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ABSTRACTS OF RESEARCH STUDIES IN AGRICULTURAL EDUCATION,
SOUTHERN REGION, 1965-66.

BY- BAKER, RICHARD A.
AUBURN UNIV., ALA.

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THIRTY-ONE DOCTORAL DISSERTATIONS, STAFF STUDIES, AND
MASTERS' THESES IN AGRICULTURAL EDUCATION ARE REPORTED IN THE
FOLLOWING AREAS -- ACADEMIC ACHIEVEMENT, ADMINISTRATOR
ATTITUDES, ADULT VOCATIONAL EDUCATION, ADVISORY COMMITTEES,
AGRICULTURAL COLLEGES, AGRICULTURAL EXTENSION AGENTS,
ASPIRATION, CURRICULUM, EDUCATIONAL NEEDS, EMPLOYMENT
OPPORTUNITIES, FARMER COOPERATIVES, HISTORICAL REVIEW,
OFF-FARM AGRICULTURAL OCCUPATIONS, PHYSICAL FACILITIES,
PROFESSIONAL OCCUPATIONS, PROGRAM EVALUATION, PROGRAM
PLANNING, STUDENT TEACHING, TEACHER EDUCATION, AND VOCATIONAL
AGRICULTURE TEACHERS. THE PURPOSE, METHOD, AND FINDINGS OF
EACH STUDY ARE SUMMARIZED. THE STUDIES ARE ARRANGED
ALPHABETICALLY BY AUTHOR. (JM)

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ABSTRACTS OF RESEARCH STUDIES IN AGRICULTURAL EDUCATION

Southern Region

1965-66

Department of Vocational, Technical
and Practical Arts Education
Auburn University
Auburn, Alabama

VT004446

ABSTRACTS OF STUDIES*

Agricultural Education Southern Region

BASS, B. C. Learning Outcomes of the Educational Program Pertaining to Farmer Cooperatives in High School Departments of Vocational Agriculture in Virginia. Staff Study, 1966, Department of Agricultural Education, Virginia Polytechnic Institute, Blacksburg, 38 p.

Purpose.--To determine what desirable learning outcomes should result from a reasonably effective educational program on farmer cooperatives and to determine the scope and effectiveness of the instruction program on farmer cooperatives provided by vocational agriculture teachers in Virginia.

Method.--A panel of experts identified the desirable learning outcomes which should result from a reasonably effective educational program on farmer cooperatives. A test was administered to 486 advanced high school students and a separate test was administered to 228 farmers. Data were gathered from 200 experienced teachers of vocational agriculture by questionnaire.

Findings.--At least three-fourths of the 8 experts identified 83 learning outcomes. "Classroom discussion led by the teacher" was most often suggested as the way to accomplish learning outcomes.

The advanced high school students answered an average of 69 percent of the test questions correctly.

A majority of the 228 farmers had acquired information about 76.5 percent of the 47 learning outcomes unanimously identified by the panel of experts.

Instruction about farmer cooperatives was provided by 57 percent of the participating teachers. Of the teachers who provided such instruction, about two-thirds taught cooperatives in conjunction with other subjects such as farm management marketing, purchasing, and credit. More than one-fourth taught it as a separate unit.

About half of the teachers reported that instruction on farmer cooperatives was "only fairly adequate" to develop fully understandings and appreciations of what cooperatives can do for people with common problems, goals, and needs. Almost an equal proportion reported that instruction was "inadequate." A majority of the teachers indicated they needed teaching material in the form of a lesson plan.

*Annual Project of Southern Research Committee in Agricultural Education, Richard A. Baker, Auburn University, Regional Chairman.

BROOKS, JAMES BRYAN. Role Conflict of the Vocational Teacher. Problem Option, Master of Education, 1966, North Carolina State University at Raleigh, 69 p.

Purpose.-- The purpose of the problem was to study the role conflict of the vocational agriculture teacher, the distributive education teacher, the vocational home economics teacher and the trade and industrial education teacher.

Specifically, the purposes were to determine: (1) the sources of role conflict as seen by the vocational education teacher, (2) the differences and similarities of role conflict among the specialty groups of vocational agriculture teachers, vocational home economics teachers, distributive education teachers and trade and industrial education teachers, (3) the means by which the vocational education teacher seeks to prevent role conflict, (4) the ways the vocational education teacher resolves role conflict and (5) the effect of role conflict on vocational education teacher effectiveness. The underlying purpose of this study was to gather descriptive and exploratory data in terms of the specific purposes of this study.

Method.-- Forty vocational education teachers were interviewed. Thirty teachers were selected by the respective specialty area state supervisors and ten teachers were selected at random. The personal interviews ranged from 45 minutes to two hours in length.

Findings.-- Forty-eight percent of the sample reported one or more examples of personal role conflict. The specialty areas ranked in the average number of role conflict examples per respondent as follows: (1) vocational agriculture, (2) distributive education (3) vocational home economics, (4) trade and industrial education. Peripheral role expectations were the greatest sources of role conflict activities. Approximately three-fourths of the respondents who reported role conflict indicated that it had a harmful effect on teacher effectiveness. In a limited number of cases, role conflict was reported as a source of educational innovations.

Role conflict was generally resolved by some type of compromise behavior which resulted in an attempt to conform in part to both expectations. The hierarchy of perceived role expectations held by relevant others was an important factor in determining the method of resolution used. Role conflict was generally prevented by keeping the relevant others informed about and involved in the activities of the program.

CAMPBELL, DONALD RAY. Job Opportunities and Training Needs in Off-Farm Agricultural Occupations in Concordia Parish, Louisiana. Master's Study, 1966, Department of Agricultural Education, Louisiana State University, 104 p.

Purpose.--The purpose of this study was to determine the number and types of nonfarm agricultural businesses, job titles, job opportunities, training needs, and other job characteristics of off-the-farm agricultural occupations in Concordia Parish, Louisiana.

Method.--The personal interview technique, using a schedule was employed in gathering the information concerning nonfarm agricultural occupations.

Findings.--The study revealed forty-four nonfarm agricultural businesses, agencies, and services employing 417 persons 160 of which needed competencies in agriculture. Employees needing competencies in agriculture were found in sixty-six different job titles, representing eight occupational families and nine levels of employment. Of the total 160 employees needing skills in agriculture, 79 should have training in animal science, 116 should have knowledge of and skills in agriculture business, management, and marketing, 117 should have competencies in plant science, and 126 should be adept in agriculture mechanics and automation. All of the 160 employees in nonfarm agriculture in Concordia Parish should be proficient in an average of 217 agriculture areas.

Presently 41.3 percent of all replacements for nonfarm agricultural occupations in Concordia Parish would be made from persons with a high school education, and 42 percent of replacements would be from those with training and education beyond the high school level.

