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ABSTRACT

The compilation of summaries of completed research studies in agricultural education includes reports of 53 studies reported during 1972-73 from 10 States of the southern region. The studies are listed alphabetically by author. Each entry includes a bibliographic data and descriptions of the study's purpose, methods, and findings. The document concludes with a list of research studies in progress during 1973-74 and a subject index. (BP)

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**SUMMARIES OF RESEARCH STUDIES IN AGRICULTURAL EDUCATION**

**SOUTHERN REGION**

**1972-73**

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EDUCATION & WELFARE  
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Baton Rouge, Louisiana

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SOUTHERN REGION

1972-73

Louisiana State University and  
Agricultural and Mechanical College  
School of Vocational Education  
Baton Rouge, Louisiana

## INTRODUCTION

This compilation of research in agricultural education includes summaries of 53 studies reported during 1972-73 from 10 states of the Southern Region.

Abstracts of studies completed in 1972-73 were reported by state departments of education and teacher education institutions in the region. All studies submitted are included in this report although some may not meet the criteria that were established for the selection of studies to be included in the division publication.

This compilation of Summaries of Research Studies in Agricultural Education is an activity of the Research Committee of the Agricultural Education Division of the American Vocational Association.

Charlie M. Curtis  
Southern Region Representative  
Research Committee  
Agricultural Education Division  
American Vocational Association

SUMMARIES OF STUDIES IN AGRICULTURAL EDUCATION  
SOUTHERN REGION, 1972-73

ARTHUR, NOLAN L. A Study of Student Attitudes Toward Selected Aspects of Murray State College in Relation to Academic Achievement and Distance of Residence. Thesis, M.S., 1973. Oklahoma State University, 51 p. Library, Oklahoma State University, Stillwater.

Purpose.-- The purpose of the study was to investigate student attitudes toward selected aspects of Murray State College in relation to academic achievement and distance of residence.

Method.-- The students were broken into two groups: Group A (19 students who lived within 75 miles of Murray) and Group B (36 students who lived over 75 miles from Murray). Their attitudes and grade point averages were then compared. Attitude questionnaires were administered to the freshmen agriculture students at Murray during the spring semester of 1972. Data were calculated and presented in percentages and average rating forms.

Findings.-- The students' attitudes were very similar, in most aspects, except that those students who lived over 75 miles from Murray were more dissatisfied with facilities and food services. Both groups felt Murray was better suited for small town students and that the first two years of education were cheaper there. They also felt that there should be more weekend activities and more planned activities during the week. It was further concluded that the registrar's office was the only administrative office which had made a favorable impression upon the students. The students who lived within 75 miles of Murray felt that the administration was prejudiced in favor of black students. They also felt that the science and agriculture departments had higher academic standards, more useful courses, and required more effort to earn good grades than other departments.

As stated before, both groups of students had very similar attitudes in most respects. However, Group B had a 0.35 higher grade point average than did Group A.

BASENDEWA, MOHAMED A. A Recommended Program for Agricultural Extension Work in South Yemen (Abyan Area). Report, M.S., 1973. Oklahoma State University. 53 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.-- This study reveals the need for setting up an effective extension program to serve farmers of the Abyan Delta, since it is one of the most important areas in South Yemen from an agricultural standpoint.

Method.-- An analysis of the present agricultural situation in South Yemen was made. Background information on agricultural policy of the government of South Yemen and the importance of setting up a system of extension work to meet the needs of the rural people were analyzed. A review of literature on the theory and practices in extension program planning in the United States were considered with reference to its implications that might be useful to South Yemen. The writer made extensive use of books, reports, documents of the Food and Agriculture Organization of the United Nations, extension bulletins, and personal visits with extension personnel in the United States as sources in collecting information.

Findings.-- The agricultural extension work might be defined as a system of education for the rural people. The total scope of extension education should consist of academic training of extension workers, in-service training of extension assistants, demonstrations for cultivators, individual contacts with cultivators, and the increase of new scientific and technical knowledge from experiment stations.

The South Yemen agricultural educational extension will be based on the Ministry of Agriculture. Among the elements which will define the structure are: a) The area of activity will cover the Abyan area, b) The scope of activity should include the utilization of all elements willing to work. The Ministry of Agriculture should collaborate with local leaders and should use farmers' organizations and cooperative societies that exist in the Abyan area, c) The Ministry of Agriculture will have the supervision of the activities of this extension program, d) The governmental subsidies will be used for the execution of this program.

BEFECADU, YOSEPH. A Proposed Program in Vocational Technical Education in Agriculture for Ethiopian School-Leaving Certificate Examination Drop-Outs. Report, M.S., 1973. Oklahoma State University. 105 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.-- The purpose of this study was to present a detailed study of the curricula designed for post high school vocational technical education in agriculture from agricultural institutions in the United States and suggest a proposed course of study in vocational technical education in agriculture for Ethiopian School Leaving Certificate Examination drop-outs to qualify them for gainful employment as to the manpower needs of the country.

Method.-- This study was developed from a survey of selected curricula of the one and two-year programs in agricultural education offered in post high school institutions in the United States. The curricula from these institutions were studied as to the similarities and differences of the course offerings in each of the instructional areas in agricultural education, except agricultural production. A representative of eight institutions was selected for each of the instructional areas, as the basis for developing the proposed program.

Findings.-- The proposed program was suggested as a result of the study of the range and average credit hours in the instructional areas in agricultural education, except agricultural production, from the selected institutions, with some modifications for conditions in Ethiopia.

BRIDGES, KENNETH R. Controlling Noise Pollution in the Oconee County High School Agriculture Departments Agricultural Mechanics Program. Applied Problem, M.ED., 1973. University of Georgia, 55 p. Department of Agricultural Education, University of Georgia, Athens.

Purpose.-- The primary purpose of this study was to determine the level of noise pollution in the agricultural mechanics laboratory and project plans for controlling same.

Method.-- Data were collected with the use of a decible meter. Noise level recordings were made during the operation of various machines in the agricultural mechanics laboratory. Recordings were made while machines were being operated alone and in combination, both in adjustment and out of adjustment, as well as using different kinds of materials. Readings were made at work stations in various locations of the laboratory.

Findings.-- All single machines using common sizes and kinds of lumber present a noise health hazard to a distance of eight feet. For single machines, all recordings were above 85 decibles.

The noise level at all work stations was increased with two machines in operation as compared to only one machine in operation. All recordings of multiple machine operations were above the safety level of 85 decibles.

The material that produced the highest sound level was plywood with little difference being noted in other kinds or sizes of materials.

The use of sharp blades reduced noise level in all distances an average of three to five decibles on the radial arm saw, five decibles on the tilting arbor saw, and one to three decibles on the band saw.

BROWN, JUNIOUS D. Factors Which Affect Retention of Vocational Agricultural Instructors in the Southeastern United States. EdD. Dissertation, University of Florida, Gainesville, 1973.

Purpose.-- The purpose of the study was to identify factors which contribute to secondary vocational agricultural instructors decision to continue high school teaching in the southeastern United States.

Method.-- An opinionnaire was used which consisted or three parts. Part I collected demographic data; Part II contained a list of fourteen factors for respondents to rank how they influenced the decision to remain in teaching; and Part III consisted of a list of 31 selected factors for respondents to indicate the relative amount of influence each factor had on the decision to remain in teaching.

The sample consisted of 257 secondary vocational agricultural instructors who were then teaching vocational agriculture in the thirteen southeastern states.

Findings.-- The instructors perceived the following factors as having much (four on a five-point scale) influence in the decision to continue in the profession:

1. advantages of year-round employment
2. feeling of accomplishment and success
3. own home in community
4. family desires to stay settled
5. desire rural life situation
6. enjoy teaching high school students
7. enjoy Future Farmers of America activities
8. opportunity to develop own program
9. enjoy work with young and adult farmers
10. desirable adjustments to "Changing agriculture" is challenging
11. proud of professional status.

Own home in community was a better than chance predictor of group membership.

The instructors perceived the following factors as having "some" (two on a five-point scale) influence in the decision to continue in the profession:

1. provides opportunity to move to better job in vocational agriculture
2. other business interests
3. spouse has good job in area
4. provides time for other interests.

BRYANT, C. DOUGLAS, ed. Expanding Occupational Education Opportunities in Small Rural Schools. Division of Research, Occupational Research Unit, State Department of Public Instruction, Raleigh, North Carolina. 1973.

Purpose.-- To determine how occupational education opportunities in a small rural school could be expanded when the total faculty in the school became involved in the planning and implementation process.

Method.-- Nakina school in Columbus county was selected to implement the project. The school was granted one additional teachers salary to use in securing resource people to enrich program. Funding also provided to one year of planning to include an in-service program for all teachers in the school. A vocational agriculture teacher served as director of the project and was released from teaching responsibilities. A local advisory committee assisted in developing expansions to the normal program.

The second year was devoted to implementing the plan developed the first year.

Findings.-- A total of fourteen mini-courses were developed and implemented in the school program for students to elect during study hall or during a home economics or agriculture class. Of 262 students in the school, (135 female, 127 male) 38 percent of the male students and 83 percent of the female students elected one or more mini-courses. Mini-courses included: auto tune-up, introduction to nursing, bricklaying, plumbing, cosmetology, lineman, childcare, electricity, upholstery, meatcutting, and cement finishing.

All students electing mini-courses would recommend experiences to other students. Mini-course instructors indicated a willingness to continue program following year. Student use of occupational information courses in classrooms and library was extensive.

CARPENTER, C. BRUCE. A Status Study of the Horticultural Programs on the Secondary Level in Kentucky with Supporting Data in the Form of Written Guidelines for Curriculum Development. Thesis Ed.D., 1973, University of Kentucky, 181 p. Library, University of Kentucky, Lexington.

Purpose.-- The primary purpose was to determine the status of the horticultural programs in the public secondary schools of Kentucky with supporting data in the form of written guidelines for curriculum development.

Method.-- All teachers of vocational agriculture who were teaching horticulture in the 1971-72 school year in Kentucky and all the horticultural specialists in the state composed the universe for the study. The teachers were used to determine the status of the horticultural programs and also to evaluate the guidelines, while the horticultural specialists were used only to evaluate the guidelines.

Two survey schedules were developed to collect the data. The data from Schedule A relating to status and the data from Schedule B relating to guideline evaluation were analyzed in terms of the appropriate descriptive statistics--frequency distributions, percentages, and standard deviations.

Findings.-- Major findings relating to status which 51 percent or more of the teachers reported as present were as follows:

1. The primary objectives of the horticultural programs were to develop competencies needed for job entry in horticulture and to provide a foundation for additional study in the field.
2. Instructional modules taught in the freshman or sophomore year to prepare students for specialized instruction in horticulture were primarily in the area of soils.
3. Instructional modules taught in the eleventh and twelfth grades dealt with the general aspects of the horticultural field.
4. Students spent 251 to 300 hours primarily at home and at school working on their experience programs.
5. Teachers were poorly prepared to teach horticulture in terms of work experience, college preparatory courses, and workshop attendance.

