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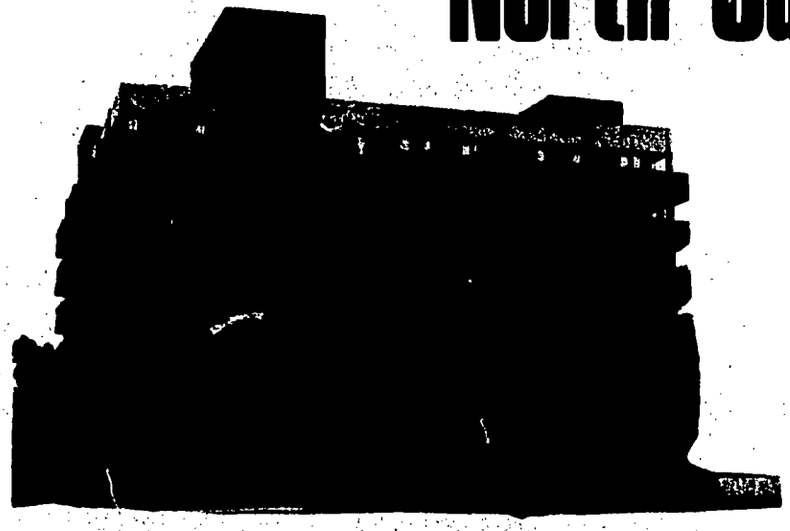
ABSTRACT

To evaluate and assess vocational education programs in the various institutions of North Carolina, data were collected regarding program and administrator characteristics. With emphasis on high schools and community college programs, the survey led to several conclusions which include: (1) The position of Director of Occupational Education is a widely established position at the administrative level, but the concept of advisory committees for occupational education seems difficult to implement, (2) Superintendents are professionally qualified on the basis of degree and administrative experience but many (43 percent) have had no occupational work experience other than in schools, (3) Inadequate implementation of citizens' advisory committees prevails at the local school level, (4) Supply and equipment are two items of considerable concern to teachers, (5) High school occupational education has an enviable record of student holding power, with less than 10 percent of students as drop-outs, and (6) It appears that the majority of community college students were beginning their vocational programs at the community college level, rather than continuing a career begun in high school. (JS)

A STATUS STUDY OF Occupational Education IN North Carolina

1971-1972



Division of Occupational Education

Texton R. Miller, Project Director

Occupational Education Research Series No. 1

School of Education

North Carolina State University, Raleigh, 1972

A STATUS STUDY

OF

OCCUPATIONAL EDUCATION

IN

NORTH CAROLINA

BY

THE DIVISION OF OCCUPATIONAL EDUCATION

SCHOOL OF EDUCATION

NORTH CAROLINA STATE UNIVERSITY

RALEIGH, NORTH CAROLINA

FUNDED BY

THE NORTH CAROLINA STATE ADVISORY COUNCIL ON

VOCATIONAL EDUCATION

PROJECT DIRECTOR - T. R. MILLER

1971 - 1972

PREFACE

Rational decision-making is dependent upon a valid and reliable base of information and data. The need for such information and data is particularly important in such a crucial area as vocational education. This status study was designed and implemented to provide some of the elements of an adequate base for use in making decisions concerning the future development of vocational education in the State of North Carolina and the changes required in vocational teacher education programs in facilitating such development.

This study is an unusual one in the extent of cooperation and involvement which were required. Without the financial support and encouragement from North Carolina Advisory Council on Vocational Education, and the help of its Director, Dr. Joe R. Clary, the study would not have been possible. Being the first study conducted by the Division of Occupational Education at North Carolina State University participation was needed from all the vocational departments and areas within the Division. For the study to reach completion, full cooperation was needed from community college presidents, superintendents of schools, local directors of occupational education, Dr. Charles Law, Director, Division of Occupational Education, State Department of Public Instruction, and Mr. A. J. Bevacqua, Director, Division of Occupational Education Programs, Department of Community Colleges.

The Director of the study, Dr. Texton R. Miller, through his patience and perseverance, facilitated the necessary cooperation and involvement. He worked tirelessly in completing the complex task of bringing the study to fruition. The Division of Occupational Education expresses to Dr. Miller its appreciation for his work and initiative.

It is recognized that this study does not provide the complete base of data and information needed for rational decision-making in vocational education. Hopefully, the area of firm knowledge has been extended and further study in other areas will be made.

Carl J. Dolce, Dean
School of Education
North Carolina State University

ACKNOWLEDGMENTS

The planning, conducting, and reporting of this Status Study of Occupational Education in North Carolina was a cooperative venture of the entire faculty of the Division of Occupational Education. The Director of this Project is indeed appreciative of the following persons for extra-ordinary efforts expended to develop and complete this project. It was a privilege to work with these professionals.

Advisory Committee

Dr. J. R. Clary, Dr. H. G. Beard, Dr. Bernie Moore, Willis Parker, Dr. C. F. Ward

Team Leaders for On-Site Visitations

Dr. C. D. Bryant, Dr. J. R. Clary, W. L. Cox, Dr. J. W. Cunningham, Dr. D. M. Hanson, Dr. R. J. Mercer, R. L. Miller, Dr. A. B. Moore, Dr. J. T. Nerden, Dr. C. C. Scarborough, Dr. T. C. Shore, Dr. F. S. Smith, Dr. C. F. Ward

Writers of Sectional Summaries

These persons are recognized within the report at the beginning of the summaries they wrote.

Production Assistants

Secretaries: Mrs. Pam Lawrence, Mrs. Martha Carpenter, Mrs. Brenda Ferrell, Mrs. Nancy Carpenter

Data Processing: Mr. Steve Smith, Mrs. Kathy Carter, Mr. Larry Revels

Statistician: Dr. Charles H. Proctor, Professor, Dept. of Statistics, N. C. State University

T. R. Miller
Project Director

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CHAPTER I ORIENTATION

This is the final report of a Status Study of Occupational Education conducted by the Division of Occupational Education, School of Education, North Carolina State University.

Conceived in the fall of 1970 by the faculty of the Division of Occupational Education, the Status Study became a reality when the N. C. State Advisory Council on Vocational Education determined to support the Study.

To the State Advisory Council on Vocational Education, this study was to serve an urgent and critical need in view of its major functions of advising and assisting the State Board of Education. The Council has been mandated a responsibility in planning, administering and evaluating occupational education.

To the School of Education, the study was aimed to supply important data for program planning in teacher education. To plan effectively for the output of professional workers in occupational education, one must consider the number of teachers and administrators needed, their expected qualifications, and the types of programs they are expected to conduct. Basic data concerning who is being served by these programs in the schools and community college institutions, who is not being served, the characteristics of the clientele of both these groups, and the qualifications of the persons doing the serving -- all these are considered important in the decision-making process as the Division of Occupational Education seeks to further its professional programs.

OBJECTIVES

The objectives of the study were as follows:

1. To determine who was being served by programs of occupational education in (a) the public schools and community college institutions of North Carolina, (b) the private businesses and trade schools, and (c) the major businesses and industries in the state.

2. To determine the extent to which vocational education opportunities were available to all people at the secondary, post-secondary, and adult levels.

3. To determine the extent to which programs were consistent with job opportunities and manpower needs in the state.

4. To determine the extent to which state goals and priorities for occupational education were being met.

5. To determine the characteristics of the professionals who administer, supervise, and teach in the programs of occupational education.

The major objectives listed above were developed primarily from the list of questions submitted by the faculty of the Division of Occupational Education. However, in a preliminary review of the existing data concerning the above objectives, it became evident that one phase of the project should be an in-depth study of a representative sample of the institutions providing occupational education. For this second phase of work, the following purposes were delineated:

1. To clarify existing descriptive data
2. To supplement existing descriptive data
3. To describe the process being used in providing occupational education.

4. To describe the setting in which occupational education takes place--the relationships and the material.
5. To gather viewpoints from administrators, teachers, and students concerning the nature of needed improvements.

These above stated objectives and purposes served as a basic guide for the committee which developed the on-site visit instruments.

DESIGN OF STUDY

Although considerable data concerning enrollments and program offerings were available from the State Department of Public Instruction, information was generally lacking on characteristics of people served and persons doing the serving. Secondly, no one study attempted to consolidate or correlate data from the total effort being made by public and private schools as well as businesses and industries. In addition, it was expected that this study, being conducted near the end of the public school term would provide a more current and comprehensive estimate of needs than could be obtained through the regular reporting system.

Phases

The first part of the two-phase design of this study consisted of a collection and analysis of available data concerning enrollees in occupational education and their characteristics, availability of programs, and the relationship of program offerings to occupational opportunities in the labor market.

The second phase consisted of site visits by selected teams to secondary public schools and community college institutions for the purpose of supplementing the statistical data of phase one.

Each visit team was led by a faculty member of the Division of Occupational Education. The leader was given full responsibility for selecting his visit-team of three to five persons and conducting the on-site study.

Each team was provided with a set of instruments for recording the needed data, and a uniform procedure was established as a guide for the operations.

The Sampling Plan - High Schools

Dr. Charles Proctor of the Department of Statistics provided the sampling design for the study. Since the State Department of Education had already drawn a cross-section sample of 32 administrative units for their annual evaluation study, these thirty-two Administrative Units were omitted from consideration in the present sample. Cognizant of the time and money available, it was deemed impractical to collect data on many more than 40 schools. Thus, it was determined that the sample of public high schools be drawn as follows:

(1) Two Administrative Units from each of the eight educational districts were randomly selected with probabilities proportionate to school enrollment.

(2) Three, or all, which ever was smaller, of the schools in each Administrative Unit were randomly selected with probabilities proportionate to the occupational teachers at the school.

(3) All occupational teachers in each of the sample schools were to be interviewed.

(4) Two classes of students of occupational education from all the classes meeting at each school at a specified class hour of the day were randomly selected.

(5) Two classes of students enrolled in non-vocational classes were randomly selected from all non-vocational classes meeting at the above common class hour.

(6) Data were to be gathered from all schools preferably during a specified time period of two weeks.

In technical sampling language, the educational districts were strata, the administrative units were primary sampling units, the schools were second stage units, the classes were third stage units while the students were fourth and last stage units.

In numerical terms, the sample was drawn from 8 educational districts; it contains 16 Administrative Units, 38 public high schools, 76 high school classes of occupational education, and 76 high school classes on non-occupational education.

In terms of people or positions, data were secured from administrators (superintendents, presidents, principals, directors), teachers, and students.

The Sampling Plan - Community College Institutions

As a means of determining more completely the occupational education opportunities available, it was determined to select a sample of community colleges or technical institutions on the basis of service to the administrative units drawn for the sample. This was primarily a judgment decision, determined by distance, natural barriers (mountains and rivers), and size of institution. In retrospect, each institution chosen appeared to be an appropriate choice as seen from an analysis of responses made by public school superintendents (Page 37).

At the community college institutions, because of the number of teachers in occupational education, it was determined to take a random sample of only ten teachers from each of three groups: (1) the technical programs, (2) the vocational programs, and (3) the occupational extension programs. In case the teacher group numbered less than 10 persons, all teachers were to be included.

In the case of post-secondary students, a random sample of two classes from each of the three programs listed above was taken. However, the number of respondents, both teachers and students, from the occupational extension group was quite limited because some institutions had few or no programs in session at the time of the study.

In summary, data were to be drawn from 16 community college institutions, each corresponding to the service area of a public school administrative unit (county or city). Responses were expected from 16 presidents, possibly 300 teachers, 90 classes of currently enrolled students, and 30 classes of students enrolled the previous year.

Instruments

The development of the interview instruments was a team effort by the faculty of the Division of Occupational Education. All faculty were invited to suggest the specific kinds of data they felt to be needed. These ideas and suggestions became the foundation for the package of instruments developed by a committee of four persons. All faculty had the opportunity to review and revise the first draft of the instrument which also was field-tested in a school system and at a community college institution not included in the sample. Instruments were designed to gain information from administrators, teachers, and students. In addition, an attempt was made to gather school follow-up data on some students enrolled in previous years.

FORMAT OF STUDY

Information from secondary sources is presented in Chapter II. Review of Literature. The presentation of primary data begins with Chapter III and follows the order in which the returns were gathered, ie., the information from the secondary schools first, starting with the superintendents and then to principals, directors, teachers, and students.

Basic Approach to Analysis of Field Data

As a status study, this report provides a frequency and relative frequency analysis of the field data collected. Much of the information is presented in tables, yet some is only reported in paragraph form, depending upon the scope or magnitude of the item being reported.

The summary, conclusions, and implications are a result of the work of the faculty of the Division of Occupational Education. Individual sections of the study were reviewed by faculty with special interests and competencies in these sections. The final chapter was subject to review by the entire faculty of the Division of Occupational Education.

CHAPTER II REVIEW OF LITERATURE

(Phase I of Study)

As indicated in Chapter I, the initial effort to reach the five objectives of the status study consisted of collecting and reviewing data from several state agencies, businesses, and universities. It was assumed that considerable information would be readily available and should be analyzed for relevance to the stated objectives of the study. Despite full cooperation of all agencies and businesses contacted for information, it was discovered early in the project that much of the desired information was not available in the late fall of 1970. However, it is to the credit of the agencies involved that some appropriate data were available in the spring of 1972. This chapter presents information which the above mentioned agencies were able to furnish.

People Served and Opportunities Provided

By the Public Schools

Despite the fact that occupational education has been provided by several types of agencies, the public secondary schools have carried the preponderance of the enrollment in occupational education. Figures from a table in the N. C. State Plan for Occupational Education (P. 20) indicate that, exclusive of adults, the 1970 approximate enrollment in occupational education was 221,300 students in the secondary public schools compared to 43,400 for the post-secondary schools. Even with adults included, the secondary enrollment of 234,894 exceeded the post-secondary public school enrollment by 57,227.

By the Private Sector

A number of agencies, other than public schools (secondary or post-secondary) provide occupational education opportunities, but the number of people served has been very small compared to the total for the public school system. In 1970, Gourley (P. 47) reported occupational enrollments in private and proprietary schools to total 12,032 persons (exclusive of apprenticeship training reported thru the Community College System). More recent figures for 42 private business schools and trade schools in North Carolina showed an enrollment of 6,337 for the fall of 1970 (Employment Security Commission). The 1970 occupational enrollment in private junior and senior colleges was reported to be 897 persons (N. C. Board of Higher Education). The State Board of Nursing Schools listed 562 enrolled in all programs of practical nursing not under Community College enrollment. Beauty Schools, 109, accounted for 3,270 students in occupational training (N. C. State Board of Cosmetics) while 5 Barbers' Schools had a year's total of 159 graduates for the year ending September 30, 1970. In summary, the total of all occupational enrollees in the private sector of the economy approximated 11,225 persons. This total approaches that reported by Gourley for 1968 and constitues less than 3% of the approximate total of 412,000 enrolled in occupational education in North Carolina in 1971 (N. C. State Plan, P. 20).

By Interest Groups

What interest groups were being served by occupational education programs? The 1972 State Plan for Occupational Education indicated the following enrollments by fields or service areas for public secondary schools (See Table 1). It can be seen that the percentage

of enrollments was lowest in Health Occupations (.9%), Home Economics Occupations (1.2%), and Office Occupations (1.6%). At the same time, "career exploration" accounted for nearly 29% of the students, consumer home economics serves nearly 30%, and almost 19% are enrolled in Trades and Industrial Education.

Table 1 Offerings and Enrollments in Occupational Education in Secondary Public Schools, 1970*

OE Code	Program Area	Schools		Enrollment	
		Number	% of 407**	Number	Percent
99.02	Career Exploration	384	94.3	63,516	28.7
01.01	Agri. Prod.	257	63.1	8,979	4.1
01.02	Agri. Related	263	64.6	14,499	6.6
04.00	Distrib./Mkt.	206	50.6	12,664	5.7
07.00	Health	37	9.1	1,889	.9
09.01	Consumer Homkg.	461	113.2***	65,919	29.8
09.02	Home Ec. Occ.	102	25.1	2,735	1.2
14.00	Office Occ.	153	37.6	3,515	1.6
16.00	Technical	-	-	-	-
17.00	Trades & Ind.	319	78.4	41,677	18.8
	Spec. Prog.	73	17.9	5,919	2.7
	TOTAL			221,312	100.1

* N. C. State Plan for Occupational Education, P. 26, 1972
** 407 Schools with grades 10,11, or 12, or combination
*** Some programs in grades below 10th

It appears from the following table (No. 2) that public community college institution enrollments were complementary to the public school program, serving to a greater degree those program areas least served by the public schools. This is shown by the post secondary enrollments in Technical; Trades and Industries; Health; and Office Occupations.

Perhaps it should be noted that in the "Health" and "Trades" fields, the adult enrollment was 3 to 6 times the curricular enrollments in these fields. It suggests that adults were responding to these areas to a greater extent than the younger people and constitutes a strong response by adults to occupational education opportunities.

Table 2 Enrollments in Occupational Education by Program Service in Post Secondary Public Schools, N. C., 1970*

		Numbers			Percent of Total (177,667)
		Curriculum Program	Adults Program	Total	
99	(Pre Vocational)	789	0	789	.4
01.01	Ag. Prod.	309	700	1,009	.6
01.02	Ag. Related	783	1,312	2,095	1.2
04.	Dist./Mkt.	383	8,515	11,898	6.7
07.	Health	4,369	13,617	17,986	10.1
09.01	Consumer Hmkg.	0	1,922	1,422	.8
09.02	Home Ec. Occ.	631	12,962	13,593	7.7
14.0	Office Occ.	15,145	10,874	26,019	14.6
16.	Technical occ.	5,506	5,106	10,612	6.0
17.	Trades & Ind.	12,555	72,389	84,944	47.8
	Special	2,970	6,830	9,800	5.5
	TOTALS	43,440	134,337	177,667	101.4

* N. C. State Plan for Occupational Education, 1972

By Areas of Special Emphasis

The 1972 State Plan (P. 24) also reported the population served in (a) economically depressed areas and (b) in areas of higher than average rates of unemployment. However, these data were not analyzed to indicate whether the program offerings or the percent served were different from the state as a whole. Table No. 3 was constructed from information in the 1972 State Plan and compares the opportunities in occupational education in 83 counties with those for the state as a whole. First, the secondary schools in these 83 counties offered fewer occupational programs than for the state as a whole. In particular, Office Occupations and Distributive Education Programs were offered at approximately ten percent more of the schools over the state than in the 83 special counties. Second, in the post-secondary section only in Home Economics Occupations and Agriculture Related Occupations did offerings in the 83 counties exceed percentage-wise those for all counties.

Companion Table No. 4 compares enrollments by programs between the state as a whole and those 83 counties which had higher than average unemployment. This table indicates that total enrollments were about the same, by percentage, for each program area except for Technical Programs wherein the 83 counties found 10.5% of their enrollment compared to only 2.6% for the state.

Table 3 A Comparison of Statewide Occupational Offerings with Those in 83 Counties Having Above Average Unemployment N. C., 1970*

Program	Percent of Schools Secondary Offerings		Percent of Schools Post Secondary Offerings	
	State	83 Counties	State	83 Counties
Pre Voc.	94.3	91.8	24.1	20.0
Ag Production	63.1	65.0	27.8	25.7
Ag Related	64.6	67.2	25.9	28.6
Dist/Mkt	50.6	39.7	25.9	20.0
Health	9.1	6.0	87.0	82.9
Home Ec.	113.2	103.2	-	-
Home Ec. Occ.	25.1	23.3	20.4	25.7
Office	37.6	28.7	100.0	100.0
Tech.	-	-	75.9	68.6
Tr. & Ind.	78.4	70.0	100.0	100.0
Spec.	17.9	19.2	96.3	97.0

* (Same as for Table 1 except P. 24)

Table 4 A Comparison of Statewide Occupational Enrollment With Those in 83 Counties Having Above Average Unemployment N. C., 1970*

Program	State of N. C.		83 Counties	
	Number	Percentage	Number	Percentage
Pre Voc.	64,305	15.9	42,136	15.5
Ag Production	14,591	3.5	11,265	4.1
Ag Related	25,573	6.2	15,594	5.7
Dist/Mkt	21,562	5.2	10,341	3.8
Health	19,875	4.8	11,661	4.3
Home Econ.	67,841	16.4	46,378	17.0
Home Ec. Occ.	16,328	4.0	9,814	3.6
Office	29,534	7.2	17,393	6.4
Tech.	10,612	2.6	28,570	10.5
Tr. & Ind.	126,621	30.7	69,423	25.5
Spec.	15,269	3.7	9,619	3.5
	412,561	99.9	272,203	99.9

* (Same as for Table 1 except P. 24)

By Age Groups

Another way to assess the opportunities being provided for Occupational Education is to show the percentage served of the group to be served. The N. C. State Plan (P. 37) has defined four age groups to be served, identified the scope of these populations, and matched them to the various levels of public school programs, as shown in Table 5 below.