Salaries were commensurate with education, training, experiences, and responsibility, ranging from less than \$200.00 to more than \$700.00 per month. A farm background was preferred for 47 percent of future replacements in nonfarm agriculture. Of the total 160 employees needing competencies in agriculture, 159 were required to participate in continuing education of some kind for advancement in status of employment.

It was concluded that there were sufficient job opportunities for those wishing to enter off-the-farm agricultural occupations. Also, that vocational agricultural education should be broadened to include training for nonfarm agricultural occupations.

CHAMBERS, HULEN. A Comparison of the College Success of Students Majoring in Agriculture at Auburn University Who Did and Those Who Did Not Study Vocational Agriculture in High School. Non-thesis study, Master of Education 1965, Auburn University, Auburn, Alabama, 31 pages, Department of Vocational, Technical and Practical Arts Education.

Purpose.--To ascertain the college success of Auburn University students majoring in agriculture who completed two or more units of vocational agriculture in high school.

Method.--Scholastic records of 130 students who graduated in one of four selected agricultural curricula from Auburn University, 1960-1965, were analyzed.

Findings.--Findings were as follows: (1) Forty-seven percent of the study group did not study vocational agriculture while in high school, while 53% did. (2) There was little observed difference between grade point means and mean SCAT scores of students from urban, urban-rural and rural high schools. (3) There was little observed difference between grade point means and mean SCAT scores of students with varying units of high school vocational agriculture. (4) Little observed differences were found between grade point means and mean SCAT scores of students in the selected agricultural curricula. (5) No significant relationship existed between grade point means and mean SCAT scores. (6) Students from urban-rural high schools had slightly higher grade point means and mean SCAT scores than students from urban and rural high schools. (7) Students with two or more units of high school vocational agriculture had slightly higher grade point means and mean SCAT scores than those with no units. (8) Students from rural high schools had smaller observed grade point means than students from urban and urban-rural high schools.

DUNLAP, OLIVER WENDELL. School Farm Laboratories for Vocational Agriculture in the Panhandle-South Plains Area of Texas. Report, M.E., 1966, Texas Technological College. 61 p. Library, Texas Technological College, Lubbock.

Purpose.--The purpose of this study was to determine the kind and scope of facilities and enterprises available on the school farms in the Panhandle-South Plains area of Texas. Also, management practices and problems confronting the operation of school farms were considered.

Method.--The data for this study was secured by mailing a questionnaire to 92 vocational agriculture teachers in the Panhandle-South Plains area of Texas.

Findings.--Of the eighty-four teachers who returned the survey forms, forty-eight of the schools in the Panhandle-South Plains area had school farms.

The most common livestock enterprises were swine, cattle, and sheep; while the most common crop enterprises were native and introduced pasture, cotton, alfalfa, and grain sorghum.

Financing of farm enterprises was one of the most common problems in managing school farms. According to the survey, farm enterprises were financed through three main sources: FFA chapters, loans, and self-supported. The loans were secured through such agencies as the banks, production credit associations, and other farm lending agencies.

Of the forty-eight schools surveyed, forty-four school farms were less than three miles from school. Sixty percent of the school farms in this area were owned or leased by the schools while the cities, industries, and FFA chapters owned the remainder of the farms. The schools or FFA chapters owned nearly ninety percent of the machinery and buildings on the school farms, while the other schools were loaned machinery. The equipment used by the students was owned by either the FFA chapters, students or parents, or the schools.

The most common buildings found on school farms were farrowing houses, stationary and portable; pig parlors; pens for show barrows; lamb sheds; cattle sheds; grain storage facilities; and feed storage facilities.

The most common equipment available on the farms was tractors and equipment, livestock trailers, and scales. Other equipment found on the farms was feed mills and mixers, irrigation equipment, grain drills, and loading chutes.

Teachers in this area believed that agreements with students were very important, since eighty-one percent of the departments had written agreements, although some agreements were incomplete. The major items on an agreement were the care of projects, cleaning the pens, and use of equipment. The signatures of the student, parent, and teacher were required on very few agreements.

Only fifty-two percent of the schools charged for use of the laboratory facilities. The average charge for beef cattle was approximately fifty cents per head per month, for lambs and pigs approximately twenty-five cents per head, and for poultry about four cents per head per feeding period. Feed for student-owned projects was purchased in large quantities by teachers at eighteen schools.

The main advantages of a school farm, in order of importance, were as follows: (1) Provided facilities for students to maintain individual projects. This should be the most important since thirty-nine percent of the students in the schools surveyed did not have project facilities. (2) Provided experiences students would not get elsewhere. (3) Developed cooperativeness. (4) Provided area for demonstrations. (5) Provided favorable publicity for vocational agriculture program. (6) Provided area for experiments.

The main disadvantage as rated by the teachers in order of importance were as follows: (1) Pressure on teacher to develop show place. (2) Excessive financial risk had to be taken. (3) Farm required too much class time. (4) Some of the work performed by students was of doubtful educational value.

DUPY, CLEO A. Identification of Problems in Implementing an Agricultural Occupations Program in Twenty-Eight Selected Vocational Agriculture Departments. Thesis, M.S., 1966, Oklahoma State University, 47 p. Library, Oklahoma State University, Stillwater.

Prurpose.--To identify the problems encountered by teachers in establishing a vocational agriculture occupations training program. These problems were documented in three areas: securing students, securing training stations, and securing administrative approval.

Method.--The study population included teachers from twenty-eight departments of vocational agriculture representing ten states who had attended a six-weeks institute workshop during the summer of 1965. Midway during the first year of an agricultural occupations program, these teachers were surveyed by personal interview in their school district.

Findings.--(1) The teachers perceived the problems of implementation of an agricultural occupations program in the following order: securing training stations, securing students, and securing administrative approval. (2) It is possible for teachers to overcome problems and implement a program in vocational agriculture occupational training. (3) Businessmen are generally receptive to the program and cooperate in providing training stations. (4) Multiple-teacher departments were able to implement the new program more effectively and place significantly more students for occupational experience than single-teacher departments. (5) Teachers of vocational agriculture need to be trained in selecting training stations so that students may be effectively placed in businesses that require employees with agricultural competencies. (6) Teachers who were able to schedule a separate class for agricultural occupations instruction indicated significantly more students in agricultural business than teachers integrating the instruction into their traditional course of studies.

DURANT, THOMAS. A Study of th Educational and Occupational Aspirations of Enrollees in Tuskegee Institute's Educational Program for Seasonally Employed Agricultural Workers. Thesis, Master of Science, 1966, Agricultural Education, Tuskegee Institute. 98 p. Library, Tuskegee Institute, Alabama.

