

AN ABSTRACT OF THE THESIS OF

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AREA VOCATIONAL SCHOOLS FOR TILLAMOOK AND
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The United States of America faces many serious problems today. To enumerate a few of the major ones we must list:

1. poverty
2. juvenile delinquency
3. school drop-outs
4. automation
5. unskilled people

A major aim of a great deal of federal legislation passed during President Kennedy's and President Johnson's terms has been directed toward the solution of these educational problems.

It has been implied that education is the key to the solution of many of our modern and age-old problems.

The enactment of the Vocational Education Act of 1963, plus the Manpower Development and Training Act of 1962 and the Economic

Opportunity Act of 1964 have stimulated renewed vigor into the nation's occupational education programs.

The purpose of this study was to examine the vocational education status of Tillamook and Clatsop counties and to determine the feasibility of establishing area vocational schools.

Community leaders, school administrators, and many students have voiced their desire for more occupational education. The State Department of Education was also interested in obtaining information relating to vocational education in these two counties.

This research was designed to investigate the following:

- (1) Employment opportunities
- (2) Potential vocational education students in the two counties
- (3) Status of existing vocational facilities, personnel, and curriculum
- (4) Cooperative educational action by school districts.

Information regarding these items will be of special assistance to the school districts in these two counties in planning better education for all ages.

A written survey was administered to 4,706 students from grade 7 through 14 to determine the vocational student potential. Secondary data from the Oregon State Department of Labor was used to determine the job opportunities. Personal inspection of existing

facilities and curriculums were made by the investigators. The statutes of the State of Oregon were studied for legal restrictions to cooperative action among school districts.

The findings and information summarized in this study indicates that there is a lack of occupational education in Tillamook and Clatsop Counties. Approximately 70 percent of the 4,706 students surveyed indicated a desire for occupational education in high school.

It is the opinion of the author that it is essential to have some form of cooperative action among the smaller school districts in order to provide adequate vocational education for their children.

In Tillamook and Clatsop counties the only limitations upon cooperative action appears to be transportation, scheduling, and willingness of the districts to cooperate.

Factors Determining the Establishment of Area Vocational
Schools for Tillamook and Clatsop Counties

by

Robert W. Helmick

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TABLE OF CONTENTS

<u>Chapter</u>	<u>Page</u>
I INTRODUCTION	1
Statement of the Problem	4
Purpose of the Study	5
Tillamook and Clatsop County	5
Assumptions	11
Limitations of the Study	12
Procedure	12
Definition of Terms	14
II REVIEW OF RELATED LITERATURE	20
Employment Opportunities	21
Vocational Education in Oregon Counties	26
Jackson County	26
Lane County	26
Marion-Polk County	27
Clatsop County	27
Lincoln County	27
The Penta-County Area Vocational School	28
Vocational Education	29
Guidelines for Establishing Area Vocational Schools and Programs	29
New Careers: One Solution to Poverty	32
III FINDINGS	35
Employment Opportunities	35
Occupational Structure	36
Forecast of Employment Opportunities	40
Student Population and the Vocational Education Potential	46
Elementary and Secondary School Student Population Trends	47
High School Graduation Projections	50
Post-High School Education Plans and High School Preferences	53
Existing Vocational Education Curriculum, Personnel and Facilities	57
Curriculum and Courses	58
Personnel	63

<u>Chapter</u>	<u>Page</u>
Facilities	64
Cooperative Functioning of Educational Units	65
Intergovernmental Cooperation	67
Intermediate Education Districts	69
Community Colleges	70
Summary	70
IV CONCLUSIONS AND RECOMMENDATIONS	75
Conclusions	77
Recommendations	79
BIBLIOGRAPHY	82
APPENDIX	85

LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
1. Clatsop County	72
2. Tillamook County	73

LIST OF APPENDIX TABLES

<u>Table</u>	
1. Labor Force, Clatsop County. 1959 through 1963.	98
2. Labor Force, Tillamook County. 1959 through 1963.	100
3. Labor Force, Tillamook and Clatsop Counties. 1959 through 1963.	102
4. Forecast of Need for Workers in Clatsop County, 1968 and 1970.	104
5. Forecast of Need for Workers in Tillamook County, 1968 and 1970.	106
6. Forecast of Need for Workers in Clatsop County, 1968 and 1970.	108
7. Forecast of Need for Workers in Tillamook County, 1968 and 1970.	110

LIST OF TABLES

<u>Table</u>	<u>Page</u>
1. Population change in Clatsop County, Tillamook County and Oregon, 1950-1965.	8
2. Components of population change in counties and state, 1940-1960.	8
3. Urban and rural population, 1950-1960.	9
4. Labor force changes in Clatsop and Tillamook counties 1959-1963.	37
5. Percentage components of employed labor force, Clatsop and Tillamook counties in 1959-1963.	38
6. Forecast of need for workers in two-county area, 1968-1970 (by major industry groups).	41
7. Forecast of need for workers in two county area, 1968 and 1970 (by major occupational groups).	42
8. State employment needs to 1970 by occupational groups.	43
9. Employment replacement needs in agriculture in Oregon, 1965-1970.	46
10. Survey coverage--totals and percentages by grade and area.	48
11. Elementary and secondary school enrollments, Clatsop and Tillamook counties: 1961-1966. Public schools.	49
12. Total secondary enrollment by district, Clatsop and Tillamook counties: 1961-1966.	51
13. High school graduation projections to 1970 for Clatsop and Tillamook counties.	52
14. Post high school education plans and high school educational preference - two county totals.	54

TablePage

15.	Post high school education plans and high school education preferences - two county totals by grade and sex.	55
16.	Student classification of high school preparation.	56
17.	Vocational and pre-vocational courses offered in Tillamook and Clatsop counties high schools and junior high schools.	60
18.	Shop and laboratory facilities in secondary and junior high schools in Tillamook and Clatsop counties.	66

FACTORS DETERMINING THE ESTABLISHMENT
OF AREA VOCATIONAL SCHOOLS
FOR TILLAMOOK AND CLATSOP COUNTIES

CHAPTER I

INTRODUCTION

The poet Emma Lazurus has our Statue of Liberty say:

Give me your tired, your poor, /Your huddled
masses yearning to breathe free, /The wretched
refuse of your teaming shores, /Send these, the
homeless, tempest-tost to me: /I lift my lamp
beside the Golden Door.

A finer testament to an idea--an idea both true and good and beautiful--could hardly be imagined (19, p. 254).

Our forefathers drafted a constitution designed to promote freedom. However, with the passing of time we find our great nation plagued with a host of problems of great diversity and magnitude. Our nation's leaders usually turn to education for assistance when faced with problems. Some people point an accusing finger at education as a part of the cause of the problems. Possibly there is some truth in both of these positions.

The starting point of a mass reappraisal of our educational system came in President Kennedy's Message to Congress on American Education, Feb. 20, 1961. A panel of consultants on vocational education was appointed. The panel concluded its work in

November 1962, and its full report, entitled "Education for a Changing World of Work," was published.

The panel agreed that a greatly increased program of vocational and technical education was needed. This recommendation paved the way for the passage of several acts to come to grips with the problems facing our great nation. To enumerate a few of these problems we must list the following:

1. Poverty
2. Juvenile delinquency
3. School drop-outs
4. Unemployment
5. Race tension
6. Automation
7. Unskilled people

The Vocational Education Act of 1963 has as one of its primary objectives the providing of vocational education for all who need, want and can profit from it. The act also declares that the money appropriated is to be used where it will benefit the maximum number of people.

The American labor front is characterized by an ever increasing proportion of service opportunities. Women workers are on the increase. Since World War II male workers have increased by 12 percent, whereas female workers have increased by 52

percent. Today women make up 33 percent of the total labor force in the United States. Industrial work experience for teenagers is declining in a time of great definite need. The dropout problem is more serious today than ever. Although the percentage of dropout figures has gone down, the actual number is still rising because of the greater number of students involved. It is said that because of automation and other factors 40,000 jobs are disappearing each week from the labor market. Most of these disappearing jobs are in the unskilled classification where the dropout finds himself. Failure to complete high school condemns youth to a life of poverty and all its many associated problems. Shorter working hours resulting in more leisure time require consideration. Competition for jobs is great, but greater still is the need for occupational education. We are told there are many jobs unfilled because we just don't have people trained to handle them. Education is expensive, but not nearly so expensive as ignorance.

The many pieces of recent federal legislation, added to federal and state reorganization give impetus to local districts to evaluate their entire educational programs. In that the appropriations from federal sources are to be used where the greatest needs and benefits exist, evaluative surveys are necessary.

Statement of the Problem

The need for vocational education is well documented throughout our nation. The national war on poverty has made full employment a major objective. This is based on the assumption that poverty cannot normally exist with full employment. The accomplishment of full employment under our present circumstances requires carefully planned and projected programs. Basic and technical vocational education are necessary if persons in the labor force are to be fully employed.

According to Mr. Ray Ziegler, a majority of the young people entering the labor force today lack the skills currently in demand. Even more serious is that the speed up of technical change indicates that this problem of skills training will become more critical.

Efforts in vocational education to date have consisted of training in programs supported by existing facilities and staff, or to include new programs in the areas of new technology that have been widely publicized, or those which have special appeal to the administration and staff of schools concerned in modernizing their programs.

If vocational education is to meet the obligations imposed by the full employment goal of the war on poverty, planning of programs must be based on sound research rather than hunches or wild

guesses. The problem of providing occupational education for all who want, need and can profit from it is a large one. The specific problem of how to promote sound and adequate occupational education for Tillamook and Clatsop Counties initiated this thesis.

Purpose of the Study

The purpose of this study is to come to grips with the following:

1. What employment opportunities exist in Tillamook and Clatsop Counties?
2. How many potential vocational students are there in Tillamook and Clatsop Counties?
3. What is the present status of vocational curriculum, facilities and personnel in the two-county area?
4. What are the legal limitations, if any, of two or more educational units in cooperating to provide occupational education?

The specific purpose of this research is to lay a foundation upon which better occupational education for Tillamook and Clatsop County schools can be built.

Tillamook and Clatsop County

Tillamook County has often been called "the land of trees, cheese and ocean breeze." This pretty well describes both Tillamook

and Clatsop Counties. Tillamook and Clatsop Counties are located in the extreme northwestern corner of Oregon. The two most northern of the seven counties in Oregon which border upon the Pacific Ocean, Clatsop and Tillamook Counties cover an area extending some 75 miles south from the Columbia River and reaching east from the Pacific Ocean into the Coast Range approximately 30 miles in the north and twelve in the south.

The two counties contain 1,958 of Oregon's 96,981 square miles. The forested slopes of the Coast Range dominate the geography of the area and rise close to the Pacific shore with its headlands and marine terraces interspersed with sandy beaches. Coastal lowlands and numerous valleys formed by the short east-west rivers of the Coast Range vary the terrain and add some diversity to land use patterns. The forests, however, dominate. In 1964, ninety percent of the acreage in Clatsop and eighty-six percent of that in Tillamook County was timber producing land (21, p. 48).

The area has a moist, temperate, marine climate, with annual precipitation reaching 70 inches in many coastal areas and exceeding 100 inches in some sections of the Coast Range. Temperatures seldom fall below zero and rarely exceed 80 degrees. The cool, moist environment inhibits crop agriculture, but favors tree growth, dairying, and growing of frost-sensitive specialty crops.

Location, geography, and climate combine to produce a

predictable economic emphasis upon the lumbering, fishing, agricultural, and recreation industries.

Neither county has shared in the overall population growth of Oregon since 1950. However, in the preceding decade both counties showed marked population increases. In the period from 1940 to 1950 the population of Clatsop County increased from 24,697 to 30,776, a gain of 24.6 percent; and that of Tillamook County increased from 12,263 to 18,606, a spectacular gain of 51.7 percent. Since 1950, both counties have undergone a population decline. Tables 1 and 2 on page 8 show population data and components of change for the two counties and for the state.

As the tables show, the period 1950-1960 was one of out-migration in both counties, with Clatsop County losing population total and Tillamook County holding rather stable through natural increase. Since 1960, the situation has reversed, with Clatsop holding population level and Tillamook undergoing population loss due to increasing out-migration.

Due primarily to the concentration of population in the city of Astoria--almost 38 percent of the County total in 1965--Clatsop County has a predominately urban classification. Tillamook County, with only the city of Tillamook meeting urban classification criteria, is classified predominately rural. In 1960, urban population in Clatsop County was over 55 percent, while that in Tillamook County

Table 1. Population change in Clatsop County, Tillamook County, and Oregon 1950-1965.

	Population			Percent Change	
	1965*	1960	1950	60-65	50-60
Clatsop	27,700	27,380	30,776	+1.2	+11.0
Tillamook	16,100	18,955	18,606	-15.0	+1.9
Oregon	1,972,150	1,768,687	1,521,341	+11.5	+16.3

* Estimates as of July 1, 1965

Source: Oregon Economic Statistics, Bureau of Business and Economic Research, University of Oregon, 1966

Table 2. Components of population change in counties and state 1940-1960.