Table 5 N. C. Population by Selected Age Groups and School Levels which Serve Them, 1970*

Age Groups	Total Pop.	School Level
10-14	520,817	Middle Schools (7-8-9 grades)
15-18	413,614	High Schools (10-11-12 grades)
19-24	580,046	Post Secondary (13-14 grades)
25-64	2,229,610	Adults (Employed or Available for Employment)
TOTAL	3,744,087	

* N. C. State Plan for Occupational Education, 1972, P. 37.

Assuming the above relationships (Table 5) are acceptable for at least illustrating the status of the quantitative focus of occupational education in N. C., the following comparison can be made. The numbers being served by groups are also quoted from the N. C. State Plan for Occupational Education as noted in Table No. 6.

Table 6 Percentage of Population by Age Groups Being Served by Occ. Ed. Programs, 1970

Age Group	Total Population	Population Being Served No.	%	Source: N. C. State Plan 1972
10-14	520,817	62,836(1)	12.1%	(1) P. 56
15-18	413,614	85,657(2)	20.7%	(2) P. 57
19-24	580,056	43,440(3)	7.5%	(3) P. 20
25-64	2,229,610	147,809(4)	6.6%	(4) P. 20

As seen in Table 6, the range of population served was 6.6% for the Adults to 20.7% for the High School Age Group. As stated in the State Plan (P. 37) "the State has a committment to all of these age groups, but only a fraction of this total group of 3.7 million persons is being served" by the state's public school system.

By Other Target Groups

In addition to previously mentioned ways of classifying clientele, the State has identified the following target groups to be served by means of special programs in occupational education.

(1) The target population of Middle School Youth was said to be served to the extent of 25% (P. 46), although some data from the State Plan account for only 12.1% being served (See Table 6).

(2) Since 1968, special attention has been given to Disadvantaged Youth. It was stated (P. 46) that 46,069 youth were involved in special programs and activities for the fiscal year 1971.

(3) It was estimated (P. 46) that 120,000 youth in grades K-12 in North Carolina were mentally handicapped and that 36,000 were physically handicapped. During the fiscal year 1971, only 4,000 of such handicapped were identified as being served in the public schools' Occupational Education Programs, but the State Board was expected to continue to give priority to these groups.

Summary of Scope of Service:

People Served - Opportunities Provided - Priorities

It seems clear that the 1972 State Plan for Occupational Education has consolidated considerable data to indicate the extent of the offerings and the enrollments in secondary and post secondary public schools.

The bulk of Occupational Education was still being generated in the public secondary schools with enrollments of about 235,000 students (including 13,000 adults) compared to 178,000 for the Community College System (including about 134,000 adults).

The major interest groups being served by the high schools were Consumer Homemaking with about 30% of the High School enrollment, followed closely by Career Explorations enrollees (29%), and Trades and Industrial Education students (19%). The three groups with the lowest enrollments were Health Occupations (.9%), Home Economics Occupations (1.2%), and Office Occupations (1.6%).

The Community College System appeared to complement the public school system with higher percentages of enrollments in Health (10%), Office (15%), and Technical and Industrial (48%) plus the total enrollment in Technical Education.

Opportunities for Occupational Education has been measured by the percentage of schools with offerings in the various service areas. Fifty-one percent, or fewer, of secondary schools showed offerings in four of the seven major catagories. Distribution-marketing was offered by 50.6% of the schools, Home Economics Occupations in 25.1%, Health Occupations with 9.1%, and Special Programs in 17.9% of the 407 schools.

By geographical characteristics, emphasis was placed on serving the disadvantaged and the handicapped but very small percentages were served.

The population to be served has been identified by age-groups, and it was calculated that 20.7% of the 15-18 year group was being served and 12% of the 10-14 years old but only 6-8% of the group aged 19-64 years. The 10-14 years old group, or Middle School students, was signified to be a high priority group for the future.

Manpower Supply and Needs

Considerable improvement was shown by the 1972 State Plan for Occupational Education over the 1970 edition with reference to providing detailed employment opportunities related to vocational education programs. The employment data was supplied by the N. C. Employment Security Commission, Bureau of Employment Security Research and they showed the 1971 distribution of the State's labor force by occupational areas and "clusters".

The Commission also projected labor market demands for 1972 and 1976, excluding all professional occupations requiring at least a Baccalaureate Degree, as well as unskilled laborers and that portion of semi-skilled operatives not related to any designated instructional program.

The recent development of a national conversion procedure for relating census data to the national 6 digit code for instructional programs was utilized by the Commission, whenever possible. For many instructional programs, it was necessary to use a best-judgment estimate of the employment opportunities (N. C. State Plan, Sect. II, P. 13, 1972).

For the labor supply data, the State agency used current enrollment and completion data from official reports submitted by local education agencies as baseline data to project future output data.

The following Table No. 7 shows a condensed summary of a table exhibited in the State Plan. It appears from this table that the output of students from the area of Distribution and marketing was only one-fifth of present needs, and expected to still be less than one-third of the need projected for 1976.

Table 7 Employment Needs and Public School Vocational Education Output - 1972 - 1976

OE CODE	Instructional Program Area	Projected Market Needs Numbers		Projected Labor Supply (Output) From Public Vo. Ed. Numbers		% Supply is of Need
		'72	'76	'72	'76	1972
01.	Agriculture	4,920	4,840	5,918	5,755	120%
04.	Distrib. & Mkt	19,855	20,415	4,954	6,279	25%
07.	Health	2,945	3,300	3,690	3,790	125%
09.	Home Econ. Occ.	8,600	9,000	1,852	3,624	22%
14.	Office Occ.	14,810	15,105	11,675	12,662	79%
16.	Technical Occ.	2,525	2,625	1,340	1,605	53%
17.	Trades & Industry	20,940	22,055	21,540	24,550	103%
	Total (Related to Vo. Ed. Programs)	74,595	77,340	50,969	58,265	68%

The demand-supply situation for Health Occupations seems much less critical than that would be assumed from previous data shown in the study comparing its enrollments with those in other services (See Table No. 1). Further, the private sector of the economy was expected to produce an added output which appeared to total a surplus for 1972 and for 1976.

The situation of supply and demand for the Home Economics area appeared to be much more critical than enrollment data in public schools indicated. It should be noted that only the occupational Home Economics enrollments (Code 09.02) were considered as "output" for the labor market. Thus, less than 25% of the output now needed was being provided by the public system, secondary and post-secondary.

Office Occupations in 1972 appeared to be supplying 90 percent of the need with the private sector adding enough output to nearly balance the total market need.

In the field of Technical Education, about 55% of the 1972 need was being provided and the private sector was only a small source of output.

The Trades and Industrial Education sector was producing about 75% of the needed supply with the private sector adding another 10% of the market need.

Several points can be drawn from an analysis of Table 7 and the process and procedures used to obtain it.

(1) It is generally accepted that not all of the students trained in a particular area will enter an occupation of this area. Perhaps 60-70 percent would be a fair estimate of

the proportion of output accepting employment in the area trained.

(2) The process of calculating "labor demand" in terms of educational programs is admittedly in the pioneer stages of development.

(3) Accepting these data (Table 7) as the best available, it appears that for vocational education overall, less than 70% of the need was being met in 1972 and the projected output will not gain on the demand projected for 1976.

(4) If item No. 1 above is a reliable estimate, then less than 50% of the 1972 market demand will be supplied from students having had occupational education training.

(5) The private sector supplies less than 10% of the total output now and is expected to supply perhaps 12% in 1976.

CHAPTER III - FIELD STUDY DATA - SECONDARY SCHOOLS

(Phase II)

Section 1. Structure and Process at the Administrative Unit Level

The set of questions prepared for the administrative unit heads (superintendents) encompassed two major areas: (a) administrative structure and personnel and (b) administrative processes. For convience, the data are reported as answers to particular questions included in the interview instrument.

Who is Responsible?

Superintendents were asked to identify positions in their units with specific responsibility for occupational education. In Table 8, it is shown that county (or city) director of occupational education was the position most often assigned responsibilities for occupational education and found in 11 of 15 administrative units responding. It should be noted under "others" that the position of "coordinator" and "local planner" may in practice be a position very close to that of occupational director. This suggests that in three additional cases (for a total of 14 of 15 units) it may be assumed that there is a person functioning as a director of occupational education.

In connection with the directors of occupational education, administrators gave information showing that 77% (8 positions) had been established since 1966-67. Six of eleven were appointed since 1969-70. Ten of the eleven positions were of full-time status.

Table 8 Position at the Administrative Unit Level Assigned Responsibilities for Occupational Education

Position	No. Responding	Responding Yes	% Respondents Responding Yes
County or City Planner	15	11	77.3
Assoc. or Asst. Sup't.	15	5	33.3
Others: 1-Middleschool Coordinator 1-Coordinator of Bus. Ed., Dist. Ed., and Occ. Ed. 1-Coordinator Occ. Ed. 2-Principals 1-Local Planner of Occ. Ed.	14	6	42.9

Are There Advisory Councils?

Twelve of the superintendents reported they did not have an overall citizen advisory committee for occupational education. Of the four committees now organized, three reported 7 to 12 members, two were established in 1970-71.

What is the Main Purpose of Occupational Education?

Table 9 compares the viewpoints of superintendents with those of their principals. An even 50% of the superintendents checked the more specific job training catagories (Items 1 and 2 in table) compared to 27.3% for their principals.

Table 9 Comparison of Viewpoints of Superintendents and Principals on Purpose of Occupational Education

Item	Responses			
	Superintendent		Principals	
	No.	%	No.	%
Saleable Skill in an Occ. Area	6	37.5	9	27.3
Preparatory for Comm. Coll.	2	12.5	0	0
General job preparatory training	5	31.3	11	33.3
General preparatory training	3	18.7	9	27.3
Provide exploratory experience*	-	-	2	6.1
Other	0	0	2	6.1
TOTALS	16	100.0	33**	100.0

* This choice offered only to principals
** Only 33 valid observations of 38 schools

TABLE 10 A Comparison of the Distribution of Man-Months Allocations For 1969-70 With 1970-71 by Vocational Education Program as Reported By Random Sample of 16 of 152 Administrative Units, N. Carolina, June, 1971

Type of Program	1969-70				1970-71				Percent Change of 70-71 Tot. Allotment over 1969-70
	ADU Reporting		Man-Months		ADU Reporting		Man-Months		
	No.	%	Total No.	Avg. No/ADU	No.	%	Total No.	Avg. No./ADU	
AGRICULTURE	12	75	1151	95.9	12	75	1014	84.5	-11.9
BUSINESS AND OFFICE	13	81	450	34.6	14	88	499	35.6	+10.8
DISTRIBUTIVE ED.	15	94	540	36.0	15	94	600	40.0	+11.1
HEALTH OCCUPATIONS	5	31	65	13.0	5	31	95	19.0	+4.6
HOME ECONOMICS	16	100	1595	99.7	16	100	1578	98.6	-1.1
INDUSTRIAL & TECH.	16	100	1615	100.9	16	100	1980	123.8	+22.6
OTHERS:									
INTRODUCTION TO VOC.	12	75	425	33.8	11	69	413	37.5	-2.8
LOCAL DIRECTOR	6	38	84	14.0	8	50	96	12.0	+14.2
DISADVANTAGED	0	0	0	0	1	6	4	4.0	+100
TOTALS	16		5925	370.3	16		6279*	392.4	+5.98

*In an additional answer, respondents indicated an official allotment of 26 additional Man-months not accounted for in above distribution (1970-71 totals).

Who is Served?

Superintendents reported that adults were not served to any great extent in their schools. Only two superintendents of 16 expressed the view that adults were served "to a considerable degree", while five administrators classified it as little or none.

Eight of 16 administrators depended upon cooperative efforts with Community Colleges to develop adult education programs and three others would leave it to teachers' choices.

How is Occupational Education Provided in Elementary Level Grades?

Nearly half (43.8%) of the chief school heads said occupational education was provided through the regular elementary program. Only two reported occupational units in the elementary program and only one system reported a special program in this area. None reported team-teaching for this program.

What Groups are Served in High School Occupational Education?

Although superintendents were nearly unanimous (15 of 16) for opening occupational education courses to any who wished them, it was noted that 30% saw them also serving socioeconomically disadvantaged students, and 25% voted for them as also serving those not planning to attend college.

How are Man-months Allocations Distributed?

All 16 superintendents reported their distribution by service catagories of the state allotment of man-months. Table 10 shows that there was approximately a 6% increase in man-months allocated over last year. There were also shifts in the 1970-71 distribution of man-months. Six program fields gained as follows: Business and Office, 11%; Distributive Education, 11%; Health Occupations, 4.6%; and Industrial and Technical Education, 22.6%.

There was a slight increase in number of man-months devoted to the local director division, but it amounted to an increase of fourteen percent.

Introductions to Vocations were reduced slightly as was Home Economics, but the largest decrease was the nearly 12 percent reduction in man-months for agriculture, amounting to 137 man-months. Nevertheless, all administrative units with agricultural programs in 1969-70 retained their programs for 1970-71.

It can be noted that only one administrative unit added a program not represented the previous year, and this was in Business and Office Occupations. Thus the increased allotment of man-months in 1971 was used primarily to expand existing programs within the Administrative Units rather than to add new ones.

How Much Local Monies Go Into Occupational Education?

Few administrative units reported the use of local funds for occupational teaching positions. From Table 11, it can be seen that Home Economics and Industrial and Technical Education were receiving the most local monies. It is noted that a 37% increase was recorded for 70-71 local funds compared with 69-70. Nevertheless, local support represents a small amount (270) compared to the state allocation of over 6,000 man-months.

How Will Man-months for 1971-72 Be Allocated?

All superintendents in the sample responded to the question about their plans for distribution of man-months for next year. From Table 12, which compares their 71-72 plans with their record of the present year(70-71), it can be seen that (1) Health Occupations were expected to receive a 36.8% increase in man-months per Administrative Unit, (2) Industrial and Technical courses would be boosted by 14.3%, and (3) slight increases were proposed for Business and Office Occupations, Distributive Education, and Local Directorships.

Agriculture was expected to be reduced in man-months by 11% (the second year for such a decrease) although the same percentage of administrative units (75%) would have programs.

It is noted that Administrative Units expecting to offer Health Occupations rose from 5 to 9. Also, while Introduction to Vocations shows a 32% decrease in man-months, two additional administrative units have reported it in their plans.

In summary, superintendents were planning for only a very slight overall increase in man-months (1.3%) but showed plans for considerable shifting of man-months among the occupational programs.

Table 11 Distribution of Locally Funded Man-Months By Programs and Years

Type of Program	1969-70		1970-71		% Change 70-71 over 69-70
	No. ADU Reporting	No. Man-months	No. ADU Reporting	No. Man-months	
Agriculture	0	0.0	0	0.0	0
Business & Office	1	14.0	3	17.3	+23.6
Distributive Education	1	10.0	2	14.0	+40.0
Health Occupations	0	0.0	0	0.0	0
Home Economics	4	57.0	3	22.0	-61.4
Industrial & Technical	3	79.0	4	133.0	+68.4
Industrial Arts	1	9.3	1	10.0	+ 7.5
Introduction to Voc.	1	17.8	3	30.0	+68.5
Local Coordinator	0	0.0	1	24.0	-
Others	1	10.0	1	20.0	+100.0
TOTALS		197.1		270.3	+ 37.1

TABLE 12 Comparison of 1971-72 Plans With Reported Distribution of 1970-71 Man-Months

Type of Program	1970-71				1971-72				% Change: 71-72 Plans over 70-71 (Tot. Allotments)
	ADU Reporting		Man-Months		ADU Reporting		Man-Months		
	No.	%	Total No.	Avg. No/ADU	No.	%	Total No.	Avg. No/ADU	
AGRICULTURE	12	75	1014	84.5	12	75	906	75.5	- 10.7
BUSINESS & OFFICE	14	88	499	35.6	13	81.3	512	39.4	+ 2.6
DISTRIBUTIVE ED.	15	94	600	40.0	14	87.5	607	43.4	+ 1.2
HEALTH OCCUPATIONS	5	31	95	19.0	9	56.3	130	14.4	+ 36.8
HOME ECONOMICS	16	100	1578	98.6	16	100	1542	96.4	- 2.3
INDUSTRIAL & TECH.	16	100	1980	123.8	16	100	2264	141.5	+ 14.3
OTHERS:									
INTRO. to VOC.	11	69	413	37.5	12	81.3	268	22.3	- 35.1
LOCAL DIRECTOR	8	50	96	12.0	8	50.0	108	13.5	+ 12.5
DISADVANTAGED	1	6	4	4.0	1	6.3	10	10.0	+150.0
TOTALS			6279				6358		+ 1.3

What Changes for Next Year?

An open-ended question regarding specific changes in organization plans for occupational education for next year produced scattered responses most difficult to summarize.

Staff Changes: Ten of 16 units reported this summary of changes: (1) Add 15 man-months, (2) Add two positions (unspecified), (3) Add local directors - 2 cases, (4) Reduce agriculture, (5) Reduce Business Occupations by one month, (6) Add Industrial Cooperative Training coordinator, (7) Add a position for "the disadvantaged", (8) Add occupational teachers in Junior High Schools.

School Changes: One-half of the units listed some response, as follows: (1) Add 21 Junior High School Programs to Occupational System, (2) Install the six-year concept, (3) Consolidate schools - 3 cases, and (4) Enroll occupational students on a regional basis.

Changes in Facilities: Twelve of 16 units responded to this category listing these items: (1) 3 new schools, (2) 3 schools with major improvements, (3) A new occupational education building, (4) six new laboratories, 1 shop and 1 green house, (5) 21 Junior High labs for Occupational Education, (6) 2 new classrooms, and (7) 1 facility for the mentally retarded.

Desired Changes

If financial and other constraints were not involved, superintendents reported they would make the following changes for next fall:

(a) In man-months: All sixteen units responded with a total of 2689 man-months with one unit seeking a junior high school occupational education program. It is noted that this request equals a 58% increase over the man-months allocation anticipated for 71-72.

In addition, one unit requested all programs to be moved to 12 months but did not indicate this total. One unit omitted a reply because they felt a court-ordered school could not judge the future. One other indicated some increases needed. In summary, the above desired increases in man-months resulted from 13 of the 16 administrative units.

(b) In programs: All sixteen units responded with a listing of additional programs totaling 24 different areas in occupational education and four superintendents specified expanding existing programs.

(c) In facilities: Four administrators reported facilities were adequate, four sought a total of at least 23 shops, 16 laboratories, and 15 classrooms. In addition, two wanted new, comprehensive vocational schools or consolidation and merger. One other needed improved facilities at three schools while equipment and supplies was the desire of another.

What Program Planning Practices are Accepted?

In Table 13, administrators indicate considerable acceptance of program planning practices recommended by the State Department of Public Instruction. All practices except the one involving a committee of lay citizens were implemented by a majority of the administrators.

All of the rest of the items requesting information from superintendents were of the open-ended type and proved not only difficult for the responders to complete but difficult to summarize. Nevertheless, it seemed important

to provide the opportunity to react to these items. Readers of these data should consider the percentage of replies before drawing conclusions.