6. A classroom, greenhouse, and horticultural mechanics area were the primary horticultural facilities.

Major guidelines for the horticultural programs in Kentucky were as follows:

1. The primary objectives of a horticultural program should be to develop competencies needed for job entry and to provide a foundation for additional study.
2. Modules in the areas of soils, plant growth, and fertilizers should be taught to prepare students for specialized instruction in horticulture.
3. Modules dealing with the general area of horticulture should be taught the junior year.
4. Modules dealing with specific skill areas in horticulture such as landscaping, fruit and vegetable production, and floriculture should be taught the senior year.
5. All students should have an experience program in horticulture composed of experiences primarily at school and/or in businesses.
6. A prospective teacher of horticulture should be well prepared in terms of technical horticulture, work experience, and teaching skills.
7. Workshops should be used periodically as an inservice tool.
8. A horticultural program should have a classroom, greenhouse, and school nursery.

COMBS, JOE C. Attitudes of Prospective and Present Agricultural Education Teachers Toward Selected Vocational Agriculture Activities. Thesis M.S., 1973, University of Tennessee. 93 p. Library, University of Tennessee, Knoxville.

Purpose.-- To determine differences in attitudes among individuals with different levels of teaching experience concerning their perceptions of selected activities relative to a vocational agriculture program.

Method.-- Data were collected from 31 experienced teachers of vocational agriculture selected at random from teachers in Tennessee who had taught for ten years or more, 19 first-year teachers of vocational agriculture, and 30 agricultural education students who were enrolled in two programs in the University of Tennessee system. The students had completed one course in agricultural education but had not been enrolled in student teaching. The data were treated with a one-way analysis of variance and a t-test when appropriate. Duncan's multiple range test was used to determine which groups were significantly different when a difference among groups existed.

Findings.-- There were significant differences in attitudes among respondents according to levels of teaching experience. Significant differences exhibited among respondents for 13 of 40 statements in the attitudinal inventory. These statements related to the following activities: (a) use of advisory committees, (b) number of months considered adequate for yearly employment, (c) youth club activities, (d) membership in professional organizations, (e) teaching of adults, and

(f) agricultural mechanics programs. 2. Significant mean score differences were more common between experienced teachers and the other two groups with less teaching experience, but more differences were found between experienced teachers and agricultural education students than between experienced teachers and first-year teachers. 3. Even though the experienced teachers gave more responses that were significantly different from the other groups, a need was shown for continued in-service training.

COX, CECIL E. A Study to Determine the Acceptance and Usefulness of the Basic Core Curriculum for Vocational Agriculture II in Oklahoma. Report, M.S., 1973. Oklahoma State University. 48 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.-- The major purpose of this study was to measure the usefulness of the Basic Core Curriculum for Vocational Agriculture II in order to determine the extent of use and to check the acceptance of this kind of approach in curriculum development.

Method.-- Data were collected by means of a mailed instrument designed to obtain teacher information and an attitude scale to determine and evaluate teacher attitudes toward the Basic Core Curriculum. Twenty teachers were selected at random from each of the five supervisory districts in Oklahoma. A total of 74 teachers responded to the instrument.

Findings.-- It was found that teachers are using the Basic Core Curriculum to account for sixty percent of their instructional time. Additional findings were students are retaining an average of seventy-five percent of the information provided, while only sixty-one percent of the students are able to attain the eighty-five percent level on the post test as set by the Basic Core Curriculum.

CUNNINGHAM, MICKEY R. Reducing the Decibels of Noise Produced by the Wood Planer in the Shop of the Vocational Agriculture Department. M.S. Study, 1973. Virginia Polytechnic Institute and State University. 78 p. Agricultural Education, Vocational-Technical Education Division, College of Education. Virginia Polytechnic Institute and State University, Blacksburg.

Purpose.-- The primary purpose was to determine if enclosing the wood planer in acoustical material would reduce the noise level of the operating and surfacing planer to eighty-five decibels or below.

Method.-- Eighty-five decibels of sound was established by the federal government as a safe level at which continuous exposure of the unprotected ear to the noise would not cause decible deafness.

A sound reference source machine was used to establish the shop as a standard and the Precision Sound Meter was employed to measure the decible ratings. An acoustical hood and an acoustical chamber were the two major treatments utilized to reduce the planer operating and surfacing noise. Selected softwood, Douglas fir, and selected hardwood, white oak, samples were used.

Findings.-- Although the acoustical chamber did not reduce the noise to eighty-five decibels, the decibels of noise were reduced to permit an operator to work for a longer period of time before experiencing damage to the unprotected ear. With the acoustical materials, the operator surfacing softwood could increase his surfacing time from 1½ hours to 4 hours and for hardwood, ½ hour to 2 hours before experiencing damage to the unprotected ear.

DAVIS, LUTHER, JR. A Comparative Study of the Attitudes of the Staff and Participants Toward Vocational Training in the Alabama Migrant and Seasonal Farm Workers Program. M.S. Thesis, 1973, Tuskegee Institute. 62 p. Department of Vocational, Technical and Adult Education, Tuskegee Institute, Alabama.

Purpose.-- The primary purpose was to identify and compare the attitudes of staff and participants in the Alabama Migrant and Seasonal Farm Workers Program toward vocational training in its program. Four questions were listed as secondary purposes.

Method.-- Data were obtained from a random sample of 62 subjects -- 43 participants and 19 staff members of Regions I and II, who had been involved in a vocational phase of the Alabama Migrant and Seasonal Farm Workers Program for ten weeks.

Likert-type attitudinal scale questionnaires were designed and administered to staff and participants to obtain information on age, sex, position with the program, training or skill area, and other relevant questions which best indicate their attitudes toward the vocational training program.

Chi-square tests of significance were used appropriately in evaluating.

Findings.-- Based on the findings of this study, the following conclusions were reached concerning the null hypotheses tested: there was no significant difference between the attitudes of the participants in Region I and Region II toward vocational training; there was no significant difference between the attitudes of the staff and the participants of both regions toward vocational training; there was no significant difference between the attitudes of the staff in Region I and Region II toward vocational training.

Based on the Likert Attitudinal Scale the participants had a more positive attitude than the staff toward vocational training in the Alabama Migrant and Seasonal Farm Workers Program.

DELOZIER, DENNIS E. The Effect of the Bartlesville Tri-County Area Vocational-Technical School on the Enrollment in Vocational Agriculture Classes in the Six High Schools With Vocational Agriculture Departments in Its Transportation Area. Report, M.S., 1973. Oklahoma State University. 45 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.-- The purpose of this study was to determine the future high school educational plans of freshmen and sophomore vocational agriculture students who would be potential enrollees of the Bartlesville Tri-County Area Vocational-Technical School. Also, an effort was made to identify some of the factors that influence vocational agriculture students to enroll in the Vo-Tech School after taking Vo-Ag I and II.

Method.-- The study included six vocational agriculture departments within the boundaries of the area vocational-technical school. The population of the study included 90 potential enrollees and 65 non-enrollees of the Vo-Tech School. Questionnaires were completed by the students and vocational agriculture instructors. The 155 completed questionnaires were tabulated with cumulative ratings to permit comparison between groups.

Findings.-- It was found that the Vo-Tech School had broadened the field of vocational-technical training made available in four of the six high schools. Training being offered in the occupation the student wished to follow and parents' influence were the most influential factors for a student to enroll in the Vo-Tech School. FFA activities, interest in vocational agriculture, and the addition of the Basic Core of Curriculum to course content had a high influence on students to remain in vocational agriculture. Vocational agriculture enrollment had remained stable with a slight increase since the Vo-Tech School opened.

DRAKE, JAMES BOB. Employment Trends and Vocational Planning Information For Forestry Technicians in Alabama. Research and Development Report, 1973. Auburn University. 55 p. Occupational Research and Development Unit, Department of Vocational and Adult Education, Auburn University, in cooperation with Division of Vocational-Technical and Higher Education, State Department of Education. Montgomery.

Purpose.-- This study was to provide current information concerning employment opportunities and trends and other pertinent information for planning post-secondary vocational education programs for forestry technicians in Alabama.

Method.-- Survey instruments were mailed to the total population of 344 forestry firms over Alabama. Of the forestry firms surveyed, 119 (34.6%) returned the instrument.

Findings.-- There were 29 full-time budgeted vacancies for forestry technicians reported by 110 responding firms. The projected vacancies for all 344 firms is 83.9 full-time and 37.6 part-time positions.

There were 306 full-time and 63 part-time forestry technicians currently employed by 110 reporting firms. The projected vacancies for all 344 firms is 893 full-time and 184 part-time positions.

Based on previous five year employment levels in 110 reporting firms, there was an annual increase of 22.2 full-time and 6.4 part-time forestry technicians.

There were 40 full-time and 9 part-time new budgeted positions created during the last twelve months in the 110 reporting firms.

Of the 110 responding firms, 18 vacancies, or 50 percent of vacancies, could not be filled because forestry technicians were not available.

No reporting firm planned a reduction in technicians.

Of the 317 forestry technicians reported by the 110 firms, as to where they received most of their training: 69.1% indicated on-the-job training, 15.4% indicated four year college or universities, 7.6% junior colleges, 1.3% technical institutes, 5.0% high school vocational courses, 1.6% indicated other means.

The mean salary reported for full-time forestry technicians to start was \$7,212, after two years, \$8,055, after five years \$8,781, maximum-mean \$10,812. The range was \$3,000 to start to \$20,000 maximum.

Two state planning areas reported a sufficient number of technicians who would attend adult supplementary up-grading classes.

Of the responding firms, 74.5% felt that co-op programs for forestry technician students should be offered in technical schools and junior colleges. Sixty-two percent indicated they would be willing to work co-op students.

DRAKE, JAMES BOB and ALICE S. MORGAN. Perceptions of Alabama Superintendents and Principals of Vocational Youth Organizations. Research and Development Report, 1973. Occupational Research and Development Unit, Department of Vocational and Adult Education, Auburn University, in cooperation with Division of Vocational-Technical and Higher Education. State Department of Education. Montgomery.

Purpose.-- This study was to determine some of the perceptions held by Alabama superintendents and secondary school principals relative to vocational youth organizations in their school or school system. Organizations included were: DECA, FBLA, FFA, FHA, VICA, HEALTH CAREERS, INDUSTRIAL ARTS.

Method.-- Survey instruments were mailed to the total population of 561 Alabama superintendents and secondary school principals. A usable response of 314 (56%) was received in time for compilation.

Findings.-- Some of the concepts regarding vocational youth organizations with which a majority of the responding administrations agreed include:

1. They should be considered as an integral part of a high school vocational education program. (96% agreed or strongly agreed).
2. They encourage the improvements of scholarship. (82% agreed or strongly agreed).
3. They provide a guidance function for students. (90% agreed or strongly agreed).

