

A SURVEY OF THE OCCUPATIONAL OPPORTUNITIES
IN AGRICULTURAL OFF-FARM OCCUPATIONS
IN CHEROKEE COUNTY

by

MELVIN BRILEY

B. S., Oklahoma State University, 1955

A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

College of Education

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1966

Approved by:


Major Professor

LD
2668
R4
1966
B857
C.2

ACKNOWLEDGMENTS

The author expresses sincere appreciation to Dr. Agan, Professor in the College of Education at Kansas State University, for his guidance and assistance in the preparation of this report.

TABLE OF CONTENTS

	PAGE
INTRODUCTION	1
THE PROBLEM AND DEFINITIONS OF TERMS USED	9
The Problem	9
Statement of the problem	9
Importance of the study	9
Limitations of the study	10
Definitions of Terms Used	11
Area Vocational-Technical School	11
Agricultural Off-Farm Businesses	11
Cherokee County	11
Agricultural Off-Farm Occupations	11
Southeast Kansas Area Vocational-Technical School	12
Professional Occupations	12
REVIEW OF THE SELECTED LITERATURE	13
PROCEDURES AND GENERAL INFORMATION	19
Selection of the Agricultural Off-Farm Businesses.	19
Procedure used in Studying the Group Selected	20
PRESENTATION OF THE DATA	21
SUMMARY AND CONCLUSIONS	32
BIBLIOGRAPHY	34
APPENDIX	38

LIST OF TABLES

TABLE	PAGE
I. Position of Interviewer Representing Agricultural Off-Farm Businesses	22
II. Percentage of the Firms Business Agriculturally Oriented	22
III. Function of Agricultural Off-Farm Businesses Indicating the Number of Businesses and the Per cent of Their Businesses in Each Area	23
IV. Major Products Handled, Job Title or Services Performed	24
V. Minimum Schooling Required	25
VI. Percentage of Employees Having a Farm Background	26
VII. Background Preference for Employees	26
VIII. Employees of Businesses by Major Function . .	27
IX. Additional Employees Anticipated through 1970.	28
X. Difficulty in Filling Vacancies by Firms . . .	29
XI. Willingness to Hire a Student to Work Part- Time While Attending Southeast Kansas Area Vocational-Technical School	30

INTRODUCTION

Since the report of President Kennedy's Panel of Consultants on Vocational Education and the ensuing Vocational Education Act of 1963 numerous articles have been written regarding the route Vocational Education in Agriculture should pursue. The Act made it possible to start new courses to train for off-farm occupations as it amended the George-Barden and Smith-Hughes Vocational Education Acts by stating:

Any amounts allotted (or apportioned under such titles, Act or Acts for agriculture may be used for vocational education in any occupation involving knowledge and skills in agricultural subjects, whether or not such occupation involves work of the farm home, and such education may be provided, ¹ without directed or supervised practice on a farm.

The Department of Labor in one of their publications set forth several predictions concerning the world of work for the decade of 1960 to 1970. They estimated that twenty six million young people without baccalaureate degrees would enter the labor force in this decade. The greatest increase in employment during this decade would be in occupations that required the most education and training. The percentage of change in employment for almost all occupational groups would increase from 20 to 40 per cent; yet, with

¹The Vocational Education Act of 1963, Public Law No. 88-210, Eighty eighth Congress, H. R. 4955, Section 10 b.

this great increase, they predicted that employment as farmers and farm workers would be expected to decline approximately 17 per cent and jobs for unskilled workers would not increase.¹

At the time of this study Cherokee County was a rural community which contained many people with a farm background who needed training or retraining in some area such as off-farm occupations in agriculture. The group included high school students, high school graduates and those who had dropped out of high school.

In 1963, 43 per cent of the high school graduates from Cherokee County enrolled in college.² It was assumed in this study that many of those who did not enroll in College lacked either the desire, ability, or financial means to obtain a college degree; therefore, the areas that needed employees had to be determined and needed training started. The opportunity was available to start any new program for which there was a need and demand. The information secured in this survey of the off-farm agricultural businesses was to be used to help determine the training

¹United States Department of Labor, Manpower: Challenge of the 1960's (Washington: Government Printing Office, 1960), pp. 9-11.

²"Kansas High School Graduates in College." (Guidance Service Section of State Department of Public Instruction, Topeka, Kansas). (A printed sheet).

that was to be offered in the Columbus Division of the Southeast Kansas Area Vocational Technical School.

According to Francis Keppel, United States Commissioner of Education, this nation should not tolerate poverty caused by ignorance as the demand for trained workers greatly exceeds the supply. He further stated that one of our greatest tasks is to develop curriculums so that training can be provided today for tomorrow's employment, and the shaping of Vocational Education Programs to meet future needs in these employment areas should be explored by each and every community as, "Vocational Education will truly joint the mainstream of all education in this latter half of the twentieth century."¹

A study by the Department of Labor showed that the migration from farms had averaged over one million people per year since 1940. These farm people needed to be trained for existing skilled jobs as their median years of school completed for 1960 was 8.8 years compared to 11.1 years for Urban people.²

It appeared that courses in off-farm agricultural

¹Francis Keppel, "Vocational Education a Promise for Tomorrow," American Vocational Journal, 39:17, 18 Feb. 1964.