Table 13 Adoption of Approved Practices in Local Program Planning - Administrative Level

	Practice	No. Responding	Yes Responses No.	Yes Responses %
(A)	Local Plan authorized by Board of Education	16	13	81.3
(B)	Sup't authorized local plan coordinator	16	16	100.0
(C)	Advisory Council on labor market data	16	8	50.0
(D)	Teachers were involved	15	13	87.0
(E)	Lay citizens involved	15	5	33.3
(F)	School system for recording			
	1) Pupil populations	15	11	73.4
	2) Pupil aspirations	14	8	57.1
(G)	Local ESC data used	15	14	93.3
(H)	Provisions established for evaluation data	16	13	81.2

Nine of the 16 administrators supplied data to indicate the popularity of the following practices for allocating man-months to individual schools:

(a) Consider student aspirations, requests, needs -- 7 responses

(b) Review local plan and discuss changes -- 6

(c) Consider staff and facilities available -- 6

(d) Determine employment opportunities -- 5

(e) Design a program of distribution -- 4

(f) Assign units or implement programs -- 4

Occupational directors, and "others" (including principals) were mentioned most often as the positions being involved in the process.

Only 6 of 16 superintendents furnished information concerning their activities for recruiting and employing occupational education personnel. These activities are as follows:

(a) Survey agencies helpful in placement -- 6

(b) Evaluate applications -- 5

(c) Interview applicant -- 5

(d) Secure approval - Board of Education -- 2

The Occupational Director was the person most often assisting the superintendent in the above process.

On the question of what activities are employed in planning and conducting inservice education for occupational education personnel, eight (50%) of the superintendents wrote:

(a) Consider teacher needs -- 8

(b) Work with State Department -- 6

(c) Check available college offerings -- 4

(d) Write a plan or proposal -- 2

(e) Hold system wide meeting -- 6

Occupational directors were the primary assistants for these tasks.

Fifteen of 16 school chiefs answered a request to list activities employed in evaluating occupational education programs in their units as follows:

(a) Observation -- 8

(b) Program review -- 6

(c) Field results -- 4

(d) Surveys, questionnaires -- 3

(e) State Department Evaluation -- 3

(f) Follow-up of graduates -- 2

Administrative assistants, rather than the occupational director, were most often involved in this task. Teachers were most often involved and superintendents less often in this activity than in the previous three items concerning inservice education, recruitment, and allocation of man-months.

What Community College Units Serve Your Area?

Superintendents listed community college units serving people living in their administrative unit. They had the opportunity to list three choices for each of three groups: College parallel students, full-time vocational-technical students, and adults (part-time students).

The data received support the contention that the community college units included in this study sample were the most important service units available; all sampled community college units were listed by one or more of these administrators. Except for two cases in the category of "college parallel students", the number 1 listing by the superintendents was one of the community college units in this study sample.

What Positions Are Responsible for Articulation?

The Director of Occupational Education was the position most often listed (7 of 13 units) by superintendents to be responsible for articulation with the community colleges, although 3 units did not answer. Nine other positions were listed but none more than twice.

How are Students Recruited and Selected for Community Colleges?

Most superintendents indicated that counselors through individual conferences with students made the major effort to encourage students

to attend community colleges. Principals and occupational education teachers were mentioned more often as helpers for prospective vocational-technical students but counselors were mentioned 8 times to 5 times for occupational teachers, even for the vocational technical group. In general, interest on this item for recruiting adults for community colleges was low since counselors were mentioned only twice as agents, "personal contact" was the major activity, and 7 of 16 units left the item without answering.

Summary, Conclusions, Recommendations
Section 1. The Structure and Process at ADU Level
(Contributed by Dr. Joseph T. Nerden)

Administrators that completed the questionnaires indicated that there had been a considerable growth in the numbers of individuals who were assigned responsibilities as coordinators or administrators of the occupational education program. Some of these people have the title "Coordinator", while others were indicated as holding a variety of other titles.

As part of the organizational structure, advisory councils were being used in three of the fifteen administrative units that reported. Twelve of the superintendents have not as yet developed and put into operation a citizens advisory committee for occupational education. There is a significant implication here that instruction is needed by administrative heads of the school districts in order to acquaint them with the steps needed to assemble and make profitable use of a local advisory council.

In responding to the question concerning the concept of occupational education and its major purpose, all of the administrative heads seemed to feel that the major purpose of occupational education was preparing people for jobs. Here again, the lack of knowledge on the part of the superintendents appeared to restrict their understanding of the far broader objectives of occupational educational. Implied here is the need for colleges and universities to take steps to help the administrative heads acquire a broader philosophy of occupational education, since without it there is every likelihood that the occupational education program in an administrative unit will lack direction, specific objectives, cohesion, and purpose.

The information supplied by the administrative heads was largely in connection with day school enrollments. On the other hand, they reported that adults were generally not served to any extent in the schools, since this in their opinion was the responsibility of the Community College System. While there was no information to substantiate it, it is fair to presume that the administrative heads believe that the public schools have much to do with adult education, and are reluctant to give up this specific responsibility which public schools have in almost all other states.

Almost half of the administrative heads indicated that occupational education was provided in the regular elementary school program. This is a little surprising, in as much as their initial concept of occupational education was preparing individuals for jobs. Nonetheless, administrative heads believed that all who wished occupational education should be able to enroll in it in the school, but they felt that almost a third of those which they had observed in occupational education programs were from the socioeconomically disadvantaged groups.

Notwithstanding the tremendous growth in the need for occupational education, all sixteen of the superintendents who responded to the questionnaire indicated that only a 6% increase in man-months was allocated over the past year. Most of the gains in personnel were in the field of Industrial and Technical Education, with the least gain in the field of the health occupations. However, national figures available in these two major areas would appear to indicate that by far the greatest emphasis should have been upon health occupations in which a greater number of job opportunities are emerging. Implied here is the need for more information from the Bureau of Labor Statistics, the Department of Labor, the Employment Security

Agency and Health Organizations concerning the rapidly growing numbers of jobs in the health industry. Perhaps with this kind of information at their disposal, administrative heads would be more inclined to allocate the man-months available to their units on a more defensible basis.

In commenting how the cost of occupational education was being covered, administrative heads reported that the contributions from the local units were still small, almost at a ratio of 1 to 20.

Each of the administrative units in North Carolina was given considerable instruction on program planning and budgeting, as a regular program of information eminating from the State Department of Public Instruction. Most of the administrators indicated their acceptance of such program planning practices and indicated the extent to which they made use of the program planning procedures as the basis for the expansion of their programs. However, when it came down to the functions within program planning and budgeting, the superintendents were split widely on what they considered to be of importance. Half of them believed that student aspirations should control the planning, while almost as many were convinced that local employment opportunities should have equal control. Following that, some of the administrative heads indicated the need of a survey, while others felt that an evaluation of enrollment applications would be appropriate. Further, in considering the extent of planning to which employed teachers would be involved in inservice education, administrative heads reported activities of a variety of kinds; some of which included holding a systemwide meeting, holding a faculty meeting to consider teacher needs, and working out some of the details with the State Department of Public Instruction.

There was quite evidently no unanimity on what constituted inservice education for occupational education personnel.

Of the sixteen administrative heads that reported, fifteen supplied information concerning the kinds of activities that they used in evaluating occupational education programs. Eight of the fifteen heads indicated that their evaluations were purely by observation, while others reported that they used program review, surveys, questionnaires, and even the State Department of Education instruments for evaluation. Only two of the administrative heads indicated that the follow-up of the graduate constituted an evaluation.

A final reaction secured from the administrative heads indicated one of the major reasons why the articulation between the parts of the occupational education program had up until now been virtually ineffective. The administrative heads appeared to believe that the directors of occupational education were responsible for the articulation with the technical institutes and community colleges in the region. Clearly, this implies a lack of understanding with regard to the general objectives of occupational education, and the manner in which continuity is established between the exploratory work in the lower grades, the guidance and counseling in the upper grades and the vocational education in the secondary schools.

In summary, the heads of the administrative units can be characterized as a group of enthusiastic, intelligent, and well-meaning individuals who are still quite devoid of the basic information concerning occupational education, its objectives, its procedures, and its expected outcomes.

Section 2 - Characteristics of Administrators at A.D.U. Level

One of the major objectives of the study was to determine the professional characteristics of the people providing occupational education. This section is a report of the information received from persons in administrative or supervisory positions at the administrative unit level of operation. Data were furnished by superintendents, assistant superintendents, and directors of occupational education in the proportions shown in Table 14.

Table 14 Distribution of 38 Administrative Unit Personnel by Positions, June, 1971

Position	Number	Percentage
Superintendent	16	42.1
Assistant Superintendent	11	28.9
Occupational Director	10	26.3
Other	1	2.6
TOTALS	38	99.9

General

A few of the general charateristics of this group of administrators are listed briefly as follows: (1) 94.7% were men, (2) the average age was 46.4 years, and (3) 15.8% indicated the Bachelors Degree only, 71.1% the Master's Degree, and 13.2% reported the Doctorate. Within the group, it was noted that all the superintendents were men, averaged 3.4 years older, and all had the Master's Degree or Doctorate (31.3%).

Institution

Nearly a third of this sample of administrators (30.6%) gave credit to East Carolina University for their academic degree. Only two other

universities were mentioned often and they were The University of North Carolina with 13.9% and North Carolina State University at 8.3%. The remaining 30.6% were distributed over several other schools including University of Virginia, Peabody University, Duke University, and combinations of two or more institutions. Of the superintendents alone, four credited their degree to U.N.C., and two to E.C.U.

Experience

Administrative Units administrators averaged 9.3 years of teaching experience, nearly 7 years in a principal's position, but one-third indicated they had no work experience in occupational fields other than teaching. (See following Tables 15, 16, 17).

It was also noted that superintendents had less teaching experience, but more years as a principal, and much less occupational work experience (42.9% reported "none") than administrators holding other positions at the A.D.U. Level.

Table 15 Teaching Experience of Administrators

	All Admn.		Sup't. Only	
Years	No.	Percent	No.	Percent
1 -- 5	14	36.8	8	50.0
6 - 10	10	26.4	4	25.0
11 - 15	9	23.8	2	12.5
16 or more	5	13.1	2	12.5
TOTALS	38	100.1	16	100.0

Mean - 9.3 for all
8.1 for Sup't.

Table 16 Administrators' Experience as Principal

	All Admn.		Sup't. Only	
Years	No.	Percent	No.	Percent
None	6	19.4	0	0
1 - 5	8	25.9	4	12.5
6 - 10	9	29.1	7	68.7
11 - 15	6	19.4	4	12.5
16 - 27	2	6.5	1	6.3
Valid Observations	31	100.3	16	100.0
Missing Observations	7	18.4		
Mean Years - 6.97 for all 8.44 for Sup't.				

Table 17 Work Experience in Occupational Fields Other Than Schools

	All Admn.		Sup't. Only	
Years	No.	Percent	No.	Percent
None	12	33.3	6	42.9
1 - 4	11	30.6	5	35.7
5 - 10	9	24.4	3	21.3
11 - 15	2	5.6	0	0
16 or more	2	5.6	0	0
Valid Observations	31	99.5	14	99.9
Missing Observations	7	18.4	2	12.5
Mean Years - 6.97 for all 2.28 for Sup't.				

Teaching Background

On a question related to fields of teaching experience, the responses were distributed over 17 areas and only five fields received as many as three responses. These fields were Vo. Ag. - 3; History - 3; Elementary - 3; Social Studies - physical education - history - biology - 3.

Attitude Toward Occupational Education Program

The following responses (Table 18) on the question of administrative reactions indicates that about 90% have optimistic feelings toward their present occupational education program.

Table 18 Viewpoints of Administrators Toward their Occupational Education Programs

	All Admn.		Sup't. Only	
Viewpoint	No.	Percent	No.	Percent
Always optimistic	17	44.7	9	56.3
Usually optimistic	17	44.7	6	37.5
Sometimes optimistic	4	10.5	1	6.2
Seldom optimistic	0	0.0	0	0
Valid Observations	38	99.9	16	100.0

Preferred Employment

In Table 19, it can be seen there is overwhelming preference by the administrators (94.4%) for remaining employed with the public schools for next year. However, it appears that the college or university is seen as a potential employer in the future for some of these people.

Table 19 Employment Preferences of Administrators For 1971 - 72 and For the Future

Field of Occupation	1971 - 72 No.	%	Five Years Ahead No.	%
Public School	34	94.4	25	71.4
Community College	0	0.0	2	5.7
College or University	1	2.8	4	11.4
Non-School	0	0.0	1	2.9
Other	1	2.8	2	5.7
TOTALS	36	100.0	34	97.1*

* Includes one non-respondent.

Professional Study

Only 15 of 38 administrators responded to a question concerning areas of professional studies desirable in the next five years. Moreover, 13% of these answered "none". For the responders, the following preferences in occupational education were shown: Administrative, 46.7%; Evaluation, 20%; and "others", 13.4%.

Recent professional study was reported by 25 persons. About a third (36%) indicated they had taken some graduate courses and 32.4% replied "certificate renewal". Nearly a third (32%) said they had taken no graduate work in the past 5 years. Of those with recent graduate work, 27% had completed six semester hours in the past 5 years. About 70% of the administrators had attended conferences during the past five years.

It should be noted that data are available to enable additional comparison of the 16 superintendents with the 22 persons in other administrative positions at the administrative unit level.

Summary, Conclusions, Recommendations
Section 2. Professional Characteristics of Administrators of Local Education Programs
(Contributed by Dr. C. C. Scarborough)

Summary

The Women's Lib Movement had not reached the administrative positions of Occupational Education in the county and city school systems. Nearly 95% of these positions were held by men. The positions included superintendents, assistant superintendents and directors of occupational education.

Nearly 16% of the administrators held Bachelor's Degrees only. Most (71%) of the persons in these positions held Master's Degrees while 13% had the Doctorate. East Carolina University was the source of nearly a third of the academic degrees for the administrators while 14% listed U.N.C., Chapel Hill and 8% N.C.S.U. The other third included degrees from Duke, Peabody, University of Virginia and various combinations of degrees from two or more institutions.

The professional experience of the administrators varied. All had teaching experience averaging nearly 10 years. However, one-third of the administrators had no work experience in occupational fields other than teaching. The superintendents had less teaching experience, less occupational work experience (43% reported "none") but more years as principal than others in administrative positions.

The study revealed no special desires for professional study in the next five years. In fact, less than half of the administrators responded to the questions dealing with plans or needs for professional study for themselves. Of those who did respond, 13.7% answered "none". About a third reported that they had some graduate courses recently, and about the same number replied "certificate renewal".

According to responses received in the study, the large majority (90%) were optimistic about the occupational education programs in their school systems.

Conclusions & Recommendations

1. Superintendents are not likely to have had professional or work experience that would give them first-hand knowledge of the world of work. Their orientation would more likely be toward the "college bound" students.

Recommendation: That the idea of "Career Education for Everyone" be developed including models of how this can be done in various school organizations of K-3, Middle Grades, etc.

2. Most persons now in administrative positions do not have plans for their own professional development during the next five years.

Recommendation: Vocational Teacher Educators, working with Divisions of Occupational Education in SDPI and Department of Community Colleges, the organizations of superintendents and local directors plan appropriate workshops, and seminars in all areas of the state dealing with urgent problems in Occupational Education.

Section 3 - Structure and Process at Local School Level

The nature of the information requested from the local administrators of the sample schools was determined by the five purposes previously stated for the on-site visits (P. 2-3) and the responses presented here follow the order of the instrument.

Who is Responsible?

About one-fifth of the schools were so organized and staffed that the principals indicated specific responsibility for occupational education was shared with (a) an assistant principal (21.1%), (b) a director of occupational education (22.2%) and (c) an overall citizen advisory council for occupational education (27.8%). In two-thirds of the schools (64.9%), principals placed specific responsibility on departmental heads (or chairman) for occupational education.

Directors of occupational education were established very recently in these schools; in 1969-70 for six of them and in 1964 for the seventh school, one school not reporting this information.

The Advisory Committee for occupational education (overall citizen type) was also a relatively recent addition for these schools. Principals reported for 5 of the 10 committees and indicated they had been established one per year in 1962, '63, '65, '69, and 1970.

Data were too limited to report policy and practice relating to the advisory committees.

Programs and Teachers

The following Table 20 shows the number of teachers employed by major occupational field. It may be of interest to note that of the 368 teachers reported here 345 contributed data to the teacher section of the study. Further, this total of 368 is considerable higher than the expected total

of teachers as predicted from the total of 293 teachers of occupational education reported to the North Carolina State Department in the fall of 1970. One may speculate that local funds, special funded programs, and perhaps regular A.D.A. positions were used to increase the number available from State allocated man-months.

Table 20 Distribution of Teachers Responsible for Occupational Education by Major Fields - 38 Schools

Major Fields	No. Teachers	No. Schools	% of Schools With Programs
Agriculture	43	28	73.7
Home Economics	84	36	94.7
Business & Office	79	28	73.7
Distributive Education	29	22	57.9
Trades & Industrial Ed.	113	30	78.9
Others	20	17	44.7
TOTAL	368		
Average/School	9		

What Are the Main Purposes of Occupational Education?

Principals of local schools were quite equally divided on 3 of the proposed answers to this question of the main purpose of occupational education. Nearly a third (27.3%) voted for "saleable skills" while the other two-thirds divided between general job training (33.3%) and an even broader description of general preparatory training. Two principals even viewed the main purpose as only "exploratory experiences". Thirty-three of 38 principals responded.

Who is Served?

Adults are not served to any great extent in these public schools. More than a third (37.8%) of the principals classified the amount as "insignificant". About 40% would leave adult education as "optional" and to be determined by the teachers. Only two schools considered it a required part of the school curriculum but five of 37 principals saw it as a cooperative venture with the community college institution.

A great majority (85%) of the school principals, all 38 responding, said that all high school students could elect occupational education courses. Still, there were some principals (15%) who saw occupational education as focused on either those not planning for college or the disadvantaged students.

Evaluation

Principals were generally agreed that the "planning and evaluation unit" for occupational education in the local high schools was the total school program and not a particular department or course in the school. About one-fourth of the principals saw evaluation and planning as mainly a department function.

Changes for Next Year

An open-ended question regarding specific changes in organizational plans for occupational education for next year produced diffused responses which were difficult to categorize.

Changes in Staff

All but four of the 38 schools provided information but 14 indicated no changes made. However, 20 schools reported they had decided to add 14 1/2 teaching positions including 2 coordinators and 7 1/2 unclassified staff. In addition, one agriculture position and one office occupations position were being shifted to two trade and industrial positions, and one principal said they were establishing one department chairman.

Changes in School

Many principals (14) omitted answers to this part of the question and 12 more reported no changes. Of 12 responses, most related to changes in course offerings. Nine new offerings were listed for trade and industrial education, three in home economics, and one each in business and cosmotology. It also appeared that four courses in trades and industrial education were being shifted to a half-day type program.

Facilities

Only seven schools failed to include information on this part, but ten more reported no changes. Five schools mention new consolidated schools and another specified a new wing for occupational education. Six reported new shop areas totaling at least 12 course areas and 5 schools were expanding 9 areas for occupational education. Four schools listed new horticulture facilities, three reported a total of 6 new lab areas, and 2 specified new classroom facilities. In all, 21 of 38 schools reported improved facilities underway.

Local Program Planning

All of the principals responded to a series of items concerning local program planning. The items were drawn from "Handbook: Planning Occupational Education Programs" for the purpose of determining the acceptance of these practices as feasible practices in the field (See Table 21).

Except for items 3, 4, and 5, nearly eighty percent of the principals reported being able to utilize the state-recommended list of program planning practices. Two of the three neglected practices relate to the practice of involving persons outside the school to assist in program planning. All three of the least-used practices focused on involving persons who should be able to make a contribution to the program planning process.

Selection of Students

A number of criteria are commonly accepted by school authorities as aids in directing or placing students in school programs most suited to their needs. Likewise some criteria are not generally accepted for program placement purposes. This item was included to determine the extent to which a selected list of these criteria were being utilized by the schools. All schools provided data as shown in the following Table No. 22.