4. They should have local advisory committees. (54% agreed or strongly agreed).
5. They foster career education and development. (88% agreed or strongly agreed).
6. Vocational teachers and coordinators are expected to sponsor them. (94% agreed or strongly agreed).
7. They encourage students to set desirable standards of behavior and work toward attaining them. (90% agreed or strongly agreed).
8. They should be permitted to raise money through fund raising projects. (79% agreed or strongly agreed).
9. They encourage respect for the world of work. (89% agreed or strongly agreed).
10. They promote favorable public relations for the high school. (92% agreed or strongly agreed).
11. They reinforce skills necessary for an occupation of the student's choice. (82% agreed or strongly agreed).
12. They provide opportunities for youth and adults to work together to better understand each other's point of view. (88% agreed or strongly agreed).

To the statement, local members should be required to join State and National Associations also, only 21% agreed or strongly agreed.

The overall opinions relative to the effectiveness of the vocational youth organizations were very favorable. For example, for FFA there were 237 responses, (89% effective, 8% no opinion, 3% ineffective). For FHA there were 274 responses, (92% effective, 4% no opinion, 4% ineffective). Other vocational youth clubs were also rated as to their effectiveness.

DUNCAN, LINDELL M. The Status of Vocational Agricultural Occupational Training Programs in Oklahoma. Report, M.S., 1973. Oklahoma State University. 36 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.-- This study was conducted to survey the various aspects and limitations of the current Vocational Agricultural Occupational Training Program in Oklahoma.

Method.-- An effort was made to determine how the VAOT program is administered within the local schools, the method used to select students, the methods used and time allotted for VAOT classes, and the common methods used by teachers to select training stations for use in the VAOT program.

Findings.-- It was found that one teacher tends to be responsible for the VAOT class in multiple-teacher departments and that good training plans are essential for a good VAOT program. Supervisory visits play an important role. Fifty percent of the teachers indicated that 50% or more of the student's VAOT grade is based on employer evaluations.

In the selection of students to participate in the VAOT program, interest in VAOT ability to cooperate with others, and occupational objectives play important roles. Less importance is attached to the student's need for enrollment, his personality or employment experience. Little importance was given to recommendations by counselors, number of students enrolled in the program, and overall scholastic achievement.

More importance is placed on individual instruction than on group instruction in teaching VAOT classes. In the selection of training stations, strong emphasis was placed on all items listed in the questionnaire, with the top-ranking criteria including the center's being ag-related, being available for on-the-job supervision, and reputation. The selection of training stations is of utmost importance in the success or failure of a VAOT program.

The following recommendations are made: team teaching in multiple teacher departments be encouraged; advisory councils be used; a state-wide policy be developed for a grading system to be used by employers of VAOT students; workshops be conducted for VAOT instructors to acquaint them with laws and regulations concerning forms; uniform criteria for selection of students be developed; additional materials be developed by curriculum center for VAOT classes; and training stations be used where student can learn many skills and the appreciation of work.

FLAGG, RUFUS AND GUL M. TELWAR. Vocational and Educational Choices of High School Seniors. M.S. Thesis, 1973. Department of Agricultural Education and Agricultural Economics, Tennessee State University, Nashville.

Purpose.-- The purpose of this study was (1) to determine the occupational and educational choices made by senior students at three selected high schools in West Tennessee (2) to determine the relationship between socioeconomic status and educational choices made by the students, and (3) to determine some of the factors associated with their educational choice.

Method.-- For the purpose of this study, three schools were selected. Their selection was based on similarity of conditions existing such as school enrollment, size of town, population mix, kind of farming being conducted, and socioeconomic status of residents.

The data were collected by means of a questionnaire. The questionnaire used in this study was adopted from Haller-Miller of Michigan State University, and was composed of three sections: (1) designed to obtain personal data about the students, (2) designed to obtain data on the vocational and educational choices made by the students, (3) designed to obtain data on the parents of the students.

The questionnaires were administered over a 6-week period in the 2nd semester in the Winter of 1973. Two weeks were allowed for each school to administer the questionnaire. The supervisors for administering the questionnaires were given instruction on the procedure. Every effort was made to reach each senior student in those schools to be included in the study.

Of the total 685 seniors enrolled at the schools, 381 were surveyed. The data were analyzed, compiled, tabulated, and the results are presented in percentages.

Findings.-- The study revealed the following: the ages of the students included in this study ranged between sixteen and twenty; students of parents with high and average incomes tend to continue their education beyond high school while those of parents of less than average incomes tend to terminate their education and seek employment; students living in towns tend to select professional and clerical occupations, conversely, students who live on farms and in open country tend to select semi-skilled and unskilled occupations; socioeconomic and related factors found associated with occupational and educational choice were: (1) income of parents, (2) social standing of parents, (3) assistance from relatives and friends, (4) residence and (5) vocational and educational plans.

GRIMES, JAY P. The Lee-Thorpe Occupational Interest Inventory as an Indicator of Disciplinary Choices by Students in the College of Agriculture at Texas A & M University. Dissertation, PhD., 1972. Texas A & M University, 96 p. Library, Texas A & M University, College Station.

Purpose.-- The purpose of the study was to test the ability of the Lee-Thorpe Occupational Interest Inventory to indicate probable disciplinary choices of undergraduate students in the College of Agriculture at Texas A & M University.

Method.-- A sample of 228 male subjects were grouped by final disciplinary choice of agricultural economics, agricultural engineering, agricultural education, animal sciences, soil and crop sciences or wildlife and fisheries sciences. Data were obtained from the files of the Counseling and Testing Center and Office of the Registrar at Texas A & M University. Analysis of variance was used to determine differences in interest scores within and between groups. Scheffe's multiple comparison test was used to determine the location of among group differences.

Findings.-- Significant differences on the Mechanical interest scale were found between agricultural engineering students, with a mean score of 25.17, and both agricultural education and wildlife and fisheries sciences students with mean scores of 18.77 and 19.03 respectively.

The mean score of 20.74 for agricultural economics students was significantly different from the mean of 13.50 for agricultural engineering students on the Business interest scale.

Significant differences were found between the mean score of 4.83 for agricultural engineering students and the mean scores of 11.19 for agricultural economics and 10.99 for agricultural education students on the Verbal interest scale.

No significant differences were found between any two groups on the Natural, The Arts, The Sciences, The Computational, Personal-Social, Manipulative, or Level of Interests scales.

In summary, no one disciplinary group exhibited a pattern of interest scores, as entering freshmen, distinctively different from those of the other five groups.

HAMPTON, ARCHILLE W. Occupational Aspirations of a Selected Group of Okmulgee High School Students, As Compared with Their Parents' Aspirations for Them. Report, M.S., 1973. Oklahoma State University. 36 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.-- In this project a study was made to determine what influence some given factors would have on the occupational aspirations of a selected group of Okmulgee High School students.

Method.-- The specific hypotheses of this study were as follows: (1) Does family income influence the occupational aspirations of children to a great degree? (2) What effect does the educational level of the parents have on the occupational aspirations of their child? (3) To what extent does the occupation of the parent affect the occupational aspirations of their child? (4) How do the occupational aspirations of students of different racial groups compare? (5) How do the occupational aspirations that parents have for their child compare with the child's occupational aspirations for himself?

Findings.-- The following findings and conclusions emerged from the study as being of particular importance: (1) Family income did not greatly affect the student's occupational aspiration score; (2) The educational level of the parent did affect the occupational aspirations of their child; (3) The occupation of the parent had a slight effect on the aspirations of the child; (4) White and black students had higher occupational aspirations than Indian students; (5) The parents had higher aspiration scores for their children than the children had for themselves.

HARLOW, GUY F. A Comparison of Selected Aspects of Training Needed by Adult 4-H Leaders as Perceived by Professional Extension Agents and Adult 4-H Leaders in Six Southwest Oklahoma Counties. Thesis, M.S., 1973. Oklahoma State University. 39 p. Library, Oklahoma State University, Stillwater.

Purpose.-- The purpose of the study was to compare perceptions of local volunteer leaders and professional extension staff in six southwest Oklahoma counties on selected aspects of training needed by adult 4-H leaders to more effectively perform their duties.

Method.-- Data were obtained by administering a questionnaire to the adult volunteer leaders and a personal interview of the extension staff members. Both groups were asked to respond to 26 training items according to the degree of training that was needed by adult leaders to enable them to more effectively perform their duties. Points were assigned to four possible answers and totaled for each item statement. Priorities for each group were identified by ranking. Comparisons of the responses for similarities were collected to find the main source of leaders in the area.

Findings.-- The main source of leaders is a housewife in the thirty to thirty-nine age group who had been a 4-H member, high school graduate and parent of a 4-H member. The most urgent felt needs of leaders were on items of training that concerned the tools or vehicles used in 4-H to work with 4-H members. The most urgent needs for leaders' training as expressed by agents was on obtaining and keeping parent cooperation and information on specific project work. There was a significantly high degree of agreement between the two groups on the ranking of the training items.

HARREL, FRANKIE L. Expectations of Vocational Agriculture by Local Citizens of the Hinton Community. Report, M.S., 1973. Oklahoma State University. 47 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.-- Personal interview of 40 local citizens of the Hinton, Oklahoma community was conducted to determine their attitudes as to what should comprise a vocational agriculture program for (1) high school students, (2) young farmers, (3) adult farmers, and (4) to evaluate the adequacy of the existing program.

Method.-- Names of local citizens were obtained at the census bureau; this list was broken down into farmers and non-farmers. In turn, each of these groups was divided into groups (1) having or having had children as students in vocational agriculture and (2) those who had not had children enrolled. Ten participants were selected at random from each of the four groups.

Findings.-- The major findings concerning programs for high school students were: (1) the high school program should be planned for both the student who plans a career in agriculture and the student who does not plan a career in agriculture, (2) in addition to skills and knowledge, the program should provide a good general education, (3) the program should benefit students who plan a career in agriculture-related occupations, (4) supervised farming experiences should be included with classroom instruction, (5) the program should be offered for a longer period of time than the student's last two years of high school, (6) skills that will enhance the student's chances for employment should be taught in the program. Concerning the young and adult farmer programs, participants felt that (1) instruction should be provided, (2) class instruction should be centered on current developments and problems, (3) teachers should have released time from school to provide this instruction, and (4) the local citizens should be kept informed of all phases of the vocational agriculture program including young and adult farmer activities.

Respondents felt that the existing program was adequate in the areas of sheep production and management, arc welding, oxy-acetylene welding and cutting, beef production and management, general shop and equipment work, livestock showing, and livestock judging.

HARRIS, ARTHUR F. AND GUL M. TELWAR. A Study of Dropouts at Bolivar Central High School -- 1970-72. Tennessee State University, Nashville.