Purpose.--To study the educational and occupational aspirations that enrollees in adult educational classes sponsored by Tuskegee Institute for seasonally employed agricultural workers have for themselves and their children.

Method.--The method used in collecting data was by personal interview schedule.

Findings.--The findings were as follows: (1) a vast number of the respondents aspired to finish high school, (2) over 50 percent of the respondents reported that none of seven variables would stop them from getting a good education if they were offered the chance, (3) in general, the respondents educational aspirations were very high, (4) the respondents had higher aspirations for their children than for themselves, (5) 67 percent of the respondents aspire for their children to have a college education, (6) it was revealed that a lack of revenue would be a handicap for their childrens entrance to college. It was concluded that there is a direct relationship between age and education aspiration; between occupation and the number of children in the family; between educational aspiration and participation in certain types of cultural organizations. On the other hand there seemed to have been no significant relationship between occupation aspirations and age; educational aspirations and the number of children in the family at home; occupational aspirations and educational attainment and occupational aspirations and participation in the Church, P.T.A., and savings clubs.

EADDY, KENNETH McINNIS. A Critique of the Agricultural Education Program in Florida. Dissertation E.D., 1965, the University of Florida. 234 p. Library, University of Florida, Gainesville.

Purpose.--To critique the development and to offer recommendations for the improvement of the program of vocational education in agriculture in Florida.

Method.--The method of collecting data was by examination of available written sources and by personal interviews with people having first-hand knowledge of the program.

Findings.--General findings were as follows: (1) the program of vocational education in agriculture is only partially successful in reaching the objectives of preparing individuals for work in agriculture in Florida, (2) the programs, both in school and out-of-school, have been confined to public secondary schools, (3) followup reports prepared by teachers of agriculture indicate that many students enrolled in the programs of agriculture have not been effectively counseled before they register for vocational agriculture, (4) there is not in existence an organized or supervised program of pre-registration guidance in vocational agriculture, (5) well-designed significant research in the areas of agricultural education is almost non-existent in the State, (6) only 40% of the teachers have organized local advisory committees to assist them in organizing and maintaining a well-balanced program, and (7) State supervisory functions in order of importance are in the areas of instruction, inspection, and promotion.

Findings pertaining to teacher education programs were: (1) the teacher education program functions in the area of pre-service education, placement, in-service education, and follow-up activities, (2) the pre-service program is partially successful in supplying the teachers' needs to meet the needs within the State, (3) the teacher education program is not successful in the followup function of its work; there is no time, money, or personnel allotted for a well-planned followup program within the State, (4) the in-service program functions only through summer conferences, one-day clinics, and graduate study, and (5) students graduating from the Department of Agricultural Education are placed before they graduate. The majority of vocational agriculture departments in the State are organized to offer students who are preparing to become farmers and to farmers enrolled in the out-of-school programs an opportunity to interact with the kind of content defined, practice the kind of behavior implied, and obtain satisfactions from the experiences selected to achieve course objectives through the use of individual supervised experience programs and participation in youth leadership organizations.

FREEMAN, LEONARD ALLEN, JR. An Analysis of Some Factors Involved in Planning an Educational Program for Adults. Problem Option M.Ed., 1966, North Carolina State University, 84 pp., Raleigh, North Carolina.

Purpose.--To make a community analysis of the non-farm agricultural businesses in Alamance County, North Carolina.

Method.--A general questionnaire was used to interview 201 employees--47 in managerial-technical, 74 in sales-clerical, and 80 in skilled--semi-skilled occupational families. The questionnaire was used to collect general information and also information concerning level of living, communication media, degree of social participation, and educational interests and needs.

Findings and Interpretations. The study indicated a need for an educational program for adults in the three occupational families--managerial-technical, sales-clerical, and skilled--semi-skilled. The needs and interests varied among the occupational families and social groups. The groups that participated most in formal organizations were employees of managerial-technical occupations; employees with medium to high weekly salaries; employees that were married, widowed, or divorced; employees with nine or more years of schooling; men employees; employees between ages 27 to 53; employees residing in small villages; home owners; and employees with children.

The general attitude of the managerial-technical and the sales-clerical occupational families was favorable towards programs of vocational education. Indications were that if educational programs were offered, a large percentage of the employees would desire training at higher skill levels than those in which they were employed. The study indicated that an educational program with the managers in the methods of employee motivation was needed prior to embarking on an educational program for employees.

Some of the groups pointed up in the study were (1) employees of each of the three occupational families, (2) employees of small businesses, (3) employees of large businesses, (4) employees of purchasing and sales businesses, (5) employees of sales and service businesses, (6) employees with low educational levels, (7) employees with high educational levels, (8) employees with children, (9) employees without children, (10) male employees, (11) female employees, (12) employees who participate in formal organizations at a high level, (13) those who participated at a low level, (14) employees with high income, (15) employees with low income, (16) home owners, and (17) renters.

HINDMAN, LLOYD NEAL. A Guide for Planning Facilities for Vocational Agriculture in Texas. Report, M.E., 1966, Texas Technological College. 29 p. Library, Texas Technological College, Lubbock, Texas.

Purpose.--The purpose of this study was to develop a guide to assist local boards of education, school administrators, teachers of vocational agriculture and the personnel of the Texas Education Agency in planning facilities for departments of vocational agriculture in Texas.

Method.--The author reviewed the guides for planning vocational agriculture facilities from fourteen States and had the experience of planning and checking on the construction of a new vocational agriculture facility. The knowledge gained from these sources was used in developing a guide for Texas.

The report provides guidelines as to the location and planning of vocational agriculture facilities.

Recommendations for each of the following facilities were given: classroom and classroom storage, office, agricultural mechanics laboratory, locker room, and shop storage facilities.

A mimeographed copy of this report may be obtained from the Agricultural Education Department, Texas Technological College, Lubbock, Texas.

HORTON, TOM H. Analysis of Livestock and Cotton Businesses at Lubbock, Texas, with Emphasis on Educational Needs. Thesis, M.S., 1966, Texas Technological College. 98 p. Library, Texas Technological College, Lubbock, Texas.

Purpose.--(1) To determine job categories, the number employed, expected future employment, and requirements and limitations of employees in non-farm agricultural businesses in the cotton and livestock industries at Lubbock, Texas. (2) To determine the interest of employers in cooperating with the Lubbock Public Schools in the cooperative part-time training program. (3) To determine the importance of competencies needed by employees in the livestock and cotton businesses at Lubbock, Texas.

Method.--The data for this study was obtained by interviewing 44 agricultural businessmen in the livestock and cotton industries in Lubbock, Texas.

Findings.--There were five types of businesses in the livestock industry. These were: dairy, livestock, meats, poultry, and veterinarians.