Table 21 Implementations of Selected Program Planning Practices by 38 Local Public Schools, June, 1971

Item	Number Responding	% Respondents Answering Yes
1. Local Board authorized to develop local plan	36	94.4
2. Local professional person authorized to coordinate the development of local plan	35	77.1
3. Consultant-advisory council contributed to labor-market data	34	50.0
4. Local teachers and counselors contributed to the preparation of L.E.A.	37	62.2
5. A committee of lay persons are consulted before enacting L.E.A.	36	41.7
6a. School provides yearly information on pupil populations	38	81.6
6b. School provides yearly information on pupil aspirations	38	86.8
7. School supplemented state-level manpower data with local data from Employment Security Commission	36	83.3
8. Provisions established for obtaining evaluation data, i.e. pupil completions, curriculum evaluations, employment of graduates	38	86.8

Table 22 Implementation of Selected Criteria For Helping Students Select High School Programs in 38 Public Schools, 1971

Criteria	No. Schools Responding	% Responding Yes
1. Prior grades earned	38	44.7
2. Aptitude test results	38	50.0
3. Achievement tests	38	42.1
4. Interest inventory results	37	78.4
5. Ability tests	38	39.5
6. Attitudinal inventory results	37	27.0
7. Exhibited interests	37	100.0
8. Social background	36	19.4
9. Economic background	36	19.4
10. Not acceptable for other programs	36	0.0
11. Other	13	46.2
TOTAL SCHOOLS REPORTING: 38		

It was noted that only two criteria, "exhibited interests" (100%) and "interest inventory results" (78.4%) were universally accepted. Aptitude tests were utilized by fifty percent of the schools. It was seen that 100% of the school principals rejected the idea of any particular program being utilized for students not acceptable elsewhere. High rejection was also noted for the criteria of social background (80.6%) and economic background (80.6%). Ability tests (39.5%), and attitudinal tests (27.0%) were not generally used by the schools. Furthermore, such commonly available data as student grades and achievement tests were said to be utilized by only 45% and 42% respectively of the schools in their process of helping direct students into programs.

Career Orientation Program

Administrators were asked to indicate the "career orientation" activities to which students have been exposed in their schools. The following tabulation (Table 23) indicates that few schools have occupational orientation programs in the elementary schools. About one-fourth of the schools said they provided career orientation activities at the junior high school level and from 35 to 55% of the schools had such activities at the high school level. It should be noted that guidance activities including both individual and group types were available at only 35% of the schools.

Table 23 Career Orientation Activities Provided at Elementary, Junior High, and Senior High Levels by 38 Public Schools, 1971

Activity	No. Schools Responding	% of Schools by Level of Programs						Total %
		Elem	JrHigh	SrHigh	Elem&Jr	Jr&Sr	All	
1. A blend of activities	34	2.9	23.5	47.1	2.9	17.6	5.9	99.9
2. Hands-on Exp.	35	2.9	22.9	54.3	20.0	0	0	100.1
3. Field Trips	37	0	24.3	35.1	18.9	21.6	0	99.9
4. Cluster areas; skills explored	35	2.9	25.7	45.7	25.7	0	0	100.0
5. Guidance Services	37	5.4	10.8	35.1	40.5	8.1	0	99.9

Career Orientation Prior to Specific Pre-employment Programs

To what extent were schools providing career orientation prior to student selection of specific vocational programs? Table 24 indicates two-thirds of the schools lacked formal career orientation programs. About 85% of the schools reported that students had to rely on their own initiative to investigate career opportunities.

Table 24 Provisions for Student Career Orientation Prior to Specific Pre-employment Programs from 35 Public High Schools

Activity	No. Schools Responding	% Schools Responding Yes
1. Investigate on own the different occupations	34	85.3
2. Informal study of broad occupational families	35	68.6
3. Formal study of occupations	33	33.3
4. None of above	11	9.1

Flexibility of Student Programs

To what extent were opportunities provided for students to change their high school program of study as their interests and needs change? Table 25 indicates the extent to which selected school policy and procedure permitted flexible scheduling for the student.

Over ninety percent (92.1%) of the schools claimed their programs were so structured that students were not bound to long-range plans, although 11.4% reported such changes might cost him loss of graduation units.

Program Outcome

A large majority of the school administrators contended that students who enrolled in an occupational program as juniors were upon completion ready for either employment or advanced training at a community college institution. See Table 26 for details.

Table 25 Opportunities for Students to Make Changes in Advanced High School Programs in 38 Schools

Opportunity	No. Schools Responding	% Schools Providing Opportunity
1. Flexible schedule which allows student to take courses from other tracks	37	83.8
2. Student may change programs at end of year	38	84.2
3. Student may not change programs without loss of graduation units	35	11.4
4. Modular scheduling is used so that he may try out many areas	35	8.6
5. Student develops program as he goes; makes no long range plans	38	92.1

Table 26 Principal Viewpoints of Outcome of Occupational Education Programs at 38 High Schools

Type of Outcome	No. Schools Responding	% Schools Responding Yes
1. Students can secure a minimum of two years training	37	89.2
2. Students are ready for immediate employment	37	78.4
3. Students are ready for advanced training at Tech. Inst. or Comm. College	38	92.1

Summary of Local School Administrators Responses
(Contributed by Dr. T. R. Miller)

School administrators shared responsibility for occupational education primarily with their department heads or chairmen, and only one-fourth obtained help from assistant principals, school directors of occupational education, or citizen advisory councils.

The average principal in this study had 9 or 10 teachers of occupational education under his direction, apparently finding funds other than man-months allotment for two of his occupational education teachers (Pages 50 and 51).

Principals generally viewed occupational education as broader than training for a saleable skill in a particular occupational area and were willing to ascribe to the more generalized purpose of general work training and open it to all students generally (Page 51).

Adult education is an optional program in the public schools depending upon individual teachers and community college institutions for the initiative (Page 52).

A majority of principals were able to implement nearly all of the practices suggested in a state developed program planning guide (Page 53).

Guidance activities were limited in the majority of schools, all accepting only student interest as a major criteria for guiding and preparing students to enter occupational education. Nevertheless, a vast majority of the schools reported flexibility in adjusting student programs to meet their avowed interests (Pages 53 and 55).

Finally, principals asserted that students entering at the junior level had the opportunity to prepare themselves well for employment or advanced study at community college institutions through their occupational programs (Page 57).

Conclusions and Recommendations
Section 3. Structure and Process at Local Level
(Contributed by Dr. Durwin M. Hanson)

It would appear that some administrators have a mistaken concept of responsibility for occupational education since reference is made to "shared responsibility". It would appear advisable to clearly determine the organizational structure and clearly identify lines of communication, delegation of authority and specifics with regard to responsibility and accountability for occupational education.

More attention should be given to the organization of an advisory committee for occupational education and to further identify craft or specialty advisory committees for each of the O. E. instructional areas.

To insure knowledge of occupational education, administrators, supervisors and guidance personnel should be required to process an understanding and/or demonstrate competency in occupational education. Revised "State Guidelines and Standards" should identify stated expectations.

Organizational structure should be encouraged for some population areas to provide a larger school population base. Schools should be encouraged to explore possible cooperative agreements with other schools (secondary particularly) to expand occupational offerings. Contractual agreements with community colleges may be the solution in some areas.

Greater effort should be made to acquaint staff, students and lay public with occupational education. This would include developing or improving relationship(s) with technical institute and/or community college in immediate area.

Continued emphasis on the development of guidance personnel with an emphasis on vocational aspects is needed.

Continue emphasis to work toward improved articulation with post-secondary vocational/technical institutions.

Section 4 - Charateristics of Local School Administrators

All 16 Administrative Units and all 38 high schools furnished data for this part of the Status Study concerning the characteristics, attitudes, and professional study background and desires of principals and other school administrative personnel directly involved in occupational education.

Table 27 shows the positions held by the 47 responders to this section of the study.

Table 27 Distribution of 47 Local School Administrators by Employment Positions, 1971

Position	No. Persons	Percentage
Principal	37	78.7
Assistant Principal	5	10.6
Department Heads	2	4.2
Others	3	6.3
TOTALS	47	99.8

General

A brief summary of some of the more general characteristics of these 47 school administrators are as follows: (1) average age - 43.3, (2) Sex - 97.8% were males, (3) Race - 91.3% were white, and (4) 76.2% held the Master's Degree but none reported a Doctorate.

The largest number received their degree from E.C.U., 16 people. Five persons gave credit to Western Carolina University for their degree and the following were mentioned specifically by two and three persons: N. C. State University (3), Appalachain State University, and University of North Carolina at Chapel Hill (2 each). Eleven other colleges or universities were mentioned by a single person.

Teaching certificates in the social studies area were held by 17.8% and industrial arts was next in line with 15.6%.

Experience

On the basis of 44 replies, nearly 12% showed 13 years of teaching experience, nine percent reported in each of the 12, 11, and 6 years categories. The mean was 14.5 and the range 41 years.

All of the 36 respondents indicated they held an approved administrative certificate.

These administrators averaged 5.2 years in their present position, ranging from none (1 case) to 24 years.

As for work experience in non-school fields, 36 persons reported a range of 42 years, a mean of 6.5 years, and 18.9% (7 persons) with no work experience. See Table 28 for more details.

Table 28 Distribution of High School Administrators by Years of Occupational Work Experience

Category	No. Responses	Percentage
0	7	18.9
1 - 2	7	18.9
3 - 4	6	16.2
5 - 10	11	29.7
11 - 42	6	16.2
TOTAL	37	99.9

Contract Period

Although 64% of the administrators had 12-month contracts, 25% were employed only 11 months and 9% had only nine-month agreements.

Attitudes and Interests

These administrators evidenced an optimistic viewpoint toward their occupational education program. Nearly 43% claimed to be always optimistic toward it. Very few classed themselves as "sometimes" or "seldom" optimistic, the total for these categories being 6.4%.

In Table 29, it is shown that most of these administrators preferred to be employed now by the public schools (80%) and to stay employed by them for the next five years (70.7%).

Table 29 Employment Preferences of Local School Administrators

Type of Employment	Next Year		Five Years Ahead	
	No.	%	No.	%
Public School	36	80.0	29	70.7
Community College	4	8.9	2	4.9
College or University	3	6.7	6	14.6
Non-School	2	4.4	3	7.3
Other	0	0.0	1	2.4
TOTALS	45	100.0	41	99.9
MISSING OBSERV.	2		6	

Professional Study

In response to the question about the most valuable areas of professional study for the next five years, 87% voted for the area of "administration" and 45% for "evaluation" as the topic. More detail is shown in Table 30.

In regard to past professional study, 47.4% indicated graduate work during the past five years. Another 44.2% had credit for certificate renewal. For those earning graduate credit, the most frequently mentioned

quantity was 9 to 10 credits. In the case of certificate renewal, 36% had acquired from 1 to 6 credits.

Table 30 Preferences of Administrators for Selected Areas of Professional Study

Area of Study	No. Checking as Valuable*	Percentage
Philosophy of Occ. Education	12	26.7
Laws, Regulations of Occ. Ed.	13	28.9
Administration of Occ. Ed.	39	86.7
Evaluation of Occupational Ed.	20	44.4
Other	1	2.2
No. Responses - 45		

* Responders could have checked all that applied

Summary, Conclusions, Recommendations
Section 4. Characteristics of Local School Administrators
(Contributed by Dr. Farmer Smith)

Summary

In summarizing the general characteristics of the 47 school administrators responding, it was found that the average ages were in the middle forties, over 90% were white males with 76.2 holding the Master's Degree. Most of the Master's were earned at East Carolina University and 17.8% of the teaching certificates held by the administrators were in the social studies area with 15.6% in Industrial Arts. The administrators had a mean of 14.5 years of teaching experience and all held administrative certificates. There were 81.1% of them that had work experience in non-school fields averaging over 6 years. Administrators were employed on three bases, 64% for 12 months, 25% for 11 months and 9% for only 9 months. As a whole, the administrators were optimistic about occupational education, only 6.4% saying they were seldom optimistic.

As to future professional study in the area of occupational education, the most valuable areas indicated were the administration of occupational education and evaluation of occupational education.

Recommendations and Implications

It has been found that one of the greatest problems in occupational education is a lack of understanding of occupational education by school administrators. Whereas over 90% of the administrators indicated optimism in the future for occupational education and 87% said that occupational education administration was the most valuable area of professional study for the next five years, the instrument used did not follow-up by finding out the actual percentage of administrators that had any courses in occupational education. Yet these same administrators are charged

with the organization, operation, supervision, and evaluation of their occupational programs.

It is recommended that an attempt be made to encourage administrators to enroll in Occupational Education courses and a further attempt be made to get Occupational Education courses included in the Master's Degree programs for school administrators.

Section 5 - Characteristics and Viewpoints of High School Teachers of Occupational Education

This part is a summary of responses received from the sample group of 345 teachers of occupational education. Characteristics of the teachers are reported first, followed by a summary of responses related to "facilities and climate" of the school as viewed by occupational teachers. No attempt is made here to compare characteristics or responses of men teachers with those of women teachers. However, such a comparison could be done from the available data on computer cards.

Part I. Characteristics

More than half (56%) of occupational teachers were men, the average age is 39 years, and about 83% had obtained a college degree. More detail is shown in Table 31, which indicated that about 19% had the Master's Degree and 5 persons (less than 2%) had not been graduated from high school.

Table 31 Academic Levels of 345 Teachers Of Occupational Education

Levels	Number	Percent
Doctoral	0	0
Masters	64	18.5
Bachelors	221	64.1
16 - 13	27	7.8
12	28	8.1
11	3	.9
Other	2	.6
TOTALS	345	100.0%

Certification

Thirty-four (10.5%) of 325 teachers reporting indicated they were not licensed or registered in the field in which they were then teaching. A larger response, 340 of 345 teachers, was received on the question of teaching certificate held. This showed that 62.4% had "A" certificates, 11.8% with Provisional "A", and nearly 26% with some other type certificate.

The distribution of respondents by program specialty training is shown in Table 32.

Table 32 Distribution of 343 Teachers by Occupational Specialty

Specialty Field	Number	Percent
Agriculture	46	13.4
Distributive Education	34	9.9
Health Occupations	5	1.5
Home Economics	82	23.9
Office Occupations	43	12.5
Trade, Industrial, & Tech.	103	30.0
Other	30	8.7
TOTALS	343	99.9%

In this sample of 343 teachers of occupational education, 30% had specialities in Industrial and Technical Education and nearly 24% were Home Economics teachers.

Experience of Teachers

Occupational teachers averaged 8.8 years of teaching experience in Vocational Education, 4.5 years in their present school, and a total teaching experience of 10.1 years. Although 18 of 345 teachers did not

respond to the question, the group averaged 9.5 years occupational experience in the field in which they were then teaching. However, it may be noted from Table 33 that approximately 10% had no occupational experience and one-third had two years or less.

Table 33 Occupational Experience of Teachers

Years	Number	Percent
0	32	9.8
1	38	11.6
2	39	11.9
3 to 6	74	22.6
7 to 10	34	10.4
11 to 20	60	18.4
20 to 35	50	15.2
TOTALS	327	99.9

Teacher Assignments

Teachers were asked to report their teaching contract period and the responses are shown in Table 34. The majority (58.3%) reported ten-months contracts with another third of the group reporting either nine-months or twelve-months assignments.

In regard to assigned extra-curricular duties, 19.2% reported none, 31% said "one", and 41% had either two or three assignments.

Nearly all occupational teachers (94.6%) classified their teaching assignment as "regular or standard", rather than temporary or emergency.

About ninety percent of the teacher group revealed either "usually optimistic" (63.6%) or "always optimistic" (26.1%) feelings toward their present teaching assignments.

Table 34 Distribution of 338 Occupational Teachers By Contract Periods

No. Months Contract	No. Teachers	% of Teachers
One	2	.6
Six	2	.6
Nine*	55	16.3
Ten*	197	58.3
Eleven	33	9.8
Twelve	49	14.5
TOTALS	338	100.1

* In tabulating data, 9 1/4 months were categorized as nine months, and 9.5 months through 10 months were rated as 10 months contracts.

Continued Professional Training

The following Table, Number 35, shows the types of professional training considered by occupational teachers to be of most value to them in the next five years. The predominant first choice selection went to a renewal-credit in-service program within their administrative unit with nearly 60% of the teachers voting for it. Summer schools (three weeks and 6 weeks) placed second and third respectively, with approximately 100 persons checking one or the other. Evening courses were not popular first-priority choices.

The report of professional training engaged in during the past five years centered upon certificate renewal (52.5%). A third of the teachers had done some graduate work.

Table 35 First Priority Professional Training Resources as Viewed by 341 Occupational Teachers

Resource	Number	Percent
3 Week Summer School	55	16.1
6 Week Summer School	46	13.5
Evening College Course	20	5.9
Evening Off-Campus Course	17	5.0
Renewal Credit Inservice Program with Adm. Unit	203	59.5
TOTALS	341	100.0

Part II. Facilities and Climate

Teachers were given the opportunity to rate their teaching facilities as shown in Table 36.

Table 36 Teacher Ratings of Teaching Facilities

Teaching Facility	No. Responses	Percent of Responses				No Ans	Total
		Excellent	Good	Fair	Inadequate		
Classroom	345	19.9	37.4	25.0	15.7	2.0	100%
Laboratory	343	13.7	31.5	25.1	19.5	10.2	100%
Additional Facilities	333	4.8	11.4	8.4	14.7	60.7	100%
Equipment Budget	342	9.1	31.0	29.8	25.4	4.7	100%
Supplies Budget	345	9.9	28.7	33.3	25.5	2.6	100%
Teaching Materials							
Audio-Visual	343	19.5	45.8	21.6	11.6	1.5	100%
Books, Bulletins, Mag.	328	11.3	34.5	22.8	14.0	17.4	100%

On classroom and laboratory facitilities, a majority of teachers rated their situations as good or excellent. On budget items, forty percent or less of the teachers classed these as good or excellent, and a fourth of the teachers stated their budgets were inadequate.

Some indication of teacher viewpoint of the "climate" or cooperative relationships existing within their schools was expected from the last three items on the teacher questionnaire. The results are shown in Table 37.

More than two-thirds of the respondents concluded that they were receiving "excellent" or "good" encouragement and support from their administration and co-workers for all three items listed in Table 37. The highest rating went to the item concerning overall encouragement from the administration with 85% responding "good" or "excellent".

Table 37 Teacher Viewpoints of Encouragement
And Support Received from Faculty and Administrators

Item	No. Responses	Percent of Responses				No Ans	Total
		Excellent	Good	Fair	Inadequate		
Encouragement from fac. and Adm. for field trips	344	27.6	42.2	17.7	9.9	2.6	100%
Encouragement from fac. and Adm. for developing clubs	343	25.9	40.8	16.6	5.9	10.8	100%
Overall encouragement from Adm. for your program	344	36.3	48.8	11.0	3.3	.6	100%

Summary, Conclusions, Recommendations
Section 5. H.S. Teacher Characteristics and Viewpoints
(Contributed by Dr. T. R. Miller)

Summary

A composite picture of the occupational education teacher indicates him to be a man, age 39 years, with a college degree, an "A" certificate in the field in which he was teaching (the area of trade, industrial and technical education) and having a ten-month teaching contract. Further, such a person had taught over 10 years (nine years in occupational education and nearly five years in his present school) and had 9.5 years of occupational experience in the field in which he was teaching.

The above picture fails to point out the following characteristics of the teacher group: (1) About 19% had the Master's Degree but about 2% had not been graduated from high school. (2) Nearly 11% were not licensed or registered in the field in which they were then teaching and another 12% had only a Provisional "A" certificate while one-fourth depended upon some other type of certificate. (3) Only 10% were in the D.E. (Distributive Education) field and less than 2% were in Health Occupations. (4) Nearly ten percent had no occupational experience and another 24% had only 1 to 2 years of occupational experience. (5) Only one-fourth of the teachers had 11 or 12 month contracts.

About 60% of the teachers preferred their future professional training to be of renewal credit offered within their Administrative Units. Less than 10% projected their first choice as either on-campus or off-campus college courses.

Conclusions

While on the whole, occupational teachers appear to be well qualified for their task, there are a considerable number (about 22%) who possess only

provisional or sub-professional certification.

Although sixty percent of the teachers placed top priority on renewal certificate credit to be offered within their administrative units, it appears that at least those with provisional or lower certifications will need a more basic program of inservice education.

It was noted that data from this section on the percentage of occupation teachers in the various service fields support the contention made elsewhere in this study that occupational offerings for high school in the fields of Health Occupations and Distributive Education are quite limited, since teachers in these two service fields constitute only eleven percent of the total of 343 teachers of occupational education.

Recommendation

1. Institutions of higher education and the State Department of Public Instruction should develop a coordinated program of inservice education to enable all occupational education teachers to reach a minimum level of the "A" teaching certificate.