Purpose.-- The study identified the major causes of dropouts from Bolivar Central High School in Bolivar, Hardeman County, Tennessee. Information concerning the status of the family and early indicators of dropouts were also included and compiled. An attempt was made to determine the extent to which the principals and faculty may have affected the dropout rate.

Method.-- Questionnaires were administered individually to 60 dropouts randomly selected from a group of 166. They were asked to fill out each question to the best of their knowledge and ability.

The dropouts were further asked to give any other information that may be pertinent to the study.

Findings.--

1. The study found that 10.7% of the students at Bolivar Central School dropped out.
2. The percentage of dropouts was 10.2% for the boys and 11.2% for the girls.
3. More than 60% of the dropouts plan to further their education.
4. More than 50% of the dropouts plan to return to Bolivar Central High School.
5. There is good evidence that there is a relationship between low attendance and the dropout rate.
6. Several students felt that there could be some improvement in the general school environment.
7. A large percentage of the dropouts repeated one or more grades in elementary school.
8. At least 88% of the heads of household had completed less than 12 years of schooling.
9. At least 70% of the dropouts were living with both parents.

HENDERSON, BILLIE L. Implementation and Evaluation of a Curriculum for Agricultural Career Awareness in Oklahoma. Thesis, Ed.D., 1973. Oklahoma State University. 123 p. Library, Oklahoma State University, Stillwater.

Purpose.-- The purpose of this study was to implement the Curriculum for Career Exploration in Agriculture that was developed during phase one of the project and to explore the current occupations available and developing in agriculture.

Method.-- This study included the ninth grade students in 16 departments of vocational agriculture in Oklahoma. Representative occupations from the broad field of agriculture were selected using the counsel of authorities from each field and demand data for agriculture production, agricultural supplies and services, agriculture mechanics, agricultural products, ornamental horticulture, natural resources and forestry. Video tapes were developed for each of the following occupations: (1) farm management (operator), (2) agricultural sales clerk, (3) agricultural mechanic, (4) meat cutter, (5) nurseryman, and (6) forestry technician. Also general units of instruction were developed to give an overall view

of the agricultural careers, the occupational clusters, self-discovery and decision making. Each of the units were taught in the eight experimental schools. The pretests and post-tests were given to all students.

Findings.-- It was found that there was a statistically significant difference between the gain scores made by the students in the experimental group and the students in the control group. The analysis of variance, (F value) showed to be significant at the .007 level. When the students were identified according to the ethnic groups and the social groups, there were insufficient numbers for statistical comparison. However, by combining the minority ethnic groups into one group and the minority social groups into another group, it was possible to obtain useful descriptive information. The data indicate that the social categories of advantaged and less-advantaged have more effect upon treatment than do the ethnic categories.

It is concluded that the agricultural occupations, self-discovery, decision making units and video tapes were beneficial in helping the student get a realistic perception of himself and the agricultural occupations. It was further concluded that the project should be continued on a broader base.

HILLISON, JOHN H. The Development and Try-Out of a System for Evaluating Programs of Vocational Teacher Education. Staff Research Project, 1972-73. Western Kentucky University. 125 p. Center for Career and Vocational Teacher Education, Western Kentucky University, Bowling Green.

Purpose.-- The primary purpose was to evaluate the vocational teacher education program at Western Kentucky University.

Method.-- The four stages of the existing situation, resources available, process evaluation and product evaluation were utilized. The heaviest emphasis was placed on product evaluation -- the graduates of the program. A total of 94 products were either personally visited or contacted by mail questionnaire.

Findings.-- The results indicated that directive methods of teaching were utilized more extensively than indirect methods. It was found that those teachers who placed heaviest emphasis on activities outside the classroom were the most ineffective classroom teachers. Evidence of this conclusion was demonstrated by a concentration of negative correlation coefficients many of which were significant at the  $P < .01$  level when non-classroom activities were correlated with teacher effectiveness. It was found that teaching peers and supervisors were basically unsuccessful discriminators between effective and ineffective vocational teachers. The peers and supervisors tended to evaluate all teachers in the same manner. Students of the teachers and project staff observers discriminated more successfully between the teachers and had more positive correlation coefficients.

**HIRANRUSME, PANYA.** A Review of the History of the Agricultural Education Program in the United States with Implications for the Agricultural Education Program in Thailand. Ed.D. Thesis Study, 1973. Virginia Polytechnic Institute and State University. 193 p. Agricultural Education, Vocational-Technical Division, College of Education, Virginia Polytechnic Institute and State University, Blacksburg.

Purpose.-- The primary purpose was to review the history of agricultural education programs in the United States with special emphasis on occupational experience programs, young farmer and adult programs, curricula in agricultural education programs, pre-service and in-service training programs for teachers in agriculture, and the Future Farmers of America. This review was conducted in order that a comprehensive program of agricultural education could be designed to meet the needs of the students in public elementary and secondary schools of Thailand.

Method.-- A review of selected publications and documents in the United States concerning agricultural education programs and a review of the current status of agricultural education programs in Thailand was conducted. The researcher also returned to Thailand for two months to collect information and observe current programs. A Panel of Experts, consisting of four nationally recognized leaders of Agricultural Education in the United States, were contacted to identify major strengths of the agricultural education program in the United States. Analyzing all information collected, implications and recommendations for the improvement of the Agricultural Education Program in Thailand were made.

Findings.-- Currently in Thailand, agricultural education programs have not been placed to any degree at the elementary and secondary level. The researcher concluded that the history and current status of the agricultural education program in the United States indicated that agricultural education programs do assume a major role in the sound development of individuals, and in the growth of the country. Thus, recommendations were made that the current policy in Thailand regarding agricultural Education be revised, that agricultural education programs be expanded, and that research be conducted to identify procedures for implementation of an expanded agricultural education program.

**JACKSON, DALE C.** The Effect of an Area Vocational-Technical School on Vocational Agriculture Enrollment in Eight High Schools Within Its Transportation Area. Report, M.S., 1973. Oklahoma State University, 49 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.-- The purpose of this study was to determine the effect of the Indian Capital Area Vocational-Technical School on vocational agriculture enrollment in the eight high schools studied.

Method.-- A questionnaire was administered to students and instructors in each of the eight vocational agriculture departments. Students that had dropped vocational agriculture and enrolled in the

vocational-technical school, also, completed a questionnaire. The investigator provided detailed questionnaire instructions to each instructor concerning administering the instrument. Then the completed questionnaires were either collected by or mailed to this researcher for tabulation.

Findings.-- It was found throughout this study that enrollment in the majority of the eight high schools studied has increased, and the operation of the Indian Capital Area Vocational-Technical School has not drawn many "good" vocational agriculture students. Important factors influencing student's decisions to remain in vocational agriculture were: interest in vocational agriculture, FFA activities, and already being in vocational agriculture. High school counselor's advice and length of bus ride to the training center were rated very low in this study. Factors influencing students' decision to drop vocational agriculture and enroll in the vocational-technical school were: interest in certain courses offered in the vo-tech school, occupational objectives, and already having obtained the expected benefit from vocational agriculture. The high school counselor's advice and interfering with a job now held rated very low.

JONES, HERBERT. A Study of Selected Practices Which a Group of Peanut Growers Employed in Isle of Wight County. Thesis M. S., 1972. Virginia State College, 51 p. Library, Virginia State College, Petersburg.

Purpose.-- To study those management practices presently being carried out by the farmers in peanut production in order to secure data for making adjustments in educational programs through the development of an improved practices check-list.

Method.-- A questionnaire was developed and checked by peanut specialists, scientists and educators. From the master list of farmers in Isle of Wight County, every fourth farmer was interviewed and one hundred percent participation was secured.

Findings.-- Leafspot was the most common disease affecting peanuts. The largest single group of farmers planted from seventy to eighty pounds of peanuts per acre, at a distance of four inches apart, and with a spacing of thirty-six inches between rows.

A slight majority of the farmers did not run germination tests.

A 3-9-18 analysis was the prevailing type of fertilizer.

Ninety percent of the farmers tested their soils each year.

Only two farmers applied nitrogen.

Forty-six farmers did not exercise any type of nematodic control.

Ninety-seven percent of the farmers indicated that either corn or milo preceded the peanuts.

The use of some type of systematic insect control was reported in eighty-five instances.

The two largest groups of farmers applied eight hundred pounds and one thousand pounds of land plaster per acre, respectively.

Three-fourths of the farmers used diazinone to control southern corn root worm.

LAWRENCE, LAYLE D. Employment and Educational Experiences of Louisiana Cooperative Vocational Education Participants. Ph.D. Dissertation, 1973. Agricultural Education Department, Louisiana State University, Baton Rouge.

Purpose.-- The primary purpose of this study was to determine the extent to which Louisiana high school graduates who had participated in cooperative vocational education programs found and entered jobs in fields in which they were trained. It was also concerned with problems these graduates encountered during their first year out of high school and the degree of satisfaction they found in their work.

Method.-- The descriptive method of research using the inquiry form technique was utilized in this study. Information was obtained from 1,207 cooperative vocational education trainees, who had participated in agricultural, distributive, home economics, and office programs, one year after high school graduation.

Statistical procedures used for analyzing data were number and percent distributions, chi square test of significance, analysis of variance, and coefficient of correlation. Null hypotheses were tested and were accepted or rejected at the .05 level of confidence.

Findings.-- Cooperative vocational education programs are serving students across the entire range of academic achievement. Office trainees, in particular, are superior students.

Cooperative trainees find and enter jobs soon after high school graduation, primarily within their home towns or communities, and generally in the field in which they received training. Many trainees continue to work for their cooperative employer after graduation.

There is a wide variation in salaries received by cooperative participants both within and among programs. Male trainees receive significantly higher weekly salaries than do females.

Locating suitable job openings is the problem area of greatest difficulty faced by participants during the first year out of high school. Most participants secure their jobs through informal methods.

Cooperative trainees are generally satisfied with all aspects of their jobs except for pay and promotional opportunities.

Participants generally agree that the school should provide more assistance in job placement of graduates and that more individualized instruction should be given in school pertaining to the trainee's particular job.

Respondents hold favorable opinions of their high school vocational training and feel they were well prepared for their jobs.

Participation in a cooperative vocational education program does not prevent trainees from furthering their educations in post-high school institutions.

Broad programs in trade and industrial education are needed in Louisiana high schools.

**MC MILLION, MARTIN B.** A Comparison of Anxiety Levels of Student Teachers Prior to Student Teaching Under Performance Based and Other Types of Preparation. Non-Thesis Study, 1973. Virginia Polytechnic Institute and State University, Blacksburg.

Purpose-- The major purpose was to ascertain whether or not student teachers prepared by performance-based instruction perceived the concept of student teaching as more pleasant (causing less anxiety) than did student teachers prepared by conventional procedures.

Method-- Three groups of student teachers, two of which were prepared by traditional procedures and one of which was prepared by performance based instruction, indicated the degree of pleasantness they felt toward the concept of student teaching by marking a seven-step scale.