²United States Department of Labor, Hired Farm-workers in the United States, (Washington, 25, D. C.: Government Printing Office, 1960).

courses would be a sound investment as 68 per cent of all vocational education graduates were working in jobs related to their training and the unemployment rate for Trade and Industrial Graduates was 5 per cent as compared to 15 per cent for other high school graduates.¹ Two studies by Mobley, show more employment success for students who have studied vocational agriculture in high school. The Virginia study of 9,792 former vocational agriculture students showed that 1.27 per cent were unemployed and the Georgia study was more favorable as .89 per cent of the 9,293 former vocational agriculture students were unemployed.²

According to Hoover, training people for agricultural off-farm occupations should be considered, as boys with rural background were highly sought as employees in these occupations. Hoover also stated that, "A worker is worth more to his employer if he possesses either or both experience in farming and a knowledge of the why and how of farming operations."³ Griffin also found that a farm background

¹Education for a Changing World of Work, (Summary of the Panel of Consultants on Vocational Education requested by the President of the United States. Washington: United States Printing Office, 1962), p. 9.

²M. D. Mobley, "Get the Facts-Then Tell the Story," Agricultural Education, 37:131, December, 1964.

³Norman K. Hoover, Handbook of Agricultural Occupations: Preparation for Technical and Professional Work, (Danville, Illinois: The Interstate Printers & Publishers, 1963).

would be very helpful. In his survey of 112 firms in Missouri, he reported that 90 per cent of the workers in farm machinery businesses; 88 per cent of those in feed, seed and fertilizers; 79 per cent of those dealing in plant products and services and 71 per cent of those in lumber companies needed an agricultural background.¹ McCormick, State Director of Vocational Education in Kansas 1960 to 1965, stated that the need for training for agricultural occupations, business and services was expanding rapidly. He further stated that most of Kansas' industrial growth was dependent upon agriculture in one of several ways such as: the manufacture of farm equipment; the processing of farm crops; and the supplying of goods and service.²

If the desired training was available, McCune found that many people indicated they would attend. In McCune's study of 148 high school graduates from years of 1950-63, 71.64 per cent indicated they would attend an area vocational technical school³ and 48.8 per cent of these

¹Warren L. Griffin, "Agricultural Workers Needed in Missouri." Ag. Ed. Magazine, 39:53, August, 1964.

²"Learning that makes Careers," The Kansas Farmer-Stockman, February, 1965. (An Interview of Thaine D. McCormick, State Director of Vocational Education in Kansas).

³Duane McCune, "A Study of the Need for an Area Vocational Technical School in the Dickinson County Community High School District" (Master's report, Kansas State University, Manhattan, 1964), p. 23.

indicated they were interested in agricultural related occupations of some type.¹

The programs in vocational agriculture through 1959 have not trained enough boys to work in non-farm agricultural occupations as Bradley, in a five year study of the occupational status of Kansas 1959 high school graduates having four or more units in vocational agriculture, reported that: 25.9 per cent of the graduates were in farming in 1964; 12.6 were in off-farm related occupations. The establishment of the area vocational-technical schools had made it possible for more Kansas youth to cash in on their farm background by preparing for productive employment in related fields.²

Carey, as President of the Chamber of Commerce of the United States, concluded that our biggest failure as a society had been the lack of placing enough emphasis on training technicians and craftsmen. We have failed to build employability into too many young men, including a large number of college graduates.³ He further stated that:

¹Ibid., p. 28.

²Howard R. Bradley, "Agriculture in Kansas Area Vocational Schools," The Agricultural Education Magazine, 37:240-241, April, 1965.

³Walter F. Carey, "The Businessman's Role in Education," American Vocational Journal, 40:24, April, 1965.

We are in a race between the modernization of our economic machinery and the modernization of our manpower and right now manpower is losing the race. I think it is fair to say that our problem is not a lack of education we are suffering today from the wrong kind of education.¹

Carey added, that despite the fact that over four million persons were without jobs new industries were hunting everywhere for men and women with skilled training to do the many different technical jobs.²

Kansas schools had the opportunity to train for employability in all needed areas as the 1964 State Plan made it possible to train those seeking employment as it read:

Vocational instruction will be designed to fit individuals for employment in a recognized occupation. Such instruction will include vocational or technical training or retraining for (1) those preparing to enter a recognized occupation upon the completion of instruction and (2) those who have already entered an occupation, but desire to upgrade or update their occupational skills and knowledge in order to achieve stability or advancement in employment. When supported by funds allotted under section 3 of the 1963 Act, vocational instruction shall be designed only to fit individuals for gainful employment.³

The great task facing vocational agriculture departments and other phases of vocational education at the time

¹Ibid., p. 25.