	1950-1960			1940-1950		
	Net Change	Natural Increase	Net Migration	Net Change	Natural Increase	Net Migration
Clatsop County	-3,396	3,794	-7,180	6,079	3,246	2,833
Tillamook County	349	3,497	-3,148	6,343	2,179	4,164
Oregon	247,346	228,412	18,934	431,657	142,143	289,514

* Source: Oregon Economic Statistics, Bureau of Business and Economic Research, University of Oregon, 1966

was less than 23 percent.

Trends in urban-rural population change have been in the same direction as have national and state trends. However, during the period from 1950 to 1960, movement from rural to urban was considerably less in Tillamook County than it was in the state, while in Clatsop County decline in rural population greatly exceeded the state rate. Clatsop County also varied from the state pattern in that urban population also declined. See Table 3, page 9.

Table 3. Urban and rural population, 1950 and 1960.

	Urban			Rural		
	1960	1950	% Change	1960	1950	% Change
Clatsop County	15,116	16,217	- 6.8	12,264	14,559	-15.8
Tillamook County	4,244	3,685	15.2	14,711	14,921	- 1.4
Oregon	1,100,122	819,318	34.3	663,565	702,023	- 4.8

The fishing industry is one of the oldest industries in the state of Oregon. It dates back prior to the coming of the white men. Situated at the mouth of the Columbia River, the several canneries have ideal locations for the harvesting, unloading and processing of seafood. "Columbia River and offshore caught salmon, ocean-bottom fish, crabs, clams, and the albacora tuna caught off Oregon shores are all processed in the county, with Clatsop County getting

a large share of the total Oregon catch" (27, p. 118).

What fishing is to Clatsop County, dairying is to Tillamook County. The dairy cow population nearly equals the human population in Tillamook County and is treated with considerable respect. Tillamook County has long been famous for the fine cheddar cheese it produces. Through the Tillamook County Creamery Association a good market demanding a considerable premium was developed. In recent years, however, internal disputes resulted in a split of the Tillamook County Creamery Association into two smaller groups.

Both Tillamook and Clatsop Counties enjoy an abundance of natural resources, which draws a good size tourist trade.

Ocean beaches, river sport fishing, elk, deer and game bird hunting attracts many sportsmen and vacationers to Tillamook and Clatsop Counties.

Although both Tillamook and Clatsop Counties appear to have provided quite well for the general education of their youth, a lack of vocational education is suspected.

Vocational Agriculture and Vocational Home Economics were initiated in Nestucca, Tillamook and Knappa High Schools a good many years ago. These original programs have been either altered or dropped. Much of the Home Economics offered was considered non-vocational. Nestucca High School dropped Vocational Agriculture.

Tillamook High School opened its Vocational Agriculture Classes to non-farm students several years ago.

The question of "vocational" or "general" education still plagues many teachers today. The term "occupational education" is gradually replacing the term "vocational." There is still need for clarification and direction.

Tillamook High School has been attempting to expand its occupational education. An Occupational Education Advisory Council consisting of approximately 50 local citizens was formed in October, 1965 to consider ways and means of promoting vocational education. Several progressive proposals have been submitted to the State Department of Education for approval. Partial acceptance of these proposals has prompted this research paper based upon a study proposed by E. D. Towler, Superintendent, Clatsop Intermediate Education District with Dale E. Pinckney, Consultant, Division of Community Colleges and Vocational Education, Salem, Oregon as principal investigator and Robert W. Helmick, Vocational Director Tillamook High School, Tillamook, Oregon as research assistant.

Assumptions

The following assumptions are made relative to this study:

1. That reliable instruments and techniques are available for gathering data.

2. That secondary data from the Oregon State Department of Labor is available and appropriate for job potential determination.
3. That adjacent school districts are concerned with adequate occupational education for their students.
4. That training facilities can be developed to train potential labor supply.
5. That vocational education programs must be planned on the basis of employment needs.
6. That all children are entitled to occupational education.

Limitations of this Study

This study is limited to:

1. The use of secondary data from the Oregon State Employment service.
2. The survey of schools in Tillamook and Clatsop Counties.
3. The use of questionnaires as the means of data gathering of student potential.
4. The employment information indicating only broad occupational classifications.

Procedure

It is intended that objectives of the study will be achieved

through implementation of the following procedures:

1. Analysis of secondary data reported by U. S. Employment Service, Oregon State Department of Employment, U. S. Census of Population, county occupational index to determine job placement potential.
2. Survey of student population to identify potential vocational education student enrollment.
3. Inventory of public and private high school facilities, programs and personnel to determine existing vocational programs and services.
4. Listing of laws, rules, regulations to determine limits and directions for coordinate functioning between and among educational units.

The student population will include all students enrolled in grades seven through twelve in the Clatsop-Tillamook area, including all schools with seventh and eighth grades, all secondary schools and all schools offering post high school vocational education training. The survey of students will be made during the regular school day; students absent will not be considered in data.

Data will be gathered to relate to each of the objectives of the study. The data gathering forms (Appendices I, II and III) will be subjected to a trial run for approval before administering to the population being sampled. Uniformity of instruction and procedure

will be stressed in administering the instruments.

Vocational education student population will be determined by treatment of data from the Student Surveys (Appendices I, II and III). The number of students available for technical vocational education programs will be determined by subtracting total number of students classified as college bound by the survey questionnaire from total number of students enrolled in grades seven through fourteen in the two-county area. The total number of students planning to complete a baccalaureate degree program, either by direct enrollment in college or university following high school or by completion of last years in college or university following initial preparation in community college.

Definition of Terms

For purposes of this study the following definitions are used:

1. Vocational education student population. High school and post high school students who are enrolled in, or plan to enroll in a program of education at less than baccalaureate degree level.
2. Job placement potential and employment opportunity. For this study these two terms will be considered synonymous and are defined as current and projected manpower needs in a geographic area for occupations in agriculture,

business and office, distribution, health, home economics, trade and industrial, technical, fisheries and marine occupations and any other recognized occupation except those which generally are considered professional or as requiring a baccalaureate or higher degree (28, p. 13).

3. Coordinate functioning of school districts. Defined as the harmonious working together of two or more educational units according to statutory and regulatory provisions.
4. Agricultural occupation. An occupation in which the worker is qualified in one or more of the primary areas of plant science, animal science, soil science, agricultural mechanization, or in agricultural business, on or off the farm.
5. Agricultural production. This is the on-farm production of food and fiber, growing of plants, and the raising of animals. Persons employed in this field are generally referred to as farmers, dairymen or ranchers.
6. Agricultural businesses. A business which is concerned with providing services or products to farmers, or is concerned with the production, processing, transportation, storage, or distribution of farm products.
7. Off-farm agricultural occupations. An agricultural

occupation other than farming or ranching.

8. Professional agricultural occupation. A college degree is usually required for entry into these occupations. This group is highly specialized and provides assistance to people as in aid or service.
9. Occupational Cruise. This is an introductory course or series of courses covering the many vocational aspects of our society and embodying the economic principles and sociological factors that underlie the student's everyday activities.
10. Job Cluster or Family of Occupations. The jobs or groups of jobs requiring basically the same education, knowledge, skills, and experiences.
11. Adult Supplementary Courses. A course designed to improve or update present occupational skills, technical knowledge, and/or supervisory capabilities of workers employed in the various areas of vocational education.
12. Cooperative Work Experience. A structured and planned program for students which incorporates actual work experience on the job in addition to vocational instruction in school.
13. Course of study. A written comprehensive plan which shows the scope and purpose, teaching sequence, and

methods for all the activities and organized experiences provided for in a particular course, covering a specified period of time.

14. Course outline. A skeletal or topical outline of the material to be taught, which indicates the content and scope of the subject or activity. It serves as a basis for preparing a course of study.
15. Electives. One or more courses not all of which are needed to meet minimum requirements for graduation.
16. Occupational Preparatory Program. A program designed for students planning to go full time into occupational training.
17. Vocational Curriculum Pattern. An orderly arrangement of interrelated subjects, activities, and experiences involving the acquisition of knowledge, mastery of skills, and the development of desirable attitudes and appreciations for the attainment of specific occupational education objectives.
18. Work-Study Program. A special employment program designed to provide financial aid for students needing assistance to participate in vocational education program.
19. Advisory committee. A group of persons, usually outside the educational profession, selected for the purpose of

offering advice and counsel to the board regarding the vocational program. Members are representatives of the people who are interested in the activities with which the vocational program is concerned.

20. Area vocational school. A school or program involving a large geographical territory usually including more than one local basic administrative unit. It offers specialized training to high school students, who are preparing to enter the labor market. It also provides vocational or technical education to persons who have completed or left high school and are available for full-time study. These schools are sponsored and operated by local communities or by the state.
21. Comprehensive high school. A secondary school with a number of departments offering a diversified program to meet the needs of pupils with varying interests and abilities.
22. Distributive education. A program of instruction in marketing, merchandising and management. The program is concerned with training needed for purpose of updating, upgrading, career development and operational management.
23. Industrial education. A generic term applying to all types

of education related to industry, including industrial arts education, vocational industrial education and much technical education.

24. Vocational education equilibrium. Defined as a state of balance between manpower demands and supply and vocational education.

CHAPTER II

REVIEW OF RELATED LITERATURE

The United States is troubled with serious problems. Some of these problems are related to education. In some cases education is the partial solution to the problem. For too many years the acceptance of "liberal arts" education has directed our youth down the paths of conformity and tradition. General education in the secondary school in America has been largely aimed at college preparatory. Too few people realize as Keller (14, p. 20) points out: "...ninety percent of American secondary education is traditional, and that tradition is frozen history."

General education has been weighed in the balance and found wanting. By no means can all the problems facing our great nation be attributed to the shortcomings of education but without a doubt some of them can. It is suggested that education holds the key to the solution of many of the problems facing our nation today.

In recent years there has been a great deal of study concerning the academic-vocational gap that has existed. Awakening the American public to the fact that culture and vocation are inseparable is a difficult task.

Vocational education is special education. Special because it is education for work as well as life. In America the most

respected--and respectable single word is work. "The dignity of work, and the virtue of a vocation may be not in the operation itself but the personality of the worker in all the surrounding circumstances surrounding the work."

To serve as a guide in identifying vocational education one might turn to Keller's (14, p. 6) definition; "Genuine vocational education is a comprehensively conceived and fully integrated preparation of every individual according to his peculiar interests, aptitudes, and abilities, for a full life in all its phases."

A great deal has been written concerning vocational education. Numerous studies have reported on employment opportunities, vocational education students, vocational education program planning and curriculum development. The review of the literature indicates that most of the studies relate to specific vocational programs, to surveys of current manpower needs, to identification of characteristics of vocational workers in selected occupations, or to curriculum establishment. There is a lack of studies to determine relationship of educational needs and employment possibilities. Also there is very little research dealing with the coordinate functioning of educational units in developing effective vocational education programs.

Employment Opportunities

The rate of youth unemployment in this country is higher than

during the depression. Fully one-fifth of the out of school youth under 21 are unemployed (33, p. 2). It is the responsibility of the schools to implement programs that will alleviate the employment problems expected from the 26 million youngsters entering the labor force in the sixties (33, p. 1). There are now more than one million young men and women under twenty-two who have left school and are not at work. At any given time 30 percent of the high school drop-outs will be unemployed; even high school graduates average 15 percent unemployed. There is little room in the labor market for the undereducated, unskilled young worker (33, p. 12).

Grant Venn (33, p. 12) declares that the consequences are enormous: "The alarmingly high incidence of delinquency and crime among jobless youth is well documented; less widely appreciated is the tremendous reservoir of idleness, frustration, resentment, and defeat that lies within their burgeoning numbers. Lacking jobs, "their badge of belonging," reports the President's Committee on Youth Employment, these young men and women represent "tomorrow's castoffs and chronic dependents, those who will live in poverty of body and mind, and who will bring up their children in their own image." These frustrated citizens represent "social dynamite". The riots of Watts and Chicago perhaps were partially triggered by this element.

Well over 50 percent of the entering college freshmen fail to

earn a degree. The technological work world is one of specialization and skills, and being a bright young man has little influence with employers looking for skills to do some specific kind of work.

Norman G. Harris (33, p. 14) says

The fact is that although business and industry would like to have employees with a higher level of general education and a concomitant higher potential for subsequent promotion, for entry jobs in the American economy today competence and skill of a rather high order, in some facet of the world of work are absolutely necessary.

Grant Venn (33, p. 17) declares that "The relation between education and work, in terms of occupational entry and upgrading, is fixed and firm".

Willard Wirtz, Sec. of Labor (33, p. 20) declares, "Full employment in this country depends on full education", and

What this means in terms of educational needs is obvious. We simply cannot any longer afford to let boys and girls leave the educational system unprepared to use their minds as well as their muscles. We must, in one way or another, see to it that they have what today's and tomorrow's labor market requires. The margin for educational error or failure, which is what the unskilled jobs in the old work force constituted, has been taken up by the machine.

Venn (33, p. 23) states,

At the present time only one student in ten leaving the educational system without a bachelor's degree has some specific occupational preparation. This is only a small fraction of the real student potential for occupational preparation within the educational

system. The magnitude of the student potential is illustrated by the large numbers of students leaving high school each year and seeking labor market entry, including nearly a million high school dropouts, more than a million non-college-bound high school graduates, and several hundred thousand college dropouts. As a group these represent 75 to 80 percent of all our youth, and the educational preparation and occupational well-being of this group will in a large measure determine the course of this nation in the difficult years ahead. As they leave school, they are ambitious, opportunity-seeking, and still idealistic. In the world of work, however, they are likely to be underemployed, if they find employment at all.