Findings. A one-way analysis of variance of the three groups revealed no significant difference at the .05 level.

**MILLER, LARRY E. AND DENNIS E. HINKLE.** A Study of Exploratory Agriculture Programs in Virginia. Non-Thesis Study, 1973. Virginia Polytechnic Institute and State University. 50 p. Division of Vocational and Technical Education, College of Education, Virginia Polytechnic Institute and State University, Blacksburg.

Purpose-- The purpose of this study was to determine the nature of the instruction in exploratory agriculture and the teachers' opinions of the program. Five objectives of the study were listed.

Method-- Twenty exploratory agriculture teachers were surveyed by questionnaire to collect the demographic data and their opinions. The opinion data was collected from State personnel, as well, and comparisons made of the Likert-type responses. The demographic data was averaged to supply mean data, and frequency counts and factor analysis was used to summarize and analyze the opinion data.

Findings-- Some broad generalizations in terms of the results of the study are:

1. There is an expressed need for substantial curriculum development for exploratory agriculture including the writing of objectives, the development of curriculum guides, and the development of teaching materials;

2. Exploratory agriculture programs should maintain a career education focus and they need the support of good counseling services and adequate record keeping;
3. As exploratory agriculture continues to grow, there will be a need for additional funding to provide the school personnel with adequate facilities and materials;
4. There is a need for inservice as well as pre-service teacher training in exploratory agriculture in order that qualified teachers are assigned to teach in such programs;
5. The typical program has been in operation for four years, with about 285 instructor-man hours involved in the program per year, with 70 students enrolled;
6. Sixty-three percent of the programs are at the 7th grade level, 25% at the 8th grade level, and 8% at the 6th grade level;
7. The majority of the students enrolled are boys;
8. Exploratory home economics is the other most commonly occurring exploratory program in the schools studied; and
9. The average exploratory agriculture teacher has been teaching 8½ years, teaching in exploratory agriculture 2.8 years; 60% have a B.S. degree, 5% have a B.S.A. degree, 35% Master's degrees, and 78% have a degree in Ag. Ed.

MONTGOMERY, GARY K. A Study of the Vocational Agriculture Students That Graduated from Springer High School During the Period 1960 Through 1972. Report, M.S., 1973. Oklahoma State University. 41 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.-- The purpose of the study was to discover and present occupations of former students of vocational agriculture and to secure such related information as could be used in evaluation of the training received by these students. Information secured is to be used by the vocational agriculture instructor in revising the program for present and future students in this community.

Method.-- Responses were received from 89 of the 97 qualifying graduates. The study was limited to those students completing two or more years of vocational agriculture during the period 1960 through 1972.

Findings.-- Data reveal that 79.8 per cent of the former graduates were located in the State of Oklahoma, with 66 percent residing in the Springer area. Forty-six percent attended post high school educational institutions. Twenty-six percent were employed in an agricultural related occupation, while 43 percent received some income from agricultural endeavors. Eighty-eight percent of the graduates felt that vocational agriculture training was of benefit to them in their present occupation. Vocational agriculture instructors, classmates, and friends were the main reasons students enrolled in vocational agriculture. Farm management, agricultural related occupations training, leadership, and agricultural mechanics skills were the areas needing to be stressed.

NUNN, ROBERT S. An Identification of Factors Related to Locating, Planning and Operating a Farm Supply Center in the Henryetta, Oklahoma Region. Report, M.S., 1973. Oklahoma State University. 27 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.-- The major purpose of the study was to secure information of value in relation to locating, planning and operating a farm supply center. Specific objectives were (1) to determine the needs of the farm operator in the Henryetta, Oklahoma region, (2) to determine how these needs may be best met by the operator of a farm supply center in this region, (3) to determine the services and supplies that should be offered at a farm supply center in this region, (4) to determine the factors that should be taken into consideration in locating and designing a farm supply center, and (5) to determine the qualifications that the operator of a farm supply center in the region should have.

Method.-- Questionnaires were submitted and responses obtained from 40 farmers engaged in farming and purchasing of materials from farm supply centers in an area of four counties in the Henryetta area. People interviewed were deemed opinion setters by the county agents or vocational agriculture teachers of the area.

Findings.-- Most farm operators prefer to do business at only one farm center. One of the concerns of the author was how satisfactory do most farmers find their present centers. The results showed that only 17.5 percent would rate very satisfactory. According to several articles in agricultural magazines and this survey, farm supply center operators rate high as sources of information for farm operators. Personality, helpfulness, and knowledge of agriculture were rated as very important by the majority, but only 30 percent rated their dealer as good in personality and helpfulness. A low of 12.5 percent rated their dealer good in knowledge of agriculture. Only 20 percent of the farmers buy by price only.

OJO, EZEKIAL A. Factors Motivating Young Oklahomans to Choose Farming as a Career, With Implications for the Choice of Farming (Especially by the Young School Leavers) as a Career in Nigeria. Thesis, M.S., 1973. Oklahoma State University. 83 p. Library, Oklahoma State University, Stillwater.

Purpose.-- The purpose of this study was to determine (1) what problems confront Oklahomans choosing farming as a career, (2) what factors motivate them, in the face of the difficulties, to choose farming as a career, and (3) what implications findings from the study have on the choice of farming as a career in Nigeria.

Method.-- Data were collected from 38 young farmers in 12 counties from four vocational agricultural supervisory districts in Oklahoma.

Findings.-- Analysis of the data show that the major problems facing an Oklahoman choosing farming as a career include the following:

1. Lack of financial help
2. Obtaining good land
3. Increasing cost of land
4. Increasing cost of production
5. Inavailability of land
6. Combating disease, pests and parasites
7. Obtaining machinery and equipment
8. General management problems.

Factors found to motivate them included environmental influence, family contribution to establishment, contributions from influential persons and organizations, competitions, availability of labor, and attitude of the farmer towards farming.-- "love for rural way of life."

ONGONDO, WYCLIFFE N. Some Factors Affecting Curricular Improvement of Agricultural Education Programs in Kenya Secondary Schools. Thesis Study, 1973. North Carolina Agricultural and Technical State University. 81 p. Department of Agricultural Education, North Carolina Agricultural and Technical State University, Greensboro.

Purpose.-- The purpose of this study was to determine the perception of the headmasters and the teachers of agriculture of certain factors which affect curricular improvement of agricultural education programs in Kenya Secondary Schools.

Method.-- Survey (Questionnaire) and descriptive methods were used to secure the required data. A field test of the questionnaires was made and then mailed to the Chairman, Department of Agricultural and Extension Education, Egerton College, Njoro, Kenya, who administered them to 53 headmasters and 73 teachers of agriculture.

Findings.-- Some of the significant findings were:

A. Both the headmasters and teachers of agriculture agree the student conditions pertaining to the student readiness to seek advice, financial support, his responsibility on his father's farm, his ambition and interest in agriculture are significant factors to be considered in improving agricultural education programs in secondary schools.

B. The headmasters and teachers of agriculture do not significantly agree with the idea that the student should be above average in his class-work in order to succeed in farming projects.

C. The headmasters and teachers of agriculture agree that the parent conditions pertaining to their interest in the child's education, encouragement of the child to farm during school holidays, supporting the child financially in his farming projects, and cooperating with the school, are significant factors to be considered in improving agricultural education programs in secondary schools.

D. The headmaster does not consider the educational background of the parents as a factor influencing the child's enrollment in agriculture. They also do not significantly agree that the parents should permit the child to make his own decisions.

E. The headmasters and teachers agree that the rural community can assist in the development of agricultural education programs in secondary schools by acting as guest speakers and helping the school to incorporate their need in the curriculum. It is perceived that an advisory committee should assist the teacher of agriculture in determining the needs of the community.

F. Both the headmasters and the teachers of agriculture agree that certain roles of the teacher are significant factors to be considered in improving agricultural education programs. They agree that there should exist a favorable relationship between the teacher of agriculture with his fellow teachers, administrators, and the rural community. It is agreeable that the teacher of agriculture should keep all records and reports of the students and the school department of agriculture. There is a general agreement that the teacher should serve as advisor to Young Farmer Clubs and assist the headmaster in the selection and orientation of new students.

G. It is surprising to note that both the headmasters and the teachers of agriculture do not highly agree with the idea that the teacher of agriculture should organize and teach all-day classes, out-of-school youth, and adult farmers.

H. The headmasters and the teachers of agriculture agree that the headmaster, as the school administrator, has some basic roles to assume in improving agricultural education programs in the school. The roles of the headmaster highly supported by the respondents include the headmaster's recognition of the department, assistance to the teacher of agriculture in developing the program and also working together with the career master and the teacher of agriculture in guiding and counseling the students enrolled in agriculture classes. It is also felt that the headmaster should extend guidance to agricultural teachers in their inservice training.

PALMER, CLARENCE J. AND GUL M. TELWAR. Educational Programs and Special Services Available to Parents of the Handicapped Children in the Metropolitan Nashville Area in 1972-73. M.S. Thesis. 1973. Department of Rural Development, Tennessee State University, Nashville.

Purpose.-- The purpose of this study was to gather general and specific information concerning educational programs and special services available to the parents of handicapped children in the metropolitan Nashville area.

Method.-- The information was collected from 12 agencies that provide educational programs and special services for handicapped children in the area. Information collected was tabulated and means, percentages, and percentiles established.

Findings--

1. There are 5,629 handicapped children in the sample population of this study, or about .064% of the total public school population.
2. Only 53 parents are receiving any type of special services from the twelve organizations in this study.
3. Only 63 parents are receiving any type of educational programs from the twelve organizations in this study.
4. Educational programs, of any type, for the parents of handicapped children were offered by 67% of the institutions.
5. Parent-principal conferences were available at 58% of the institutions.
6. Parent-teacher conferences were available at 67% of the institutions.
7. Problem solving conferences (guidance) were available at 58% of the institutions.
8. Classes for improving social responsibility were taught at 17% of the institutions.
9. Classes for improving home environment were available at 25% of the institutions.
10. Family health classes were taught at .08% of the institutions.
11. Sex education was taught at .08% of the institutions.
12. Child rearing classes were offered by .08% of the institutions.
13. Guidance counselors were available on a periodic basis at 33% of the institutions.
14. Psychiatric consultation was available to parents at 17% of the institutions.
15. Babysitting services were provided in 33% of the institutions.
16. Transportation was provided at 25% of the institutions.
17. There was a committee to remind parents of functions taking place at 17% of the institutions.
18. Classes to help make parents feel capable of leading a group or committee were provided in .08% of the institutions.
19. Parent planning was allowed at 17% of the institutions.

PATEL, S.G. A Study of the Agricultural Extension Program of Surat District, Gujarat State, India, With Emphasis on Program Improvements. M.S. Thesis, 1973. Alabama Agricultural and Mechanical University. 83 p., Department of Agribusiness Education, Alabama A & M University, Normal.