Employers of thirty businesses in the livestock industry were interviewed and there 757 employees in these businesses. There were 296 employees in the seven dairy businesses, 112 employees in the five livestock businesses, 262 employees in the six meat industries, 68 employees in the six poultry businesses, and 19 employees in the six veterinarian businesses.

The number of different job categories found within each of the businesses was as follows: dairy 11, livestock 7, meat 9, poultry 6, and veterinary 4. The employers expected to hire the following number of people within the next three years: dairy 106, the livestock businessmen did not give an estimate because of large turnover of part-time employees, meat 26, poultry 6, veterinary 1.

Livestock industry employers indicated that the competencies in animal science and agricultural business management and marketing were of the greatest importance to their employees. Competencies in the areas of plant science and agricultural mechanics and automation were considered to be of the least value with those in the area of plant science being the lowest. Certain competencies were of more importance in some divisions of the livestock industry, but the general pattern was very similar for all of the divisions.

Seven of 30 businessmen in the entire livestock industry were willing to cooperate in training students in their businesses. These seven businessmen would provide training stations for thirteen students.

There were 810 employees in the 14 businesses in the cotton industry. Nine different job categories were found to exist within the businesses. Employers expected to hire a total of 300 employees in the next three years.

Three of 14 (21.4%) employers in the cotton industry indicated that they were willing to cooperate with a local high school in training students in off-farm agricultural occupations.

Employers indicated that in the area of plant science, the most important competencies were warehousing, ginning, processing, and marketing. Agricultural mechanics and automation and agricultural business management and marketing were also believed to be of considerable importance.

HYDE, WILLIAM SANFORD. Agricultural Opportunities and Training Needs of Vocational Agricultural Students in Tangipahoa Parish. Master's Study, 1966. Department of Agricultural Education, Louisiana State University, 104 p.

Purpose.--The purpose of this study was to determine agricultural opportunities and training needs for students of vocational agriculture in Tangipahoa Parish.

Method.--An interview schedule was used to gather information concerning nonfarm agriculture, and the United States Census Report of 1964 was used in acquiring information concerning production agriculture.

Findings.--This study revealed 69 nonfarm agricultural businesses, employing 1,219 workers of which 1,074 needed agricultural competencies. It further indicated 43.9 percent of the nonfarm agricultural workers employed in the Livestock and Poultry family, with 55.5 percent as semi-skilled.

Few employers indicated interest in employing persons less than 20 years of age, and salaries ranged from \$188.00 to over \$700.00 per month depending on training, responsibility, and experience. A large percentage of these employees did not have a high school education, however, employers indicated this would be required of replacements. Employers preferred farm background for 77.3 percent of these employees.

This research revealed that employers were more interested in employees having agricultural competencies in a specific area than in general agriculture.

Tangipahoa Parish had 2,568 farms averaging 76.6 acres with an investment of \$23,355 per farm. These farms sold products valued at \$19,253,355. in 1964, of which livestock and livestock products accounted for 85.5 percent.

Dairy farming was found to be the major farm enterprise contributing 12 to 13 million dollars annually to the parish economy.

Conclusions were drawn from these data that vocational agricultural training programs in Tangipahoa Parish should include instruction in both nonfarm and production agriculture. These programs should be centered around production of livestock and poultry and the businesses associated with this area of agriculture.

JONES, CHARLES IRVING. Factors Related to the Effectiveness of Short-Term Adult Vocational Courses. Doctoral Study, 1967. Florida State University.

Purpose.--A study to determine the correlation between certain characteristics of teacher teaching short-term vocational courses and teacher product criteria; namely, changes in the behavior of their students. Three types of courses in which both verbal and manual skills are taught were selected for the study. Complete sets of data were obtained for teachers and adult participants in eighteen arc welding courses, for a total of 44 teachers and 519 adult students.

Method.--Measure of student verbal gain, manual gain, satisfaction, and persistence was obtained for the study. Measures of the teacher's demographic characteristics; educational level, years of experience teaching adults, years of trade experience, age, mental ability, subject matter knowledge; and their teaching style constructs; Lethargy vs Energy, Drabness vs Flamboyance, Permissiveness vs Control, and the number of teaching techniques used, were utilized in the study.

The correlation between measures of teacher characteristics and measure of student behavior over all courses combined and for each course separately was computed. Measures of teacher demographic characteristics were also subjected to a stepwise regression in order to estimate their contribution to the prediction of measures of student behavioral changes.

Findings.--The following findings were drawn from the correlational analysis: (1) the teacher's mental ability, age, and years of experience teaching adults were not significantly correlated with adult student satisfaction, persistence, and verbal and manual gain, (2) adult student verbal and manual gain were significantly positively correlated with the teacher's knowledge of the subject matter, (3) the teacher's educational level was significantly negatively correlated with student satisfaction, (4) the teacher's number of years of trade experience was significantly negatively correlated with persistence, (5) factors within the Lethargy vs Energy, Permissiveness vs Control, and Drabness vs Flamboyance behavioral constructs were not significantly correlated with change in student characteristics; (6) the number of teaching techniques used did not significantly influence measures of student behavior. (7) certain demographic and teaching style variables were correlated at significant levels, and (8) student manual gain was significantly positively correlated with verbal gain, and significantly negatively correlated with satisfaction.

The stepwise regression yielded the following: (1) the amount of variance in verbal gain accounted for was 78 percent in arc welding courses, 42 percent in small engine courses, and 76 percent in tractor maintenance courses, (2) the amount of variance in manual gain accounted for was 49 percent in arc welding courses, 82 percent in small engines, and 87 percent in tractor maintenance courses.

(3) the amount of variance in satisfaction accounted for was 49 percent in arc welding, 82 percent in small engines, and 87 percent in tractor maintenance, and (4) the amount of variance in persistence accounted for was 16 percent in arc welding, 47 percent in small engines, and 75 percent in tractor maintenance.

Two recommendations were made: (1) scores on tests of specific skills development should be a major criterion in the certification and selection of teachers of adult vocational courses where student verbal and manual gain are program objectives, and (2) administrators of adult vocational programs should select course objectives before selecting teachers for specific courses.

KIBBY, JIMMIE RAY. A Study of the Availability of Reference Materials in Oklahoma Student-Teaching Centers and Non-Student-Teaching Centers. Thesis, M.S., 1966; Oklahoma State University, 74 p. Library, Oklahoma State University, Stillwater.

Purpose.--To determine the availability of reference materials in twenty-two Agricultural Education student-teaching centers and an equal number of randomly selected non-student-teaching centers.

