education. Columbus: The Center for Vocational and Technical Education. The Ohio State University. May, 1970.

SHARP, LAURE M. The Use of Follow-Studies in the Evaluation of Vocational Education. Washington: Bureau of Social Science Research Inc. May, 1966.

STATE OF MONTANA. A State Plan for the Administration of Vocational Education Under the Vocational Education Amendments of 1968. Helena: State Board of Education, Office of the Superintendent of Public Instruction. 1969.

TATSUOKA, MAURICE M. AND TIEDEMAN, DAVID V. "Statistics as an Aspect of Scientific Method in Research on Teaching." Handbook of Research on Teaching. ed. by Gage, N. L. Chicago: Rand McNally & Company. (A project of the American Education Research Association), 1963.

UNITED STATES CONGRESS. Amendments to the Vocational Education Act of 1963. Public Law 90-576, 90th Congress, Second Session, October, 1968.

UNITED STATES DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE. Distributive Education in the High School. Office of Education, United States Government Printing Office. 1969.

UNITED STATES DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE. Distributive Teacher Education, Its Role and Services. Washington, D. C.: Contracted by Arizona State University. 1967.

UNITED STATES DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE. A Study Curriculum Development in the High School Cooperative Program. Washington, D. C.: United States Government Printing Office. 1960.

UNITED STATES DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE. Trends in Distributive Education. Washington, D. C.: Report of a National Converence on Distributive Education. (No date).

UNITED STATES DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE. (Office of Education) and UNITED STATES DEPARTMENT OF LABOR (Manpower Administration). Vocational Education and Occupations. Washington: U. S. Government Printing Office, 1969.

UNITED STATES OFFICE OF EDUCATION. The National Conference on Cooperative Vocational Education, Implications of the 1968 Amendments. Conducted by the University of Minnesota. February 26-28, 1969.

UNIVERSITY OF MINNESOTA. A Guide for Cooperative Vocational Education. Minneapolis: College of Education, Division of Vocational and Technical Education. September, 1969.

VENN, GRANT. Man, Education and Work. Washington, D. C.: American Council on Education. 1964.

VENN, GRANT. Man Education and Manpower. Washington, D. C.: American Association of School Administrators. 1970.

VIVIAN, NEAL E. "Forward From 50 Years in Distributive Education." American Vocational Journal. 42:32-37. Match, 1967.

WARMKE, ROMAN F. Distributive Education Issues. Monograph 102, (An unpublished doctoral dissertation), Southwestern Publishing Company. February, 1961.

APPENDIX

May 7, 1970

I am currently doing my thesis under the supervision of the College of Education and School of Commerce. This will be an evaluative study of secondary distributive education in the State of Montana. The purpose is to determine the strengths, weaknesses and success factors that are a part of our programs and to establish a basis for future development and follow up. The data that will be compiled will relate to the 1969-70 school year.

This study will be published in dissertation form and should be of benefit to each coordinator and to the state as a whole. In order to do an effective job, cooperation is needed of each coordinator and also of each of the graduating DE students.

In order to continue with the study at this time, I would appreciate the following information as soon as possible. (Please use the enclosed forms.)

1. A list of the names and addresses of your DE students that will graduate this spring. Please tell them that they will be receiving a survey form in November or December and that their response will be highly important. These addresses should be complete enough so that their parents, for example, will be able to forward the letters if they are not at home. The main concern is that they will be able to be reached at that time.

2. The class ranking and grade point average for each of these graduating DE students. (Please indicate as of what time this information was completed--such as for the first seven semesters.)

3. A survey form will be sent to you in November or December. Please indicate to me where you would like to have it sent.

I will not be using names in the study and I will not be labeling schools specifically; but as was stated, I do feel that the information can be of use to all of us concerned with distributive education in this state.

Your cooperation in sending in this preliminary information and your assistance in the future is greatly appreciated. Thank you.

Sincerely,

Joseph Hlebichuk, Instr.
School of Commerce

Robert Thibeault, Head
Educational Services

Harvey Larson, Director
School of Commerce

DISTRIBUTIVE EDUCATION STUDENTS
1970 GRADUATES

Total number in Graduating Class in H.S.____

High School_____

Name	Address	Cooperative Student (Check one) Yes	Cooperative Student (Check one) No	Class Rank	Overall GPA $\frac{4.00}{1.00}$ = A (Circle One)

*The Coordinator will fill in the class rank & GPA information.

January 10, 1971

Dear Coordinator:

Last spring you were kind enough to send me the requested information about your 1970 Distributive Education students. We now need your response to the enclosed survey form so that we may complete this study of distributive education in Montana.

I am working with the College of Education and the School of Commerce to determine how certain coordinator qualifications and program characteristics relate to what has happened to the distributive education graduates. This study cannot be completed without your help.