Purpose-- The purpose of this study was to explain the socio-economic level of India farmers and what extent they are adopting extension methods of farming in Surat District, Gujarat, India.

Method-- This study consists of 80 farmers of Surat District. From these 80 farmers, 39 were adopting the extension method and 41 were adopting the conventional method of farming. Data were collected

by the questionnaire method. Some related data were also collected from the District collector's office.

Findings.-- There was a significantly higher adoption of the extension method of those farmers who had a college education in agriculture. It was also found that the adoption of the extension method of farming varied with educational level.

There was a significantly higher adoption of extension method of those farmers who were between 20-40 years of age. The study indicated that age plays an important role in the adoption of the extension method.

The t-test at the .05 level showed that the farmers who adopted the extension method of farming had a mean income significantly higher than those farmers who retained the conventional method of farming.

**PAUL, NICHOLAS LARUS.** An Articulated Approach for Planning Professional Personnel Development in Occupational Education. (Under the direction of C. Cayce Scarborough). Department of Agricultural Education, School of Education, North Carolina State University, Raleigh.

Purpose.-- The problem investigated in this study is the lack of congruence between the output of North Carolina teacher education institutions and needs as identified in the North Carolina State Plan for Occupational Education. Analysis of the problem is based on several objectives designed to determine the lack of congruence and to identify related factors.

Method.-- A total of 34 programs in teacher education are identified at the Baccalaureate level, 20 at the Master's level, and six at the Doctoral level. The basic program areas analyzed are agricultural education, distributive education, health occupations, home economics, industrial arts, introduction to vocations, office occupations, technical education, and trade and industry. Data describing output variables include capacity, number of degrees granted, number employed in teaching, and number employed in teaching in North Carolina. A list of items describing the lack of congruence is produced along with the identification of factors described as related to the lack of congruence.

Findings.-- Salient features of the data analysis include little evidence of congruence between the output of teachers from teacher education institutions and the need for teachers as depicted in the North Carolina State Plan for Occupational Education. There is little evidence that needs have been adequately determined by state agencies or that planning within teacher education institutions to meet the needs of education in the area of professional personnel has taken place. The study presents a number of factors described as contributing to the lack of congruence.

PERRYMAN, JAMES L. An Eight Year Case Study of the Haskell County Steer Show With Reference to Gain and Carcass Merit. Report, M.S., 1973. Oklahoma State University. 45 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.-- The primary purpose was to determine if the quality of calves competing in the Haskell County Carcass Show had improved in carcass quality and gainability from 1966-1973.

Method.-- Simple comparisons were used to make this determination. The major points of comparison were: (1) rate of gain, (2) rib-eye area, (3) kidney, pelvic, and heart fat, (4) fat covering, and (5) cutability.

Findings.-- Livestock shown in the Haskell County Carcass Show have improved measurably in carcass quality. Major areas of carcass improvement were shown to have been as follows:

1. Average rate of gain -- increase of 12.5 percent
2. Average rib-eye area -- increase of 16 percent
3. Cutability -- increase of 2.15 percent
4. Kidney-pelvic-heart fat -- decrease of 31.5 percent
5. Fat covering -- decrease of 37.5 percent.

There was sufficient data in the study to conclude that by using modern live animal selection procedures important improvements can be made in carcass quality.

PETERS, CURTIS R. The Occupational Decisions That Have Been Made by State Farmers in Alfalfa County From 1929 Through 1971 and Some of the Information Related to Those Decisions. Report, M.S., 1973. Oklahoma State University. 65 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.-- The purpose of this study was to determine what occupational decisions have been made by State Farmers in Alfalfa County and if making State Farmer is justifiable, along with other information related to those decisions.

Method.-- A list of the men holding the State Farmer Degree in Alfalfa County from 1929 through 1971 was obtained from the State Department of Vocational Agriculture. Of the 206 questionnaires sent, 156 were returned and provided the information for this study.

Findings.-- Based on the data collected, it is concluded that making State Farmer is justified by the findings that 98 percent stated that it was worth the effort to make the degree and 98 percent also stated that students should seek the degree. A high percentage (88 percent) said students should seek the degree even though their interests might not be in farming. Justification was also made when 85 percent revealed that the degree proved beneficial in the occupation they are in today and 55 percent stated the degree was beneficial to them in other occupations in which they had been employed. It is further concluded that after compiling the list of occupational decisions made by the 156 State Farmers that they have continued to excel in their educational pursuits and have felt that more education was an important factor for any type of advancement. The group that is established in farming has proven their ability in their chosen career, as all of them have been successful farmers for a period from 5 to 40 years.

PRAPASSORN, SOMBOONVIT AND GUL M. TELWAR. Financial Aid and Academic Performance of Students in the School of Agriculture and Home Economics, Tennessee State University 1971-1972 Academic Year. 1973, M.S. Thesis. Tennessee State University, Nashville.

Purpose.-- The purpose of this study was:

1. To compare the mean grade point averages of the students among the three groups, i.e., the non-working students, the working students on the College Work-Study Program and the working students on outside the campus jobs;
2. To identify the socioeconomic characteristics of the students relevant to this study; and
3. To determine the students' evaluation of the College Work-Study Program regarding its effect on the students' attitude toward their future career and motivation.

Method.-- The samples were full-time undergraduate students who were enrolled in the four year Bachelor's degree program and completed three quarters, 1971-72 academic year, in the School of Agriculture and Home Economics at Tennessee State University.

One hundred and eighty questionnaires were distributed to the students. Eighty responses (57 percent) of all completed questionnaires were considered usable. Data collected were classified, presented and analyzed.

Findings.-- The findings reveal that there are no significant differences among mean grade point averages of these three groups of students, but the mean grade point averages of the working students are slightly higher than that of non-working students. However, the socioeconomic characteristics of the working students tended to come from a lower level of background than the non-working students. The College Work-Study students express that the program has helped them in their attitude and motivation toward their future career or employment.

ROBINSON, DAVID W. The Occupational Culture of Forestry as Described by Holland's Vocational Preference Inventory and Kuhn's Twenty Statements Test. Thesis, Ed.D., 1973. Oklahoma State University. 120 p. Library, Oklahoma State University, Stillwater.

Purpose.-- The objective of the study was to describe the occupational culture of forestry in terms of the Vocational Preference Inventory, the Twenty Statements Test, and other general information. It was believed that foresters entering the occupational culture would display different traits on the various responses than would a group of foresters having ten years of employment experience.

Method.-- A national sample from members of the Society of American Foresters who gained employment during the years 1969-71 and 1959-61 was obtained. Mailed ballots were used to obtain responses. This study reports the results of the responses from two hundred participants.

Findings.-- A model typology was suggested as describing the occupational culture of foresters as represented by the results of this study. Foresters choose forestry because of their love of the out-of-doors. There was no evidence that the decision was made with a great deal of understanding of the work environment. The choice is not openly a response to altruistic motives, yet it is stable with little shifting between fields, and it represents an upward shift in prestige in terms of their fathers' occupation. They are generally happy with their choice and aspire to jobs higher than the ones presently held. Foresters are married, protestant, and politically moderate. They are task oriented, asocial, and prefer ambiguous work tasks. They express interests that indicate they are masculine, physically strong, and have good motor coordination. They lack interpersonal skills and prefer concrete to abstract problems. They tend toward finding their self-concept anchors in their own internalized value systems. They have a concern for their professional image and feel they are not well understood by the public in general.

The Holland acronym for practicing foresters was found to be IRE which classifies foresters in a work environment that is closely associated with many of the other professional fields in the natural resources area. This description of the occupational environment is not the same as that presented by Holland for forestry.

SCARBOROUGH, C. C. AND T. T. JAMES. Who's Teaching What Where? Department of Agricultural Education, North Carolina State University, Raleigh.

Purpose.-- The primary purpose of this study was to determine whether there was a relationship between the kinds of vocational agriculture courses being taught and the type of local agriculture. A second purpose was to identify some of the factors associated with the choice of courses to be taught.

Method.-- The number of students in each one of the vocational agriculture courses in North Carolina was obtained from the Occupational Education Teacher Data Sheets. Data were sorted on the basis of the seventeen recently designated multi-county planning regions. It included 479 teachers (92%) and 37,166 students for the school year 1972-73.

Findings.-- Approximately half (49.2%) of the enrollment was in the freshmen and sophomore courses. Supply and Service courses enrolled few students -- less than half of one percent. Sixteen percent were in mechanics type courses and eighteen were in ornamental horticulture. The resources courses increased most in enrollment over previous year but still accounted for only five percent of the students.

There is no apparent correlation between type of agriculture in a region and the type of vocational agriculture courses offered. On a state-wide basis, there is also no apparent correlation between the volume or income of an agricultural field and the percent of students enrolled in vocational agriculture courses directly related to the field. Although data indicate that almost one half of the jobs dealing with livestock are in processing and marketing, only 1.25 percent of the students in North Carolina Vocational Agriculture are enrolled in the Co-Op courses and the Supply and Service courses. Although crop production and livestock production accounts for approximately 90 percent of the farm income, these two fields account for only nine percent of the students in the specialized courses for juniors and seniors. Horticulture and forestry account for nine percent of the farm income, but 91 percent of the vocational agriculture students at the junior-senior level are enrolled in these specialty courses.

SCHAUFFLER, MARION R. A Study of the Methods Used in Financing Future Farmers of America Activities in Local Chapters of the Central Missouri Vocational Agriculture District. Report, M.S., 1973. Oklahoma State University. 46 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

Purpose.-- The purpose of this study was to determine the ways and means used to finance FFA chapter activities in the Central Missouri District and to determine the use of funds in these chapters.

Method.-- The data for this study were collected from questionnaires and by personal interviews from 32 FFA chapters in the Central Missouri District.

Findings.-- Information in the study revealed that the 32 chapters surveyed had an average income of \$1,135.41 and an average expense of \$627.11. Dues, concession stands, and the construction and repair of items in the school shop were the most popular fund raising activities. Selling agriculture-related items, school farms, and concession stands provided the largest percentage of the total income. Thirty-two chapters (100 percent) spent funds on FFA pins, awards and supplies; however, the FFA Parent and Son Banquet provided the largest percentage of the total expense. Twenty-two chapters (68.8 percent) had planned, written financial budgets. Fund raising activities should be approved by the school administrator or school board. Selling as a fund raising activity is very questionable and is sometimes prohibited by school districts. Fund raising activities should be of a nature that all members may participate.

SMITH, CHARLES S. AND GUL M. TELWAR. An Investigation of the Audiovisual Programs in the Secondary Schools of Shelby County. Department of Rural Development, Tennessee State University, Nashville.

Purpose.-- The purpose of this study was to determine the components of the audiovisual program in the secondary public schools of Shelby County, Tennessee and to compare these components to the 1970 audiovisual standards for public schools. The study also sought to obtain the opinions of the person responsible for the operation of the audiovisual program and the future plans of expansion of the audiovisual programs in the schools.