Many of our students will long remember us for what we didn't teach them rather than what we did.

The high school dropout presents a tremendous problem in our society today. Contrary to common opinion two-thirds of these dropouts are not dull and rebellious. Study after study has shown two-thirds of these dropouts were in the IQ range of 90-109. They were rebellious only in the sense that for most of them the subjects they studied in school were of little interest. Professor Harris (33, p. 23) declares that, "without a doubt the biggest task facing the American high school today is to make its curriculum meaningful to students. For hundreds of thousands of boys and girls this meaning must be found in subject and curriculum related to the world of work."

The state of Oregon is primarily dependent on the lumber, tourist, agricultural and industrial trade. Employment within these fields and their related services provide jobs for the bulk of the

state's labor force. Although concern is justified for the present employment situation, greater emphasis must be placed on the projected employment needs.

In 1965, 720,000 persons in Oregon were employed. Of this total, 540,000 or 75 percent were wage and salaried workers. The number of wage and salary workers is expected to increase 110,063 or 27 percent by 1969. Total employment within the state is expected to reach 804,000 by 1975 representing an increase of 84,000 or 12 percent for the ten year period 1965 to 1975 (9, p. 25).

Additional projections of Oregon employment needs indicate that the areas of manufacturing, wholesale and retail trade, non-agricultural self-employment and government will continue to dominate the employment picture. Manufacturing, which ranked first in 1965 will remain first in 1975, while government employment will assume the second rank with 139,500 employees in the next ten years. Wholesale and retail trade will drop from second to third, and non-agricultural self-employment will maintain a uniform position of fourth. These four groups constitute 66 percent of the labor force in 1965 and will remain approximately the same in 1975 (28, p. 48).

The Portland Metropolitan Area will not be able to absorb the number of unskilled or semi-skilled potential employees seeking work in the next five years.

Vocational Education in Oregon Counties

Studies in Oregon have been carried out in many counties since the enactment of the Vocational Education Act of 1963. Reviewing of these studies revealed pertinent information relative to this study.

Jackson County

The Jackson County Study (12) made an evaluation of the offerings of secondary school's vocational education programs and evaluated these in terms of present and future occupational needs in the area. It also sought to determine student interest and future plans. The study demonstrated an imbalance between vocational and academic educational offerings and sought to explain some of the reasons. In extending its scope to include research regarding occupational choice, motivational factors, and guidance evaluation, the study challenged a very broad scope of inquiry extending well beyond the status of vocational education in the county schools.

Lane County

A study (15) in Lane County (1965) analyzed current employment needs as they related to the needs for vocational education. The study was limited to Lane County and slanted toward its relationship to Lane Community College.

Marion-Polk County

The Marion-Polk study (1965) appears to focus primarily on vocational programs being offered within the area and opportunities for secondary students to obtain vocational training. The study appears to have drawn primarily upon secondary data.

Clatsop County

A thesis AGRICULTURAL OCCUPATIONS IN CLATSOP COUNTY (13) by John Richard Johnson has a definite bearing upon this study. The purpose of Johnson's study was to discover the extent of agricultural occupations in Clatsop County and also to determine the future employment opportunities in these agricultural occupations. The author concluded that there was a need for high school and post-high school training for the employment force. He also pointed out that present programs in Clatsop County were inadequate for such vocational education and suggested that research be done to determine ways and means of achieving the desired training.

Lincoln County

A Lincoln County School District study, AN EXAMINATION AND ANALYSIS OF THE SECONDARY VOCATIONAL EDUCATION PROGRAM IN LINCOLN COUNTY (16) is of considerable value in

that Lincoln County lies just south of Tillamook County and has many of the same characteristics and problems. The purpose of the Lincoln County study was to survey the secondary vocational education necessary to improve the vocational education program of Lincoln County; provide guidelines for vocational curriculum that would coordinate the high school program with the community colleges of the state and to assist the Lincoln County School District with the development of a master plan for vocational education for the entire county.

The Penta-County Area Vocational School

There has been much written concerning the Penta-County School district area vocational school (31, p. 17-21). The Penta-County organization is a strange animal--a new breed to Ohio and most of the nation. It is a school district composed of 19 other school districts in five counties; hence the name Penta, the Greek word for five... the 19 school districts decided to pool their efforts and identities to form a joint area vocational school district that could offer specialized opportunities not previously available to high school students in that region. Essentially, however, the philosophy of the Penta-County Vocational School and Technical College is centered on the individual. By offering new educational opportunities the school will enable more students to finish high

school, to become employable and to qualify for better jobs. By meeting the needs of all students it will reduce the number of drop-outs; and through its special program, give those who have already dropped out a second chance. Its evening schools will permit adults to learn new trades, be retained or upgrade their skill. Every individual has two basic desires in life: to do something worthwhile for society and to earn a stable living wage.

Vocational Education

Report Number Two VOCATIONAL EDUCATION (24,p. 15) states that two very pressing problems facing the state of Oregon today are:

1. Many Oregon Secondary schools are too small to offer a truly comprehensive program which includes a desirable vocational-technical training opportunity for students
2. Oregon has had a limited development of area vocational schools to which students might commute for part of their program as a compensation to offset existence of many secondary schools which lack comprehensibility.

Guidelines for Establishing Area Vocational-Technical Schools and Programs

A study, GUIDELINES FOR ESTABLISHING AREA VOCATIONAL-AL-TECHNICAL SCHOOLS AND PROGRAMS, (7, p. 23-25) contains

many items of interest which are directly related to this study. In this survey 42 state directors of vocational education and 278 local directors of area vocational-technical schools were interviewed to gather data concerning factors involved in the successful establishment and operation of area vocational schools and programs.

In this study conducted by Richard L. Burns, Assistant Professor, Division of Industrial Education, Indiana State College, Terre Haute, Ind. it was pointed out that the following factors needed consideration when trying to determine the feasibility of area vocational schools:

1. number of high school students
2. amount of taxable wealth
3. geographic area in square miles
4. employment potential in the various vocational areas
5. extent of voter approval
6. extent of student interest
7. extent of industrial support
8. number and type of other training agencies in area
9. type of administration
10. ancillary features

Burn's study suggested the following guidelines for establishing area vocational-technical schools:

1. A proposed area vocational-technical school or program should have a minimum of approximately 6,500 high school students (14 to 18 years of age) in the geographic service area to assure the success of a school or a program.
2. The combined classes of taxable property in the area vocational school district should

be approximately \$130,500,000.

3. A geographic service area of approximately 48 miles in radius for a rural community, 34 miles for a suburban community, 27 miles for a city, appear to be satisfactory for a vocational area school or program.
4. The area vocational school should provide a minimum of three to six job families. Generally, the area school program should include training for technicians, clerical and office workers, skilled craftsmen, certain of the service occupations, and specialized phases of agriculture such as farm machinery repair and service, nursery occupation, and so forth.
5. A minimum of 61 percent voter approval was considered as absolutely necessary.
6. About 40 percent of the potential students in the geographic area served by the area vocational schools should have an interest in a program of vocational training related to their chosen occupation.
7. No area vocational-technical school should be established until the support of roughly 75 percent of the industries of the area is assured.
8. A workable administrative pattern for an area vocational-technical school or program would be one in which a qualified director of vocational education executes administrative policy.
9. To assure successful establishment and operation of an area vocational school, every effort must be made to secure adequate physical facilities, including buildings, equipment, proper working conditions, students genuinely interested in the training provided and who can profit

by such training, and a qualified teaching staff. Experience has shown that one almost certain way to ruin a vocational program is to locate it in a run-down, discarded building, and to operate the school in such a way that it appears, in the eyes of the public and students, as a dumping ground for the academic misfits or problem children.

New Careers: One Solution to Poverty

Author Pearl (29) declares that one solution to poverty is the creation of new careers. Pearl (29, p. 1) states:

The new career proposal advances the idea that domestic problems of the United States stem from inadequate organization of work and education. ... The great bulk of the population is being prepared for activities that can be better done by machines, while insufficient numbers of persons have been readied for activities that machines cannot be expected to perform. We are generating a situation where there exists simultaneously large numbers of people without jobs and a great many jobs without people. ... Two developments have led to strange phenomena of poverty and abundance. One the one hand automation is taking its toll of traditional work functions in agriculture, products producing industries and entrepreneurial enterprise, while on the other hand increasing educational requirements in the human service fields are limiting these activities solely to college graduates.

Pearl states that there are tremendous possibilities for occupational education and careers in the human service field. He is proposing that many of these careers should be below the level requiring college degrees. Pearl declares that in the areas of health,

education and welfare there exists job possibilities for millions.

Pearl's (29, p. 5) new career proposal suggests the following:

1. a sufficient number of jobs for all persons without work
2. the jobs to be so defined and distributed that placement exists for the unskilled and uneducated
3. the jobs to be permanent and provide opportunity for life-long careers
4. an opportunity for the motivated and talented poor to advance from low-level skill entry jobs to any station available to the more favored members of society
5. to work to contribute to the well being of society.

According to Grant Venn's book Man, Education and Work (33, p. 184),

Vocational education for high school youth, rural or urban, is an important part of the total educational effort. If it is well planned, it will hold students in school for longer periods, make them more productive as they enter the world of work, and give them the security and stability which contributes significantly to political, economic, and social well being.

Vice President Hubert H. Humphrey declares that (11, p. 15),

Despite the progress we have made, the problem of educational opportunity or rather the lack of it is still with us, and we must solve it. I am speaking particularly of the nearly one million young people who will quit high school each year if we fail to make learning an exciting challenge. The problem of the school dropout is not merely

the problem of the society from which a youngster comes. Educators need to examine the whole educational curriculum.

CHAPTER III

FINDINGS

Chapter III of this study examines and reports upon the factors within the two county area of Tillamook and Clatsop counties which have a direct bearing upon the feasibility of establishing area vocational schools for these counties. The factors investigated were:

1. The employment opportunities for vocational students.
2. The student potential for vocational education in Tillamook and Clatsop Counties.
3. The status of existing vocational education curriculum, personnel and facilities.
4. The legal limitations, if any, of two or more educational units in cooperating to provide occupational education.

Employment Opportunities

Obtaining employment data for this study revealed numerous problems in both collection and analysis. The local employment offices while being most cooperative had inherent limitations which make data inconsistent and often misleading. For example, total labor force for the counties included all people available for work,

but many were not covered by unemployment insurance, therefore labor statistics show discrepancies in numbers, type of work and overall employment possibilities. Because of this, data was not available for individuals working in several areas of employment. It was impossible to get data concerning the many agricultural occupations. Some of the secondary data was not as current as one would desire.

Occupational Structure

Recent trends within the occupational structure of Clatsop and Tillamook Counties are shown in Tables 4 and 5. Appendices IV, V, and VI further expand recent trends for the two county area. Table 4 summarizes the changes that occurred in the composition of the labor force during that period in both numerical and percentage values; and Table 5 shows the labor force composition in terms of percentages of total employment in each sector in the years 1959 and 1963.

The trends presented parallel in general those which have become characteristic of the national economy. Non-agricultural employment is increasing, the proportion of wage and salary employment is increasing; and manufacturing employment is declining relative to non-manufacturing employment. It is of interest to note that while manufacturing employment in Tillamook County involved a

Table 4. Labor force changes in Clatsop and Tillamook Counties 1959-1963.

Industry	Clatsop County		Tillamook County	
	Change in number	Percent change	Change in number	Percent change
Civilian Labor Force	-520	-5.1	-1330	-18.9
Employment	-510	-5.4	-1370	-20.0
Agricultural	-290	-32.2	-310	-25.6
Non-agricultural	-220	-2.6	-1060	-19.2
Self-employed Unemployed & Domestic	-110	-8.7	-220	-24.7
Wage & Salary	-110	-1.5	-840	-18.1
Manufacturing	-230	-8.5	-790	-32.8
Food	-90	-7.2	-90	-25.0
Lbr. & Wd.	-130	-9.8	-700	-34.7
Other	-10	-6.7	0	0
Non-Manufacturing	+120	+2.7	-50	-2.3
Cont. Con.	+280	+164.7	0	0
T. C. U.	+20	+3.9	-90	-30.0
Wholesale & Retail Trade	+40	+3.2	+10	+1.7
F. I. R.	+80	+53.3	+20	+10.8
Service & Misc.	+270	+34.6	+40	+10.8
Gov't.	-570	-37.3	-30	-3.8

Source: Data developed from State of Oregon Department of Employment County Labor Force Tables.

Table 5. Percentage components of employed labor force, Clatsop and Tillamook Counties in 1959-1963.