Please take a few minutes out of your busy schedule to help us evaluate our distributive education programs in this State. By doing this, we hope that we will be able to help you in return.

Enclosed you will find a self-addressed, stamped envelope for your convenience in returning the form.

Thank you very much for your help.

Sincerely,

Joseph Hlebichuk

P.S. Please remember that the information requested is for the period of time ending with the conclusion of the school year 1970.

COORDINATOR SURVEY FORM

Please remember that all information to be included on this form should be for the period of time to the end of the school year 1970. For example, do not include any courses taken during the summer of 1970. All information will be considered CONFIDENTIAL.

1. NAME_____

2. School in which you were employed during the 1969-70 school year as a Distributive Education Coordinator:

_____

2a. Were you employed under an extended contract by your school?

_____Yes _____No

2b. If your answer is yes, how many months were you employed during the year? (Such as, 10 months or 11 months)

_____

3. _____Total number of years of teaching experience

4. _____Total number of years of teaching experience in Distributive Education.

5. Business work experience: (please answer a, b, c, below by placing your response in the blank).

5a. _____Total number of years of all business work experience you have had. (full-time equivalent--full-time equals 40 hours or more per week).

5b. _____Number of months since your last business employment.

5c. _____Length of time of last business experience (number of weeks full-time equivalent).

(Continued on next page)

5d. Types of business where you were employed (place the number of months--full-time equivalent--in the box next to each type of business in which you have had work experience). Include here only those experiences that relate to marketing and distribution.

_____Department Store (List departments_____)
_____Hardware (store or department)
_____Furniture (store or department)
_____Dry Cleaners
_____Service Station
_____Sporting Goods (store or department)
_____Grocery Store
_____Drug (store or department)
_____Restaurant (Sole business or shop in another business)
_____Variety Store
_____Clothing (specialty shop or department)
_____Credit or Finance
_____Insurance
_____Hotel and Lodging
_____Auto Parts (store or department)
_____All other (please specify)_____

_____

_____

_____

5e. What was the highest level or responsibility in your area of work experience?

( ) Manager
( ) Owner
( ) Supervisor
( ) Other (specify)_____

6. Professional preparation (through June 1, 1970)

6a. Master's Degree Major_____Minor_____

Institution from which degree was granted_____

Date degree was received_____

Bachelor's Degree Major_____Minor_____

Institution from which degree was granted_____

Date degree was received_____

6b. Please indicate the number of hours of college credit you have earned in the following areas. Are the credit hours indicated quarter hours___ or semester hours_____(check which one.)

PROFESSIONAL AREAS IN DISTRIBUTIVE EDUCATION OR VOCATIONAL EDUCATION

	Number of Hours Credit	
	Undergraduates	Graduate
Coordination Techniques		
Organization and Administration of DE		
Guidance (vocational)		
Job Analysis		
Adult Distributive Education		
History of Vocational Education		
Philosophy of Vocational Education		
Supervised Student Teaching in DE		
Other (specify--include workshops, institutes, etc.)		

Comments:

TECHNICAL AREAS IN DISTRIBUTION AND MARKETING

	Undergraduate	Graduate
Advertising		
Display		
Human Relations		
Mathematics		
Merchandising		
Management		
Selling		
Marketing and Economics		
Other (specify--include workshops		

Comments:

6c. As of June 1, 1970, when was your last formal course in distributive education?

(a) Professional course (date)_____
(b) Technical course (date)_____

7. Type of DE program in your school (1969-70):

1-( ) Senior 1-year cooperative
2-( ) Junior preparatory--Senior cooperative
3-( ) Junior preparatory/cooperative--Senior project/ cooperative
4-( ) Other_____

8. Credit for on-the-job training:

( ) 1/4 credit per year
( ) 1/2 credit per year
( ) 1 credit per year
( ) 2 credits per year
( ) Other_____

9. Total number of years cooperative distributive education has been in operation in your school_____

10. The Advisory Committee met:

( ) Once during the year
( ) 2-3 times during the year
( ) 4-6 times during the year
( ) More than 6 times
( ) Did not meet
( ) Did not have an Advisory Committee

11. Number of members on the Advisory Committee_____ (Do not include school officials or guidance personnel or yourself).

12. Number of high school students in grades 9-12 in your school:

( ) 100-200
( ) 201-400
( ) 401-700
( ) 701-1000
( ) 1001 or more

13. Population of your community as of June 1, 1970: (approximately)_____

14. Selection of students:

14a. Did you, as teacher-coordinator, have the final approval privilege for accepting or rejecting all applicants for the cooperative DE program?

_____Yes _____No

Comments:_____

14b. To become enrolled in your cooperative DE program, a student must: (Check only those qualifications which were required for enrollment for the1969-70 school year).