²Ibid., p. 26.

³State Board for Vocational Education, Kansas State Plan for Vocational Education. Section 2:32-1, September, 1964.

of this study was to determine the areas of future employment and train the citizenry for those specific areas.

THE PROBLEM AND DEFINITIONS OF TERMS USED

The Problem

Statement of the problem. The problem that vocational education in agriculture faced at the time of this study was that of training people of rural America for useful and gainful employment. The number of farmers was declining each year and it was becoming more and more difficult for persons to become established in farming.

It was the purpose of this study to: (1) survey the opinion of agricultural off-farm businessmen as to their present and five year needs for employees in agricultural off-farm occupations; (2) estimate the per cent of the jobs that were filled with persons having a farm background and the desirable employee background preference of the firms; (3) estimate the opinion of managers of agricultural off-farm businesses as to their difficulty in obtaining employees for each job; (4) determine the training managers of off-farm businesses thought area schools should offer in the area of agricultural off-farm occupations; (5) show the level of education off-farm businessmen felt necessary for the various jobs; (6) estimate the extent area businessmen would help the area school in training students for off-farm occupations.

The importance of the study. The purpose of Area

Vocational-Technical Schools at time of this study was:

. . . to provide a means whereby the state of Kansas in co-operation with local communities can provide facilities for training and preparation of students for productive employment as technicians and skilled workers.¹

At the time of this study, Cherokee County had a division of the Southeast Kansas Area Vocational-Technical School located at Columbus. To meet the qualifications as an Area Vocational-Technical School the Vocational Agriculture department at Columbus was faced with the problem of determining the needs of the area for employment in agriculture and related fields so that classes could be set up to train students for gainful employment in the areas needed. The study was designed to help the personnel of the Area school to provide courses to meet these requirements.

Limitations of the study. The study was limited to Cherokee County, Kansas and included only businesses agricultural in their nature. The study was also limited to the expected employment in agricultural off-farm occupations through 1970.

¹Senate Bill No. 438, Kansas Legislature, 1963.

Definitions of Terms Used

Area Vocational-Technical School. "The Area Vocational Technical Schools" referred to in this study are those vocational or technical schools organized and approved by the state board for vocational education and officially designated as area schools under the provisions of Senate Bill No. 438.

Agricultural Off-Farm Businesses. Those businesses which were listed in the telephone directory and others, suggested by persons interviewed that appeared to the investigator to be an agricultural farm related business are referred to as "Agricultural Off-Farm Businesses."

Cherokee County. "Cherokee County was the Southeast County in Kansas. It was bordered on the east by Missouri and on the south by Oklahoma.

Agricultural Off-Farm Occupations. For the purpose of this survey these were occupations in agriculturally oriented businesses which, according to Agan, "Are businesses grouped in the four broad areas of (1) farm implements; (2) farm supplies; (3) farm produce, and (4) farm services."¹

¹Dr. Ray Agan, "A Study of Non-Farm Agricultural Occupations in Kansas" (A cooperative study, Kansas State University and Kansas Board for Vocational Education, Manhattan, 1964).

Southeast Kansas Area Vocational-Technical School.

The Area Vocational-Technical School with its administrative office in Coffeyville, with Caney, Coffeyville, Columbus, Edna, Elk City and Howard designated as participating schools was known as the "Southeast Kansas Area Vocational-Technical School."

Professional Occupations. The "Professional Occupations" for this study were those requiring a college degree.

REVIEW OF THE SELECTED LITERATURE

Selected literature was reviewed to form a broad background in Agriculture and to analyze many of the articles that were in Professional Magazines and research reports that have been completed as a result of the changes in Vocational Education in Agriculture that made it possible to train persons for off-farm occupations. No attempt was made to survey all the studies which have been made in the nation.

Johnson, a member of the President's panel on Vocational Education, reported that, the curriculum in vocational agriculture must be expanded to include training in agricultural related occupations to prepare persons for employment in agricultural service occupations and businesses.¹

The job opportunities in agricultural related fields in Kansas seemed numerous and were expected to increase as Agan found there were 2,979 firms in Kansas which were Agricultural in the nature of their business.² These firms

¹Floyd Johnson, "The President's Panel Looks at Vocational Agriculture," The Agricultural Education Magazine, 35:163, February, 1963.

²Dr. Ray Agan, "A Study of Non-Farm Agricultural Occupations in Kansas," (A cooperative study, Kansas State University and Kansas Board for Vocational Education, Manhattan, 1964).

employed 6,787 people in 1963 and expected to add 2,823 new employees in the next five years. They also indicated a need of 1,475 new employees in a 12 month period due to growth and turnover.