Method.--Eighty-nine percent of the mailed questionnaires were returned. Availability of reference materials was based on the quantity of materials in thirteen areas of study in high school vocational agriculture departments. The quality of the reference materials was measured by the copyright date of the book and its appearance on a selected list of reference materials. The list was compiled by the District Supervisors of Vocational Agriculture and compared with a state adopted book list. Each book received a quantitative and qualitative value.

Findings.--The quality of reference material in student-teaching centers was not superior to that of the non-student-teaching centers. However, it was evident that the student-teaching centers had a larger quantity of reference material. Additional reference material was needed in the two types of centers. The respondents indicated the greatest need for reference material in the following areas: farm mechanics, farm management, agricultural occupations, and pastures. Critic teachers in the student-teaching centers have more years of teaching experience and longer tenure in the present school than did the non-student-teaching centers. Class size in the two types of centers was much the same. Funds are received directly for the purchase of book as the need arises rather than on an annual basis.

KNIGHT, WALTER STEWART. Analysis of Agricultural Businesses at Plainview, Texas, with Emphasis on Educational Needs. Report, M.E., 1966, Texas Technological Collage. 44 p. Library, Texas Technological College, Lubbock.

Purpose.--The primary purpose of this study was to determine if there were job opportunities available for a person interested in securing employment in agricultural businesses, and to see if the businessmen were interested in participating in the vocational agricultural cooperative part-time training program.

Method.--Ten agricultural businessmen were interviewed to obtain the data for this study. Types of businesses interviewed included: fertilizer companies, agricultural chemical companies, nurseries, elevators, implement companies, a feed lot, and a seed company.

Findings.--A total of 212 employees were employed by the ten agricultural businesses.

The job categories of these 212 employees included: supervising personnel, salesmen, clerical, skilled, semi-skilled and unskilled personnel.

A total of 61 employees were expected to be hired for future employment. The largest number of employees needed was 20 skilled personnel. Seventy percent (7) of the employers indicated that they had difficulty in obtaining trained employees.

All of the businesses surveyed were interested in cooperating in the cooperative part-time training program. Seventy percent (7) of the businessmen indicated they were willing to pay the student \$1 to \$1.25 an hour for the work performed while training. Six of the businessmen indicated that the student would be allowed to work in all phases of the business.

LEE, JASPER A. A Profile Study of the Employees in Off-farm Agricultural Occupations in the Greater Jackson, Mississippi Area. Thesis M.S. 1966, Mississippi State University, 173 p. Library, Mississippi State University, State College, Mississippi 39762.

Purpose.--To determine the level of education and other personal traits of those employed in off-farm agricultural occupations; to determine the relationship, if any, between vocational training and successful job entry and advancement in off-farm agricultural occupations; to determine the need and desire for additional vocational training; and to determine the effectiveness of vocational agriculture in meeting the needs of the community and agricultural business.

Method.--The greater Jackson, Mississippi area was selected for this study because it is a large urban area surrounded by a strong agricultural economy. Businesses studied were confined to those whose total business operations were at least 50 percent agriculturally oriented. A total of eighteen such businesses were studied, employing a total of over 200 persons. All data were collected by personal interview, from the employers and employees included in the study. A random sampling of all agriculturally oriented business was made, after stratification, to assure that all types of such businesses would be represented. A 20 percent sampling of employees was used in making the final analysis. Simple relationship tables and modes were used in the analysis.

Findings.--Sixty-five percent of the employees studied had had no vocational training, but 20 percent had had some training in vocational agriculture. An additional 2.5 percent had had veterans' farm training. Of those who had had vocational agriculture training, 92.7 percent indicated that their vocational agriculture training was "frequently" or "occasionally" valuable in their present occupation, while 7.1 percent stated that the vocational training they had had was of "little" or "no" value.

It was concluded that persons working in agriculturally related occupations, or those who plan to work in such occupations, should take more courses in vocational agriculture and that these courses should be oriented toward such occupations rather than production agriculture. It was recommended that more vocational agriculture students consider a career in an agriculturally related occupation.

LINGLE, ARNOLD WARREN. Relevance of High School Curriculum to Textile Work. Problem Option, M. of Ed., 1966, North Carolina State University at Raleigh, 41 pp, Raleigh, North Carolina.

Purpose.--To determine the views of former Vocational Agriculture and Non-Vocational Agriculture male graduates, who are in textile work, concerning the relevance of the high school curriculum to their work.

Method.--The graduates (57) from East Rowan High School who entered textile work during the years 1962-65 formed the universe population in this study. The 26 males currently employed in textiles contributed to this study. An interview schedule was used to obtain views needed in the study.

Findings.--This study showed that 65.4 percent of the 26 persons taking part agreed that one or more courses in their high school curriculum helped them in their work. Only two of the 26 young men had managerial responsibilities.

It was found that parents and friends helped most of them obtain jobs and all but one of them liked their work.

The tenure of the group ranged from one month to three years. Seventeen had worked less than 18 months.

Eight of the participants indicated that Vocational Agriculture helped them in their work, six indicated Mathematics helped them and nine indicated that none of the high school courses helped.

Units taught in Agriculture and Mathematics courses were of the most help to the workers. Chemistry and Industrial Arts were mentioned twice each.

Six of the respondents indicated that a textile course of some kind would have helped them. Several had no idea what could have been taught that would have helped them in their work.

It was recommended that more attention should be given to occupational guidance and counseling, especially for the students not likely to go to college. Furthermore, closer working relationships between the public schools and the prospective employers of high school graduates should be explored toward developing better understanding of educational needs of students who may go directly to employment.

LONG, WILLIAM B. A History of Vocational Agriculture in Tennessee from 1917 to 1955. Thesis M.S., 1966, University of Tennessee. 264 p. Library, University of Tennessee, Knoxville.

Purpose.--To compile a historical record of the people, places and events and their related impact on the development of vocational agriculture from 1917 to 1955.

Method.--Information was obtained from interviews of former students and teachers of vocational agriculture, written materials from various individuals, data from the archives of the Tennessee State Department of Vocational Education and the Agricultural Education Department of the University of Tennessee, newspapers and periodicals, various deliberative bodies, and other miscellaneous sources.

Changes and developments were traced in the following areas: (1) Early personnel and schools; (2) vocational agriculture education philosophy; (3) curriculum in vocational agriculture; (4) administrations of vocational agriculture; (5) agricultural education curriculum for teacher training; (6) various special and emergency-type agricultural education programs; (7) segments of the vocational agriculture program such as adult education, farm mechanics, supervised farming programs and the all-day program; (8) the Negro in the early years of the vocational agriculture program; (9) vocational agriculture teacher conferences and the Tennessee Vocational Agriculture Teachers' Association; and (10) various types of community service educational programs.