	Clatsop County		Tillamook County	
	1959	1963	1959	1963
Total employment	9,360	8,850	6,730	5,360
Agriculture	9.6	6.9	18.0	16.8
Non-agriculture	90.4	93.1	82.0	83.2
Self-employed, etc.	14.5	14.1	13.2	12.5
Wage & Salary	75.9	79.0	68.8	70.7
Manufacturing	29.1	28.1	35.8	30.2
Food Products	13.4	13.1	5.4	5.0
Lumber & Wd.	14.1	13.4	30.0	24.6
Other Mnfg.	1.6	1.6	0.4	0.6
Non-Manufacturing	46.8	50.9	33.0	40.5
Contr. Const.	1.8	5.1	1.2	1.5
Transportation Commerce & Utilities	5.4	6.0	4.5	3.9
Whlse. & Retail Trade	13.2	14.5	8.9	11.4
Finance, Ins. & Real Estate	1.6	2.6	1.3	2.0
Service & Misc.	8.3	11.9	5.5	7.6
Gov't.	16.3	10.8	11.6	14.0

Sections may not total exactly due to rounding.

Source: Data developed from State of Oregon Department of Employment County Labor Force Tables.

greater percentage of employed workers than did non-manufacturing employment in 1959, the relationship was decisively reversed by 1963; and that by 1963 over 50 percent of the employed work force in Tillamook County was engaged in non-manufacturing employment. Examination of the tables indicates that these trends are not rendered less significant by the fact that they have occurred within the context of an overall decline in total employment in the two Counties during the period involved.

Although the civilian labor force of the two county area decreased from 17,200 to 15,335 between the years of 1959 and 1963 there was not a decrease in student population. In fact, most areas have shown a slight gradual increase over the years under investigation. It is generally felt that the population status of the two county area will remain relatively stable over the next several years.

Despite their proximity, the two counties exhibit rather marked differences in some sectors of their economic structures. In percentage terms, agriculture and manufacturing employment are much more significant to the economy of Tillamook County than they are to that of Clatsop County. On the other hand, the counties are quite similar in the prevalence of many small firms in the non-agricultural, non-manufacturing sectors, and in their reliance upon the tourist and recreation industries.

Forecasts of Employment Opportunities

This section also presents projected needs for workers in Clatsop and Tillamook Counties through 1970. The forecasts are drawn from data furnished by the State of Oregon Department of Employment. The data were products of the Department's survey of the North Coast Area (Clatsop, Tillamook, and Lincoln Counties), and were collected in March and April of 1966. This data is tabulated in Tables 6, 7 and 8. Appendices VII, VIII and XI further expand the two county forecasts.

In terms of numbers, which are probably more meaningful than percentages in this instance, employment opportunities will be substantially greater in manufacturing than in any other industry group. This is true despite a negative expansion factor in the lumbering sector. Two elements contribute to this: first, replacement requirements in the industry group are relatively high because current employment in it is high; and, second, a substantial expansion need in manufacturing employment is expected in Clatsop County due to scheduled industrial development in the eastern section. This gain, however, is expected to "peak-out" rapidly and be followed by a period primarily characterized by replacement needs.

Employment opportunities within occupational group classifications generally follow national and state trends of declining needs

Table 6. Forecast of need for workers in two-county area, 1968 and 1970. (By major industry groups.) (Data furnished by State of Oregon Department of Employment)

Major Industry Group	Current Employment ¹	Employment 1968	Expansion to 1968 ²	Separations to 1968	Net need to 1968	Employment 1970	Expansion to 1970	Separations to 1970	Net need to 1970
Construction	1060	250	-810	33	-777	260	-800	69	-731
Manufacturing	4160	4620	460	165	625	4590	430	339	769
Lumber and Wood Products	2530	2500	-30	80	50	1470	-60	169	109
Other M'f'g	1630	2120	490	85	575	2120	490	170	660
Transportation, Communications, and Utilities	670	690	20	26	46	680	10	54	64
Trade (Wholesale & Retail)	1980	2010	30	96	126	2030	50	190	240
Finance, Ins. & Real Estate	380	390	10	18	28	400	20	34	54
Service & Misc.	1520	1550	30	93	123	1590	70	184	254
Government (including Education)	2390	2400	10	121	131	2430	40	244	284
TOTALS	12160	11910	-250	552	302	11980	-180	1114	934

¹ March 1966

² Does not include March 1966 vacancies

Table 7. Forecast of need for workers in two county area, 1968 and 1970. (By major occupational groups.) (Data furnished by State of Oregon Department of Employment)

Occupational Group and D. O. T. Code, Two-digit, Second Edition	Current Employment March 1966	Employ- ment 1968	Expan- sion to 1968	Separa- tions to 1968	Net need to 1968	Employ- ment 1970	Expan- sion to 1970	Separa- tions to 1970	Net need to 1970
Professional (01 - 03)	1340	1333	-7	65	58	1334	-6	131	125
Technical (04 - 06)	238	231	-7	9	2	237	-1	16	15
Managerial (07 - 09)	613	574	-39	34	-5	571	-42	68	26
Clerical (10 - 14)	1483	1495	12	89	101	1532	49	175	224
Sales (15 - 19)	673	702	29	32	61	718	45	62	107
Service (20 - 39)	1831	1846	15	109	124	1890	59	219	278
Skilled (40 - 59)	1674	1460	-214	72	-142	1468	-206	151	-55
Semiskilled (60 - 79)	2628	2710	82	81	163	2700	72	169	241
Unskilled (80 - 90)	1680	1559	-121	61	-60	1530	-150	123	-27
TOTALS	12160	11910	-250	552	302	11980	-180	1114	934

Table 8. State employment needs to 1970 by occupational groups.

Major Occupational Group	Current Employment	% of Total Employment	1966-1970 Need	% of Current Employment
Professional	64, 154	11.0	12, 533	19.5
Technical	16, 851	2.9	3, 464	20.6
Managerial	42, 588	7.3	5, 168	12.1
Clerical	97, 398	16.6	20, 767	18.5
Sales	44, 858	7.7	12, 122	27.0
Service	72, 275	12.3	14, 476	20.0
Skilled Mfg.	30, 320	5.3	4, 721	15.6
Skilled Nonmfg.	61, 682	10.5	8, 824	14.3
Semiskilled Mfg.	38, 266	6.5	5, 194	13.6
Semiskilled Nonmfg.	52, 512	9.0	6, 466	12.3
Unskilled Mfg.	35, 824	6.1	4, 053	11.3
Unskilled Nonmfg.	28, 174	4.8	3, 521	12.5
TOTAL	584, 902	100.0	101, 309	16.8

Source: Occupational Needs in the State of Oregon 1966-1970, Part I, Oregon State Department of Employment, 1966

for unskilled and semi-skilled workers. Due to the manufacturing developments in eastern Clatsop County, there is an immediate, short-run, expansion need for semi-skilled workers; however, this situation simply reflects a different perspective on the needs noted in the preceding paragraph.

Over the forecast period, the occupational groups which show the most solid expansion are service, sales, and office and clerical; although in terms of numbers these gains are expected to be relatively modest ones. Of considerable significance to the findings of this study, however, is the fact that these occupational groups are among those expected to exhibit the greatest gains within the statewide economy.

Again in terms of numbers, it appears that there will be continuing significant needs for semi-skilled workers in the manufacturing sector. Although this is clearly the result of relatively high replacement requirements rather than expansion, it is unlikely that these needs will disappear from the employment structure in the near future.

Overall needs for technical and skilled workers in the local economy appear low for the period of the forecasts.

Population stability at comparatively sparse levels, absence of multiple industrial establishments, and proximity to a metropolitan area act to restrict employment opportunities in the managerial

and professional ranks at present; and nothing appears in the trend patterns or forecasts which would substantially alter the situation in the near future.

Agriculture--particularly dairying--occupies an important position in the economy and its occupational structure. In spite of the drop in agricultural employment percentages noted in Table 4 on page 37, agriculture still provided occupational involvement for some 1,510 workers in the two-county area in 1963; and even though the downward trend is likely to continue in the future as capital input-factors replace labor input-factors, agriculture is certain to continue as a significant sector in the occupational structure.

As in the case in manufacturing employment, needs for workers in the agricultural sector will result primarily from replacement requirements. Projections of these requirements in Clatsop and Tillamook Counties were not available for inclusion in this report; however, projections for the state of Oregon through 1970 are shown in Table 9 below.

These data are not, of course, specific to agriculture in Clatsop and Tillamook Counties; however, agricultural employment in the two counties are components of the totals involved. If these projected statewide requirements were applicable to the requirements of Clatsop and Tillamook Counties, employment opportunities in full-time agriculture would total approximately 260 over the

forecast period. These requirements, although in an industry of declining employment potential, are certainly not to be overlooked when compared with other projected employment opportunities in the area.

Table 9. Employment replacement needs in agriculture in Oregon 1965-1970.

	1960 Employment	1965 Employment	Five-Year Replacement Forecast through 1970
Farm Operator	32,600	26,700	5,070**
Hired Hand (year-round)*	16,900	13,100	1,815
TOTALS	49,500	39,800	6,885

*Does not include unpaid family workers or seasonal workers.

**Replacement projections take into account overall reduction evident in the first two columns.

Source: Oregon Department of Employment Research and Statistics.

Student Population and the Vocational Education Potential

Obtaining potential vocational education student data revealed numerous problems in both collection and analysis of data. This investigation was undertaken with the cooperation, direction and assistance of the State Department of Education and Oregon Council for Curriculum Improvement, Region I. Survey forms used in the gathering of data were provided by the State Department of Education (Appendices I, II and III).

The Principals of all the participating districts were called together for general instructions in administering the survey. They

in turn passed these general instructions on to their teachers who administered the survey to all students present on the day of the survey. In Tillamook County the schools involved were: Beaver Elementary, Cloverdale Elementary, Hebo Elementary, Neah-Kah-Nie High School, Bay City Elementary, Garibaldi Elementary, Nestucca Union High School, Sandlake Elementary, Tillamook High School, Tillamook Junior High School, Tillamook Catholic High School, Sacred Heart Elementary, and the Seventh Day Adventist School. In Clatsop County, the schools involved were Astoria High School, Astoria Junior High School, Lewis and Clark Elementary, Cannon Beach Elementary, Gearhart Elementary, Jewell High School and Elementary, Knappa High School, Hilda Lahti Elementary, Seaside Union High School, Broadway Elementary, Warrenton High School, Fort Stevens Junior High School, Westport Elementary, and Star of the Sea High School and Elementary. Table 10 tabulates the survey coverage.

Elementary and Secondary Student Population Trends

Enrollment trends have shown very little variation over the past 6 years. Table 11 summarizes the enrollments in grades one through twelve in both counties for the period from 1961 to 1966. Over the period, total enrollments in Clatsop County show a steady increase from 5,687 in 1961-62 to 6,438 in 1965-66--an increase of

Table 10. Survey coverage--totals and percentages by grade and area.

	Grade Seven	Grade Eight	Grade Nine	Grade Ten	Grade Eleven	Grade Twelve	TOTALS
Clatsop County:							
Enrolled	544	559	506	496	457	435	2997
Surveyed:							
Number	521	531	467	442	382	340	2683
Percent	96	95	92	90	84	80	90
Tillamook County:							
Enrolled	404	382	381	364	327	309	2167
Surveyed:							
Number	400	369	358	350	278	268	2023
Percent	99	94	94	96	86	87	93
Two-County Area:							
Enrolled	948	941	887	860	784	744	5164
Surveyed:							
Number	921	900	825	792	660	608	4706
Percent	97	95	93	92	84	82	91

Table 11. Elementary and secondary school enrollments, Clatsop and Tillamook Counties: 1961-1966. Public Schools.

		1961-1962		1962-1963		1963-1964		1964-1965		1965-1966	
		Clatsop	Tillamook	Clatsop	Tillamook	Clatsop	Tillamook	Clatsop	Tillamook	Clatsop	Tillamook
Elementary Grades:	1	517	427	541	429	564	388	557	421	553	342
	2	476	423	494	401	502	385	544	379	602	370
	3	512	462	483	400	510	357	513	361	596	355
	4	550	433	505	430	473	374	509	347	553	347
	5	515	463	522	401	506	413	489	344	527	344
	6	488	404	501	426	516	376	505	397	522	331
	7	495	376	509	394	499	394	538	392	552	390
	8	511	409	478	354	486	371	539	381	573	363
Elementary Totals		4,064	3,397	4,033	3,235	4,056	3,058	4,194	3,022	4,478	2,842
	9	507	383	468	394	453	348	489	373	516	393
	10	427	371	497	369	463	375	456	337	512	367
	11	341	287	411	341	480	359	454	351	461	324
	12	324	282	319	241	397	308	444	321	423	298
Secondary Totals		1,599	1,323	1,695	1,345	1,783	1,390	1,843	1,382	1,902	1,382
Overall Totals*		5,663	4,720	5,728	4,580	5,829	4,448	6,037	4,404	6,380	4,224

*Includes unclassified students omitted in remainder of table

Source: Oregon State Department of Education

slightly over 13 percent. Total enrollments in Tillamook County during the same period have declined slightly, from 4,746 in 1961-62 to 4,336 in 1965-66 --a decrease of 8.7 percent. Indications are that secondary enrollments in Tillamook County Schools will decline slightly within the next few years.

Secondary enrollment data by districts for the period from 1961-62 through 1965-66 are shown for both counties in Table 12. It is seen from this Table that the North end of Clatsop County has experienced the greatest increase in student population during the time covered. The North end of Tillamook County and the South end of Clatsop County have undergone a slight reduction in student population. All other areas have shown a slight increase in student enrollment.