2. Special effort should be made to increase the number of teachers serving in the fields of health occupations and distributive education.

Section 6 - Enrollments in High School Occupational Education

All of the 341 returns of teacher schedules came from the group of 343 teachers whose professional characteristics were reported in a previous section. It is assumed that for all practical purposes, these two groups are synonomous, and the data from the two may be correlated. For illustration, it may be assumed that the 46 teachers reporting a teaching specialty in agriculture (See P. 68, Table 32) were the teachers reporting the enrollment data analyzed in this section of the report.

In the following table (No. 38), the distributions of opening and closing enrollments are shown. For either opening or closing enrollment figures, Home Economics enrolls the largest group (about 27%), and the Trades, Industrial and Technical combination was in a practical tie for second rank with Office Occupations, each having 20-21% of the total enrollment.

Table 38 Teachers' Estimates of Enrollment of Occupational Field June, 1971

OE Code	Field	No. Classes	Opening Avg. Class Size	Opening No.	Enrollment %	Closing No.	Enrollment %
01	Agriculture	168	19.9	3,351	12.8	3,040	12.8
04	Distributive Ed.	88	23.5	2,068	7.9	1,689	7.1
07	Health Occupations	16	19.5	312	1.2	290	1.2
09	Home Economics	347	20.8	7,200	27.4	6,659	28.2
14	Office Occupations	215	25.3	5,440	20.7	4,866	20.6
16	Technical	29	15.3	444	1.7	398	1.7
17	Trades & Industry	307	16.7	5,131	19.6	4,630	19.6
99	IV, ICT (Others)	108	21.1	2,285	8.7	2,077	8.8
	TOTALS			26,231	100.0	23,649	100.0

Another factor to be considered from the enrollment data is the number of transfers (in and out) and the dropouts, as shown in Table 39. It may be noted that the total of net transfers and dropouts does not account for all the difference between opening and closing enrollments. However, these data were tabulated as supplied by the teachers and no assumption was made to allow any correction of data submitted. It appears that the discrepancies are not large enough to be critical in drawing conclusions.

From Table 39, net transfers average only 2.3 percent and drop-outs equal only 7.4 percent. The total loss of students during the year was estimated to be less than ten percent.

Table 39 Transfers and Drop-outs by Occupational Groups As Reported by 341 Teachers, June, 1971

Occupational Group	Initial Enrollment	Transfers		Drop Outs		Total Loss by %*
		No.	%*	No.	%*	
Agriculture	3,351	- 41	-1.2	276	8.2	9.4
Distributive Ed.	2,068	- 69	-3.3	211	10.2	13.5
Health Occupations	312	+ 3	+0.9	25	8.0	7.0
Home Economics	7,200	-119	-1.6	482	6.7	6.7
Office Occupations	5,440	-190	-3.5	378	7.0	10.5
Tech. and T & I	5,575	-131	-2.3	418	7.5	9.8
Others	2,285	- 60	-2.6	150	6.6	9.2
TOTALS	26,232	-607	-2.3	1,940	7.4	9.7

* Percent of initial enrollment

A third characteristic of the enrollment data may be seen in a comparison of the closing enrollment with the figures on "completions", as shown in Table 40.

Table 40 Comparison of Closing Enrollments and Completions Expected by Specialty Fields, 341 Teachers, June, 1971

Field Specialties	Opening Enrollment	Closing Enrollment No.	%	Completions No.	%
Agriculture	3,351	3,040	90.7	2,938	87.7
Distributive Ed.	2,068	1,689	81.6	1,534	74.2
Health Occ.	312	290	92.9	288	92.3
Home Economics	7,200	6,659	92.5	6,293	87.4
Office Occ.	5,440	4,866	89.4	4,552	83.6
Tech. and T & I	5,575	5,028	90.2	4,286	76.9
IV, ICT (Others)	2,285	2,077	90.9	1,823	79.8
TOTALS	26,232	23,649	90.2	21,714	82.9

Completions in terms of percentage of initial enrollments ranged from 75% for Distributive Education to 92.3% for Health Occupations. Agriculture and Home Economics showed about 88% completions.

Class sizes among the various specialty fields may be compared as in Table 41. Office and Business Occupations classes average 25.3 students while the Technical, Trades, and Industrial classes show the lowest mean of 16.6.

The pupil-teacher ratio is often used as a measure of programs, and Table 42 shows these by occupational specialty. Office and Business teachers show an average of 127 students per teacher; the T & I teachers reported 54 students each. Overall, occupational teachers were averaging about 77 students each.

Table 41 Distribution of Student Enrollments
Among Vocational Education Services by Classes

Field	No. Classes	% Total	Rank Classes	Avg. Students per Class	Class Size Ranks
Home Economics	347	27.1	1	20.7	4
Agriculture	168	13.1	4	19.9	5
Tech. and T & I	336	26.3	2	16.6	7
Distributive Ed.	88	6.9	6	23.5	2
Health Occ.	16	1.3	7	19.5	6
Office	215	16.8	3	25.3	1
Others, IV, ICT	108	8.5	5	21.2	3
TOTALS	1,278	100.0			

Table 42 Teacher-Pupil Ratio by
Occupational Education Fields

Field	Initial Enrollment	No. Teachers	Students enrolled per teacher
Agriculture	3,351	46	72.9
Distributive Ed.	2,068	34	60.8
Health Occ.	312	5	62.4
Home Economics	7,200	82	87.8
Office Occ.	5,400	43	126.5
Tech. and T & I	5,575	103	54.1
IV, ICT, Others	2,285	30	76.2
TOTALS	26,231	343	76.5

Summary and Conclusions
Section 6. H.S. Enrollments in Occupational Education
(Contributed by Dr. Thomas Shore)

Summary

Home Economics had the largest enrollment (about 27%) and Health Occupations the lowest enrollment (about 1%). The transfer in and out of occupational education averaged only 2.3% with a drop-out of only 7.4% and the total loss of students for the year estimated at less than 10%.

In terms of students completing occupational education courses compared to opening enrollment, Health Occupations had a high of 92.3% completing to a low of 75.2% for Distributive Education. The number of students per class ranged from a high of 25 for Office and Business Occupations to a low of 16.6 for Trade and Industrial Education. Pupil-Teacher ratio per area ranged from a high of 127 students per teacher for Office and Business Education to a low of 54 students per teacher for Trade and Industrial Education with an overall average of about 77 students per occupational teacher.

Conclusions

In conclusion, the data indicate that occupational education has a holding power that is desirous by others, with less than 10% total loss of students. This is far below most of the local, state, and national averages. Also, the class size indicates that the occupational education teacher has convinced the administrators that teaching - learning takes place best when the teacher is given the chance to work with the student independently.

Section 7. Responses From High School Students As Projected to the State Population

In determining the design of this Status Study, one of the major factors considered was the possibility that the data might be expanded to the state level.

The following tables and analysis were made from the adjusted state-wide data as described on page 82 rather than from the actual sample data collected. This decision is dictated by the listed objective of the study which in turn was based upon the assumption that it is the state-wide picture that is of the most importance to the program planning function at the state level. It may be of interest to note here that the adjusted sample did not create large changes from the actual sample. However, it was noticeable that the percentage of students in occupational education programs was reduced to 25.3 percent of the total sample from the earlier calculation of 35.5 percent.

In order to estimate the sampling uncertainty of the reported percentages, one needs to take into account the stratified and multi-stage nature of the selection. When this was done for the estimate of proportion of students planning to continue their education (Item 12 of student's questionnaire), the standard error was computed by Dr. C. H. Proctor as 1.28% on an estimate of 42.4%. This size of standard error would have resulted from a simple random sample of size 1,500 students. In fact, data for this item were collected on 2,944 students. The ratio of these two is sometimes called the design effect, deff = 2,944/1500 = 2.0. It implies that the effective sample size for use for standard calculation is half of the actual sample size.

For example, in comparing vocational education majors with general education majors, the actual sample sizes were about $n_1 = 1000$ and $n_2 = 2000$, so that the effective sample sizes would be about 500 and 1000. A percentage based on 500 students has a standard error somewhat less than $\sqrt{50x50/500} = 2.24\%$ and one based on n = 1000 has a standard error of less than $\sqrt{50x50/1000} = 1.58\%$. Estimates of differences in proportions between the two groups will have standard errors less than $\sqrt{50x50(1/500 + 1/1000)} = 2.74\%$. Percentages around 50% have the largest standard errors while those around 5% are less than half as large; this is the reason for the usage of "less than" in the three previous statements.

Occupational vs. General

All the data in this section are analyzed from a comparison basis of two groups of students identified as "general education" students or "occupational education" students. The division of the students into the above two groups was made from their responses to Item No. 4 of the student questionnaire. The following guide was utilized to classify them into two groups since the item provides three choices for the student, and some students checked more than one choice. The three choices were: (1) General H. S. Program, (2) College Preparatory Program, (3) Occupational Education (Vocational Education).

The possible student responses to Item 4 of the questionnaire and the decisions made in classifying the response are as follows:

Student Response	Classification Made
Only No. 1 (General Education)	General Education
Only No. 2 (College Preparatory)	General Education
Only No. 3 (Occupational Education)	Occupational Education
No. 1 and 2	General Education
No. 1 and 3	Occupational Education
No. 2 and 3	Occupational Education
No. 1, 2, and 3	Missing Value*
No. Response	Missing Value*

Missing Values*

It was possible to classify some students who checked all three choices in Item No. 4, or who gave no response, by referring to their answer in Item No. 5. A "yes" response to any one of the occupational groups listed there was accepted as evidence of his classification as an occupational education student (See appendix for Item No. 4 and 5 of student questionnaire).

Of the 3025 student instruments, a total of 67 were classified "missing values" on Item four. Since Item No. 4 was the basis for classifying students as "general" or "occupational", the above statement explains why the "missing values" for each item of comparison between the two groups is always 67 or more cases (2.2 percent of the 3025 reporting).

By Age Groups

In Table 43, a comparison is made of "general education" students and "occupational education" students on the factor of age. It indicates that students in occupational education are older than those in general education. The percentage of occupational students in the 19-20 year brackets is twice that for the general education students (15.4% to 7.3%).

Table 43 State-Wide Distribution of Age
Of High School Students

Age	% General Ed. Student	% Occupational Ed. Student	% Total
14 & 15	9.4	6.2	8.7
16	21.7	14.4	19.9
17	32.1	29.8	31.5
18	29.5	34.2	30.7
19	6.2	13.1	7.9
20 & Above	1.1	2.3	1.4
5986 Valid Observations			

By Variable of Sex (Items 1 and 2)

Only slight variation is shown between the two groups of students on the basis of sex. (See Table 44). The occupational group shows approximately 52 percent of boys compared to 49 percent boys for the general education group.

Table 44 State-Wide Distribution of Sex Variable

Sex	% General Student	% Occupational Students	% Total
Male	49.2	51.8	49.8
Female	50.8	48.2	50.2
6146 Valid Observations			

By Grade Levels (Item 3)

As shown in Table 45, more than 2/3 (69%) of the occupational education students were enrolled in the upper two grade levels. Compared to General Education students, the difference is small with nearly 62 percent of them in the same categories.

Table 45 State-Wide Distribution of High School Students' Grade Levels

Grade	% General Students	% Occupational Students	% Total
9th	13.8	12.2	13.4
10th	24.7	18.7	23.2
11th	35.8	36.3	35.9
12th	25.7	32.8	27.5
6088 Valid Observations			

By Field of Study (Item 5)

Table 46 indicates that approximately 81 percent of the high school students in North Carolina enrolled in some vocational program. Even for students classifying themselves as "general education" students, 65.2 percent reported they considered themselves enrolled in one of the occupational education programs. Of course, the "129 percent" reported by occupational students indicates that more than a fourth of them (29%) had enrolled in more than one type of occupational education.

The most popular occupational program for general education students appeared to be Office Occupations (20%) and Home Economics (19%). Office Occupations was also the choice of the largest percent of the "occupational" students (31%) and Industrial and Technical courses next in line (28%).

Table 46 State-Wide Distribution of
High School Students who Took Vocational Courses
By Field of Study

Course	% General Students	% Occupational Students	% Total
Agriculture	8.3	18.2	10.8
Home Economics	18.7	24.0	20.0
Office Occupations	20.0	30.9	22.8
Industrial & Tech.	10.3	27.8	14.7
Health Occupations	3.8	11.1	5.7
Distributive Ed.	4.1	17.0	7.4
6149 Valid Observations	65.2	129.0	81.4

Years in Occupational Education (Item 6)

Considerable difference can be seen in Table 47 in the length of time spent in occupational courses by the two groups of students. "General" students appeared to utilize occupational education as exploratory courses, with only 26 percent enrolling in more than one year, most of these for only one additional year.

It should be noted that nearly half of the occupational education students (47 percent) had not gone beyond one year in occupational education and less than one-fourth had enrolled in three or more years.

Table 47 State-Wide Distribution of Years
High School Students Have Had in Occupational Education

Years	% General Students	% Occupational Students	% Total
0	39.7	4.9	30.1
1	34.0	42.2	36.3
2	16.4	28.7	19.8
3	7.0	14.7	9.1
4	2.8	9.5	4.6
5161 Valid Observations			

Conferences with School Faculty (Item 7)

Nearly a third of the high school students said they had never had a conference with their high school counselor (30.5%). Table 48 indicates that a slight advantage went to the general education student in terms of conferences with counselors. These data show that more than 60 percent of all students failed to have more than one individual conference with a counselor.

Table 48 State-Wide Distribution of Number of Conferences
of High School Students with High School Counselor

Number Conferences	% General Students	% Occupational Students	% Total
Never	29.6	33.0	30.5
Once	30.6	31.7	30.9
2 or 3 Times	28.1	26.9	27.8
4 or 5 Times	6.7	4.8	6.3
6 or More	4.7	3.4	4.4
Person Not Available	.2	.2	.2
5868 Valid Observations			

From Table 49, it appears that even fewer occupational students received a conference with a vocational teacher than with the school counselor. About 37 percent reported no conferences with their vocational teacher, and only 35 percent had more than one conference. It should be noted that only 1.2% reported that counselors and vocational teachers were not available in their school.

Table 49 State-Wide Distribution of Number of Conferences of High School Student with Vocational Teacher

Conferences	% General Students	% Occupational Students	% Total
Never	63.7	36.8	56.0
Once	17.7	26.7	20.2
2 or 3 Times	11.8	23.7	15.2
4 or 5 Times	2.6	4.8	3.2
6 or More	3.1	6.8	4.1
Person Not Available	1.2	1.2	1.2
4357 Valid Observations			

Counselor's Advice to Students (Item 8)

Counselors advised some 56 percent of the students to attend college, but twice as many in general programs received this kind of advice (Table 50). Nearly 68 percent of the occupational students reported they received advice to go to college or technical or advanced training. Perhaps more important is the report that only a small percentage of either group (4.5% of the "general" students and 8.7% of the "occupational" students) were advised to take no further training. Also, it may be important to note the percentage of general education students who were advised to enroll in some training other than college (35.6%).

Table 50 State-Wide Distribution of Advice Given by Counselors to High School Students

Advice	% General Students		% Occupational Students		% Total
Go to College	64.5		31.2		56.1
Technical or Advanced Job Training	16.3		36.9		21.5
Business or Commercial Training	9.5	35.6	22.1	75.8	12.7
Other Training	9.8		16.8		11.5
No Further Training	4.5		8.7		5.6
6140 Valid Observations					

Interest in Occupational Education (Item 9)

The questions in Table 51 were designed to secure student viewpoints toward enrolling in occupational education. Note that more than half of the general education students evidenced an interest in occupational education. In addition, less than 20% revealed they would not enroll in a vocational program. Since there were a relatively large number of "missing data" on this question, perhaps it should be noted that 24 percent of the "missing" were "college bound" students who answered they would never enroll in an occupational program.

Table 51 State-Wide Distribution of Enrollment of High School Students in a Vocational Program

	% General Students	% Occupational Students	% Total
Yes, I am in a Vocational Program	27.6	65.3	39.3
No, I am not in a Vocational Program, but would if one interested me	52.5	26.4	44.4
No, I would not have enrolled in a Vocational Program	19.9	8.3	16.3

4797 Valid Observations - app. 24% of missing were College Bound students who answered they would never enroll in an Occupational Program.

Work Study Program (Item 10)

Nearly a third of the students classified as occupational education students reported they were getting on-the-job training (see Table 52). However, only 7.5 percent of the general education students were participating in a work study program in which school and employers cooperated to provide on-the-job training.

Table 52 State-Wide Distribution of Students In a Work Study Program

	% General	% Occupational	% Total
# In Work Study Program	7.5	32.5	13.8

Relationship of Studies to Future Occupation (Item 11)

Table No. 53 suggests that occupational students see a closer correlation between their studies and their desired future occupation than do general education students (49% to 33%). Only a small percentage of either group (less than 7.0%) indicated that (1) they did not qualify for training

in the area of their occupational choice, or (2) that the course desired was filled, or (3) that they were unaware of procedures for enrolling. However, 52 percent of the "General" students and 37 percent of the "Occupational" students reported that their school had no program designed to train them for the occupation of their choice.

Table 53 State-Wide Distribution of Student Viewpoints

	% General Students	% Occupational Students	% Total
Yes, I am in training for the job I want to do upon graduation	32.6	48.7	36.9
No, I did not qualify for the program	4.8	5.2	4.9
No, the course was full	3.8	4.4	3.9
No, I did not know how to get in the program	6.9	4.6	6.3
No, there was no training for the job in this school	51.9	37.2	48.0
5657 Valid Observations			

Plans Upon Graduation (Item 12)

Students had the opportunity to indicate their plans upon graduation by checking one of five choices as shown in Table 54. About 79 percent of the general education students plan to continue their education beyond high school compared to 51% for the students in occupational education; both groups appear to have rather high expectations in this regard.

Of the occupational students planning to enter employment upon graduation, a larger proportion of them appear to be planning to enter occupations related to their training program than is the case with the

general education enrollees. However, with students expecting to continue their education beyond high school, a slightly larger proportion of the general education students appear to be continuing their present field of study than is the case with occupational education students.

Table 54 State-Wide Distribution of Plans of High School Student Upon Graduation

Plans	% General Students	% Occupational Students	% Total
Continue Education in Present Field of Study	46.9	28.7	42.2
Continue Education in a different field	32.1	22.5	29.7
Go to Work in Field trained	7.7	22.6	11.6
Go to Work in a different field from training	6.1	14.7	8.3
Enter Military Service	7.2	11.4	8.3
5921 Valid Observations			

Number in Household (Item 13)

Do occupational students come from households with a larger number of people? Table 55 indicates that they do, but to a lesser degree than might be expected. The major difference appears in the percentage of students from households of six or more persons. Nearly one third of the occupational students are found from these larger households compared to less than one-fourth of the students of general education, yet the total difference is less than 9 percent.

Table 55 State-Wide Distribution of
Number Persons in Household

Number	% General Students	% Occupational Students	% Total
1 and 2	13.0	13.0	13.0
3	23.8	19.2	22.7
4	24.2	20.1	23.2
5	15.5	15.6	15.6
6 thru 8	18.7	24.1	19.9
9 thru 20	4.8	8.2	5.5
5613 Valid Observations			

Family Composition (Item 14)

Little difference is noted between the two groups of students on family composition. About 80% of both groups lived with both parents. A few more of the occupational students were married and a few more lived with a guardian, but the general impression is that the differences shown in Table 56 are indeed slight.

Table 56 State-Wide Distribution of
Family Composition

	% General Students	% Occupational Students	% Total
Both Parents	80.0	79.2	79.8
Mother Only	11.4	11.0	11.3
Husband/Wife	1.5	2.6	1.8
Father Only	1.4	1.2	1.3
Guardian	3.5	4.1	3.6
Other	2.3	2.0	2.2
Valid Observations - 6111			

Household Income (Item 15)

Do occupational students come from families of lesser income than general education students? It would appear this is true from Table 57, although some reservations must be held since approximately half of each group reported they did not know the total household income. The data do show that the percentage of general education students with household incomes of $10,000 or more is twice that for occupational education students. The difference between the two groups is considerably less at the lower income levels, i.e., 18.3 percent of the occupational students report family incomes of less than $6,000 compared to 12.1 percent for the general education students.