The United States Department of Agriculture reported in 1963, that 4 of every 10 jobs in private employment were related to agriculture. Ten million people were working in areas of storing, processing and merchandising products of agriculture and six million had jobs providing supplies farmers use.¹

In general, the industries showing the probability of hiring the greatest number of agricultural non-farm employees in the future were those in areas of agricultural machinery, agricultural supplies and ornamental horticulture.²

Phipps and others, in a study of fourteen countries in East Central Illinois confirmed the reports that many persons were needed in agricultural oriented businesses. They found that 11,856 workers were employed in agricultural

¹United States Department of Agriculture, Background on U. S. Agriculture, (Washington: Government Printing Office, September, 1963, Leaflet No. 491).

²Research Summarization of State Surveys of Persons Employed in Off-Farm Occupations Needing Competencies in Agriculture. (Center for Vocational and Technical Education, The Ohio State University, May, 1965).

oriented businesses, and that the estimated number of workers, with some Post High School Technical Education, needed in the next five years due to growth was 1,382.¹

Surveys of Off-Farm Occupations in Agriculture by most of the State Leaders in Agricultural Education showed that there were a broad range of employees needed for occupations in off-farm agricultural jobs in the 1960's.

In a study by Gilbert Long of the Deer Port, Washington community, it was reported that 36.39 per cent of the 217 positions interviewed were in agriculturally related categories. These agriculturally related businesses were in areas of farm services 8.29 per cent, poultry and livestock industries 7.87 per cent, agricultural service 5.99 per cent and also 5.99 per cent in crops, forestry and conservation, farm supplies 5.07 per cent. In these industries there were 244 people with 83 different job titles.²

The firms reported that the greatest difficulty in

¹Lloyd J. Phipps and others, Technical Education in and for Rural Areas Project-Preliminary Report No. 1. (Vocational and Technical Education Department, College of Education, University of Illinois, June, 1964). pp. 11, 18, 20.

²Gilbert Andrew Long, A Study of the Vocational Opportunities and Training Needs For A Rural Community of Northeastern Washington. (Pullman, Washington: College of Education, Washington State University), p. 12.

finding suitable personnel was in the area of farm machinery sales and service as 66.66 per cent indicated great difficulty and 33.33 per cent indicated extremely difficult to hire suitable employees.¹

In a study conducted by the staff of the University of California it was found that the most common type of businesses employing agriculturally trained persons were those companies engaged in sales and service of agricultural products and farm supplies. The study also indicated that about one-fifth of the 24,305 persons employed by these companies needed agricultural training.²

A survey of the 260 school districts in New York offering vocational agriculture during 1963-64 showed there were 28,685 full-time workers and 16,841 part-time workers employed in off-farm agricultural occupations. Full-time workers in agricultural off-farm occupations were found most frequently in semi-skilled, managerial and professional positions and part-time workers in unskilled, service and semi-skilled jobs. The training should be stressed in wildlife and recreation, forestry and soil conservation and

¹Ibid., p. 14.

²Sidney S. Sutherland and Orville E. Thompson, Training Required by Workers in Agricultural Business and Industry, Department of Education, University of California, (California: by the authors, 1957).

agricultural service with the highest priority placed in the area of agricultural off-farm occupations is increasing as employers indicated a growth rate of 32 per cent for full-time workers and 28 per cent for part-time workers between 1964-1969.¹

In an interview with representatives of those businesses, industries, organizations, agencies and services considered to be employers of agricultural workers in West Virginia, they indicated that 1,717 agencies employed 13,851 non-farm agricultural workers. These 13,851 non-farm workers were distributed in the following percentages: Forestry-33.2, livestock and poultry industries-18.1, farm supplies and equipment 12.8, agricultural services 10.3, ornamental horticulture 9.7, wildlife and recreation 6.0, produce industry 5.9 and farm services 4.0. These employers interviewed predicted an 8 per cent increase within the ensuing five years with the greatest increase of 13 per cent in forestry. Several new programs are projected for ornamental horticulture, landscaping, greenhouse technology and vocational forestry.²

¹Virgil E. Christensen and Gary R. Bice, "Off-Farm Agricultural Occupations in New York State," Agricultural Education Magazine, 38:185, February, 1966.

²Joseph Bailey, "Identifying Non-Farm Agriculture," Agricultural Education Magazine, 37:37, August, 1965.

In a Missouri survey of 3,315 firms which employ agriculturally oriented personnel other than those agencies connected with the state 43.11 per cent were in farm supplies and equipment, 18.58 per cent in farm machinery and 15.17 per cent in livestock and poultry.¹ These 3,315 firms employed 33,314 workers, of which, 19,796 or 59.42 per cent needed an agricultural background with the farm machinery sales and service firms having the highest of 82.29 per cent.² Of the 19,796 employees that were agriculturally oriented 7,513 were in farm supplies and equipment, 4,801 in livestock and poultry, 2,888 in farm machinery sales and service and 2,621 in agronomy.³

The majority of the firms indicated they probably would be willing to hire a high school student to work part-time to aid in his training as 2,287 of the 3,315 replied they would cooperate.⁴

¹Warren L. Griffin, Agricultural Occupations Other Than Farming in Missouri. (Joint Staff Study, University of Missouri, 1964, p. 4).