High School Graduation Projections

In relation to high school graduation projections one of the survey questions asked: "Do you now plan to finish high school?" Approximately 99 percent of the students surveyed answered "yes" to this question. It is possible this registered response was affected by pride, desire and the stigma of not completing. We have reason to believe that only approximately 80 percent of the entering ninth grade class will graduate. This prediction is based upon local drop-out figures from the two county area. Table 13 shows the projected

Table 12. Total secondary enrollments by district, Clatsop and Tillamook Counties: 1961-1966.

	1961-1962	1962-1963	1963-1964	1964-1965	1965-1966
Clatsop County:					
Astoria #1	777	812	854	893	971
Knappa #4	146	137	156	171	186
Jewell #8	21	27	25	25	21
Seaside Union High School	455	484	504	518	502
Warrenton #30	201	235	254	237	242
Tillamook County:					
Neah-Kah-Nie #56	385	395	410	406	388
Nestucca Union High #3	216	212	226	245	251
Tillamook #9	742	760	787	765	796

Figures include unclassified students.

Source: Oregon State Department of Education

high school completion for the schools of Tillamook and Clatsop Counties.

Table 13. High school graduation projections to 1970 for Clatsop and Tillamook Counties.

	11th Graders in 1966		10th Graders in 1966		9th Graders in 1966		8th Graders in 1966	
	Graduate 1967		Graduate 1968		Graduate 1969		Graduate 1970	
	Clat	Till	Clat	Till	Clat	Till	Clat	Till
Enrollment	461	324	512	367	516	393	573	363
Graduation projection:								
Survey	452	321	507	362	511	385	567	358
Formula	397	279	424	304	417	318	461	290

There is a great difference between the numbers received from the survey and the numbers obtained by using the Oregon State Department of Education formula for computing forecasted graduation numbers. In general it appears that the figures obtained from the survey run approximately 15 percent higher than those obtained from the more realistic Oregon State Department of Education forecast. This optimism on the part of the students reflects a healthy attitude toward education in the two county area.

It is important to note here that the totals, regardless of which you choose to accept, greatly exceed the employment opportunities forecast in the section on employment opportunities.

Post-High School Education Plans and High School Preferences

A most significant part of the study was designed to investigate student plans for education beyond high school and student preference in high school education curricula.

The results of these parts of the survey are tabulated in Tables 14 and 15. The Tables include two-county totals, county totals and totals by grade, sex and school. From this part of the survey we find that over the two county area 67 percent of the students indicated that they would like to have specific occupational training in high school. This figure represents a low figure in that the survey was taken within one month of graduation. A good many seniors left the question blank which resulted in a lower percentage of "yes" responses. The data indicates that roughly 70 percent of all students in the two county area would like to have occupational education in high school. It is noted that 48 percent declare that they plan to attempt a four-year college and 28 percent plan to attend a community college.

In the survey, tenth, eleventh and twelfth grade students were asked to classify their high school education to date as college preparatory, vocational agriculture, business education, home economics, trade and industrial or general education. The student responses are shown by grade and county totals in Table 16.

Table 14. Post high school education plans and high school education preferences - two-county totals (by grade and area totals).

	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	TOTALS
Surveyed	921	900	825	762	660	608	4676
Plan to graduate from high school	896 97%*	890 99%	814 99%	754 99%	652 99%	607 100%	4613 99%
Plan to attend four- year college and earn degree	548 60%	492 55%	374 45%	333 44%	250 38%	236 37%	2233 48%
Plan to attend community college, then transfer	288 31%	242 27%	166 20%	168 22%	132 20%	111 18%	1107 24%
Plan vo-ed in community college	304 33%	259 29%	220 27%	215 28%	190 29%	136 22%	1324 28%
Want specific occupa- tion training in high school	682 74%	622 69%	614 76%	534 70%	447 68%	232 38%	3131 67%
Want only college prep in high school	201 22%	215 24%	146 18%	145 19%	187 28%	164 27%	1058 23%
Want both vo-ed and college prep in high school	621 67%	560 62%	518 63%	450 59%	319 48%	234 38%	2702 58%

* Percentages are to the nearest whole number

Table 15. Post high school education plans and high school education preferences - two-county totals by grade and sex.

	Grade 7		Grade 8		Grade 9		Grade 10		Grade 11		Grade 12 ²⁷⁴		TOTALS	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Surveyed	490	431	459	441	411	414	410	352	336	324	334	274	2440	2236
Plan to graduate from high school	473 97%*	423 98%	454 99%	436 99%	405 96%	409 99%	405 99%	349 99%	333 99%	319 98%	333 99%	274 100%	2403 98%	2210 99%
Plan to attend four- year college and earn degree	308 63%	240 56%	249 54%	243 55%	200 49%	174 42%	218 53%	115 33%	143 43%	107 33%	131 39%	105 38%	1249 51%	984 44%
Plan to attend community college then transfer	157 32%	131 30%	121 26%	121 27%	92 22%	74 18%	110 27%	58 16%	83 25%	49 15%	77 23%	34 12%	640 26%	467 21%
Plan vo-ed in community college	147 30%	157 36%	121 26%	138 31%	81 20%	139 34%	74 18%	141 40%	79 24%	111 34%	68 20%	68 25%	570 23%	754 34%
Want specific occupa- tion training in high school	372 76%	310 72%	318 69%	304 69%	305 74%	309 75%	284 69%	250 71%	230 68%	217 67%	128 38%	104 38%	1637 67%	1494 67%
Want only college prep in high school	118 24%	83 19%	114 25%	101 23%	78 19%	68 16%	93 23%	52 15%	100 30%	87 27%	95 28%	69 25%	598 25%	460 21%
Want both vo-ed and college prep in high school	330 67%	291 68%	278 61%	282 64%	234 57%	284 69%	240 59%	210 60%	168 50%	151 47%	140 42%	94 34%	1390 57%	1312 59%

*Percentages are to the nearest whole number

Table 16. Student classification of high school preparation. Two-county totals by grades.

	10th Grade		11th Grade		12th Grade		TOTALS
	Clatsop	Tillamook	Clatsop	Tillamook	Clatsop	Tillamook	
Useable responses	407	282	359	270	309	268	1895
College Preparatory	144 35%	84 30%	138 38%	73 27%	124 40%	86 32%	649 34%
Vocational Agriculture	2 .49%	8 2.8%	1 .28%	6 2.2%	0 -	1 .37%	18 .9%
Business Education	20 4.9%	18 6.4%	42 12%	31 1.1%	26 8.4%	32 1.2%	169 9%
Home Economics	3 .74%	9 3.2%	4 1.1%	12 4.4%	2 .65%	6 2.2%	36 2%
Trade & Industrial	14 3.4%	12 4.3%	25 7%	16 5.9%	23 7.4%	9 3.4%	99 5.2%
General Education	224 55%	151 54%	149 42%	142 53%	134 43%	134 50%	934 49%

The students found this question difficult to answer. It appears that there is a considerable disparity between the number of students taking vocational subjects and the number who considered they were majoring in any certain area. This may reflect a lack of curriculum sequence, a lack of guidance or a general education preference.

The survey totals in Table 16 constitute 79 percent of the total of 1965-1966 enrollment in grades ten, eleven, and twelve (2,385) in the area. The data indicate that 322 students would consider themselves to be or have been enrolled in occupationally high school education, 649 students would classify their high school education as college preparatory and 934 would consider it as general education.

Comparison of these data with those in the preceding section (Table 14) which deals with tenth, eleventh and twelfth graders shows a fair correlation between those planning four-year college attendance--819 or 41%--and those who classify their high school education as college preparatory--649 or 34%. On the other hand, the data indicates a large disparity between those who say they would like occupational education in high school--1,213 or 60%--and those who say they have been or are being occupationally trained--322 or 17%.

Existing Vocational Education Curricula,
Personnel and Facilities

This part of the study was to inventory and examine existing

curriculum, personnel and facilities in relation to occupational education. The existing facilities and personnel reflect the curriculum presently found in each of the districts.

Curriculum and Courses

A vocational curriculum pattern is defined as a structural arrangement of interrelated courses or subjects, activities, or experiences designed to advance the student toward a predetermined occupational goal.

An overview of courses and, to some extent, a sequential course arrangement in the schools of the area is presented in Table 17. The courses listed are grouped under the broad headings of Agriculture, Business Education, Home Economics and Industrial Education. There is considerable disagreement even in the minds of experts as to just how and where certain courses should be listed. The long-standing argument as to whether a course is vocational, avocational or general education is one in which the author chooses not to engage. Suffice to say that generally the objective of the learner determines whether or not it is vocational.

There are no state approved Trade and Industrial Education programs in any of the high schools surveyed. However, a program is conducted cooperatively with Clatsop Community College furnishing specialized training in electronics and industrial mechanics to

high school students by contractual arrangement with the districts involved. Tillamook High School offers several one semester courses in industrial education which do have sequential arrangement. Although plans are underway for increased depth, the present courses should perhaps be classified as pre-vocational rather than occupational.

Table 17 shows a total of 3794 student involvements with vocational subjects. This number represents approximately 79 percent when compared with the total surveyed (4706). This does not mean that 79 percent of the student body were involved in vocational courses. Some students were taking more than one vocational course. Although there are large enrollments in some courses there appears to be a lack of student participation in structured course sequences designed to prepare for occupational entry. The figures indicate the prevalence of a variety of electives in which students enroll largely as schedules and inclinations dictate. In general, the appearance is one of a rather loose arrangement of interrelated electives which may not be combined into a program orientated to the development of an occupational competency. This suggests a great need for a coordinated well developed occupational education program for the two-county area. It may also indicate a need for emphasis upon curriculum study, occupational guidance and the services of a competent vocational director.

Table 17. Vocational and pre-vocational courses offered (showing the number of students involved).

Courses Offered	Tillamook High & Jr. High	Astoria High & Jr. High	Seaside High	Neah-Kah-Nie High	Nestucca High	Knappa High	Tillamook Catholic High	Warrenton High	Star of the Sea High	Jewell High	Lewis & Clark High
AGRICULTURE											
Ag. I	22					A					
Ag. II (Dairy & Poultry)	23					17					
Ag. III (Livestock Prod.)	22					A					
Ag. IV (Fish & Game)	46					11					
Ag. V (Landscape Horticulture)	A										
Ag. VI (Plant & Soil Sc.)	A										
Ag. VII (Forestry)	54										
Ag. VIII (Ag. Business)	A										
Ag. IX (Dairy Manuf.)	A										
Sub totals	95					28					
INDUSTRIAL EDUCATION											
Wood Shop I	48	90	40	22	13						
Wood Shop II	38	C	C	23	14						
Wood Shop III	18	C	C								
Wood Shop IV	18		24								
Mechanical Drawing I	18	60	25	30				30			
Mechanical Drawing II	24	C		30							
Metal Shop I	48	65	18	45							
Metal Shop II	62	C									
Metal Shop III	18										
General Shop		200			26	36		79		21	
Jr. Hi. Mechanical Drawing		148									
Jr. Hi. Woodworking	195										
Automechanics I	54					18					
Electric Shop I	39		12								
Photography										10	
Sub totals	446	563	119	150	53	54		109		31	

cont. on next page

Table 17 cont.

Courses Offered	Tillamook High & Jr. High	Astoria High & Astor Jr. High	Seaside High	Neah-Kah-Nie High	Nestucca High	Knappa High	Tillamook Catholic High	Warrenton High	Star of the Sea High	Jewell High	Lewis & Clark Jr. Hi
BUSINESS EDUCATION											
Bookkeeping I	65	90	17	29	29	16		13			
Bookkeeping II	C	15									
Clerical & Office Prac.	25	5	17			9					
Shorthand I	15	32	7	22	7	A		18			
Shorthand II	7	12		C							
Briefhand	22										
Typing I	174	155	123	45	51	44	34	50	35	6	71
Typing II	31	16	33	C	19				10		
Business Law	20				19	A					
Distributive Education	29										
Sub totals	367	325	197	96	125	69	34	81	45	6	71
HOME ECONOMICS											
Home Economics I	59	6	33	32	24	21		55			
Home Economics II	50	26	25	31	17	9					
Home Economics III	52	21	15	30		12					
Home Economics IV			C			7					
Jr. High Home Economics	205	NA									
Sub totals	366	53	73	93	41	49		55			
Total number students in- volved in each school	1,274	941	389	339	219	200	34	245	45	27	71
Total number of students involved in all schools	3,794										

A offered on alternate years

C combined total with figure above

NA not available

As indicated in Table 17, considerable differences exist in the curriculum offered at the various schools. Every school in the study offers one or more courses in Business Education. However, it appears that only the larger schools offer depth sufficient to assure opportunity for occupational preparedness.

Under the heading of Industrial Education is found the greatest number of student involvements. In examining the data, however one can clearly detect two important points:

1. Only in Tillamook High School is there evidence of a vocational curriculum pattern in industrial education.
2. The larger schools offer the largest variety of vocational education courses.

These two points clearly indicate the need for larger educational units and curriculum development.