Table 57 State-Wide Distribution of Yearly Income of High School Students

Income	% General Students	% Occupational Students	% Total
Under $3,000	4.6	6.7	5.2
$3,000-$5,999	7.5	11.6	8.5
$6,000-$9,999	11.6	13.2	12.0
$10,000-or more	23.6	12.1	20.7
Don't Know	52.7	56.3	53.6
6021 Valid Observations			

Distance of Residence for School (Item 16)

No appreciable differences between the two groups of students on the factor of distance of home to school. Table 58 indicates approximately 7.5 percent more of the occupational students with residences five or more miles from school.

Table 58 State-Wide Distribution of
Distance of Residence from School

No. Miles	% General Students	% Occupational Students	% Total
Within 1 Mile	16.0	14.9	15.7
1 to 2 Miles	19.2	16.1	18.4
3 to 5 Miles	32.6	29.3	31.8
5 to 10 Miles	21.8	27.7	23.3
Beyond 10 Miles	10.4	12.0	10.8
6141 Valid Observations			

Type of Transportation to School (Item 17)

Table 59 reveals little distinctions between the two groups of students on the basis of transportation used to reach schools. The largest difference shows up in percentage of students riding to school with 5.6 percent more of the occupational education students utilizing this method.

Table 59 State-Wide Distribution of
Transportation of High School Students to School

	% General Students	% Occupational Students	% Total
Walk	5.9	5.3	5.7
Drive Family Car	23.4	21.7	23.0
Ride with Another Student	13.9	10.1	12.9
Ride School Bus	43.2	48.8	44.7
Other	13.6	14.1	13.7
6136 Valid Observations			

Work Outside of School (Item 18)

Two questions are answered in Table 60. First, nearly half of all the students reported they did not work outside of school. Second, it can be noted that a much larger percentage of the occupational education students saw their work as related to their school program (18.3 percent to 4.7 percent).

Table 60 State-Wide Distribution of Work Done by High School Students Outside of School

	% General Students	% Occupational Students	% Total
On Farm or Family Business	17.1	18.5	17.5
On Job for Which You were Trained	4.7	18.3	8.2
On Job not Related to Training	29.9	21.3	27.7
Do Not Work	48.2	41.8	46.6
6016 Valid Observations			

Self-Concept of Scholarship (Item 19)

Occupational education students rated themselves lower in scholarship than did general education students (Table 61). About 10.5 percent more of the general education students placed themselves in the upper one-fourth of the class. Although most students declined to rate their scholarship as within the lower one-fourth of the class, nearly one-third of the group checked the category of "no idea of my scholastic standing". Almost 37 percent of the occupational education group checked this last category compared to 29 percent for the general education students.

The final four tables in this section are related to the image students have of their program of studies as reflected in personal views and their image of teacher views, peer views, and classmate views.

Table 61 State-Wide Distribution of
Self Rating of High School Students Scholastically

Rating	% General Students	% Occupational Students	% Total
Top 25%	31.7	21.3	29.1
25% - 50%	25.4	22.2	24.6
50% - 75%	12.4	18.2	13.9
Lower 25%	1.3	1.6	1.4
No Idea of Standing	29.2	36.8	31.1
6034 Valid Observations			

The Demands of Their Programs (Item 20)

Although the difference is only 10.4 percent, a larger percentage of general education students rated their program of studies equal in demands to any school program than did occupational students for their program of studies (Table 62). Coupled with the fact that 12.9 percent of the occupational students rated their program as one of the least demanding in school, it appears that they reflect less pride in their program than do general education students.

Table 62 State-Wide Distribution of Students' Opinions of Program

Opinion	% General Students	% Occupational Students	% Total
As demanding as others	59.9	49.5	57.2
Less demanding than some, more demanding than others	32.5	37.5	33.8
One of the Least demanding in school	7.7	12.9	9.0
5818 Valid Observations			

Student Concepts of Teacher Viewpoints of Programs (Item 21)

Do occupational students feel that teachers respect the program that they, the students, have chosen? Table 63 indicates that 90 percent of all students saw no unfavorable teacher attitude toward the student's particular program of studies. Yet occupational education students saw less respect accorded their programs than general education students report for their respective programs.

Table 63 State-Wide Distribution of Teachers' Opinions of Program

Opinion	% General Students	% Occupational Students	% Total
Most Respectable Program	49.5	38.6	46.7
Same as Other Programs	42.7	45.4	43.4
Not as Respectable as Some	6.1	11.5	7.5
Least Respectable Program	1.7	4.5	2.4
5890 Valid Observations			

Student Viewpoints of Peer-Group Attitude Toward Program (Item 22)

In Table 64, the data indicate that more than twice the percentage of general education students (34.7%) compared to occupational students (15.4%) felt that their program enrolls some of the best students in the school. Nevertheless, nearly 91 percent of the occupational group reported that the "school" does not view occupational students as generally below average.

Table 64 State-Wide Distribution of School's Opinion of Program

Opinion	% General Students	% Occupational Students	% Total
Best Students in School	34.7	15.4	29.7
Average and Above	49.7	55.3	51.1
Average	11.0	19.8	13.3
Average and Below	3.7	6.4	4.4
Well Below Average	.9	3.1	1.5
5912 Valid Observations			

Student Concept of Viewpoints of Students in Same Program (Item 23)

As in the previous three tables, a larger percentage of the general education students reflected greater respect for their program than did occupational education students for their respective programs (Table 65). The most noticeable contrast is in the category of "least desirable program in school" which was checked by 10.5 percent of the occupational education students, twice that for the general education group (5.5%).

However, occupational students still reflected high respect for their program since 63 percent reported their program "as good as any in school" and nearly 27 percent saw it viewed as the most respected program in the school by the students in the program.

Table 65 State-Wide Distribution of Opinion of Students in Same Program

Opinion	% General Students	% Occupational Students	% Total
Most Respected	35.2	26.6	33.0
As Good as any in School	59.3	62.9	60.3
Least Desirable in School	5.5	10.5	6.8
5873 Valid Observations			

Summary
Section 7. Responses From High School Students
As Projected to the State Populations
(Contributed by Dr. William E. Hopke)

Factors Surveyed	General Education Group	Occupational Ed. Group	Total Group
Age Groups		Older	
Sex			Boys and girls about evenly divided
Grade level			About 2/3 of both groups in grades 11 and 12
Field of study			8 of 10 students in some vocational course
Most popular occupational education program	Office occupations Home economics	Office occupations Industrial and Technical courses	
Use of occupational education for exploration	1/4 of group for more than 1 year. Most of these for only 1 more year	Nearly 1/2 take only 1 year Less than 1/4 in 3 or more years	
No conference with high school counselor	Only slight advantage in conferences		Nearly 1/3 of all students (Six of 10 students had only 1 conference)
Conferences with occupational education teachers		Even fewer conferences than with a counselor 1/3 had no conference 1/3 had more than one conference	Around 1% had no counselor or vocational teacher available in school
Students advised by counselors to attend college	Twice as many as OE group 65%	31%	About 1/2 of students

Section 7. Summary (con't.)

Factors Surveyed	General Education Group	Occupational Ed. Group	Total Group
Students advised by counselors to attend technical school, or take advanced training	1/3 of students advised to enroll in some training other than college	3/4 of students	About 6% advised to take no further training
Students evidencing an interest in occupational education	1/2 of group with less than 1/3 indicating no interest		
Students receiving on-job training	About 8% in work-study program	1/3 of group	14%
Students seeing close correlation between studies and desired occupation	1/3 of group	1/2 of group	
Students indicating they did not qualify for training in area of occupational choice, course was full, or did not know how to get into program	15%	15%	15%
Students in training for job they want upon graduation	1/3 of group	About 1/2	37%
Students indicating no training in their schools for jobs they want	About 1/2 of group	Around 1/3	About 1/2 of Group
Students planning to continue education beyond high school	4/5 of group	1/2	

Section 7. Summary (con't.)

Factors Surveyed	General Education Group	Occupational Ed. Group	Total Group
Proportion of students planning to enter occupations related to their training programs		Larger	
Proportion of students expecting to continue present field of study	Larger		
Students coming from households with larger number of persons		More, but major difference is in households with 6 or more persons	
Composition of family in terms of living with both parents, number of students married, and number living with a guardian			Little difference in two groups
Students knowing household income	Higher income (main difference is in higher number of families with incomes of 10,000 and up)	Less income	About 1/2 of group knew income
Distance students have to travel to school and type of transportation used			Little difference in two groups
Students reporting not working out of school		Higher proportion working saw this work as related to school program	Nearly 1/2
Students' rating of themselves in scholarship	About 10% more placed themselves in upper 1/4 of class	Lower	1/3 had no idea of scholastic standing
Students' rating of how demanding their program was in comparison to any program in school	Slightly larger percentage rated as more demanding	1/10 rate their program as least demanding. Reflect less pride in program	

Section 7. Summary (Con't.)

Factors Surveyed	General Education Group	Occupational Ed. Group	Total Group
Students' seeing no unfavorable teacher attitude towards their particular program		Less respect accorded their program	9/10
Students' feeling that their programs enroll some of best students in school	35%	15%, but 9/10 of group feel that school does not view it as generally below average	
Students regarding their programs as most respected in school	Somewhat larger - about 1/3	About 1/4	1/3
Students' feeling that their program was least desirable in school	1/10	1/10	7%
Students reporting their program was as good as any in school	About 2/3	2/3	About 2/3

Conclusions and Recommendations
Section 7. High School Student Responses
(Contributed by Dr. William E. Hopke)

Conclusions

Responses from high school students reveal that a fairly high percentage (8 to 10) of the total group are engaged in some type of vocational program. However, the remaining one fifth should be able to engage in a suitable program.

About a third of all students have had no conference with a high school counselor with over half having had only one conference. The number of conferences with occupational education teachers is even less than with counselors. A large segment of students, therefore, have no individual contacts with persons who could assist them in the occupational area.

Only half of the general education group evidenced some interest in occupational education with a third of this group having no interest. It appears that large numbers of general education students need motivation to consider the possibility of occupational education experiences.

A very small percentage of both groups are receiving on-job training with occupational education students receiving about four times as much training as the general education group. Both groups, and especially the latter group, need much more experience in this area.

One half of the occupational education group and two thirds of the general education group need assistance in seeing a close correlation between their studies and a desired occupation. Only a small proportion of both groups (15%) indicated that they did not qualify for training in an area of occupational choice, the course was full, or that they did not know how to get into such a program. Even this small group of

students should be assisted in finding out about and entering into an occupational course or program.

It appears that a much greater effort needs to be made to get students into the type of training they need for the jobs they want upon graduation and to assist them in making plans for further training and education.

The advantages and desirability of occupational education for both groups need to be reinforced for students as well as teachers.

Recommendations

1. The occupational education program should be enlarged and broadened so as to permit all high school students to engage in some type of occupational experience.

2. Students need more opportunities to confer individually and in small groups with counselors and occupational teachers. The ratio of counselors to students needs to be reduced, and occupational education teachers given a released period in order to provide time for more individual conferences with students.

3. By means of individual and group procedures, students should receive more orientation about training and educational opportunities beyond high school as well as opportunities for occupational education in high school.

4. More on-the-job training should be provided all students through work-study programs and part-time employment placement.

5. Counselors and all teachers should work cooperatively to acquaint students with the vocational possibilities of all subject areas.

6. An orientation program should be devised to acquaint students with the advantages and desirability of occupational education for all students.

CHAPTER IV
FIELD STUDY DATA
POST-SECONDARY LEVEL

Section 1 - Responses from Community College Presidents

Articulation

All of the community college institutions responded in a request to list high school administrative units, public or private, which had a large representation of their graduates enrolled in the community college institution. It was noticeable that only public high schools were listed. It also seems important to note that each community college institution specified in their first three listings a high school administrative unit included in this study sample. Further, such administrative units headed the listing in eleven cases and was second in three others. These facts support the assumption made when selecting these community colleges that they would be serving the areas represented by the high schools drawn for the study sample.

The Articulation Process

Responses by community college institution presidents indicate that (a) a considerable variety of activities characterize the institutions' programs for helping people learn of their offerings, and (b) the Dean of Student Services or Director of Student Personnel bears the greatest responsibility for articulation (Table 66). In most cases responsibility is identified with one position, but administration and staff are involved in a majority of the activities identified. Faculty and students were not generally recognized in the articulation program except for two or three institutions.

Table 66 ARTICULATION AND POSITIONS RESPONSIBLE AS REPORTED BY 15 COMMUNITY COLLEGE INSTITUTIONS

Activity	No.	%	Positions Responsible (Number Checked)					
			Dean Student Service	Admin. Ass't.	Other Staff	Faculty	Coun-selors	Students
Visits to High Schools	13	86.6	11	0	2	0	2	0
Open House	11	73.3	7	1	2	2	0	2
High School Career Days	10	66.6	7	1	2	0	0	0
News Articles	9	60.0	4	5	2	0	0	0
Civic Club Speakers	8	53.3	1	0	4	0	0	0
News Advertisements	7	46.6	5	2	0	1	0	0
Summer Articulate Conferences	5	33.3	3	2	0	0	0	0
Publications, Brochures	6	40.0	4	3	2	2	0	0
Radio Spots	5	33.3	3	2	0	0	0	0
Others:								
Tours	4							
High School Counselor Work Shops	4							
Summer Outreach								
Individual Conference								
Public Relations Person								
Tape and Film Presentation								

Recruitment of Students

Apparently the multiple-choice style of check-list utilized for this section was exceptionally well received since all fifteen institutions completed it without mechanical error. Using a scoring system of 0 to 4 for the five item rating scale provided the average score per item and the rank-order is shown in Table 67.

Table 67 PRACTICES UTILIZED BY COMMUNITY COLLEGES TO ASSIST IN RECRUITMENT OF STUDENTS

Activity	No. Response	Percentage Response by Categories					Avg. score	Rank
		Never	Seldom	Occas-ionally	Usually	Exten-sively		
Visits to high school counselors	15	0	0	0	33.3	66.6	3.66	1
Visits to high school Career College Days	15	0	0	0	33.3	66.6	3.66	2
Talks to civic and other organizations	15	0	0	6.6	60.0	33.3	3.26	3
Short-to-the-point news releases	15	0	6.6	20.0	46.6	33.3	3.00	4
Open house held so that prospective students may see school and program	15	0	6.6	20.0	53.3	20.0	2.87	5
Organized tours including demonstrations set up for participation by high school students	15	0	13.3	26.6	20.0	40.0	2.87	6
Newspaper advertisements	15	0	6.6	33.3	40.0	20.0	2.76	7
Articulation workshops for high school teachers, counselors and administrators	15	0	6.6	33.3	46.6	13.3	2.66	8
Radio spots	15	0	0	53.3	33.3	13.3	2.6	9
Feature articles in newspaper	15	0	6.6	40.0	46.6	6.6	2.53	10
Drop-in visits by specified high school classes	15	0	13.3	20.0	46.6	20.0	2.53	11
Current students encouraged to visit their former high schools	15	6.6	6.6	53.3	26.6	6.6	2.06	12
Staff participation in High School Assemblies	15	6.6	20.0	46.6	20.0	0	1.86	13
Local education association membership & participation	15	20.0	20.0	46.6	6.6	6.6	1.6	14
Staff participation in Introduction to Vocations and other high school courses	15	0	26.6	40.0	13.3	20.0	1.46	15

(Con't) Table 67 PRACTICES UTILIZED BY COMMUNITY COLLEGES TO ASSIST IN RECRUITMENT OF STUDENTS

Activity	No. Response	Percentage Response by Categories					Avg. score	Rank
		Never	Seldom	Occas-ionally	Usually	Exten-sively		
Cooperative Training programs between high school and post-secondary institutions	15	33.3	26.6	20.0	13.3	6.6	1.33	16
T. V. Spots	15	33.3	20.0	33.3	13.3	0	1.26	17
Trade Journal and specialized papers	15	6.6	66.6	20.0	6.6	0	1.26	18
Visiting lecture program	15	26.6	46.6	20.0	0	6.6	.86	19
Instructor exchange program	15	46.6	46.6	6.6	0	0	.60	20

Top-ranked items were (a) visits to high school counselors and (b) visits to high school career days with identical scores of 3.66 from a perfect score of 4.0. Two-thirds of the community colleges reported utilizing these two activities.

Two other activities popular in the recruitment approach were (1) talks presented to civic and other organizations and (2) short news releases, both with 3.0 ratings or above.

Among the less favored activities were those of (1) instructor exchange, (2) visiting lecturer, (3) T. V. "spots", and (4) trade journals or specialized papers. None of these received an average rating above 1.26.

Written Materials Furnished

In connection with recruitment, information was also secured concerning certain written materials furnished to high schools. Table 68 shows that all community colleges furnish a school bulletin for the high schools in

their area, and most of them also provide this every month (67%). Approximately 80 percent of the institutions offer to the high schools some feedback on their students. Over half of the community college institutions also furnish a school year-book, school calendar, and feedback on all students to their home high school.

Table 68 SELECTED MATERIALS FURNISHED TO HIGH SCHOOLS BY COMMUNITY COLLEGE INSTITUTIONS

	No. C. C. Furnishing	% C. C. Furnishing
School Year Book	8	53.3
A School Bulletin	15	100.0
Every School Bulletin	10	66.6
Up-dated School Calendar	9	60.0
Annual School Calendar	5	33.3
Feedback on all High School Students	8	53.3
Feedback on Some High School Students	12	80.0
One Copy all Issues of School Paper	3	20.0
Several Copies of Each Issue School Paper	6	40.0

Guidance Services

All of the community college institutions reported admission counseling for students, and 14 of 15 requested help from public agencies in their recruiting program. Nearly 3/4 professed to have a "developmental" approach to building a student's program of work, allowing needed shiftings in and out of the various curriculum (See Table 69).

Table 69 GUIDANCE SERVICES PROVIDED FOR STUDENTS BY COMMUNITY COLLEGE INSTITUTIONS

Guidance Service	Number	Percentage
Providing group seminars and orientation following testing program	10	66.6
Program of developmental studies	11	73.3
Provides admission counseling	15	100.0
Exhibits follow-up studies to high school students	5	33.3
Utilizes public agencies and committees to help in recruiting	14	93.3

Summary, Conclusions, Recommendations
Responses from Presidents of Community College System
(Contributed by Willis Parker)

From the responses from the Presidents of the Community College Institutions, it was found that a majority of students enrolled were from public high schools in the area served by the institute; that the Dean of Student Personnel bears most of the responsibility for articulation; that the process of articulation embraces two major thrusts, visits with high school counselors and visits to high school career days; and that nearly eighty percent of the institutions provide some feedback to the high schools on their former students. All of the institutions provided admission counseling, 93% use other agencies to assist in recruiting and 75% provide developmental and transfer opportunities in support of the student's needs for entrance into a program or desire to transfer to other programs.

As was anticipated, the Community College Institutions are basically local institutions serving the needs of the students from the public high schools in the area served. All the institutions have active programs to enhance articulation and to effectively recruit students for the programs offered. Likewise, all institutions rely heavily upon admissions counseling. While the articulation process and recruitment procedures vary widely, the Dean of Student Personnel or members of his immediate staff maintain open channels with the high school students through the high school counselor and career days. Other means of contacting potential students appear to be considered of lesser importance, at least as reflected by the use of these other means.

While the implications resulting from the data are not readily apparent, there do seem to be several areas that would warrant further study. First,

student recruiting and maintenance of articulation efforts with the high schools appear to be dominated personally by the Dean of Student Personnel, with other staff and faculty not adequately sharing the responsibility, at least in the execution of the process. Some attention might be devoted to identifying why the activity has been largely assigned to the Dean, and to developing a plan that more totally involves all members of the institutions in the articulation and recruiting process. Second, while various means are used by the institutions to tell the public and students about program offerings and opportunities, there is no evidence that one method is more or less effective than another. Attentions might be devoted to reviewing recently conducted studies regarding the perceived effectiveness and actual effectiveness of various techniques and to determining the relative effectiveness of the various techniques through student surveys. Third, the data collected in this section yield no information as to the contact made with all high school students by the high school career day visits or through the guidance counselor. Investigation should reveal student contact information at all percentile levels. Fourth and finally, an overview of the articulation, recruitment and information dissemination processes reveal little systemwide planning. The lack of planning can only result in using less effective techniques and processes. Some attention should be given to providing the resources necessary to enable the identification and selection of planning techniques through evaluation of their relative effectiveness.