Findings.--This study presented evidence to support the following: (1) The vocational nature of agriculture as a subject dates back many centuries; (2) early workers in agriculture prepared the foundations for the legislation that was to legally form a program of vocational agriculture after 1917; (3) early workers were very influential in developing the inherent philosophy of vocational agriculture; and (4) special programs and segments of vocational agriculture were implemented to meet vocational agriculture needs of the community and State.

LOWE, RICHARD R. A Comparative Study of Vocational Agriculture Departments in Oklahoma Who Have Formal Advisory Councils, Informal Advisory Councils, and Those Having None. Report, M.S., 1966, Oklahoma State University, 42 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.--To determine the effects of advisory councils on selected aspects of vocational agriculture and FFA activities in Oklahoma. The following characteristics were studied: student enrollment and participation policies, program planning in vocational agriculture, administrative support of the program, and the selection and use of the advisory council.

Method.--A postcard was sent to 382 vocational agriculture departments in Oklahoma. It asked the teacher to indicate the extent of advisory council use in the department. Eighty-eight percent of the postcards were returned. The departments were stratified into three levels of citizenship participation on advisory councils: (1) no council, (2) formal advisory council, (3) informal advisory council. All of the six departments reporting a formal advisory council were used in the study. A random sample of 20 departments were selected from each of the other categories. The forty-six departments received a mail questionnaire.

Findings.--Both groups using advisory councils received greater FFA state and national attainments and included program planning for all major phases of agricultural education more often than the other group. The group using a formal advisory council had more former graduates now farming in the area and had the best interest, support, and working relationship of the school administrators. The major reasons given for not using the advisory councils were: (1) teacher is too busy, (2) lack of knowledge in organizing and using advisory councils, and (3) a fear of control from the council. The major reasons for using advisory councils were: (1) the council keeps schools informed of occurrences in the community, (2) encourages a more organized program, (3) more than one person's ideas are presented, (4) help the public relations, and (5) helps to recognize the agricultural education needs of the community.

MANASCO, CLARENCE ELBERT. Employment Opportunities in Professional Agricultural Careers in Louisiana, Doctoral Study, Department of Agricultural Education, 1966, page 181.

Purpose.--The purpose of the study was to determine the number of professional agricultural career personnel presently employed in the State of Louisiana and opportunities available to future employees. The study also included the scope of activities or functions in the performance of duties by employees in the professional fields of agriculture, as well as competencies needed by and characteristics desired of future employees.

Method.--The personal interview method was used to obtain employee information from all firms and agencies through the application of a schedule which was partially developed by the author. Data was compiled by the Computer Center, College of Agriculture, Louisiana State University.

Findings.--This study revealed that 1,720 white professional agricultural career men were employed by forty-eight federal, state and private agencies in Louisiana. This number is expected to increase to 2,024 within five years through expansions. This is an increase of 304 positions or 15.0 per cent for the next five years. It represents an annual increase of 3.0 per cent. There were 241 job titles compiled, which spanned twenty-three professional areas and fourteen major functional areas.

The mean desired entry age for the future employees was 33.1 years. The mean age of those presently employed was 41.2 years.

Administrators rated the frequency of use of thirty-five activities and functions for their employees. These activities were divided into the following categories: (1) working with people outside the firm, (2) working with personnel in the firm, and (3) working with problems in the firm. Frequencies were compiled according to professional area and indices computed to determine the relevancy to professional agricultural employees. Of the thirty-five activities, twenty-four were found to be significant.

Administrators rated the degree of competency according to job title in each of the following major agricultural areas: (1) animal science, (2) plant science, (3) agri-business, and (4) farm mechanics. The results were compiled according to professional area, and indices of competency were computed.

Most of the professional agricultural personnel are specialists within their area and are competent in only one agricultural area.

The educational level required of future employees were: thirty-two per cent of the job titles required B.S. degrees, 33.9 per cent required M.S. degree, 28.8 per cent required Ph.D. degrees and 5.1 per cent required D.V.M. degrees.

Administrators preferred that 66.5 per cent of the personnel have a farm background, while "no preference" was indicated for

29.7 per cent. Rural non-farm was indicated as being sufficient for 3.8 per cent of the personnel included in the job titles.

Personnel required to have professional licenses were limited primarily to veterinarians and agricultural engineers, while certification requirements was limited to the area of vocational agricultural education.

Ten and six-tenths of all professional agricultural personnel were members of the Louisiana Civil Service, while 24.9 per cent of all personnel were required to be members of the United States Civil Service. There were no industrial restrictions for any of the personnel.

The average mean salary of all professional agricultural personnel was \$10,494.88.

MILLER, TEXTON R. "Attitudinal Changes Toward Adult Education during Student Teaching". Research Series in Occupational Education. N. C. Research Coordinating Unit and Department of Agricultural Education, School of Education, North Carolina State University, Raleigh.

Purpose.--To determine scope of change in attitudes toward adult education by students in agricultural education during the student teaching semester.

Method.--A 29 item attitude inventory was constructed and students scores this at the beginning and the close of their student teaching semester. The sample was the total population of 166 students enrolled during six year period, 1960-1965.

Findings.--The findings were: (1) each of six student groups showed a gain in favorable attitude toward adult education as a function of the public school; (2) there was statistical significant variation by years in initial scores, ending scores, and change in attitude; (3) there was evidence of a trend toward lower entry scores and higher ending scores during the latter half of the 6 year period; and (4) after student teaching, students supported a larger percentage of time for adult education, and a wider range of adult education activities.

It was concluded (1) that student teachers do gain more positive attitudes toward adult education as a function of the public school and as a primary responsibility of the teacher of agriculture, and (2) that the student teaching experience has been more effective in recent years in the above respect than in the first three years of the study.

MILLER, TEXTON R. "Teacher Perception of Principal's Views on Vocational Education". Research Series in Occupational Education. N. C. Research Coordinating Unit and Department of Agricultural Education, School of Education, North Carolina State University, Raleigh.

Purpose.--To determine (1) the difference in teacher viewpoints toward vocational education compared to teacher perception of principal view points and (2) where teacher adoption-level of the new concept of supervised practice was a function of congruency of teacher-principal attitude.

Method.--A random representative sample of 465 teachers of agriculture was made and personal interviews provided complete data from all 47 teachers in the sample. Special instruments were developed to (1) inventory attitudes and (2) to determine levels of adoption by teachers of a new concept of supervised practice.

Findings.--It was found that : (1) secondary school principals were seen by their teachers as favorable to vocational education, to vocational agriculture, and to supervised practice. Compared to a perfect score of 5.0, principals averaged 3.82; (2) teachers of agriculture saw themselves more favorable to vocational education than their principals scoring themselves with an average of 4.14 on 34 items -- a statistically significant higher mean-score; and (3) much of the state-wide difference in teacher-principal viewpoints could be attributed to the relatively wide differences seen by approximately one-third of the teachers.