Agricultural Education is offered only in two schools. The Agricultural Education in Tillamook High School is somewhat dairy oriented while Knappa High School's Agricultural Education is oriented toward forestry.

The Agriculture Education program in Tillamook High School has been recently expanded to permit non-farm students to enroll in selected one-semester courses. Prior to 1966-67 school year this was a conventional Ag. I, Ag. II, Ag. III, Ag. IV structure offering a mixture of animal and plant science as well as metal shop,

welding, automechanics and electricity. Insofar as the revised expanded program was only in the first year of operation the lack of definite goals on the part of the student is somewhat understandable.

It is apparent that both Tillamook and Knappa are attempting to offer a wider variety of courses for both the farm-bound and the off-farm agricultural worker.

Home Economics is offered in eight of the eleven schools. The data of Table 17 indicates a considerable range of emphasis being placed upon Home Economics. All Home Economics education offered in the two-county area is classified as "useful" rather than "gainful" home economics education.

The expansion of existing Home Economics programs to include the wage earner aspect for gainful employment seems advisable. The addition of a one year course including skills in institutional dietetics, child care, care for the aged, restaurant operation and motel operation would open many doors of opportunity for employment for girls.

Personnel

From data gathered and tabulated we find a total of 24 teachers involved in vocational education or vocationally related subjects. The average age of these teachers is about 36. These teachers hold twenty Bachelor degrees and four Masters degrees. It appears that

only five instructors hold vocational certificates.

The type of certificates held is important to note in that this dictates and somewhat limits the occupational education that can be offered in certain departments. Reimbursable vocational education programs generally demand instructors possessing both academic and occupational credits. It would appear that any increase in scope and depth of vocational education in the two county area would have to be accompanied by more vocationally certified personnel.

The scarcity of vocationally certified personnel suggests a real need for cooperation between the schools within the two county area. The sharing of instructors presents a possibility in that the distances involved between the schools is not excessive (see Figures 1 and 2, pages 72 and 73).

It may be that the public school will find it necessary to overhaul their requirements for certification of certain vocational instructors. The community colleges have already committed themselves to placing occupational competency over academic credits in many of the trades areas.

Facilities

Vocational Programs Personnel and Facilities Inventory (Appendix III) was used to gather data on the existing facilities. It was not the intent of this study to study in depth or to evaluate

existing facilities but to merely gain insight into the facilities presently available.

It appeared that most of the physical plants dictated the curriculum presented. The idealistic way, of course, would be to reverse this and let the curriculum determine the facilities.

Generally speaking the larger schools appeared to have better facilities and equipment for vocational education than the smaller schools. Table 18 shows the shop and laboratory facilities in the secondary and junior high schools in the two-county area.

Further study should be the product of a team of evaluators consisting of professionally trained personnel, instructors and people from business and industry. This team would then evaluate the facilities in relation to the following questions:

1. What are the specific objectives of the curriculum?
2. How many students will be served?
3. Is the facility and equipment reasonably modern?
4. Are there enough pieces of equipment?
5. Is the facility conveniently arranged and located?
6. Is the facility neat, clean and safe?
7. Is it in keeping with job opportunities?

Cooperative Functioning of Educational Units

An exploration of statutory and regulatory provisions for

Table 18. Shop and laboratory facilities in secondary and junior high (student stations).

	Astoria High	Astor Jr. High	Jewell High	Knappa High	Lewis & Clark Jr. High	Neah-Kah-Nie High	Nestucca High	Star of the Sea High	Seaside High	Tillamook Catholic H. S.	Tillamook High	Tillamook Jr. High	Warrenton High
Equipment type													
Food preparation	20			7		30	24		24		20	25	20
Drafting	22	25				30					20		16
Electrical											20		
Power Mechanics				10							16		
Metal Working	20	25c	6c	20c		24c	24c				16		15c
Milk and Soil Test											8		
Photo processing								10					
Typewriters & office machines	54	25	10	33	30	25	30	18	37	20	70		24
Sewing	20			10					6		20	25	7
Welding, Arc, Tig, Oxy-acetylene											20		
Wood working	20	25c	6c	20c		24c	24c		24		24	25	15c

c indicates that metal and wood facilities and equipment are mixed

cooperative functioning among educational units was made a part of this study because of the difficulty of providing quality vocational education in small schools. It must be pointed out that this study did not include an exhaustive inquiry into the legal applications of the statutes involved.

Three chapters of the Oregon Revised Statutes, (22) make provisions for cooperative functioning among educational units. These chapters ORS 191, 334 and 341 deal with intergovernmental cooperation, Intermediate Education Districts and Community Colleges.

Intergovernmental Cooperation

ORS 191.010 states:

Municipalities, districts or commissions situated in any county or counties, may whenever it is deemed for their best interest, enter into written agreements with such county or counties, or with each other, for the joint performance of any or all functions and activities of their local governments through consolidated agencies, or by means of, but not limited to, institutions, buildings, swimming pools, or recreational or educational facilities and equipment jointly constructed, owned, leased or operated. Counties, municipalities, districts, or commissions may contract with other counties, municipalities, districts, or commissions for the performance of one or more county, municipal, district or commission functions by one of the contracting parties for the other.

and ORS 190.110 states:

In performing a duty imposed upon it or in

exercising a power conferred upon it, a public corporation, political subdivision or state agency of this state may cooperate, by agreement or otherwise, with a public corporation, political subdivision or state agency of this or another state, or with the United States, or with a United States governmental agency. This power included power to provide jointly for administrative officers.

From these specific quotes it seems that school districts may perform any or all functions and activities in that school districts are corporate bodies. It appears that a school district may do about anything provided it pertains to education and is not forbidden by other statutes.

Other provisions pertaining to finances are also of concern. From Laws Relating to the Oregon Public School System, (22) we find specific guidelines set down. ORS 328.210 states:

To provide funds for the purposes for which a common or union high school district or an area education district may contract a bonded indebtedness under ORS 328.205, the board of the district may, whenever a majority thereof so decide, or shall, upon the petition of at least 10 percent or at least 100, whichever is the lesser, or the qualified voters of the district, cause notice of the election to be given (27, p. 28).

and 328.245 sets limitations on bonded debts by stating:

The aggregate amount of such district indebtedness, including indebtedness authorized under ORS 328.213 shall not exceed the following percentages of true cash value of all taxable property within the district, computed in accordance with ORS 308.207: (1) For each grade from the first to eight for which the district operates schools, fifty-five one-hundredth of one percent (.0055)

of the true cash value. (2) For each grade from 9th to 12th for which the district operates schools, seventy-five one-hundredth of one percent (.0075) of the true cash value. (3) For a community college operated by a school district or an area education district, one and one-half percent (0.15) of the true cash value, but the additional indebtedness authorized under this subsection may be used only for the purpose of the community college (27, p. 29).

Intermediate Education Districts

In reference to Intermediate Education Districts ORS 334.005 states:

It is the purpose of chapter 544, Oregon Laws 1963, to provide maximum excellence in educational opportunities for all the children of this state as is feasible under optimum local control. In order to accomplish this purpose the Legislative Assembly intends that the Intermediate Education Districts established under the provisions of ORS 334.010 shall succeed the rural school district and provide professional service and facilities in education and shall furnish such services and facilities, on a cooperative basis with local districts, as may further the intent and purpose of chapter 544, Oregon Laws 1963 (27, p. 29).

From the cited statutes it is apparent that it is possible for school districts to cooperate to provide for occupational education. It appears that such education could be provided through a community college, area vocational school or any other arrangement that they might wish. However, it appears that the intermediate education district will play a major role in cooperative action between school districts.

Community Colleges

Provisions for the establishment of area education districts and, through them, the establishment and operation of community colleges are contained in Chapter 341 of the Oregon Revised Statutes.

The present law defines an area education district as one that includes more than one common school district and is formed under the various provisions of the law to operate a community college.

Area education districts have all the applicable powers of first class school districts and, except when the provisions of the community college law are inconsistent with them, are subject to all the laws governing such districts.

It appears that school districts may enter into contractual cooperative arrangements with community colleges for the provision of vocational and technical education to residents of the districts.

Summary

The implementation of coordinate functioning of school districts will involve many other factors such as contracts, joint use of facilities, sharing of personnel and transportation. Cooperating school districts would perhaps enter into contractual agreements for establishing, operating and supporting a vocational school or facility. The agreement would perhaps specify administrative structure,

functions, responsibilities, financial arrangement, etc. Any further treatment of such contracts would have to be based upon the specific situation involved. The complications would no doubt be numerous. Suffice to say that the key to success of any such cooperative activity among school districts would have to be based upon need and good faith.

The cooperative activities necessary in Tillamook and Clatsop Counties will have to be determined by joint action of the Educational Committee of the region, Oregon Council for Curriculum Improvement and the district school boards involved.

It is felt by the author that occupational education should be provided as close to the need as possible and with a minimum of inconvenience to the participating students and schools. This may involve merely an upgrading of local plants and curriculum. It may involve the sharing of facilities and instructors. It may be considered necessary to construct complete new area vocational facilities. These decisions must be made by the people of the districts involved. It is impossible to over emphasize the necessity of advisory committees working cooperatively with local and state agencies.

Transportation can present quite a problem. Figures 1 and 2 on pages 72 and 73 show the spacial relationship of schools involved. Although the distances are not excessive it should be pointed out

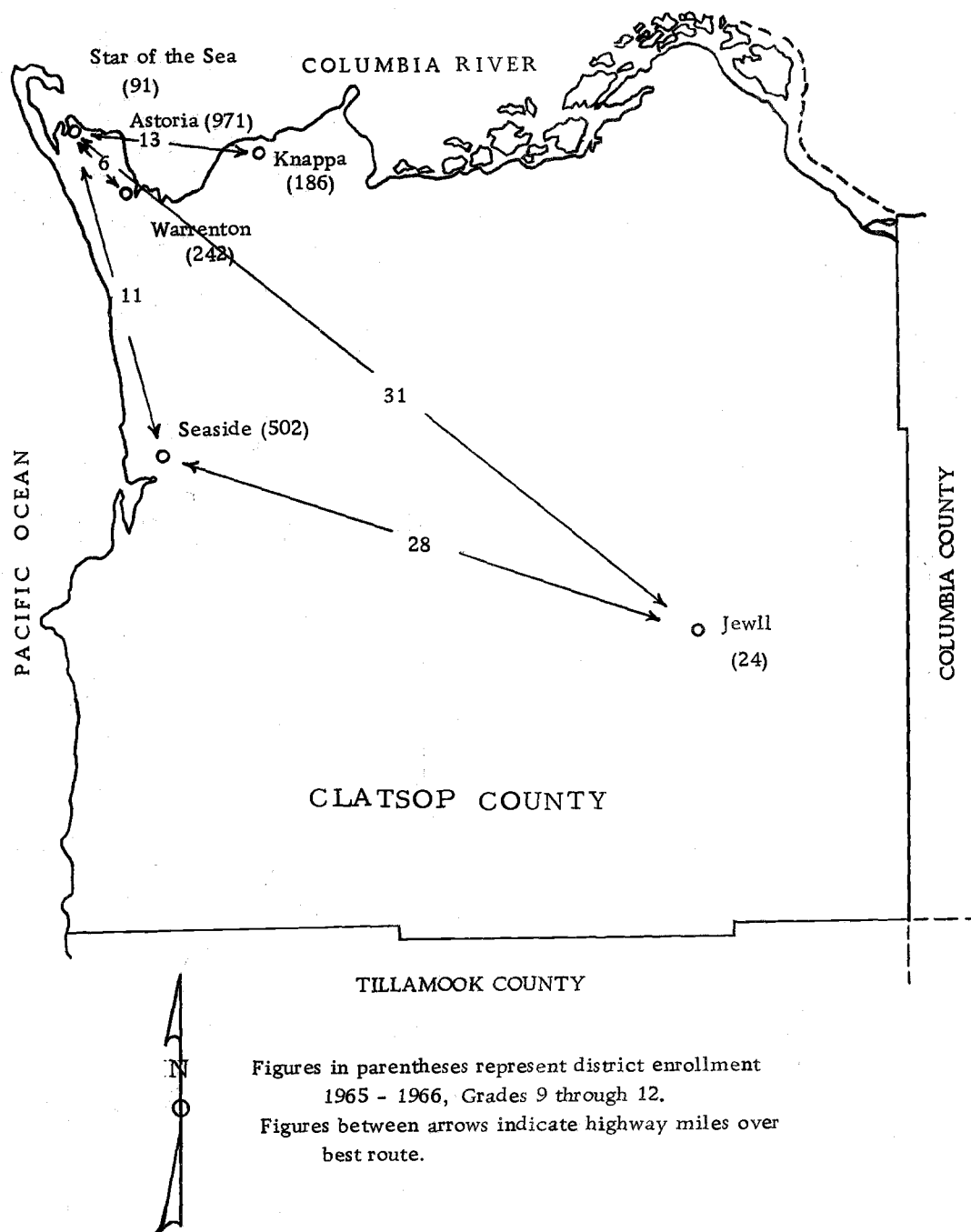


Figure 1. Clatsop County Secondary School District, Locations and Enrollment.