Method.-- Questionnaires were mailed to the principals of 59 secondary public schools in Shelby County. Individuals from 56 schools responded. The questionnaire investigated building space, equipment, personnel and opinions concerning strengths and weaknesses and future plans of the audiovisual programs. Evaluative judgments concerning personnel, building space and equipment were based on the National Audiovisual Standards developed by the American Library Association and the Department of Audiovisual Instruction and published in 1970.

Findings.-- The study revealed that (1) the secondary schools of Shelby County are not meeting the recommendations for audiovisual programs as suggested in the 1970 National Standards for public school audiovisual programs; (2) the major weaknesses of the audiovisual programs are lack of finance, lack of building space, lack of teacher training in the use of audiovisual equipment and materials, and lack of qualified staff to provide services and assistance to the faculty; (3) The major strengths of the audiovisual programs are interest of the teachers and students in the use of audiovisual equipment and materials, and the quantity of audiovisual equipment in the schools; (4) plans for future development of

audiovisual programs in the secondary public schools of Shelby County are scant.

SNEED, THOMAS E., AND RICHARD J. EDWARDS. Analysis of the Interest Credit Loans Approved by Farmers Home Administration in Haywood County Tennessee, 1968 to 1971. M.S. Thesis. The Department of Rural Development, Tennessee State University. Nashville.

Purpose.-- This was a study of the interest credit loans approved by the FHA in Haywood County, Tennessee, (1) to determine the social economic characteristics of the recipients of the FHA Interest Credit Loan; (2) to determine the educational attainment of household by race; (3) to determine the housing conditions that recipients were using prior to receipt of a loan; (4) to determine the changes in family income and the necessary interest credit required during the first years following receipt of the loan; (5) to determine the adjusted income year of loan; and (6) to identify characteristics of household heads which could be useful in formulating and evaluating an assistance program of this nature for low income rural families.

Method.-- As a primary source of data 95 case folders of the FHA Interest Credit Loans were used together with personal knowledge and data about housing conditions in Haywood County. Previous housing data comparisons were obtained with cooperation of the staff of the county office. As a source of secondary information socio-economic data from the 1960 and 1970 period were obtained from the Censuses of Population and Housing. The information was used as a source for comparative analysis of population, housing and household characteristics.

Findings.-- The data revealed that the homes vacated by interest credit recipients were substandard by the statistical classification used to identify housing quality. Forty-one percent of the housing in Haywood County was substandard in 1970, but seventy-four percent of the loan recipients vacated substandard homes.

Homes built with Interest Credit Loans were modest in size and cost, but adequate by the statistical classification.

The increase in family income with each review brought about a reduction in the amount of interest credit the family received on their loan. This is a desirable factor as it reduces the amount of assistance the Government has to pay.

TAYLOR, THOMAS L., AND RICHARD J. EDWARDS. An Analysis of the Rural Housing Investment Credit Loans Approved by the Farmers Home Administration in Fayette County, Tennessee, M.S. Thesis, 1973, Department of Rural Development, Tennessee State University. Nashville.

Purpose.-- This was a study of the interest credit loans approved by Farmers Home Administration in Fayette County, Tennessee, (1) to determine the housing conditions that loan recipients were using prior to

receipt of such loans; (2) to determine the type of homes build; (3) to determine the changes in family income and the necessary interest credit required during the first years following receipt of the loan; (4) to describe the social-economic characteristics of those receiving loans.

Method.-- Data from the case records of (152) one hundred fifty-two of Farmers Home Administration interest credit loan recipients, together with personal knowledge and data about their previous housing conditions were analyzed. As a secondary source of information, socio-economic data for 1950, 1960, and 1970 were obtained from the U. S. Censuses of Population and Housing. The information was used for comparative analysis of population, housing and household characteristics.

Findings.-- The findings revealed that the homes vacated by loan applicants were indeed substandard and inadequate by criteria used to measure housing quality. In general, homes were built to meet the needs of the family, taking into consideration family income. The homes built with interest credit loans were modest in size, and cost but adequate by housing standards.

The amount of interest credit received by household varied with the size of family, amount of loan, and the adjusted annual family income. A reduction in interest credit assistance occurred with each successive review period. The most interest credit received by household was \$618, while the lowest amount was \$51.00

TERRY, JARED Y. The Aims and Needs of College Vocational Education Dropouts. Staff Study, 1972. Louisiana Tech University. 105 p. Department of Vocational Agricultural Education, Louisiana Tech University, Ruston.

Purpose.-- The primary purpose was to determine why college vocational education students found it necessary or desirable to leave school before graduation and to secure their opinions as to what actions the educational community could have taken to prevent their failure.

Method.-- The statistical data in this research were collected through personal interviews with each subject by professional or trained surveyors.

Personal data were secured from the subjects' high school records and college transcripts from the University records section.

One hundred eighty, the total number of dropouts from vocational agriculture, business education and home economics education in the 5 years 1966-67 through 1970-71, were interviewed. As a basis for comparison 79 persons who graduated successfully during the same five-year period were randomly selected and surveyed.

One hundred percent of this group was located and questioned.

Findings.-- An analysis of data reveal that there were significant differences between dropouts and graduates in six characteristics tested: high school average, college average, size of high school attended, occupational classification of father, source of financing education, and composite ACT score.

It was evident throughout the study and confirmed statistically that students who were uncertain as to their career choice, who were unaware of the requirements of their curriculum and chosen field of work, were highly susceptible to failure.

The importance of guidance and counseling services was attested to by both graduates and dropouts. The data reveal that 146 students entered college because it was "expected of them." They lacked positive motivation for success and had no clear objectives to orient their post-secondary occupational preparation.

From the data obtained in this study an attempt was made to develop a profile of a potential college dropout.

It would appear that students whose educational achievements deviate significantly from the population norm are poor academic risks.

Students from large families with marginal financial resources are less likely to succeed than those from smaller families.

An "only child" has a high propensity for failure in a college program.

Marriage and its subsequent problems reduce a student's probability for success in college

The absence of positive motivation for achievement contributes to failure.

Graduates of smaller high schools are greater academic risks statistically than those from larger high schools.

THOMAS, WINDELL R. A Survey of Salary Schedules, Benefits, and Working Conditions for Agriculture Teachers in the United States. Thesis, M.S., 1973. Oklahoma State University. 30 p. Library, Oklahoma State University, Stillwater.

Purpose.-- The study covered the 50 states (actually 49 because Alaska has no vocational agriculture departments). The initial step in the development of the questionnaire was to determine the variations of salaries, benefits, and work loads of the agriculture teachers and to determine what could be answered by the state departments under which vocational agriculture teachers work in each state.

Method.-- The questionnaire was sent to the department or agency in each state which has the vocational agriculture departments under its jurisdiction. The agricultural education department in the teacher training

institution was sent the questionnaire in those states which did not immediately respond, and 100 percent return was achieved.

Findings.-- There was a great amount of variation in the salaries, benefits, and working conditions of agriculture teachers across the United States. In about half of the states the agriculture teacher was on the job 12 months. The other states varied between 9 and 12 months. Although a variety of types of salaries were reported which could not be accurately compared, they ranged from a low of about \$500 per month to a high of approximately \$800 per month for a beginning teacher. Over half of the states did not pay yearly increases for experience, but of those who did, the amount varied from \$100 to \$300 per year. About 50 percent of the states paid travel expenses and per diem, but there was wide variation in the amount paid. Other fringe benefits varied widely. Over 60 percent of the states required college credit for certificate renewal, and six hours in five years was the most common requirement. About a third of the states allowed workshop credit toward certificate renewal. There was a great amount of variation in the teaching load, the numbers of hours taught, the number of students allowed, adult class requirements, and adult class reimbursement.

IITSWORTH, TOBIE R. Vocational Education Plans and Related Data From Selected Vocational Agriculture Students Who are Eligible Enrollees in the Northeastern Oklahoma Area Vocational-Technical School. Thesis, M.S., 1973. Oklahoma State University. 54 p. Library, Oklahoma State University, Stillwater.

Purpose.-- The main purpose of the study was to determine the future vocational educational plans and selected characteristics of all sophomore and junior students in schools eligible to attend the Northeastern Oklahoma Area Vocational-Technical School. The schools included 13 from Ottawa, Craig, Rogers, and Mayes counties.

Method.-- The high school vocational agriculture teachers administered a questionnaire to each student using detailed instructions provided by the researcher. The completed questionnaires were then mailed to the researcher for tabulation.

Findings.-- It was found that a total of 95 students were enrolling in the vocational-technical school out of 293 completing questionnaires. About the same proportion of vocational-technical enrollees to non-enrollees lived on a farm, and the parental income sources were about the same for each group. The students not enrolling in vocational-technical school were much more active in FFA and other school activities; however, both groups were approximately the same in number of supervised training programs. A large percentage of the VO-Tech enrollees planned to go directly to work upon graduation or were as yet undecided. The other group planned to go to college or were still undecided. The decision of students to enroll or not to enroll in the Vo-Tech program was influenced most by the program offerings available in relation to individual needs and/or desires.

WEBB, EARL S. AND DONALD R. HERRING. An Assessment of the Career Guidance Programs of Selected Public Schools in Texas. Staff Study, 1973. Texas A & M University, Department of Agricultural Education, 33 p. College Station.

Purpose.-- The purpose of the study was to determine the extent to which certain career guidance needs of students enrolled in a specific vocational education program in Texas were being met through the public schools.

Method.-- Career guidance needs of students were identified and structured into a questionnaire which was sent to high school students enrolled in the Pre-employment Program in Farm Machinery Service and Repair. Three hundred eighty-three students responded.

Findings.-- In general, the career guidance needs of students are not being met by schools. Some of the most obvious deficiencies were in the areas of (1) interest and aptitude testing supported by counseling, (2) occupational information, (3) techniques for making job applications and (4) providing information about post-secondary training programs. Teachers of vocational agriculture were identified most often as the persons providing career guidance for this group of students.

WILLIAMS, ELVIN BROWN. Planning Occupational Education Programs. (Under the direction of C. Cayce Scarborough and John K. Coster). Department of Agricultural Education, School of Education, North Carolina State University, Raleigh.

Purpose.-- The conceptualization of the occupational educational planning paradigm included in this document was conceived and the result of the stated problem of the study -- the lack of and need for a paradigm for planning an occupational educational program at the local level.

Method.-- The conceptualized paradigm was developed as the result of two case studies and an extensive review of selected literature on the elements of planning and related factors involved in the planning process. Information in one case study was collected, analyzed and classified by the writer acting in the role of participant-observer during the planning of a comprehensive occupational education program in Gadsden County, Florida, Public Schools. Information for the second case study was collected by the writer acting in the role of participant-observer during North Carolina State Department of Education, Division of Occupational Education's efforts to improve local planning of occupational education in North Carolina. Data for both studies were collected during the period from August, 1971 through July, 1972. Specific data were obtained and analyzed in personal interviews, collection and analysis of minutes, memoranda, reports, and attendance at various conferences and meetings. The selected literature was investigated in an attempt to isolate and validate elements of an occupational education plan. Elements chosen for inclusion in the planning paradigm were validated

through the review of literature. The elements of planning were ordered and linked into a planning paradigm for use by local educational agencies involved in planning an occupational education program.