No relationship was found between (1) the adoption level reached by teachers on a new concept of supervised practice and (2) teacher-principal agreement toward vocational education. It was concluded that lack of congruency of teacher-principal attitudes was not a significant barrier to teachers in adopting the new supervised practice concept, at least to the "evaluation" stage of adoption level.

PENN, JOSEPH DANIEL. Analysis of Agricultural Equipment, Chemical, and Nursery Businesses at Lubbock, Texas, with Emphasis on Educational Needs. Thesis, M. S., 1966, Texas Technological College. 103 p. Library, Texas Technological College, Lubbock.

Purpose.--(1) To ascertain the possible number of student training stations for a cooperative part-time training program in agriculture. (2) To determine the opportunities for employment for full-time and part-time agricultural employees in the next two years. (3) To determine the competencies required for the employees to perform effectively the duties in their respective jobs.

Method.--The findings of this study were derived from interviews with a total of 36 proprietors of agricultural businesses in the field of agricultural equipment (20), nurseries (9), and agricultural chemicals (7).

Findings.--The opportunities for employment were found to be 293 individuals to be hired within the next two years. This figure represented the total for part-time (103) plus full-time (190) employees anticipated to be hired. The number employed at the time of this study was 414 full-time and part-time workers.

For managers, salesmen, and engineers, the area of agricultural business management and marketing was considered important by most of the employers in all business surveyed. Generally employers believed this same area to be of no value for laborers.

Chemical and nursery business employers believed agricultural mechanics and automation to be of no value to the employees in most instances. However, agricultural equipment employers, as a general rule, rated it as important. This was especially true for mechanics, parts men, and delivery men.

One of the implications revealed in this study for vocational agriculture in the Lubbock Public School System was that training stations for high school students were adequate with 21 businesses willing to cooperate in training 42 students.

In the businesses surveyed the opportunity for employment in positions other than labor was 118 to be hired within the next two years. During this same period of time 175 laborers will be hired.

ROSE, NORMAN HAROLD. A Comparative Study of the Social Participation Role of Vocational Agriculture and Non-Vocational Teachers. Problem Option, M. Ed., 1966, North Carolina State University, 130 pp., Raleigh, North Carolina.

Purpose.--To determine the similarities and differences in the social participation role of the non-vocational and vocational agriculture teachers and how this role is affected by static factors and attributive expectations.

Method.--There were 76 teachers of vocational agriculture and 76 non-vocational teachers selected randomly from each of the 1965-66 directories from the states of Alabama, Arkansas, North Carolina, and Virginia. This resulted in a total sample of 608 teachers. The data was collected with mailed questionnaires.

Findings.--An analysis of the data showed that vocational agriculture teachers have a significantly higher social participation score than non-vocational teachers. A further look at the factors which form the social participation score revealed that vocational agriculture teachers are (1) members of more formal organizations, (2) are on more committees, and (3) hold more offices in the organizations classified as civic, religious, and professional than non-vocational teachers.

Static factors and attributive expectations do affect the social participation roles of both non-vocational and vocational agriculture teachers. However, in many cases, neither the static factors nor the attributive expectations affected the social participation rates of Vocational Agriculture and Non-Vocational teachers to the same extent.

SIMS, LEON ACY. An Interpretive Analysis of Non-Farm Occupations Requiring Agricultural Competency. Dissertation Ed.D., 1966, The University of Florida. 95 p. Library, University of Florida, Gainesville.

Purpose.--To make an interpretive analysis of non-farm occupations requiring agricultural competency of less than a baccalaureate degree in Alachua County, Florida.

Method.--The method of collecting data was through personal interview with employing agencies in Alachua County that hired persons needing competencies in one or more agricultural subject areas.

Findings.--Data were summarized and reported by occupational families and by occupational titles. The findings were as follows: (1) employers are willing to cooperate with schools in the development of non-farm occupational preparation programs, (2) the higher levels of employment require competencies in many and diverse areas of knowledge and skills; this indicates the need for careful and detailed planning of occupational preparation programs, (3) most employers prefer workers twenty years of age with farm or rural residential backgrounds and a high school education as basic prerequisites, (4) employer ratings of employees indicate a need for on-the-job training, (5) occupational preparation programs must provide for the development of personal characteristics other than job knowledge and skill proficiency, and (6) non-farm agricultural employment opportunities for females were predominantly clerical.

SMITH, BILLY QUAY. A Comparison of High School Performance in Vocational Agriculture and English with the Achievement of College Freshmen and Sophomore Students in English Composition and the ACT Tests. Report, M.S., 1966, Oklahoma State University, 26 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.--To study the relationships among high school achievement in vocational agriculture and English and college achievement of 1963 and 1964 freshmen enrolled in the College of Agriculture at Oklahoma State University.

Method.--Student test scores and grades were obtained from files in the Office of the Dean of the College of Agriculture. Intercorrelations were run on these data.

Findings.--High School English grades achieved did show a significant correlation with subsequent college scholastic achievement in Freshman Composition, as well as the over-all college grade point earned. The size of high school was of no significance as to its influence on the scholastic achievement in Freshman Composition grade earned by the student. Very little difference existed with regard to performance in Freshman Composition among students who had Vocational Agriculture in high school and those who did not. There was only a slightly significant correlation between the high school English grade achieved and the subsequent score achieved on the ACT test.

SMITH, WENDELL LEE. An Examination of the Cooperative Cognition Between Vocational Agriculture Instructors and County Extension Agents in Planning and Conducting the Adult Prospectus of Instruction in Oklahoma. Thesis, M.S., 1966, Oklahoma State University, 103 p. Library, Oklahoma State University, Stillwater.

Purpose.--To determine positive and negative views about cooperative working relationships of county extension agents and teachers of vocational agriculture in Oklahoma. Three categories of views were studied: personal factors, planning and conducting educational programs, and program evaluation.

Method.--A mail questionnaire went to randomly selected agriculture teachers and the county agent in thirty randomly selected Oklahoma counties. All of the agents and 83 percent of the teachers returned the questionnaire. Mann-Whitney and Kruskal-Wallis tests were used at the .05 and .10 levels of confidence to analyze the data.

Findings.--(1) Teachers had slightly more positive views in favor of cooperation than agents. (2) There was no difference in views on cooperation between older teachers and agents and those that were younger. (3) Teachers and agents with the master's degree had more positive views in favor of cooperation. (4) Respondents with the least amount of experience were more in favor of cooperation. (5) There was no relationship between tenure and views on cooperation. (6) Teachers and agents from the larger counties were more in favor of cooperation.