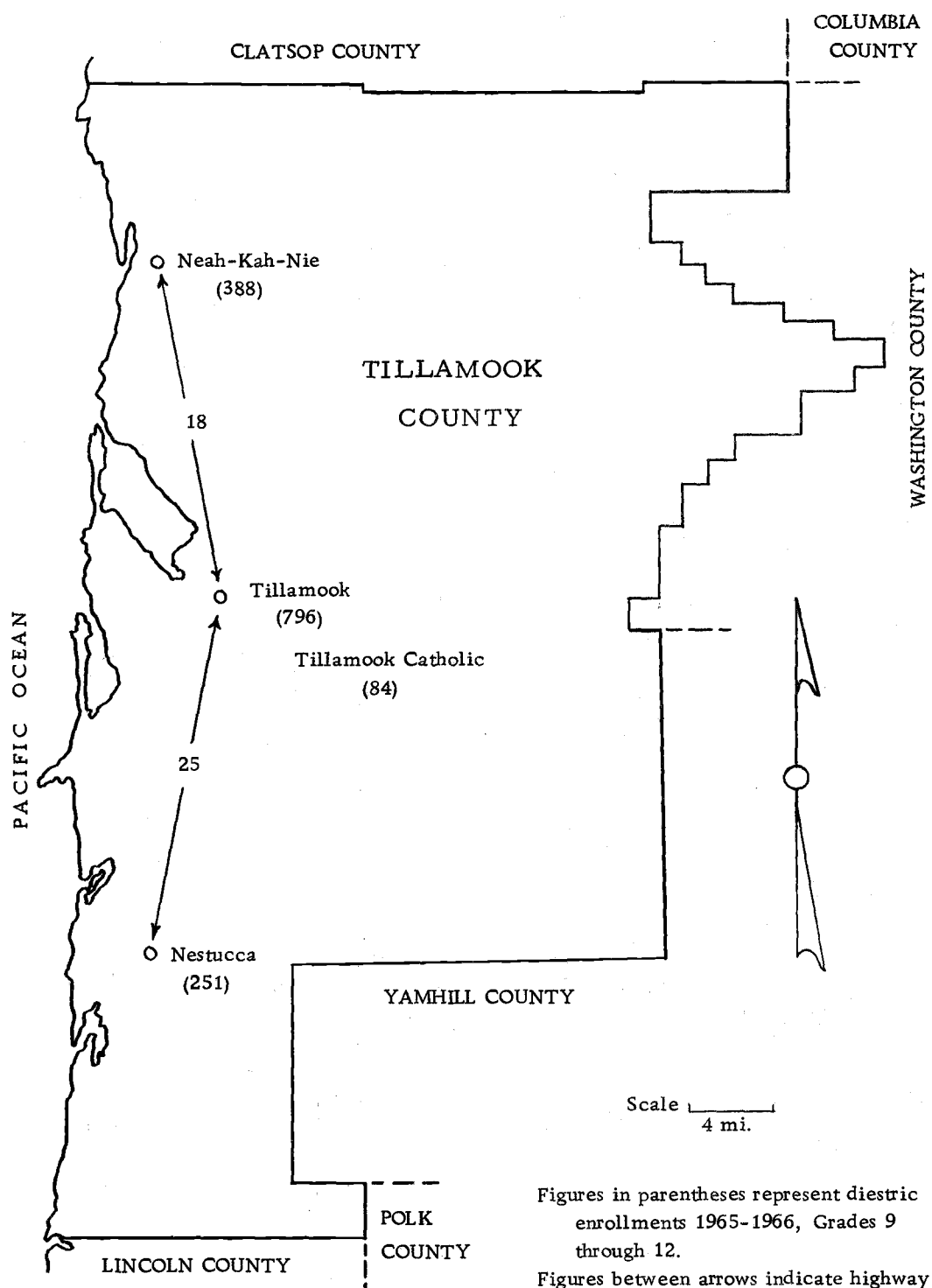


Figure 2. Tillamook County Secondary School District, Locations and Enrollment

that the routes are rather slow and often wet and foggy. Any area vocational facility would logically be located in or near Tillamook for Tillamook County and in or near Astoria for Clatsop County.

CHAPTER IV

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This study was initiated to compile and examine data relative to vocational education in Tillamook and Clatsop Counties. This study was designed to investigate employment opportunities; potential vocational education students; status of existing vocational facilities, personnel and curriculum and cooperative educational action by school districts.

Data was gathered from a variety of sources. Employment data was gathered from the local and State Employment Offices. Student post graduation plans and occupational preferences were gathered by surveys administered to approximately 90% of the students of Tillamook and Clatsop Counties. Data on curriculum, personnel and facilities was gathered by surveys and personal interviews. Data pertaining to cooperative educational action by school districts was obtained from investigation of the Oregon Revised Statutes, Laws Relating to the Oregon Public School System and interviews of authorities on Oregon school law.

Although there has been general decline in both population and labor force in both Tillamook and Clatsop Counties in recent years, it is forecasted that stability and moderate growth will occur.

The present major industries will continue to dominate the

occupational structure.

Employment opportunities in the two-county area will be the result of replacement needs primarily. It appears that approximately $2/3$ of the counties' youth will have to leave the area to find employment. Employment expansion is forecasted primarily for the trade, sales and services areas which are closely tied to the expanding tourist and recreation industries.

Elementary and secondary enrollment trends in the overall area show a steady, slight upward growth pattern.

Distances of approximately 20 miles separate the high schools in Tillamook County. Clatsop County's high schools lie within a radius of 13 miles of Astoria, with the exception of Jewell which is 31 miles from Astoria. Although the main highways are of good blacktop quality, they are not speedways because of frequent rain and curves.

The data indicates that secondary education patterns in the area are aimed primarily toward the college bound. It seems evident that there is a great unfilled need at present for occupational education in the secondary schools of Tillamook and Clatsop Counties.

Although numerous vocational and pre-vocational courses are offered, it appears that there is inadequate depth and sequence to assure much occupational competency. It is very doubtful that adequate occupational education could be developed in most of the

high schools with their present facilities and equipment.

The provisions for cooperative functioning of educational units are set forth in Chapters 190, 334, and 341 of the Oregon Revised Statutes. Under these provisions local districts may achieve cooperative functioning: (1) Through contractual agreements between or among the participating districts for the mutual performance of functions and activities, (2) through contractual agreement with the intermediate education district, and (3) through contractual agreement with community colleges.

Neither statutory limitations nor student distribution present insurmountable difficulties insofar as developing area vocational facilities are concerned.

Conclusions

From the data gathered and analyzed, the author draws the following conclusions:

1. There is a definite interest and desire for additional vocational education in Tillamook and Clatsop Counties. Approximately 70 percent of the students surveyed expressed a desire for occupational education in high school.
2. There is a definite need for more occupational education in the two-county area. A conservative evaluation of the data indicates that at least 60 percent of the students would

take advantage of occupational courses.

3. Both Tillamook and Clatsop County schools offer a wide variety of courses which have vocational implications; and the number of students involved each year in one or another of these courses is impressive. Generally lacking, however, is occupational goal orientation and sequential course arrangement. The courses are, in the main, elective and serve general education objectives.
4. Occupational education for the female student is better developed than for the males. This is the result of quite well-developed office education programs and the poor or non-existent programs of industrial education.
5. Approximately 70 percent of the students of the two-county area will have to seek employment outside the county. Consequently, schools in this area should offer instruction in the areas of job opportunities representative of the labor pool of entire west coast or even larger.
6. Employment opportunities within occupational group classifications will generally follow national and state trends of declining needs for unskilled and semi-skilled workers. Over the forecast period, the occupational groups which will show the most solid expansion in the two-county area are services, sales and office and clerical.

7. The two counties present quite a difficult problem as to just how to best develop quality vocational education for all who want and need it. The geography of the two areas makes it nearly impossible to set up one area facility to serve both counties. Possibly area facilities could be set up in each county with careful planning and cooperative action. Student populations are hardly adequate for area school establishment.
8. It is legally possible for the various districts to cooperatively organize for the purpose of providing occupational education.

Recommendations

Considering the evidence in the findings of this study, and conclusions drawn, the following recommendations are made relative to this study.

1. It is recommended that the school districts of Clatsop and Tillamook Counties immediately organize to provide a complete and comprehensive program of occupational education which will extend from grade seven through twelve in the elementary and secondary schools and be fully articulated with post-high school educational opportunities in the area.

2. It is recommended that an advisory council on vocational-technical education be established for the two county area and also for each participating district and that extensive use be made of community leaders, educators and state agencies in developing all occupational education programs.
3. It is recommended that as soon as feasible, a qualified, full-time vocational director-coordinator-supervisor be hired to serve in the development of the occupational education program for the two county area.
4. It is recommended that an extensive analysis and evaluation be made of the present curriculum and facilities of each of the schools in the two county area with the specific purpose of locating strengths and weaknesses.
5. It is recommended that program and curriculum development be undertaken jointly by advisory committees, faculty and administrators with special emphasis upon providing occupational education.
6. It is recommended that each school district provide as much prevocational and vocational education as economically feasible.
7. It is recommended that area vocational facilities be established in or near Astoria and Tillamook to provide skills and knowledge for job entry or entry into post-high school

education.

8. It is recommended that a comprehensive study be made of existing facilities and curriculum to determine what occupational education courses can be offered and what will be needed.
9. It is recommended that emphasis be placed upon occupational guidance.
10. It is recommended that programs and curriculum in vocational education include supervised work experiences wherever possible.
11. It is recommended that special effort be made to develop among administrators, counselors, teachers, and students a clearer conception of the objectives, nature, and scope of the present-day vocational education.
12. It is recommended that state and federal financial and consultative assistance be sought to assist in the implementation of occupational education in Tillamook and Clatsop Counties.

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APPENDICES

APPENDIX I

School

Location

Date

JUNIOR HIGH SCHOOL STUDENT SURVEY

INSTRUCTIONS:

NAME _____

First write your name in the space provided. Then answer all the questions below. Follow the directions provided for each question. When there is a need for an explanation of a word or a phrase, or if special directions are needed for an answer, raise your hand.

1. What is your sex? (Check one)

(1) _____ Male

(2) _____ Female

2. What is your age: (Circle one number)

11 12 13 14 15 16 17 18 19 20

3. What is your grade in school? (Circle one number)

(1) 7

(2) 8

(3) 9

4. Do you now plan to attend and finish high school? (Check one)

(1) _____ Yes

(2) _____ No

5. After your graduation from High School do you plan to attend a 4 year college and earn a degree? (Check one)

(1) _____ Yes

(2) _____ No

6. After your graduation from High School do you plan to attend a community college and then transfer to a university or college to earn a degree? (Check one)

(1) _____ Yes

(2) _____ No

JUNIOR HIGH SCHOOL STUDENT SURVEY

7. After your graduation from High School do you plan to attend a community college and enroll in a vocational, business, or homemaking program? (Check one)
- (1) ☐ Yes
(2) ☐ No
8. In the years that remain before your graduation from High School would you like to take training that will prepare you for a specific occupation? (Check one)
- (1) ☐ Yes
(2) ☐ No
9. In the years that remain before your graduation from High School would you like to prepare for both college entrance and occupational entry? (Check one)
- (1) ☐ Yes
(2) ☐ No
10. In the years that remain before your graduation from High School would you like to concentrate on preparation for college only? (Check one)
- (1) ☐ Yes
(2) ☐ No
11. After completing High School do you plan to attend a community college and enroll in a general education program or curriculum which does not lead to a four year degree? (Check one)
- (1) ☐ Yes
(2) ☐ No

APPENDIX II

School

Location

Date

HIGH SCHOOL STUDENT SURVEY

INSTRUCTIONS:

NAME

First write your name in the space provided. Then answer all the questions below. Follow the directions provided for each question. When there is a need for an explanation of a word or a phrase, or if special directions are needed for an answer, raise your hand.

1. What is your sex? (Check one)

(1) ☐ Male
(2) ☐ Female

2. What is your age: (Circle one number)

11 12 13 14 15 16 17 18 19 20

3. What is your grade in school? (Circle one number)

(1) 9
(2) 10
(3) 11
(4) 12

4. Do you now plan to finish high school? (Check one)

(1) ☐ Yes
(2) ☐ No

5. The subjects you have taken so far in high school have been mainly: (Check one)

(1) ☐ College Preparatory
(2) ☐ Vocational Agriculture
(3) ☐ Vocational Business Education
(4) ☐ Home Economics
(5) ☐ Vocational Trade and Industrial Education
(6) ☐ General Education

6. After graduation from High School do you plan to attend a 4 year college and earn a degree?
(Check one)

(1) ☐ Yes
(2) ☐ No

HIGH SCHOOL STUDENT SURVEY

7. After your graduation from High School do you plan to attend a community college and then transfer to a university or college to earn a degree? (Check one)

(1) ☐ Yes

(2) ☐ No

8. After your graduation from High School do you plant to attend a community college and enroll in a vocational, business, or homemaking program? (Check one)

(1) ☐ Yes

(2) ☐ No

9. In the years that remain before your graduation from High School would you like to take training that will prepare you for a specific occupation? (Check one)

(1) ☐ Yes

(2) ☐ No

10. In the years that remain before your graduation from High School would you like to prepare for both college entrance and occupational entry? (Check one)

(1) ☐ Yes

(2) ☐ No

11. In the years that remain before your graduation from High School would you like to concentrate on preparation for College only? (Check one)

(1) ☐ Yes

(2) ☐ No

12. After completing high school do you plan to attend a community college and enroll in a general education program or curriculum which does not lead to a four year degree? (Check one)

(1) ☐ Yes

(2) ☐ No

APPENDIX III

VOCATIONAL PROGRAMS PERSONNEL AND FACILITIES INVENTORY

Vocational education is defined as that part of the total program of education that deals specifically, and in an organized manner, with the acquisition of skills, understandings, attitudes and abilities that are necessary for entry into, and successful progress within an occupation or occupational group. This includes useful and gainful employment in homemaking, and gainful employment in agriculture education, business education, distributive education, trade and industrial education.