Section 2 - Community College Administrator Characteristics

General Characteristics

Only 1 of 16 Community College Institutions failed to file the survey form on characteristics of at least one of their administrators, although 5 of the presidents did not complete their reports.

Of the 47 administrators responding, the mean age in years was 42.0 with a range of 27 to 64 years. There was no central focus in the age pattern except at the 39 - 40 bracket which included 9 persons. There were no females among 45 respondents to the category of sex.

With regard to the institutions awarding their degrees, 13 (28%) gave credit to N. C. State University. Two other universities, East Carolina University and Western Carolina University were each listed by six persons, but no other focus was apparent as more than 18 institutions were represented.

Seven types of teaching certificates, or combinations, were reported with only 2, the "A" certificate and "other", having as many as 10 and 7 holders respectively, of 35 responses.

Four types of administration certificates were subscribed to but only two, the "Masters" and "Guidance Counselor & Principal Assistant", had as many as 3 recipients. Three administrators reported no certificate in this area in the total of 19 of 47 responses.

Experience

Great variation in teaching experience was evident, ranging from none to 22 years with no particular focus evident. The mean was 7.4 years.

Nine different teaching fields were mentioned as their background by 43 responders, but only one field was claimed by as many as 9 persons (20.9%) -

that of Agriculture. It should be noted that the listing of "other" contained 21 responses or 48.8% with 13 different fields or combinations represented.

A range of 39 years was shown for supervisory position experience by 46 respondents. No central tendency was evident although the "4th year" category was marked by 6 persons (13.0%). The mean was 9.2 years.

Concerning their experience as an administrator with Occupational Education in their institution, the range was large, 23 years, but the mean was 6.6 years and the median was 5.9 years.

Nearly 1/4 (23.8%) of the 42 administrators reporting listed 0 years of Occupational work experience. However, the mean was 5.8 years with a range of 25 years.

Twenty-three, about 70% of the 33 administrators reporting, listed their work experience in the field of Industrial and Technical Education.

Administrator Role

All administrators (45) reporting listed a 12-month contract.

Administrators were generally optimistic toward their present occupational program. Sixty-one percent claimed they were "always optimistic" while 37% said they were "usually optimistic".

For the next year, 85% of the group preferred to stay with the community college but nearly 13% checked "other employment". Only 2 persons checked college, university, or non-school employment as an interest now or in the future.

Professional Study

Inquiry was made concerning the most valuable areas of professional study for them during the next 5 years. Only the areas of "evaluation",

(58.6%) and "administration" (20.7%) elicited much support from the 29 responders.

Questioned concerning their professional training of the past 5 years, 54.3% listed graduate courses only as their professional training and nearly 20% reported conferences and seminars only for their professional training, from a total of 46 responses.

Of 47 responses, 57.4% took some graduate work in the past 5 years, 6.4% took some certificate renewal work, and 75% attended some conference or seminars.

Summary, Conclusions, Implications
Characteristics of Community
College Institution Administrators
(Contributed by Willis Parker)

The community college administrator is around forty years of age, male and twice as likely to have graduated from North Carolina State University as from either East Carolina or Western Carolina University; but there is a better than even chance that he graduated from some other University. The administrators hold a variety of teaching and administrative certificates with no particular pattern evident, and they have an average of 7.4 years teaching experience in nine various fields with a range of 0-27 years. While supervisory experience listed has a range of 39 years, the mean experience is 9.2 years with a cluster in the 4th year.

Occupational administrators listed a range of 23 years of experience with a mean of 6.6 years, but 25 percent listed no occupational work experience. Administrators averaged 5.8 years work experience in an occupation with 70 percent of those listing their experience as Industrial and Technical Education.

All reporting administrators were employed 12 months and were optimistic about their program with nearly 85% expecting to remain in the occupation. Most administrators reported graduate studies as their primary means of preparation for administration and their preferred route for continued professional development, but 20% reported attending conferences and seminars.

In conclusion, the administrators in the community college institutions were comparatively young and were professionally prepared for their responsibilities, though the programs in which they were prepared are nearly half as numerous as the number of administrators. In the areas of teaching

experience, supervisory experience, and occupational work experience, the average years reflected may be misleading because of the extreme ranges reflected and the grouping of numbers at certain intervals, as seen by the large number of administrators with no occupational work experience.

A relatively large number of occupational administrators came from N. C. State University (13 of 43) and had backgrounds in Industrial and Technical Education (23 of 33). Most administrators preferred to remain in their current field of employment and listed graduate studies as the primary means for furthering their professional development.

Evaluation of the survey results yielded very little information for drawing conclusions that can be translated into implications regarding community college administrators. The analysis of the data combined information about administrators at various levels within the institutions and may have prevented the detection of significant characteristics sought. Future studies should provide for analysis at each level, and for collecting more specific data. Too, a larger sample may be required to give a reliable profile of community college administrators.

Section 3 - Community College Instructor Characteristics

General Characteristics of Instructors

Male instructors constituted 70.7% of the community college faculty. The mean age was 39.4, the median, 38.2, the mode 33.0, and the ages ranged from 22 to 68 years.

Formal Training

The largest percentage of the instructors reported having a four year degree (119 or 41.2%). Another 29% indicated the Master's Degree while 21% had the vocational diploma. Three reported the Doctorate Degree.

In this sample of 287 observations, 17.4% reported their major field of degree as Business Administration and two groups tied for second place; Nursing - 10.8% and Engineering - 10.8%. Two other groups took third place; Auto Mechanics - 5.9% and Industrial Arts - 5.2%. In all, 42 degree fields were mentioned.

Teaching Experience

One third (34.2%) of the instructors had two years or less teaching experience; 89% showed less than 10 years experience.

More than three-fourths (76%) had taught 5 years or less in their present situation; 25% one year or less. In total teaching experience, 48% had five years or less; 80% had 10 years or under.

Occupational Experience

Although the mean for occupational experience was 12 years, the median was 8 years and the mode, 2 years; 40% had 5 years or less experience and 8.4% had none.

Contract Period

On the basis of 323 replies (94%), more than three-fourths of the instructors reported 12-month contracts. Further distribution is shown below.

No Contract	2	.6%
1 Month	2	.6%
3 Months	23	7.1%
9 Months	22	6.8%
10 Months	14	4.3%
12 Months	252	78.0%
Above 12	4	1.2%
TOTALS	269	98.6%

Assigned Extra-Curricular Duties

From 338 replies, there were 137 instructors (40.5%) with no assigned responsibilities for extra-curricular activities. About 41% reported 1 or 2 assigned duties.

Temporary Teaching Assignments

Only 44 or 12.8% of the instructors classified any of their teaching assignments as "temporary or emergency".

Attitudes and Interests

Few instructors indicated any pessimism toward their teaching assignments; 40% reported "always optimistic" and 55% said "usually optimistic".

Few instructors preferred to change occupational employment for next year or for 5 years from now. Nearly 88% chose to remain in their present employment for next year and 76% would do so five years from now. It was noted that 17% indicated a "non-teaching" job preference for the future.

Professional Training

The areas of "Instructional methods" and "Technical competencies" drew the most instructor support, with the following table (No. 70) showing the distribution of responses.

Table 70 Areas of Professional Training Valuable to Teachers During Next 5 Years by 341 Community College Faculty

Area	% of Group Voting for Each
Philosophy of Occupational Education	15.5%
Admn. and Supr. Education	19.9%
Curriculum Development Education	39.9%
Evaluation in Education	33.7%
Instructional Methods	67.4%
Updating Technical Competencies	56.0%
Others	9.7%

Past Professional Training

From 344 replies, it was evident that 21.5% of the community college instructors took some undergraduate courses and 26.6% enrolled in some graduate courses. Sixty-three instructors earned degrees during the past 5 years as follows:

Bachelor's Degree - 6.1% (21 persons)

Master's Degree - 10.8% (37 persons)

Doctorate Degree - 1.5% (5 persons)

Summary, Conclusions, Recommendations
Characteristics of Community College Instructors
(Contributed by Dr. T. R. Miller and Dr. C. Douglas Bryant)

Summary

In comparison to the occupational education teacher at the high school level, this study indicates that the community college instructors averaged the same age (39 yrs.) and 10% fewer had degrees but 10 percent more had Master's Degrees. Community college teachers had less teaching experience and more occupational work experience, but in both groups about 8-10% had no occupational experience except teaching.

More than 75% of the college instructors had 12 month contracts in contrast to 15% for the high school teachers. Both groups were generally optimistic about their teaching assignments.

Community college instructors placed highest value on "instructional methods" and "updating technical competencies" for future professional training.

Conclusions

Instructors in occupational education at community college institutions present, on the whole, desirable professional characteristics in terms of degrees, teaching experience, and occupational experience. However, the fact that 21% had the vocational diplomas, that one-third had two years or less teaching experience, and that 8.4% had no occupational work experience suggest areas of concern.

Community college instructors had an expressed need for inservice programs in the areas of technical competencies, instructional methods, and curriculum development education.

Recommendations

Acceptable standards and guidelines should be enforced in the selection of instructional personnel to insure that all instructors meet or exceed minimum levels of occupational experience, teaching experience, and formal education.

Inservice education opportunities should focus upon instructional methods and curriculum development education as well as technical competencies.

Section 4 - Community College Student Enrollment

In Table 71, it is shown that most of the occupational enrollments are clustered within three major Office of Education Code areas, i.e., Office Occupations (30.5%), Trade and Industrial Courses (26.8%), and Technical Courses (21.8%).

Table 71 Enrollments in Community College Units By Eight Major O. E. Categories

O. E. Codes		Number	Percentage
01	Agriculture	565	4.7%
04	Distributive Education	260	2.1%
07	Health Occupations	1,349	11.1%
09	Home Economics	177	1.4%
14	Office Occupations	3,704	30.5%
16	Technical	2,645	21.8%
17	T & I	3,251	26.8%
99	Others	193	1.6%
	TOTALS	12,144	100.0%

Student transfers and drop-outs are compared by occupational groups in Table 72. Transfers into and out of classes in community colleges involved only a very small percentage of the students, 1.2% for incoming transfers and 1.7% for out-going students. However, drop-outs involved 7.5% of students or 914 individuals in this sample of classes. The Technical classes had relatively fewer drop-outs than their companion field of Trades and Industrial Education, 6.1% versus 8.4%. The drop-out rate showed highest in Health Occupations, 12.5%.

Table 72 Transfers and Drop-Outs by Occupational Groups of Students in Community College Groups

Occupational Groups	Opening Membership	No. Transfers In	No. Transfers Out	Drop-Outs No.	Drop-Outs %*
Agriculture	565	1	5	32	5.7
Distributive Ed.	260	7	3	23	8.8
Health Occ.	1,349	18	5	168	12.5
Home Economics	177	1	0	12	6.8
Office Occ.	3,704	29	75	235	6.3
Technical	2,645	27	63	161	6.1
Trade & Industrial	3,251	57	50	272	8.4
Others	193	10	3	11	5.7
TOTALS	12,144	150	204	914	7.5

* Percent of Opening Membership in this Group

Initial enrollments are compared with expected completions in Table 73. The summary indicates that nearly 89% of initial enrollees were expected to complete their course. There was not much variation in the completion percentage by occupational category, especially if one considers that the sample was small in those groups with highest completion rates. The range of rates was only 7.4%.

Since pupil-teacher ratio is a commonly used measure of educational programs, it may be of interest to note that with 12,144 initial enrollments reported by 308 instructors in these community college units, the average number of students per instructor was about 39.4 (Table 74).

Table 73 Comparison of Initial Enrollments and Expected Completions, 16 Community College Units, June, 1971

O. E. Group	Initial Enrollment	Expected Completions	% Completions of Initial Enrollment
Agriculture	565	521	92.2
Distributive Education	260	240	92.3
Health Occupations	1,349	1,150	85.3
Home Economics	177	166	93.8
Office Occupations	3,704	3,214	86.8
Technical	2,645	2,355	89.0
Trade & Industrial	3,251	2,920	89.8
Other	193	179	92.7
TOTALS	12,144	10,746	88.5

Table 74 Community College Instructor-Pupil Ratio by O. E. Code

O.E. Code	Field	No. Students	No. Teachers	Ratio of Students per Teacher
01	Agriculture	565	9.5	59.5
04	Distributive Ed.	260	4.5	57.8
07	Health Occupations	1,349	30.0	45.0
09	Home Economics	177	4.0	44.3
14	Office Occupations	3,704	68.5	54.1
16	Technical	2,645	45.0	58.8
17	Trade & Industry	3,251	139.5	23.3
99	Others	193	7.0	7.6
	TOTALS	12,144	308	39.4

Summary, Conclusions, Recommendations
Enrollment in Community College System
(Contributed by Dr. Allen B. Moore)

Summary

About three-fourths of the enrollment in occupational education in the community college sample were reported in the combined areas of Office Occupations (30.5%), Trade and Industrial Education (26.8%), and Technical courses (21.8%). Health Occupations accounted for about 11 percent of the enrollment, which is a much larger percentage than that found in the secondary public schools. Very small percentages of the students were enrolled in Agriculture, Distributive Education, and Home Economics - about eight percent for the total in these three areas.

Transfers in and out of community college classes were very low and the drop-out percentage was also low (7.5%), although it is noted that the drop-out rate in Health Occupations (12.5%) was considerably higher than any other area. Student completion rates were indicated to be quite high at nearly 89%. The instructor-student ratio was found to be 39.4.

Conclusions

The enrollments by O. E. Code within the community college system appear to complement the secondary school enrollment in the areas of Home Economics, Technical Education, and Health Occupations. Only in Distributive Education was the percent enrolled low in both types of institutions.

Student loss between opening and closing enrollments appears to be reasonable, and was almost exactly the same percentage (7.5%) as for the secondary schools.

Instructor-pupil ratio appears to be quite reasonable, especially so in recognition of the pupil-teacher ratio generally found in secondary

schools. Certainly, this level of instructor-pupil ratio could permit more individualized instruction time, a definite point in its favor.

Recommendations

Community colleges should continue to emphasize enrollments in areas such as Distributive Education, Health Occupations, and Technical Education especially since these were low enrollment areas in secondary schools.

Since Occupational Extension classes were not well represented in this study, additional information should be obtained before assessment of adult education opportunities can be made.

Section 5 - Community College Student Characteristics

Sex, Age, Marital Status

Nearly 60% of the community college students were male. The largest percent of the 1,242 reporting were in the 19-year old group (20.4%). The 19 and 20-year old age groups combined to total 38.2% of the population. Only 13% were over 40 years of age; only 18.4% were over 35 years of age. Overall, 81% were between the ages of 19 and 35 years.

Half of the students had never married, 46.1% were married, while a small percentage reported being widowed, divorced or separated (4.5%).

Programs of Study

Nearly three-fourths were full-time students and it was estimated from the length of program in quarters that 22% were occupational extension students, 36% were in vocational programs, and 42% (518 persons) were enrolled in Technical Programs. A breakdown by specific programs is shown in more detail as follows:

Table 75 Distribution of Community College System Students by Curriculum Courses

Course	Numbers	Percentage
Secretarial Science	164	13.2
Auto Mechanics	123	9.9
Practical Nursing	95	7.6
Business Administration	91	7.3
Mechanical Drafting	86	6.9
Cosmetology	65	5.2
Repair - Radio & TV	55	4.4
Electronics	47	3.8
Air Conditioning	47	3.8
Mental Health	40	3.2
Computer Operations	36	2.9
Nurses Aid	34	2.7
Teachers Aid	34	2.7
Others (28 Dif. Class)	325	26.3
TOTAL STUDENTS	1,242	99.9
TOTAL COURSES 41		

Student Background: High School Course of Study

About one-half (56.1%) reported their high school program of study was "general education", while 25% took the college preparatory, and 10% did not graduate from high school. About 10% had a vocational program in high school and two-thirds of these were continuing in a community college program related to their high school vocational program.

Student Work

Table 76 shows the percentage of students with jobs outside of their community unit. While 64% of the students had jobs, only one-fourth held jobs related to their program of study or associated with a cooperative education program. A very small percentage, 2.6%, were participating in cooperative education programs. There were a total of 1,233 reporting.

Of those with jobs, nearly 37% worked more than 30 hours per week.

Table 76 Relationship of Community College Student's Work to Program of Study, June, 1971

Type of Work	Percentage Response
Part of Cooperative Program	2.6
Related to my Program of Study	22.7
Not Related to Program of Study	38.4
I Do Not Work	36.2
TOTAL	99.9

Present Training Program and Future Job Desires

About 40% of the students reported their present program as "exactly as I want". Another 38% agreed that it was directly related to their plans. An additional 16% credited their program as an entry to the job they wanted.

Very few students conceded they could not qualify for the program they wanted, nor that the program they wanted was already filled. However, some 4.5% reported their first choice program was not offered.

Future Plans

Over half, 55.0%, revealed they would seek a job in the field for which they were trained, but another 26% sought to continue their education in the same career pattern. About 17% showed desire to change their career pattern.

Home Life

A large percent of the students were "head of household" (38.7%) and the second largest group (36.7%) lived with both parents.

The average size of family (number in same household) was 3.33. Nearly 77% lived in a family of four or fewer.

Total Income for Household

From 1,212 replies, the income category of $6,000 to $9,999 received 27.1% of the checks. About 22% reported over $10,000 household income and 24% said they didn't know this item. Nearly twenty percent (19.6%) was reported in the bracket of $3,000 to $6,000.

Distance

Analysis of 1,238 replies shows that most (55.4%) community college students live less than 10 miles from the institution, but 44.6% live beyond 10 miles from the college.

Self Concept of Scholarship

Table 77 indicates student "self-concept" of their scholastic ability with respect to other students in their program. Nearly two-thirds of the students saw themselves in the upper 50% of their program. Less than 2% would admit they were in the lower quartile of their class.

Table 77 Self-Concept of Scholastic Rating of Community College Students

Category	% Response
Top 25% in your Program	34.0
50 to 75%	32.1
25 to 50%	9.8
Lower 25%	1.7
No Idea of Standing	22.4
TOTAL	100.0

Ratings of Instruction

The following Table 78 compares the student responses on two questions related to quality of teaching received. A larger percentage (43.5%) reported excellent instruction in their field of specialty than in their general and related courses (32.7%). A large percentage reported evaluations of "above average" or "excellent" for the general courses (64%) and their specialty area (76%).

Table 78 A Comparison of Quality Rating Given by Community College Students for Specialty Areas Versus General Areas of Instruction

Quality Rating	% General Area	% Specialty Area
Excellent	32.7	43.5
Above Average	31.5	32.5
Average	33.3	21.2
Below Average	1.9	1.9
Poor	.6	1.0

Status of Programs

A total of 1,192 students responded to the question of how demanding their program of studies was. Nearly three-fourths said their program was as demanding as most of the others offered at their school. Only four percent indicated it was less demanding than most other programs at their school.

Other questions asked for student views of how (a) the average teacher (Table 79), (b) the school, (c) other students viewed their program.

Table 79 Student Concept of Teacher Views of Program of Student

Student Concept of Teacher Viewpoint	% of Student Responses
Most Respectable Programs	49.6
Same Level as Others	41.3
Not as Respectable	7.9
Least Respectable	1.2

Two-thirds of the community college students said they thought the school viewed the students who took their program as generally average and above. Nearly 24% volunteered that students in their program were seen as some of the best students in the school. Only a small percentage (6.4%) replied that the school rated their students below average.

As a final question, students were asked to judge how other students in their program felt about its status. About 53% predicted other students would rate it as one of the most respectable programs in the school. Only 2.1% prophesied that other students would rate it as least desirable.