²Warren L. Griffin, Agricultural Occupations Other Than Farming in Missouri. (Joint Staff Study, University of Missouri, 1964, p. 4).

³Ibid., Table IV.

⁴Ibid., p. 8.

PROCEDURES AND GENERAL INFORMATION

Selection of the Agricultural Off-Farm Businesses.

A status study was conducted of the off-farm businesses in Cherokee County to determine the present and anticipated five year needs of the businesses.

The population used for the study was the agricultural off-farm businesses in the county. The first step in developing a list of all these businesses including their location and address was to set up four categories which are: (1) farm machinery sales and services; (2) farm produce; (3) farm supplies, and (4) farm services.

The second step was to develop a list of the agricultural off-farm occupations in the county and place each in one of the four categories. It was assumed for the purposes of this study that almost all the businesses had a telephone listing so the initial list was made from the telephone directory and was checked for completeness with the Secretary of the Chamber of Commerce in each town in Cherokee County, with the county Agricultural Agent and others as they were interviewed. The Handbook of Agricultural Occupations¹ and Appendix B of A Study of the

¹Norman K. Hoover, Handbook of Agricultural Occupations Preparation for Technical and Professional Work in Agriculture (Danville, Illinois: The Interstate Printers & Publishers, Inc., 1963), pp. 79-227.

Vocational Opportunities and Training Needs For a Rural Community of Northeastern Washington¹ were used to help classify the occupations.

Procedure used in studying the group selected. The population was studied by personal interview using an interview form especially adapted for this survey and patterned after the one Dr. Agan, of Kansas State University, used in his study of Non-Farm Agricultural Occupations in Kansas.

A copy of the interview form may be found in the Appendix.

¹Gilbert Andrew Long, A Study of the Vocational Opportunities and Training Needs for a Rural Community of Northeastern Washington. (Pullman, Washington: College of Education, Washington State University).

PRESENTATION OF THE DATA

The data collected from the interviews showed the opinions of the persons being interviewed as to their position in the firm. The percentage of the business that could be clustered in four broad areas, the percentage of the firms business that was agriculturally oriented and the major products handled or services performed by the firms. In addition they indicated the formal schooling required and the background preference for their employees. Information in regard to number of full and part-time employees, additional employees expected in next five years and the difficulty in filling vacancies. The areas of agricultural off-farm occupations they thought the area school should provide training and if they would cooperate with the vocational agriculture department in training these employees.

As shown in Table I, 19 of the 34 agricultural off-farm businesses were owned and managed by the same person. The 6 indicating they were owners included 2 veterinarians, 1 person who hired another to drive a lime truck and 3 persons who contracted for terraces, waterways, ponds and other excavation work.

Table II verifies that this was a study of agricultural off-farm businesses as 88 per cent of the firms indicated their business was 75 per cent or more agriculturally oriented.

TABLE I
 POSITION OF INTERVIEWER REPRESENTING
 AGRICULTURAL OFF-FARM BUSINESSES

Position	Number	Percentage
Owner	6	17.7
Owner-Manager	19	55.9
Manager-Hired	3	8.8
Office Manager	2	5.9
Personnel Director	1	2.9
Other	3	8.8

TABLE II
 PERCENTAGE OF THE FIRMS BUSINESS
 AGRICULTURALLY ORIENTED

Per cent of business agriculturally oriented	Number of firms	Percentage of firms
0-24	1	2.9
25-49	1	2.9
50-74	2	5.9
75-100	30	88.3

Table III indicates that most of the agricultural off-farm businesses were in areas of farm services and farm supplies as, 17 of the 34 firms indicated farm services represented 75-100 per cent of their business and 6 others offered services to farmers.

There were 3 firms that indicated over 50 per cent of their business was selling farm supplies and 6 other firms sell supplies as part of their business.

TABLE III

FUNCTION OF AGRICULTURAL OFF-FARM BUSINESSES INDICATING THE NUMBER OF BUSINESSES AND THE PER CENT OF THEIR BUSINESSES IN EACH AREA

Function	0-24%	25-49%	50-74%	75-100%
Farm machinery (Sales and Service)	0	0	0	4
Farm produce (Handle farm products)	2	1	2	2
Farm supplies (Sell supplies to farmers)	3	3	1	2
Farm services	3	3	0	17

Table IV shows that elevators represented 14.7 per cent and farm machinery dealers 11 per cent of the off-farm businesses. Businesses doing excavation work represented 11.7 per cent but most were part-time.