STARR, REX EARL. A Qualitative Comparison of Selected Factors in Agriculture Mechanics Between Student-Teaching Centers and Other Oklahoma Departments of Vocational Agriculture. Thesis, M.S., 1966, Oklahoma State University. 65 p. Library, Oklahoma State University, Stillwater.

Purpose.--To determine if the agriculture mechanics program, the educational preparation of the instructor, and the facilities of the shops of the student-teaching centers were superior to a random sample of all other departments in the state for providing a high level of participating experiences for prospective teachers of vocational agriculture.

Method.--The entire population of the twenty-two student-teaching centers during the 1965-66 school year were included as one group in the study. All other schools in Oklahoma with departments of vocational agriculture were stratified according to the five State Vocational Agriculture Districts. A second group of twenty-two schools were randomly selected from districts in the same proportion as the number of student-teaching centers in each district. Mail questionnaires were sent to teachers located in forty-four communities which represented thirty-two counties out of the total of seventy-seven counties in the state. One-hundred percent of the questionnaire were returned.

Findings.--It was found that the student teaching centers were superior to a random sample of non-student-teaching centers in a number of different areas. These are as follows: degree held by instructor; selected physical characteristics of the shop; size of both inside and outside working space; utilization of available equipment; total number of credit hours received in Agricultural Engineering; and a greater number of more expensive projects which had been constructed in all five areas of Agricultural Engineering. Apparently, the selection of student-teaching centers was not a random process.

STEVENSON, WILLIAM W. A Study of Employment Opportunities and Training Needs in Off-Farm Agricultural Occupations in Oklahoma. Dissertation, Ed.D., 1966, Oklahoma State University. 127 p. Library, Oklahoma State University, Stillwater.

Purpose.--To (1) identify present and emerging off-farm agricultural occupations, other than farming and ranching, for which vocational, technical, or higher education in agriculture should be available, (2) determine present numbers of employees in these occupations and identify those occupational job titles which employers say require agricultural competencies, (3) estimate the annual turnover and entry opportunities in these occupations and job titles; (4) determine competencies needed for entry and advancement in these occupations; and (5) determine other characteristics of these occupations such as beginning and maximum salary, minimum age for job entry, required formal education and experience, and residential background preferred.

Method.--An advisory committee made up of agricultural experts determined the types of agricultural businesses which, in their opinion, offered the greatest opportunity for employment to persons trained in agriculture. Personal interviews were made with 719 of these businesses representing 38 percent of all these types of businesses presently operating in the state. Over two thousand individual job title interviews identified two hundred different job titles which require agricultural competencies. Directors of state and federal agricultural agencies were interviewed to determine the need for professional agricultural workers in the state. A factor analysis program with varimax rotation was used to determine correlations among competencies as well as among job titles.

Findings.--Thirty-eight percent of the workers in off-farm agricultural businesses need competencies in agriculture. Managers interviewed expect a 34 percent increase in the number of agriculturally competent employees in the next five years. The greatest increase in numbers of agricultural employees is expected in the ornamental horticulture, agricultural machinery, and agricultural supplies businesses. Competencies in human relations and salesmanship are desired in all employees but in varying degrees. The type of business and product handled largely determine the agricultural competencies required. Beginning salaries and wages in some of these occupations are relatively low. Approximately 50 percent of these employees need education beyond the high school level. The average minimum age for employment is twenty years of age. Employers generally prefer an employee with a farm or rural background. The annual need for professional college trained agricultural workers was estimated to be about four hundred per year for the next five years. Competencies and job titles may be grouped to facilitate training programs and curriculum planning.

TROUTMAN, CLIFTON BOYD. An Evaluation of the Effectiveness of a Sears, Roebuck Sponsored Swine Improvement Program in Selected Vocational Agriculture Departments in the Shawnee, Oklahoma Trade Area. Report, M.S., 1966, Oklahoma State University, 36 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.--To determine the effectiveness of a Sears, Roebuck sponsored swine improvement program in the Shawnee, Oklahoma trade area.

Method.--Vocational agriculture departments with an enrollment of at least sixty students within a forty-mile radius of Shawnee were selected as the population. Twenty vocational agriculture students from five departments who had received Sears swine in 1962 were compared with twenty students stratified by school and class. The non-Sears control group was selected by their instructors as the student "most nearly like the recipient of the Sears swine." Information was obtained from records filed with the State Division of Vocational Agriculture and from personal interviews with the local vocational agriculture instructors.

Findings.--Analyses of data reveal that the Sears, Roebuck swine improvement program is associated with desirable attitudes and performance of those vocational agriculture students participating in the program. The Sears group retained swine projects almost a year longer, had three times as much labor income, chose to have longer tenure as a vocational agriculture students, and achieved a better grade point average in agriculture than did the non-Sears group. There was no great difference between the two groups concerning labor income from swine, and general occupational and educational status.

WOLF, JIMMIE DARRELL. An Experimental Study Investigating the Effects of TEaching Occupational Information on the level of Aspiration of Oklahoma Vocational Agriculture Students. Dissertation, Ed.D., 1966, Oklahoma State University, 106 p. Library, Oklahoma State University, Stillwater, Oklahoma.

Purpose.--To determine the effects of three independent variables, (1) teaching an agricultural occupations and career development resource unit, (2) community size, and (3) state geographic region, upon change in student occupational aspiration level.

Method.--An experimental design involving a three-way classification which consisted of a control and a treatment group and two levels each of two classification variables was employed. The treatment was a six-hour resource unit on agricultural occupations and career development. The classification variables were location, east and west, and community size in which the school was located, 0-500 and 5,000-10,000 population. Two hundred and ninety-six junior and senior students from sixteen Oklahoma public high school vocational agriculture departments participated in the study. The participating schools were randomly selected from groups stratified for the classification variables. The primary instruments used in the study were an Agricultural Occupations Aspiration Scale, a wide-range vocabulary test, a Rural-Urban Orientation Inventory, a Social Class Value Orientation Inventory, and three short questionnaires.

Findings.--(1) Level of aspiration was not changed significantly by students studying a resource unit for six hours on agricultural occupations and career development. (2) Students who attend schools located in towns of 5,000 to 10,000 population, increased their aspiration level significantly more than students who attend schools located in towns of 500 population or less. (3) No consistent relationship existed between east-west geographic location and change in student level of aspiration. (4) Change in aspiration level from the pretest to the post test was not significantly correlated with social class value orientation. (5) As student intelligence increased, as measured by the wide-range vocabulary test scores, their pretest aspiration level tended to increase. (6) No association was found between urban orientation and high levels of aspiration or rural orientation and low levels of aspiration. (7) Group mean aspiration level tended to increase in a positive relationship as (a) parental encouragement to attend college increased, (b) post high school training planned increased, (c) parental income increased, and (d) student leadership activities increased.