_____Express a career interest in distribution or marketing
_____Be willing to study the related course content
_____Have the aptitude to study the related course content
_____Be employable (adequate health, ability to be trained)
_____Be employed before enrolling in the program
_____Have completed DEI or special preparatory course(s)
_____Be a senior
_____Have an accumulative grade point average of "C" or better
_____Other(s) (Specify)_____

15. All of your cooperative DE students were members of the DECA program:

_____Yes _____No

Comments:_____

16. Did you have a placement service for your graduates?

_____Yes _____No

If yes, please specify what kind:_____

Please mail return to: Joseph Hlebichuk
1548 Mount Eagle Place
Alexandria, Virginia 22302

17. Fill in the following data as it relates to your class schedule for 1969-70

(A) Title of each course you taught (also indicate planning periods, coordination periods and other duties. Place an * mark by the course title if it is a DE course (reimbursed as vocational DE)	(B) Period in the regular school day	(C) No. of students (Include the student in the total each time he is involved either in class or on-the-job).	(D) No. of class sessions per week	(E) No. of minutes per class period
	1			
	2			
	3			
	4			
	5			
	6			
	7			
After School hours	The regular school day ends at __ p.m. 1st hour after school __ to___p.m.			
	2nd hour after school to p.m.			
	3rd hour after school to p.m.			
	Saturday			
	Sunday			

---Please circle in Part B each of the periods of the day used by at least one DE student for on-the-job training.

January 10, 1971

Dear Distributive Education Graduate:

The College of Education and the School of Commerce at Montana State University want to find out more about distributive education in Montana. You have participated in the high school distributive education program and only you can tell us what has happened since your graduation, and only you can indicate to us what DE did for you.

Each of the 1970 high school graduates of a distributive education program is being asked to respond with this very important information. You can help make schooling more relevant and more meaningful. You can help us do this by completing and returning the enclosed survey form. You will notice that we have included a self-addressed, stamped envelope for your convenience in returning the form.

It should take you only about 10 minutes to complete the form and your responses will be held in strict confidence.

Thank you very much for your help.

Sincerely,

Joseph Hlebichuk

FORMER DISTRIBUTIVE EDUCATION STUDENT SURVEY FORM

Please complete the following questions. Your responses will be kept confidential.

1. Name_____

   (Maiden Name)_____

   Present Address_____

   _____

2. Marital Status: _____Married

   _____Single

3. _____ Male

   _____Female

4. High school from which you graduated:

   Name_____

   Location_____

   Month and Day of Your Graduation_____

5. In high school, I was enrolled in distributive education for:

   _____ 1 Year

   _____ 2 Years

   _____ Other (Please specify)_____

6. I was employed in the DE program in on-the-job cooperative work experience for:

   _____ 1 Year

   _____ 2 Years

   _____ Other (specify)_____

(Continued on next page)

Page 2

7. What type of business were you employed in during your DE on-the-job cooperative work experience? (Place an X next to the type of business where you received most of your training).

_____Department Store (List departments_____)
_____Hardware (store or department)
_____Furniture (store or department)
_____Dry Cleaners
_____Service Station
_____Sporting Goods (store or department)
_____Grocery Store
_____Drug (store or department)
_____Clothing (store or department)
_____Credit or Finance
_____Variety Store
_____Insurance
_____Restaurant (sole business or shop in another business)
_____Hotel and Lodging
_____Auto Parts (store or department)
_____Other (specify)_____

_____

7a. Type of work_____

7b. Approx. date you started in the above work_____

7c. Total number of hours you worked in the above type of business. (Do not include any hours after your graduation from high school)._____

8. After graduation from high school, my first employment was:

A - _____Full-time employment (40 or more hours per week)

B - _____Part-time employment (less than 40 hours per week)

C - _____I did not seek either part-time or full-time employment.

D - _____I sought employment, but I have not been able to become employed.

Page 3

9. If you checked 8-A or 8-B above, please continue with question 9a. If you checked 8-C, please continue with question 10. If you checked 8-D, please continue with question 11.

9a. What was the type of business of your first employment after graduation from high school?

_____Department Store (List departments_____)
_____Hardware (store or department)
_____Furniture (store or department)
_____Dry Cleaners
_____Service Station
_____Sporting Goods (store or department)
_____Grocery Store
_____Drug (store or department)
_____Clothing (store or department)
_____Credit or Finance
_____Variety Store
_____Insurance
_____Restaurant (Sole business or shop in another
_____Hotel and Lodging
_____Auto Parts (store or department)
_____Other (specify)_____

_____

9b. What was the date that you began your first employment after graduation?

_____

9c. What was the location of the business of your first employment after graduation? City_____State_____

9d. In the blank below, indicate the type of work you performed when you started work in 9a. above.