TABLE IV

MAJOR PRODUCTS HANDLED, JOB TITLE OR SERVICES PERFORMED

Product, job title or service	Number of firms	Percentage of firms
Farm machinery dealers	4	11.8
Elevator businesses	5	14.7
Feed stores	2	5.9
Fertilizer manufacturing	1	2.9
Auctioneers	3	8.8
Butchering service	3	8.8
Fertilizer applicator	2	5.9
Terracing, waterways, ponds, clearing	4	11.7
Lime hauling	3	8.8
Agricultural stabilization service	1	2.9
Soil Conservation service	1	2.9
Agricultural Extension service	1	2.9
Vocational Agriculture department	2	5.9
Veterinary clinics	2	5.9

Almost one half, 47.4 per cent, as shown in Table V, of the firms indicated they would need personnel with specialized training. Of the 18 firms requiring specialized training, 5 indicated they would hire persons with less than a high school education but only 3 firms indicated they could use persons with less than a high school education without special training. Five of the firms require a college degree and three other firms indicated they would prefer college graduates in their managerial positions.

TABLE V
MINIMUM SCHOOLING REQUIRED

Education	Number of firms	Percentage of firms
Less than high school	3	7.9
High school graduate	12	31.6
Specialized training	18	47.4
College graduate	5	13.1

Almost all of the Agricultural non-farm jobs were filled with people having a farm background. Table VI shows that 70.6 per cent of the firms reported that over 75 per cent of their employees had a farm background and 20.6 per cent reported that 50-74 per cent of their employees had a farm background.

TABLE VI
 PERCENTAGE OF EMPLOYEES HAVING A
 FARM BACKGROUND

Per cent of employees with farm background	Number of firms	Percentage of firms
0-24	2	5.9
25-49	1	2.9
50-74	7	20.6
75-100	24	70.6

The employers preferred persons with a farm background as indicated in Table VII as 25 of the 34 firms or 71.4 per cent indicated a preference for employees with a farm background.

TABLE VII
 BACKGROUND PREFERENCE FOR EMPLOYEES

Preference	Number of firms	Percentage of firms
No preference	9	25.7
Farm background	25	71.4
Rural, non-farm	1	2.9
Urban background	0	0

The 34 firms interviewed indicated 107 full-time employees and 40 part-time employees were employed. The most numerous jobs in Agricultural off-farm occupations were with firms offering farm services as Table VIII indicates that 60.5 persons were in these occupations. Farm produce firms were working 53 people and farm machinery dealers 28.5 persons and 4 persons in businesses with the main function of selling farm supplies.

TABLE VIII
EMPLOYEES OF BUSINESSES BY MAJOR FUNCTION

Function	Full-time employees	Part-time employees
Farm machinery (Sales and Service)	18	10.5
Farm produce (Handle farm products)	45	8
Farm supplies (Sell supplies to farmers)	4	0
Farm services	39	21.5
TOTAL	107	40.

Table IX shows that the persons representing the agricultural off-farm businesses indicated there would be 30 new positions in Cherokee County through 1970 in addition to the regular turnover. Eleven additional employees would be needed in the businesses handling farm

produce as they indicated an expected additional need of 5 laborers, 1 manager, 1 elevator operator, 2 salesmen and 2 bookkeepers. The most increased demand for a single occupation was in the area of farm machinery as of the 10 additional employees they indicated they would need 5 mechanics, 3 partsmen, 1 salesman, and 1 manager.

TABLE IX
ADDITIONAL EMPLOYEES ANTICIPATED THROUGH 1970

Firms major function	Additional employees needed through 1970	Percentage of total needed employees
Farm machinery (Sales and services)	10	33.3
Farm produce (Handle farm products)	11	36.7
Farm supplies (Sell supplies to farmers)	4	13.3
Farm services	5	16.7

The data concerning difficulty in filling vacancies as shown in Table X indicates that the greatest percentage of difficulty in filling vacancies is in the area of farm machinery with 3 of the 4 dealers indicating great difficulty and 1 firm reported extreme difficulty in finding suitable mechanics. The 10 firms offering farm services that reported great difficulty were mainly ones requiring

a college degree. These included County Agent, 4-H Agent, Vocational Agriculture Instructors, elevator managers, and Veterinarians. Other occupations reported as requiring great difficulty to fill were elevator personnel other than laborers, meat cutters, crawler tractor operators, crop reporters, work unit conservationist, farm planner and fertilizer applicator.

TABLE X
DIFFICULTY IN FILLING VACANCIES BY FIRMS

Firms major function	No diffi- culty	Some diffi- culty	Great diffi- culty	Extreme difficulty
Farm machinery (Sales and services)	0	0	3	1
Farm produce (Handle farm products)	1	2	2	0
Farm supplies (Sell supplies to farmers)	0	1	2	0
Farm services	4	7	10	0

A willingness to cooperate with the Vocational Agriculture Department of the Area School was indicated by 88 per cent of the firms as 30 firms indicated a definite willingness to cooperate. Two firms were undecided and two were in other towns and considered distance prohibitive.