PART I. VOCATIONAL PROGRAMS, CURRICULUMS, COURSES

Part 1 of this survey form is intended to identify the vocational education programs, curriculum patterns and courses being offered in the _____ schools in the geographic area included in the study. The programs and facilities enumerated will be only those that contribute directly to the objectives of vocational education stated above. This information is needed to make an assessment of the total vocational education effort.

Total School Enrollment

Grade or Special Section Classification	Male	Female
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

School _____

Location _____

VOCATIONAL PROGRAMS PERSONNEL AND FACILITIES INVENTORY

1. A vocational program is a generic term used to identify an area of occupational instruction: agriculture program, business education program, trade and industrial education program.

Please list the vocational programs offered at your school

Type of Vocational Programs offered

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

2. A vocational curriculum pattern is a term used to identify a structured arrangement of inter-related courses or subjects, activities, or experiences designed to advance the student toward a predetermined occupational goal. Examples of curriculum patterns would be vocational machine shop, vocational auto mechanics, vocational production agriculture, building construction, vocational business-secretarial or business-bookkeeping.

Please list the vocational curriculum patterns offered at your school. List only those that provide a progressive structured sequence of courses or subjects. Show the total number of students enrolled in the curriculum pattern.

Structured Vocational Curriculum Patterns Offered

Type of Curriculum	Length of Curriculum	Number Enrolled

VOCATIONAL PROGRAMS PERSONNEL AND FACILITIES INVENTORY

3. Vocational courses are defined as those units of learning, including the activities and experiences, leading to established course objectives which are specifically oriented toward the occupational goals of the student, internal combustion engines, mechanical drawing, blue-print reading and sketching, typing II, and bookkeeping III.

Please list all the vocational courses offered at your school. (Do not include adult education courses.)

Vocational Courses Offered in Regular School Program			
Course	No. of Students Enrolled	Course	No. of Students Enrolled

This form was completed by:

Name

Position

School and Location

Date

PART 2 VOCATIONAL INSTRUCTION-SUPERVISORY PERSONNEL AND FACILITIES

(To be completed by school administrator)

Vocational education is defined as that part of the total program of education that deals specifically, and in an organized manner, with the acquisition of skills, understandings, attitudes and abilities that are necessary for entry into, and successful progress within an occupation or occupational group. This includes useful and gainful employment in homemaking, and gainful employment in agriculture education, business education, distributive education, trade and industrial education.

Part 2 of this form is intended to be used to identify the vocational education personnel and facilities presently available in the local district. This information is needed to make an assessment of the total vocational education effort.

1. Vocational instructional personnel are those persons teaching vocational education courses. A vocational program is a generic term used to identify an area of occupational instruction: agriculture program, business education program, trade and industrial education program. Regardless of the number of periods taught, please list the vocational teachers and the vocational courses taught as well as the type of certificate each individual holds. Include any vocational directors, supervisors, coordinators. Do not list the adult education teachers.

Vocational Teachers and Supervisory Personnel

[illegible]

*Indicate: Secondary, Vocational Instructor, Supervisor, Director, etc.

APPENDIX IV

Appendix Table 1. Labor Force, Clatsop County. 1959 through 1963. (Data furnished by State of Oregon Employment Service)

	1959	1960	1961	1962	1963
Civilian Labor Force	10, 170	9, 890	9, 740	9, 150	9, 650
Unemployment	810	690	840	680	740
Employment	9, 360	9, 200	8, 900	8, 450	8, 850
Agricultural	900	860	630	640	610
Non-agricultural	8, 460	8, 340	8, 270	7, 810	8, 240
Self-employed--Domestic	1, 360	1, 330	1, 350	1, 230	1, 250
Wage & Salary Workers	7, 100	7, 010	6, 920	6, 580	6, 990
Manufacturing	2, 720	2, 670	2, 540	2, 500	2, 490
Food Products	1, 250	1, 210	1, 120	1, 030	1, 160
Lumber & Wood Products	1, 320	1, 300	1, 270	1, 320	1, 190
Other Manufacturing	150	160	150	150	140
Non-Manufacturing	4, 380	4, 340	4, 380	4, 080	4, 500
Contract Construction	170	180	190	240	450
Trans. Comm. Utilities	510	490	440	370	530
Wholesale-Retail Trade	1, 240	1, 230	1, 210	1, 230	1, 280
Finance, Ins. & Real Estate	150	140	380	240	230
Service & Misc.	780	820	920	1, 010	1, 050
Government	1, 530	1, 480	1, 340	990	960

APPENDIX V

Appendix Table 2. Labor Force, Tillamook County. 1959 through 1963. (Data furnished by State of Oregon Employment Service)

	1959	1960	1961	1962	1963
Civilian Labor Force	7, 030	6, 740	6, 760	6, 450	5, 700
Unemployment	280	300	450	460	320
Employment	6, 730	6, 440	6, 310	5, 990	5, 360
Agricultural	1, 210	1, 190	1, 140	930	900
Non-agricultural	5, 520	5, 250	5, 170	5, 060	4, 460
Self-employed--Domestic	890	840	840	790	670
Wage & Salary Workers	4, 630	4, 410	4, 330	4, 270	3, 790
Manufacturing	2, 410	2, 180	2, 020	1, 910	1, 620
Food Products	360	320	270	280	270
Lumber & Wood Products	2, 020	1, 810	1, 700	1, 600	1, 320
Other Manufacturing	30	50	50	30	30
Non-Manufacturing	2, 220	2, 230	2, 310	2, 360	2, 170
Contract Construction	80	70	70	100	80
Trans. Comm. Utilities	300	290	270	290	210
Wholesale-Retail Trade	600	610	660	680	610
Finance, Ins. & Real Estate	90	100	100	110	110
Service & Misc.	370	360	370	420	410
Government	780	800	840	760	750

APPENDIX VI

Appendix Table 3. Labor Force, Tillamook and Clatsop Counties. 1959 through 1963. (Data furnished by State of Oregon Employment Service)

	1959	1960	1961	1962	1963
Civilian Labor Force	17, 200	16, 630	16, 500	15, 600	15, 350
Unemployment	1, 090	990	1, 290	1, 140	1, 060
Employment	16, 090	15, 640	15, 210	14, 440	14, 210
Agricultural	2, 110	2, 050	1, 770	1, 570	1, 510
Non-agricultural	13, 980	13, 590	13, 440	12, 870	12, 700
Self-employed--Domestic	2, 250	2, 170	2, 190	2, 020	1, 920
Wage & Salary Workers	11, 730	11, 420	11, 250	10, 850	10, 780
Manufacturing	5, 130	4, 850	4, 560	4, 410	4, 110
Food Products	1, 610	1, 530	1, 390	1, 310	1, 430
Lumber & Wood Products	3, 340	3, 110	2, 970	2, 920	2, 510
Other Manufacturing	180	210	200	180	170
Non-Manufacturing	6, 600	6, 570	6, 690	6, 440	6, 670
Contract Construction	250	250	260	340	530
Trans. Comm. Utilities	810	780	710	660	740
Wholesale-Retail Trade	1, 840	1, 840	1, 870	1, 910	1, 890
Finance, Ins. & Real Estate	240	240	380	350	340
Service & Misc.	1, 150	1, 180	1, 290	1, 430	1, 460
Government	2, 310	2, 280	2, 180	1, 750	1, 710

APPENDIX VII

Appendix Table 4. Forecast of Need for Workers in Clatsop County, 1968 and 1970. (By Major Industry Groups.) (Date furnished by State of Oregon Department of Employment)

Major Industry Group	Current Employment ¹	Employment 1968	Expansion to 1968 ²	Separations to 1968	Net need to 1968	Employment 1970	Expansion to 1970	Separations to 1970	Net need to 1970
Construction	1010	200	-810	32	-778	210	-800	66	-734
Manufacturing	2590	3080	490	118	608	3090	500	241	741
Food Products	1090	1010	-80	65	-15	1010	-80	130	50
Lumber & Wood products	1240	1240	0	45	45	1240	0	94	94
Other M'f'g	260	830	570	8	578	840	580	17	597
Transportation, Communications, and Utilities	500	520	20	19	39	520	20	40	60
Trade (Wholesale & Retail)	1380	1400	20	69	89	1410	30	137	167
Finance, Insurance, & Real Estate	250	260	10	13	23	260	10	25	35
Service & Misc.	1070	1090	20	67	87	1120	50	132	182
Government (Including Education)	1520	1520	0	72	72	1530	10	148	158
TOTALS	8320	8070	-250	390	140	8140	-180	789	609

¹ March 1966

² Does not include March 1966 vacancies

APPENDIX VIII

Appendix Table 5. Forecast of Need for Workers in Tillamook County, 1968 and 1970. (By major industry groups.) (Data furnished by State of Oregon Department of Employment)

Major Industry Group	Current Employment ¹	Employment 1968	Expansion to 1968 ²	Separations to 1968	Net need to 1968	Employment 1970	Expansion to 1970	Separations to 1970	Net need to 1970
Construction	50	50	0	1	1	50	0	3	3
Manufacturing	1570	1540	-30	47	17	1500	-70	98	28
Lumber & Wood products	1290	1260	-30	35	5	1230	-60	75	15
Other M'f'g	280	280	0	12	12	270	-10	23	13
Transportation, Communications, and Utilities	170	170	0	7	7	160	-10	14	4
Trade (Wholesale & Retail)	600	610	10	27	37	620	20	53	73
Finance, Insurance, & Real Estate	130	130	0	5	5	140	10	9	19
Service & Misc.	450	460	10	26	36	470	20	52	72
Government (Including Education)	870	880	10	49	59	900	30	96	126
TOTALS	3840	3840	0	162	162	3840	0	325	325

¹ March 1966

² Does not include March 1966 vacancies

APPENDIX IX

Appendix Table 6. Forecast of Need for Workers in Clatsop County, 1968 and 1970. (By Major Occupational Groups.) (Data furnished by State of Oregon Department of Employment)

Occupational Group and D. O. T. Code ¹	Current Employ- ment ²	Employ- ment 1968	Expan- sion to 1968 ³	Separa- tions to 1968	Net need to 1968	Employ- ment 1970	Expan- sion to 1970	Separa- tions to 1970	Net need to 1970
Professional (01 - 03)	884	881	-3	41	38	880	-4	84	80
Technical (04 - 06)	167	141	-26	6	-20	141	-26	11	-15
Managerial (07 - 09)	471	435	-36	27	-9	431	-40	55	15
Clerical (10 - 14)	1008	1014	6	61	67	1053	45	120	165
Sales (15 - 19)	443	459	16	23	39	461	18	44	62
Service (20 - 39)	1290	1308	18	78	96	1344	54	157	211
Skilled (40 - 59)	1172	961	-211	52	-159	978	-194	110	-84
Semiskilled (60 - 79)	1668	1763	95	52	147	1765	97	109	206
Unskilled (80 - 99)	1217	1108	-109	50	-59	1087	-130	99	-31
TOTALS	8320	8070	-250	390	140	8140	-180	789	609

¹ Two-digit codes, Second Edition

² March 1966

³ Does not include March 1966 vacancies

APPENDIX X

Appendix Table 7. Forecast of Need for Workers in Tillamook County, 1968 and 1970. (By Major Occupational Groups.) (Data furnished by State of Oregon Department of Employment)

Occupational Group and D. O. T. Code ¹	Current Employ- ment ²	Employ- ment 1968	Expan- sion to 1968 ³	Separa- tions to 1968	Net need to 1968	Employ- ment 1970	Expan- sion to 1970	Separa- tions to 1970	Net need to 1970
Professional (01 - 03)	456	452	-4	24	20	454	-2	47	45
Technical (04 - 06)	71	90	19	3	22	96	25	5	30
Managerial (07 - 09)	142	139	-3	7	4	140	-2	13	11
Clerical (10 - 14)	475	481	6	28	34	479	4	55	59
Sales (15 - 19)	230	243	13	9	22	257	27	18	45
Service (20 - 39)	541	538	-3	31	28	546	5	62	67
Skilled (40 - 59)	502	499	-3	20	17	490	-12	41	29
Semiskilled (60 - 79)	960	947	-13	29	16	935	-25	60	35
Unskilled (80 - 99)	463	451	-12	11	-1	443	-20	24	4
TOTALS	3840	3840	0	162	162	3840	0	325	325

¹ Two-digit codes, Second Edition

² March 1966

³ Does not include March 1966 vacancies