Type of work:_____

9e. How long were you employed in your first employment after graduation? (Choose either (a) or (b) and fill in the blanks).

(a)_____weeks (specify number) part-time, then_____ weeks full-time

(Continued on next page)

OR

(b)_____weeks full-time, then_____weeks part-time

9f. Was your first employment after graduation from high school in the same store or department (same location) as the one from which you received your DE on-the-job cooperative work experience?

_____YES _____NO

Comment_____

_____

9g. If you have left your first employment after graduation, what was the major reason for leaving (check only 1 box).

_____Does not apply-I have not left my first employment
_____Expected to or entered a 4-year college or university
_____Expected to or entered a 2-year postsecondary institution
_____Physical or other handicaps
_____Didn't have adequate training for the position
_____Not interested in the job
_____The pay was too low
_____Expected to or entered military service
_____Other (specify)_____

9i. Approximately how many hours per week did you work on your first job since leaving high school?

_____

9j. If your first employment after graduation was part-time (less than 40 hours per week) indicate the reason: (check only 1 box).

_____Expected to or entered a 4-year college or university
_____Expected to or entered a 2-year postsecondary institution

(Continued on next page)

_____Housewife or about to be married
_____Physical or other handicaps
_____Not interested in a full-time job
_____Expected to or entered the military service
_____Unable to find a full-time job
_____Other (specify)_____

10. If you have not sought employment since you left high school, indicate the reason (check only 1 box).

_____Expected to or entered a 4-year college or university
_____Expected to or entered a 2-year postesecondary institution
_____Housewife or about to be married
_____Physical or other handicaps
_____Expected to or entered military service
_____Other (specify)_____

11. If you sought employment after graduation, but you were unable to become employed, indicate the major reason:

_____

12. Did you enroll for additional education after graduation from high school?

____Yes Specify type of school (Such as business school, Jr. college, etc.)_____

Date of enrollment_____

____No

(If your response to 12 was yes, please continue with 12a through 12e; otherwise go on to 13.)

12a. Name and location of the school_____

_____

12b. Were you employed while attending the school referred to in question Number 12?

_____Yes _____No

(Continued on next page)

12c. If your response to 12b was yes, was this employment:

_____Part-time (less than 40 hours per week)
_____Full-time (40 or more hours per week)
_____Other (specify)_____

12d. Was this employment (while attending school) related to your DE cooperative work experience in high school?

_____Yes _____No.

12e. What is/was your major area of study in your schooling after graduation from high school?

_____

_____

13. My DE on-the-job cooperative work experience in high school was: (As related to your first employment after graduation).

_____Highly beneficial in my first job after graduation
_____Somewhat beneficial in my first job after graduation
_____Not beneficial in my first job after graduation
_____I cannot say because I have not been employed since graduation
_____Other (specify)_____

14. Would you recommend DE to other high school students?

_____Yes - WHY?_____

_____

_____

_____

(Continued on next page)

_____No - WHY?_____

_____

_____

_____

15. Please use the space below for any additional comments you may have about your responses to the questions, your employment since graduation or about the DE program.

Please mail this return to: Joseph Hlebichuk
1548 Mount Eagle Place
Alexandria, Virginia 22302

February 6, 1971

Dear Distributive Education Graduate:

Approximately three weeks ago I sent you a distributive education survey form. I need your response, but I did not hear from you.

I am working with the School of Commerce and the College of Education at Montana State University to determine what effect the distributive education programs had on the students. We need to hear from you so that you can tell us about your first employment and how you feel about distributive education.

Please take about 10 minutes of your time to indicate your reponses on the enclosed form. Also enclosed is a stamped, self-addressed envelope for your convenience in returning the completed form.

You are very kind to help us like this.

Sincerely,

Joseph Hlebichuk

Enclosures

February 24, 1971

Dear Distributive Education Graduate:

Help! When someone wants something badly enough, he keeps trying and trying. This is my third attempt to get you to provide us with information about your distributive education training.

Over 220 of your fellow DE graduates in the State of Montana have returned their completed forms, but I also need yours.

It takes only 10 minutes or less to provide us with vital information about the DE program and your training. You will not be identified by name in the final report.

The information from your form and the others that were returned will be used in a research study of DE in the State of Montana.

DON'T WAIT! Complete the form and mail it to me TODAY. Your prompt reply is URGENTLY NEEDED.

Sincerely,

Joseph Hlebichuk

P.S. If your response and this letter have crossed in the mail, please disregard this letter. Thank you for your cooperation.

MONTANA STATE UNIVERSITY LIBRARIES
3 1762 10005625 6

D378
H646
cop.2
Hlebichuk, Joseph
The relationship of selected teacher-coordinator ...
NAME AND ADDRESS
JUN 14
JUN 14
D378
H646
Cop. 2