The firms willingness to hire a student part-time showed that several would cooperate but for various reasons could not hire students in a training program. Table XI shows that all 4 farm machinery firms, 60 per cent of the elevators firms, and 7 firms offering farm services, would hire students. None of the firms doing lime hauling and farm excavation could hire a student because of the hazardous occupations law. Other problems mentioned were the minimum wage law, insurance, students not being allowed to ride in a truck and that their business was only part-time and usually seasonal.

TABLE XI
WILLINGNESS TO HIRE A STUDENT TO WORK PART-TIME WHILE
ATTENDING SOUTHEAST KANSAS AREA
VOCATIONAL-TECHNICAL SCHOOL

Function of firm	Yes	No	Undecided	Percentage
Farm machinery (Sales and service)	4	0	0	100
Farm produce (Handle farm products)	3	1	1	60
Farm supplies (Sell supplies to farmers)	2	1	0	66.67
Farm services	7	12	2	33.33

Twenty of the 34 firms representatives responded with suggestions when asked which agricultural off-farm occupations they thought the area school should provide training for. Ten of the twenty responding suggested that the area school should train persons for tractor mechanics and sales and service of farm equipment. The other 10 suggested different occupations including training for meat cutting by two persons, professional occupations, crop reporters, veterinary technicians, agriculture technician, and feed mill operator.

SUMMARY AND CONCLUSIONS

Vocational Agriculture departments at the time of this study faced the problem of training rural people for useful and gainful employment.

Personnel of the agricultural off-farm businesses in Cherokee County were interviewed and an attempt was made to record their opinions as to the number of persons employed in agricultural non-farm occupations, the schooling required employee background preference of the employers, and the need for additional employees through 1970.

There were 34 firms interviewed with 30 of the firms classifying 75-100 per cent of their business as agriculturally oriented. The 34 firms employed 107 full-time and 40 part-time employees and indicated a need through 1970 of 30 additional employees.

A farm background was found to be an asset as 70.6 per cent of the firms reported that over 75 per cent of their employees had a farm background and 71.4 per cent of the firms preferred employees with a farm background. These additional employees, it was anticipated, covered a wide range of occupations with the 10 employees needed in farm machinery businesses, the only ones that could be grouped together in a cluster of occupations. All four of the farm machinery dealers were having great difficulty in filling

vacancies and 7 of the businesses in farm services were having some difficulty and 10 were having great difficulty in finding suitable employees.

The author concluded that the curricula of the vocational agriculture departments should be based upon a survey of the community needs. The study showed that the area school should consider training for a cluster of occupations centered on tractor mechanics.

Ten of the 34 firms interviewed recommended the area school offer training in area of tractor mechanics. The area school could depend on the farm machinery dealers for help as all 4 indicated they would be willing to help and would hire a student part-time while attending school.

The author also recommended that a good general course in vocational agriculture be continued, as at least 9 of the agriculture non-farm employees were required to complete a college degree and employers indicated great difficulty in finding additional employees in all positions.

BIBLIOGRAPHY

BIBLIOGRAPHY

- Agan, Dr. Ray. "A Study of Non-Farm Agricultural Occupations in Kansas." A cooperative study, Kansas State University and Kansas Board for Vocational Education, Manhattan, 1964. (Mimeographed.)
- Bailey, Joseph. "Identifying Non-Farm Agriculture." Agricultural Education Magazine, 37:37, August, 1965.
- Bice, Gary R. and Christensen, Virgil E. "Off-Farm Agricultural Occupations in New York State," Agricultural Education Magazine, 38:185, February, 1966.
- Bradley, Howard R. "Agriculture in Kansas Area Vocational Schools," The Agricultural Education Magazine, 37:240-241, April, 1965.
- Carey, Walter F. "The Businessman's Role in Education," American Vocational Journal, 40:24-26, April, 1965.
- Griffin, Warren L. Agricultural Occupations Other Than Farming in Missouri. Joint Staff Study, University of Missouri, 1964.
- Griffin, Warren L. "Agricultural Workers Needed in Missouri," The Agricultural Education Magazine, 39:53, August, 1964.
- Hoover, Norman, K. Handbook of Agricultural Occupations-Preparation for Technical and Professional Work. Danville, Illinois: The Interstate Printers and Publishers, 1963.
- Johnson, Floyd. "The President's Panel Looks at Vocational Agriculture," The Agricultural Education Magazine, 35:162-163, February, 1963.
- "Kansas High School Graduates in College." Guidance Service Section of State Department of Public Instruction, Topeka, Kansas. (A printed sheet.)
- Keppel, Francis. "Vocational Education a Promise for Tomorrow," American Vocational Journal, 39:15-18, February, 1964.
- "Learning That Makes Careers," The Kansas Farmer-Stockman, February, 1965. (An interview of Thaine D. McCormick, State Director of Vocational Education in Kansas).