Summary of the Community College Student Characteristics
(Contributed by Dr. Allen B. Moore)

According to this study, the typical community college student can be described as:

1. Male, between the age of 19 and 35 years; (P. 130)
2. A product of the so called "general education" high school program who is enrolled in a vocational or technical program at the institution; (P. 131)
3. Having a job outside of this community, where he works less than 30 hours per week; (P. 131)
4. Viewing the community college program as meeting his needs and being related to his job plans; (P. 131)
5. Falling into one or two categories - either the head of his household or living with both of his parents, with the total household income ranging from $3,000 to $10,000 or more; (P. 132)
6. Living within 10 miles of the college; (P. 132)
7. Rating the quality of instruction at the institution as average or above in both the general and specialty areas; (P. 133)
8. Rating his program (vocational or technical) of study as equally demanding as other programs at the institution; (P. 134)
9. Feeling that teachers view their programs (vocational or technical) as being on the same or higher level as the other programs at the institution; (P. 134)
10. Believing that the institution views the students as being average or above in their performance; (P. 134)
11. Believing that other students at the institution view the vocational or technical program as respectable. (P. 134)

CHAPTER V

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

During the spring of 1971, data were contributed by 16 public school administrative units and 16 community college institutions for a status study of occupational education in North Carolina. This is a report of the information received as analyzed by the faculty of the Division of Occupational Education, School of Education, North Carolina State University.

Summary of Data

I. Administrative Units - Secondary Schools

All sixteen of a random, representative sample of administrative units furnished information concerning the administrative structure and process of their unit and the characteristics of their administrative personnel.

1. Fourteen of 15 units reporting indicated the position of Occupational Director, or equivalent, had been established.

2. Few units (3 of 15) had established advisory committees for occupational education.

3. An expression of need for a 58% increase in man-months for occupational education was evidenced, although expectations were limited to a 1½% increase.

4. Considerable shifting of man-months among the various occupational services occurred between 1969-70 and 1970-71 school years. Major gains reported were: Business (11%), Distributive (11%), Industrial (23%). Only agriculture reported a major loss, nearly 12%.

5. Predicted changes in man-months distribution for 1971-72 were: Agriculture (11% decrease), Health (37% increase), and Industrial (14% increase).

SUMMARY (Con't.)

6. Administrators found two program planning practices difficult to implement: (1) Involving lay citizens and (2) Using an advisory committee for labor market data.

7. Evaluation of occupational programs was accomplished largely by "observation".

8. Articulation with community colleges was left largely up to directors of occupational education.

II. Characteristics of ADU Administrative Personnel - Secondary Schools

1. As a group, the administrators at the county or city unit level (a) were men (95%), (b) averaged 47 years of age, and (c) 71% had the Master's Degree and 13% the Doctorate. All superintendents held the Master's Degree and 31.3% the Doctorate.

2. Nearly 16% of ADU administrative personnel below the superintendents' positions held only the Bachelor's Degree.

3. About a third of the ADU administrators held degrees from East Carolina and 14% from the University of North Carolina.

4. Superintendents had less teaching experience, more years as a principal, and much less occupational work experience (43% reported "none") than administrators holding other positions at the ADU level.

5. Ninety percent of the ADU administrators expressed optimism toward their present occupational program, and 95% preferred to remain employed with the public schools for next year.

6. Only 15 of 38 ADU administrators responded to a question about professional studies desirable in the next five years. Moreover, 13% of these answered "none".

SUMMARY (Con't.)

7. Recent professional study was reported by 25 of 38 ADU administrators equally divided on graduate credit and certificate renewal purposes.

III. Local School Administrative Structure and Process - Secondary Schools

1. Responsibility for occupational education at the school level was varied and diffused but in 65% of the cases principals depended upon department heads for shared responsibility.

2. About 27% of the principals selected "saleable skills" as the main purpose of occupational education; another 27% viewed it as "general preparatory training".

3. Adult education was seldom viewed by principals as an important part of their schools.

4. Principals reported program planning primarily as an in-house operation; advisory committees were difficult for them to implement.

5. A majority of schools were implementing about 50% of a selected list of criteria for helping students select their high school programs.

IV. Characteristics of Local Administrators - Secondary Schools

1. In general, local administrators were in their middle forties, over 90% were white males, 76% held the Master's Degree, and 64% were employed on 12-month basis.

2. About 80% had work experience in non-school fields.

3. Only 6.4% were "seldom optimistic" about occupational education.

4. Administration and evaluation were the choices as the most valuable areas for future professional study.

V. High School Teacher Characteristics and Viewpoints

1. Nineteen percent had a Master's Degree but 2% had not graduated from high school.

SUMMARY (Con't.)

4. Nearly 10% had no occupational experience; only 25% had 11 or 12 month contracts.

5. About 60% preferred their future professional training to be of renewal credit within their administrative units.

6. On budget items, less than 40% of the teachers classified equipment and supplies as good or excellent and 24% stated their budgets were inadequate.

7. Approximately 85% of the teachers viewed the cooperative relationships with administrators as excellent or good.

VI. Enrollments in Occupational Education - Secondary Schools

1. Largest student enrollments were reported in Home Economics (about 27%) and lowest enrollments in Health Occupations (about 1%).

2. Transfers in and out of occupational education averaged only 2.3% net loss and drop-outs about 7.4%. Total loss of students was estimated at less than 10% for the year.

3. In terms of students completing occupational education courses compared to opening enrollment, Health Occupations had a high of 92.3% and Distributive Education a low of 75.2%.

4. Class size ranged from 25.3 for Office and Business Occupations to 16.6 for Trade and Industrial Education.

5. Pupil-teacher ratio ranged from a high of 127 students per teacher for Office and Business Education to a low of 54 students for Trade and Industrial Education teachers. The overall average was 77 students per teacher.

SUMMARY (Con't.)

VII. High School Students Responses

1. Although only 25.3% of the student sample were classified as students in Occupational Education Programs, 80% of all students had enrolled in some vocational course at some time during their high school career.

2. Occupational Education students compared to students classified as General Education (a) were older, (b) were evenly divided by sex and, (c) had relatively the same percentage of upper classmen (67%).

3. Nearly 31% of the students said they had never had a conference with their counselor and 60% failed to have more than one individual conference.

4. About 50% of the General Education group evidenced an interest in occupational education.

5. About 33% of Occupational Students reported they were getting on-the-job training.

6. Fifty-two percent of the "General" students reported their school had no program designed to train them for the occupation of their choice.

7. There were only small differences between the two groups on family composition, i.e., living with both parents, being married, having a guardian. There were also little differences in distance from school and type of transportation used.

8. Occupation Education students reflected slightly less pride in their programs than did general education students. However, 90% of all students saw no unfavorable teacher attitude toward any particular program of studies, and 90% reported that the "school" does not view occupational education students as "generally below average".

SUMMARY (Con't.)

VIII. Responses from Community College Presidents

1. All community college presidents surveyed supported the assumption made at the beginning of the study that they were prime servers of occupational education for at least one of the administrative units sampled for this study.

2. The Dean of Student Personnel bears the greatest responsibility for articulation with high schools, and faculty and students were generally not involved in the articulation process.

3. The two major activities in articulation were visits to high schools and high school career days.

4. Approximately 80% of the institutions provided to high schools some "feed-back" on their students.

5. All reported admission counseling and 73% permitted flexible curriculum building by students.

IX. Characteristics of Administrators in Community College Institutions

1. From this sample of 47 administrators (including 10 presidents) a profile of characteristics would be: male, 40 years of age, with a degree from N. C. State University, an "A" teaching certificate. He would average over seven years of teaching experience and in 20% of the cases would have taught agriculture. He would have had about 9 years of experience in a supervisory position, about 6 years of administration in a program of occupational education, and the same for occupational work experience.

2. Twenty-four percent of the 42 administrators reporting listed zero years of occupational work experiences and seventy percent of 33 administrators reported their work experience to be in the field of Industrial and Technical Education.

SUMMARY (Con't.)

3. All administrators held 12 month contracts and 61 percent claimed they were "always optimistic" about their occupational education program.

4. For next year, 85% preferred to be employed in a community college and only two persons reflected an interest in college, university, or non-school employment in the future.

5. The areas of evaluation and administration were seen as the most valuable areas of professional study for the next 5 years.

6. Graduate study had been their primary source of professional improvement during the past five years.

X. Characteristics of Instructors in the Community Colleges System

1. Nearly 70% of the 287 instructors in this study were male; the total group averaged 39 years of age.

2. About 41% had a four year degree as the highest degree earned, but another 29% indicated the Master's Degree, while 21% had the vocational diploma but no degree.

3. One-third of the instructors had two years or less teaching experience.

4. The mean for occupational experience was 12 years, but 40% had five years or less experience, and 8.4% had none.

5. More than 75% of the instructors had 12-month contracts.

6. For future training, instructors preferred "instructional methods" and "updating technical competencies".

XI. Enrollments in Occupational Education in Community College Institutions

1. In this study, enrollments were largely in Office Occupations (31%), Trade and Industrial Education (27%) and Technical Education (22%).

SUMMARY (Con't.)

2. Health Occupations accounted for 11% of the enrollment.

3. Agriculture, Distributive Education, and Home Economics accounted for only 8% of the enrollment.

4. Net transfers into and out of programs was about 1/2 of 1% while drop-outs equaled only 7.5% of the students.

5. Student completion rates averaged 89% of initial enrollment and the instructor-student ratio was 39.4 per instructor.

XII. Community College Students

1. Sixty percent of the student body were men, and the largest percentage (20.4%) were in the 19 years old group with 18.5% over 35 years of age.

2. In this sample of 1,242 students, nearly 75% were attending full-time, and 46% were married students.

3. This sample was composed of 22% occupational extension students, 36% in vocational programs, and 42% in the technical programs.

4. By programs, secretarial science had 13.2% of the students and auto mechanics was reported by nearly 10%.

5. Only 10% had a vocational program in high school, and 90% were high school graduates.

6. Most of the students had jobs (64%) but only 25% saw these as related to their program of studies. Only 2.6% were in a Co-op Program.

7. Very few students (4.5%) reported that their first choice of program was not offered. Only 17% showed a desire to change their career pattern.

SUMMARY (Con't)

8. Although 77% reported a household of four people, nearly 20% listed the total household income between $3,000 and $6,000.

9. A majority (55.4%) live less than 10 miles from the institution.

10. Self-concept was very high; nearly 66% saw themselves as in the upper 50% of their program.

11. A large percentage reported above average or excellent instruction for both the general courses (64%) and their specialty area (76%).

12. A large majority reported respect for their program of studies and also reported that teachers and other students respected their program.

CONCLUSIONS

I. Administrative Units - Secondary Schools

1. The position of Director of Occupational Education is a widely established position at the administrative level, but the concept of advisory committees for occupational education seems difficult to implement.

2. The relationship of occupational education to job preparation is widely accepted, but the larger concept of Occupational Education as Career Education is not readily evident.

3. Allotments of man-months to administrative units have been far below the expressed desires of superintendents. In an effort to provide a broader range of occupational opportunities, superintendents are slicing man-months from long-established programs.

4. Administrators find it difficult to implement (a) evaluation programs (b) citizen committees and (c) articulation with community college institutions.

II. Personnel Characteristics - Secondary Schools

1. Superintendents are professionally qualified on the basis of degree and administrative experience but many (43%) have had no occupational work experience other than in schools.

2. ADU personnel other than superintendents appear less qualified for their positions since 1/3 of them also have had no work experience in occupational education and 16% hold only the Bachelor's Degree.

3. Administrators project enthusiasm for their present program of occupational education, but as a group seem lackadaisical toward further formal education.

CONCLUSIONS (Con't.)

III. Local Schools, Structure and Process - Secondary Schools

1. Inadequate delegation of responsibility for occupational education exists at the local school level.

2. Inadequate implementation of citizens advisory committees prevails at the local school level.

3. The guidance program is underdeveloped in terms of functions in most local schools, especially in relationship to elementary and Junior High orientations to occupational education. Further, placement of graduates is generally left to the individual graduate.

IV. Characteristics of Local Administrators - Secondary Schools

1. Neither women nor non-whites have found their way into local school administration systems to any great extent.

2. Occupational work experience was not a minimum criteria in the selection of local school administrative personnel.

3. The most valuable inservice occupational education desired was reported to be in the areas of "administration" and "evaluation".

V. Teacher Characteristics and Viewpoints - Secondary Schools

1. The majority of occupational teachers appear to be well qualified for their task, yet there are a considerable number who possess only provisional or sub-provisional certification.

2. Because a majority of teachers indicated a preference for local inservice education, some means should be found to encourage those with provisional or less certification to engage in a more basic program of professional improvement, such as that provided by a college or University.

CONCLUSIONS (Con't.)

3. Supply and equipment budgets are two items of considerable concern to teachers of occupational education.

4. Occupational teachers reflected strong support from their administrators.

VI. Enrollments in High School Occupational Education

1. Occupational education has an enviable record of student holding-power, with less than 10% of students as drop-outs.

2. Class-size and pupil-teacher ratio are not excessive in general.

3. Enrollments in Distributive Education (6.9%) and Health Occupations (1.3%) are much too low to meet the needs of society.

VII. High School Student Responses

1. There were inadequate opportunities in the high schools for students to enroll in occupational education courses related to their desires. This is supported by the facts that 37% of the Occupational Education students and 52% of the "General Education" students reported their schools had no programs to train them for the occupation of their choice.

2. General Education students were generally favorable to enrolling in an occupational education course since 80% of them had enrolled in at least one course.

3. Few students, general or occupational, were receiving adequate counseling opportunities from counselors or vocational teachers.

4. Occupational students tended to be more like general education students than they were different from them.

CONCLUSIONS (Con't.)

5. For all students, student morale appeared very good with occupational students only slightly less proud than general education students of their program and their ability, and they reflected a confidence that teachers and peers respected occupational education.

VIII. Responses from Community College System Presidents

1. Substantial efforts were being made to provide articulation with local high schools but concentrated in a few activities while other appropriate activities were generally not utilized.

2. Although the Dean of Student Personnel had been identified with the authority for articulation, faculty and students were not often utilized in the articulation program.

3. In general, the principle of providing some feed-back on students to their high schools was widely accepted by the community college institutions.

4. Admission counseling and "developmental building" of the student's curriculum appeared to be strong elements of the community colleges and technical institutes.

IX. Characteristics of Administration in Community College System

1. Administrators were comparatively young men with considerable academic preparation and professional experience to qualify them for their position.

2. Administrators were interested in further professional training, especially in evaluation and administration.

3. The morale of administrators was high.

CONCLUSIONS (Con't.)

X. Characteristics of Instructors - Community College System

1. The majority of instructors have adequate professional training, teaching experience, and occupational experience.

2. A minority of instructors have inadequate qualifications since 21% have only vocational diplomas, 8.4% have no occupational work experience and 33% have only two years of teaching experience.

3. Instructors recognize the areas of "instructional methods" and "technical competencies" as priority professional needs.

XI. Community College Enrollment

1. Community College enrollments appear to complement the secondary school enrollment in the areas of Home Economics, Technical Education and Health Occupations.

2. Distributive Education enrollments amount to only 2.1% of the total enrollment and were considerably lower than needed, especially in view of very low enrollments also found in secondary schools.

3. Student loss at 7.5% between initial and closing enrollments appears to be reasonable, although it was about the same as for the secondary schools.

4. Instructor-pupil ratio at 39.4 seems to be an acceptable situation. Certainly this ratio would permit some time for valuable individualized instruction and instructor-student counseling.

XII. Community College Students

1. It appears that the majority of students were beginning their vocational programs at the community college, rather than continuing a career begun in high school.

CONCLUSIONS (Con't.)

2. It appears that few high school drop-outs, perhaps only 10%, were utilizing the community college services in occupational education.

3. Several factors favor increased development of cooperative work experience programs: the high percentage of full-time students with outside jobs unrelated to their program of studies, and the low income level of households.

4. Students placed high ratings on their class instruction and on their programs. Student morale was very high.

RECOMMENDATIONS

I. Administrative Units - Secondary Schools

1. A 50% increase in man-months for occupational education should be provided.

2. Inservice education should focus on improving the competence of administrators to implement (a) advisory committees (b) articulation with community colleges, and (c) comprehensive evaluation systems.

II. ADU Personnel Characteristics

1. High priority should be given to the question of whether the lack of occupational work experience among ADU personnel is affecting the administration and supervision of occupational education programs.

2. Inservice education opportunities for administrative personnel should be analyzed with the help of administrative unit personnel in order to develop greater desire for advanced professional education.

III. Local School Structure and Process - Secondary Schools

1. Local schools need to clearly determine the organizational structure and clearly identify lines of communication, delegation of authority and specifics with regard to responsibility and accountability for occupational education.

2. More attention should be given to the organization of advisory committees for occupational education and to further identify craft or specialty advisory committees for each of the occupational education instructional areas.

3. The guidance program needs much development in most schools and especially in relation to emphasis upon vocational aspects.

RECOMMENDATIONS (Con't.)

IV. Characteristics of Local Administrative Personnel - Secondary Schools

1. High priority should be given to providing opportunities for in-service education in the fields of "administration" and "evaluation of occupational education".

2. Further study of the knowledge and understanding of local administrative personnel about occupational education is needed.

3. Standards and Guidelines should be established in respect to occupational experience needed by persons selected for administrative positions.

V. Teacher Characteristics - Secondary Schools

1. Institutions of Higher Education and the State Department of Education should develop a coordinated program of inservice education to enable all teachers to reach a minimum level of "A" teaching certificate.

2. Special effort should be made to increase the number of teachers serving in the fields of Health Occupations and Distributive Education.

3. Administrators should be informed and commended for the positive image of them projected by teachers of occupational education. Such action is not only fair to both administrators and teachers but could be a significant morale booster to all concerned - an element most often needed in dynamic, changing times.

4. Because of the nature of Occupational Education which demands significant amounts of supplies and equipment to enable most effective teaching, there should be additional funds allotted to these items to the extent that no teachers would need to report these items in the lowest category of "inadequate".

RECOMMENDATIONS (Con't.)

VI. Enrollments in High School Occupational Education

1. High priorities should be established by state leadership to increase offerings and enrollments in Health Occupations and Distributive Education.

2. Articulation with community college institutions should be increased to develop memoranda of agreement concerning a balance of student output from the combined institutions which will more nearly meet the employment opportunities.

3. Administrators should be commended for keeping the class size and pupil-teacher ratio at reasonable levels and should be encouraged to lower still further when feasible.

VII. Student Responses - Secondary Schools

1. The occupational program should be enlarged and broadened to permit all high school students opportunities to engage in an appropriate type of occupational experience for them.

2. Students need more opportunities to confer individually and in small groups with counselors and occupational teachers. The ratio of counselors to students should be reduced, and Occupational Education teachers should be provided released, school time for student conferences.

3. More work-study and on-the-job experience should be provided for all students, and especially for vocational students.

4. An orientation program should be devised to acquaint students with the advantages and desirability of Occupational Education for all students and it should extend down to at least the middle grades.

RECOMMENDATIONS (Con't.)

5. Counselors and teachers from all subject areas (vocational and general) should work cooperatively to acquaint students with the vocational possibilities of all subject areas.

VIII. The Responses of Community College Presidents

1. The faculty and students should be more involved in the development and operation of the articulation program.

2. Articulation activities should be more comprehensive.

3. Feed-back to high schools should be intensified and more comprehensive and universally adopted.

IX. Characteristics of Administrators in Community College System

1. Universities and colleges should be made aware of the desires of these administrators for advanced professional training; particularly the interest in areas of "evaluation" and "administration".

2. The fact that 25% of the administrators listed zero years of occupational work experience outside of education should be of some concern to state leaders in occupational education.

X. Characteristics of Instructors in Community College System

1. Acceptable standards for instructor qualifications should be established and enforced to insure that all instructors meet or exceed minimum levels of occupational experience, teaching experience, and formal education.

2. Inservice education should focus upon instructional methods as well as technical competencies.

RECOMMENDATIONS (Con't.)

XI. Enrollments at Community College Institutions

1. Community Colleges should examine low enrollments in Distributive Education and determine whether, in view of man-power needs and low secondary enrollments in this area, additional effort should be placed on this program to increase graduates.

2. Since occupational extension classes were not well represented in this study, additional information should be gathered before assessment of this program can be made.

XII. Community College Students

1. Community College Institutions should be recruiting more students from (a) high school occupational programs (b) high school drop-outs.

2. Cooperative programs should be drastically increased because conditions appear to be favorable for its expansion.

3. Generally, Community College Institutions are to be commended for (a) the high morale developed among their students in relation to their instruction and (b) to the relevance of the instruction for the students.

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