- Long, Gilbert Andrew. A Study of the Vocational Opportunities and Training Needs For A Rural Community of Northeastern Washington. Pullman, Washington: College of Education, Washington State University.
- McCune, Duane. "A Study of the Need for an Area Vocational Technical School in the Dickinson County Community High School District." Master's report, Kansas State University, Manhattan, 1964.
- Mobley, M. D. "Get the Facts-Then Tell the Story," The Agricultural Education Magazine, 37:131, December, 1964.
- Phipps, Lloyd J., and Daniel Cook. Handbook on Agricultural Education in Public Schools. Danville, Illinois: The Interstate Printers and Publishers, Inc., 1965.
- Phipps, Lloyd J. and others. Technical Education in and for Rural Areas Project-Preliminary Report No. 1. Vocational and Technical Education Department, College of Education, University of Illinois, June, 1964.
- Research Summarization of State Surveys of Persons Employed in Off-Farm Occupations Needing Competencies in Agriculture. Ohio State University: Center for Vocational and Technical Education, May, 1965.
- Senate Bill No. 438, Kansas Legislature, 1963.
- State Board for Vocational Education. Kansas State Plan for Vocational Education. Section 2:32-1, September, 1964.
- Sutherland, Sidney S. and Thompson, Orville E. Training Required by Workers in Agricultural Business and Industry. Department of Education, University of California, (California: by the authors, 1957).
- The Vocational Education Act of 1963. Public Law No. 88-210. Eighty-eight Congress. H. R. 4955, Section 10 b.
- United States Department of Agriculture. Background on United States Agriculture. Washington: Government Printing Office, September, 1963. Leaflet No. 491.
- United States Department of Labor. Hired Farmworkers in the United States. Washington: Government Printing Office, 1964.

United States Department of Labor. Manpower: Challenge of the 1960's. Washington: Government Printing Office, 1960.

APPENDIX

VIII. What background preference do you prefer for your employees?

1. No preference 3. Rural, non farm background
 2. Farm background 4. Urban background

IX. Summary of information of agricultural off-farm employees.

Number of full-time employees									
Number of part-time employees									
Number of additional employees you expect you will need in five years. (Through 1970)									
Amount of difficulty you have in filling vacancies with qualified personnel.*									

*Key--0 = no difficulty; 1 = some difficulty;
 2 = great difficulty; 3 = extremely difficult

X. Which agricultural off-farm occupations do you think the Southeast Kansas Area Vocational-Technical School should provide training for.

XI. Are you willing to cooperate with the VO-AG Department of the SEK Area Vocational-Technical School in helping train workers in the area of your needs?

Yes No Undecided

XII. Would you hire a student to work part-time while attending the SEK Area Vocational-Technical School if insurance and work laws were solved and the student received training and supervision by a qualified teacher?

_____ Yes _____ No _____ Undecided

A SURVEY OF THE OCCUPATIONAL OPPORTUNITIES
IN AGRICULTURAL OFF-FARM OCCUPATIONS
IN CHEROKEE COUNTY

by

MELVIN BRILEY

B. S., Oklahoma State University, 1955

AN ABSTRACT OF A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

College of Education

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1966

The purpose of the study of the agricultural off-farm businesses was to accomplish the following objectives.

1. To survey the opinion of agricultural off-farm businessmen as to their present and five year needs for employees in agricultural off-farm occupations.
2. To estimate the per cent of the jobs that were filled with persons having a farm background and the desirable employee background preference of the firms.
3. To estimate the opinion of managers of agricultural off-farm businesses as to their difficulty in obtaining employees for each job.
4. To determine the training managers of off-farm businesses thought area schools should offer in the area of agricultural off-farm occupations.
5. To show the level of education off-farm businessmen felt necessary for the various jobs.
6. To estimate the extent area businessmen would help the area school in training students for off-farm occupations.

The author interviewed 34 agricultural off-farm firms in Cherokee County using a questionnaire form and found there were 107 full-time and 40 part-time agricultural non-farm employees. There was an anticipated need of 30 additional employees through 1970.

There has been great difficulty in filling vacancies as 18 of the 34 firms indicated at least great difficulty in finding employees.

Over 75 per cent of the employees in 70.6 per cent of the businesses interviewed had a farm background and

71.4 per cent of the firms indicated a preference for employees with a farm background. Thirty-three per cent of the firm representatives indicated the area school should provide training in the area of farm mechanics. Further schooling was indicated as becoming a necessity with 31 of the 34 firms indicating that they had no positions they would fill with persons with less than a high school education or specialized training.

Employers were willing to cooperate with the area school in offering training as 88 per cent of the firms indicated they were willing to offer help and 48.5 per cent indicated they would hire a student part-time.