Findings.-- The elements identified were target groups to be served, needs assessment, establishment of goals and objectives and an assessment of resources. The results of this information are used to determine priorities after the choice of curriculum has been made. Local individuals are recommended to make the assessment between the desired and current plans of occupational education.

WRIGHT, OZELL AND GUL M. TELWAR. Employment Opportunities in Ornamental Horticulture in Memphis and Shelby County, Tennessee. Thesis, M.S., 1973. Tennessee State University, Nashville.

Purpose.-- The purpose of this study was to determine the ornamental horticultural employment opportunities in the area of Memphis and Shelby County, Tennessee. The problem was defined in terms of the following objectives: (1) to identify employment opportunities by occupational areas; (2) to determine the degree of training needed for each occupational area; and (3) to determine selected characteristics of employers in ornamental horticulture businesses: (a) ages of employees, (b) level of education desired, and (c) projected employment.

Procedure.-- The region of study, was designed as Memphis and Shelby County, Tennessee. For purposes of this study, only those firms and businesses that used mailing addresses of cities and towns in Shelby County were used in the study.

The occupational family of ornamental horticulture was categorized on the basis of the major function of the firm. The seven categories were: (1) wholesale florists; (2) retail florists; (3) landscape service; (4) golf courses; (5) tree service; (6) nurseryman; and (7) retail vendor of nursery stock.

Lists of firms and businesses were then compiled. Firms listed in categories one through five were taken from the yellow pages of the Memphis and Shelby County Telephone Directory, August 1972 edition. The firms listed in categories six and seven were taken from the 1972-73 list of Tennessee Certified Nurseries published by the State of Tennessee, Department of Agriculture, Division of Plant Industries. This list contains names of all firms and businesses that are commercially involved with producing and selling perennial plants.

All lists were cross checked to avoid duplications, and a table of random numbers was used to select a 25 percent random sample from each of these seven categories. These firms and businesses were then contacted to obtain data.

The data collection instrument used combined features of questionnaires used by Kirwin at the University of Nebraska, and Griffin at the University of Missouri.

Selected firms and businesses were then contacted to obtain data.

Findings.-- There will be an average annual increase of 75 full-time men employees and 45 full-time women employees between 1973 and 1980.

The largest number of new full-time employees will be in the technical occupations, with 176 new full-time men employees and 184 new full-time women employees needed between 1973 and 1980. The number of new full-time employees needed in semi-skilled occupations will increase in the period 1973-1980 by 144 men and 16 women employees. The number of new full-time employees needed in sales occupations will increase in the period 1973-1980 by 72 men employees and 48 women employees. The number of new full-time employees needed in managerial occupations will increase in the period 1973-1980 by 48 men and 12 women. The number of new full-time employees needed in clerical occupations will increase in the period 1973-1980 by 16 men and 44 women. The number of new full-time employees needed in supervisory occupations will increase in the period 1973-1980 by 40 men and 8 women. The number of new full-time employees needed in skilled occupations in the period 1973-1980 will not increase as no new employees are needed due to expansion, promotion, or turnover.

There will be an average annual increase of 48 part-time men employees and 25 part-time women employees. The largest increase in part-time employees numbers between 1973 and 1980 will be in technical occupations, with an increase of 112 part-time men employees and 112 part-time women employees. The number of new part-time employees needed in semi-skilled occupations will increase in the period 1973-1980 by 168 men and 4 women employees. Sales occupations will increase in numbers between 1973 and 1980 by 16 part-time men employees and 32 part-time women employees. The number of new part-time employees needed in professional occupations will increase in the period 1973-1980 by 24 men employees. The number of new part-time employees needed in clerical occupations will increase in the period 1973-1980 by 8 men and 20 women. The number of new part-time employees needed in supervisory occupations will increase in part-time employee numbers are anticipated in managerial and skilled occupations in the period 1973-1980.

Majority of the employees employed in ornamental horticultural occupations were between the ages of 21-35.

A majority of employers desired that employees have a high school education at almost all levels of employment.

The majority of employers indicated that they would cooperate with the local high schools in providing a training program to prepare students for employment in ornamental horticultural occupations.

YOUNG, PAUL CURTIS. The Attitude Changes of Student Teachers in Agricultural Education Toward the Young Farmer Organization. Thesis, M.S., 1973. Oklahoma State University. 85 p. Library, Oklahoma State University, Stillwater.

Purpose.-- The primary purpose of this study was to measure the change in attitude of student teachers of vocational agriculture toward the Young Farmer Organization in Oklahoma during their student teaching experience. The 71 student teachers of vocational agriculture at Oklahoma State University during the school year of 1971-72 were used in this study.

Method.-- The student teachers were administered an attitude scale prior to beginning their student teaching as a pre-test. After the student teachers returned to campus, they were administered the same attitude scale as a post-test. Their change in response from the pre-test to post-test was considered their attitude change. The cooperating teachers were sent the same attitude scale before the student teachers began their student teaching. The student teachers' responses were compared to their cooperating teacher's responses, and the amount and directions of change were derived. The teaching centers were categorized into two activity levels according to the amount the chapters participated in the Young Farmer Organization. Both the activity levels were considered separately.

The post-test contained two additional statements to determine the amount of participation the student teachers had with a Young Farmer Organization.

Findings.-- There was a change in attitude during the student teaching experience and the cooperating teachers exerted an influence on the student teachers. The attitudes changed more toward than away from the cooperating teacher's attitude patterns. There was little difference in attitude change between the treatment groups.

FLORIDA PROJECT AGRICULTURE. A Non-thesis Study on Manpower in the Agricultural Occupations in Florida. Agricultural and Extension Education, University of Florida, Gainesville; and Agricultural Education Section, Division of Vocational, Technical and Adult Education, Department of Education, Tallahassee, 1973.

Purpose.-- The primary purpose of the study was to provide a manpower data base for improving county programs in vocational agriculture. In order to provide such a base, a survey was conducted to determine the number and nature of jobs in agriculture that (a) are presently available,

(b) were available in 1969, and (c) are projected for 1975 in the state of Florida.

Method.-- On the spot interviews were carried out on randomly selected farms and agri-business establishments. These interviews were conducted mainly by agricultural teachers who used a questionnaire for each visit. Lists of agri-business establishments in each county were refined by special study committees and made available to the project staff for use in selecting a random sample. In all, there were 4,085 interviews representing 42,693 business establishments employing over a half million workers.

Findings.-- The agricultural industry was divided into seven segments -- production, supplies and services, mechanics, products, horticulture, resources, and forestry. It was found that in 1972 production agriculture provided the highest demand for workers (237,275 representing 44% of all workers), followed by horticulture (61,824 or 11%), products (28,158 or 5%), supplies and services (16,696 or 3%), forestry (11,457 or 2%), and mechanics (3,769 or 1%). In terms of numbers employed, resources is relatively unimportant, giving employment to a mere 837 workers. It is, however, a relatively new industry with considerable development potential.

The figures for 1975 showed the same relationship among the segments, i.e., production agriculture is expected to employ the most workers, resources the least and the other segments ranking just the same as in 1972. However, there is some variation in the rate of growth among the segments. Production agriculture is expected to decline from the 1972 figure a mere 316 persons which is less than 1%. All other segments are expected to increase. The biggest percentage increase will come in resources (30%) though the actual number of extra workers will be only 256. The next largest gain will be in mechanics (25%), followed by horticulture and supplies and services, each with 16%. The increase in forestry will be 4% while that in products will be less than 2%. The reason for this relatively lower increase for forestry and products is believed to be that there is greater mechanization in these segments than in the others. Be that as it may, all agriculture will move from 542,503 workers in 1972 to 592,101 in 1975 -- an expansion of 9%.

HILL, GARY D. A Survey of Salary Schedules, Benefits and Working Conditions for Agriculture Teachers in the United States. M.S. Thesis, Oklahoma State University, Stillwater.

JOHNSON, WILLIS O. Revision and Evaluation of a Curriculum for Agricultural Career Awareness. Ed. D. Dissertation. Oklahoma State University, Stillwater.

KEY, JAMES P. AND ROBERT R. PRICE. A Career Development Program in Agricultural Occupations for Advantaged and Less Advantaged Rural Youth. Staff Study. Oklahoma State University, Stillwater.

LETLOW, JAMES C. Occupational Experiences of Louisiana High School Graduates. Ph.D. Dissertation, Department of Vocational Agricultural Education, Louisiana State University, Baton Rouge.

MCCARTY, GLENN AND MARTIN B. MCMILLION. Procedures and Arrangements Used in Providing Occupational Experience in Agricultural Programs in the Community College. Staff Study. Virginia Polytechnic Institute and State University, Blacksburg.

MCMILLION, MARTIN B. Assembling and Using Occupational Data Concerning Former Students of Vocational Agriculture. Staff Study. Virginia Polytechnic Institute and State University, Blacksburg.

MCMILLION, MARTIN B. The Relationship of Content Taught in Agriculture Classes to Content Used by Graduates. Staff Study. Virginia Polytechnic Institute and State University, Blacksburg.

PREYER, PRINCE. Administration and Organization of Multiple Teacher Departments in Agribusiness Education in Alabama. Staff Study, Alabama A & M University, Normal.

SWINGLE, THEODORE P. Vocational Education Choices of Senior High School Students in the Four Counties Being Served by Indian River Community College, Fort Pierce, Florida. Ed.D. Dissertation, Oklahoma State University, Stillwater.

WEBB, EARL S. AND LARRY K. KRONKE. Evaluation of the Pre-employment Laboratory Program in Farm Machinery Service and Repair for Training Mechanics at the High School Level. Staff Study, Department of Agricultural Education, Texas A & M University, College Station.

#### STAFF STUDIES IN PROGRESS 1973-74

Analysis of Management Practices of Nurseries and Landscaping Enterprises in Nashville and Memphis Metropolitan Areas--Tennessee. A CSRS Research Project. Tennessee State University, Nashville.

Attitude and Need of State Community College Students'. Tennessee State University, Nashville.

Changes in Industrial Structure in West Tennessee and Its Impact on Development in Rural Areas. A CSRS Research Project. Tennessee State University, Nashville.

Evaluation Model Career Education in Louisiana. Agricultural Education Department, School of Vocational Agriculture, Louisiana State University, Baton Rouge.

Human Resources in Ten Counties West Tennessee. A CSRS Research Project. Tennessee State University, Nashville.

Low Income Farms and Their Production and Expenditure in the South Central Region. Tennessee State University, Nashville.

#### ADDITIONAL GRADUATE STUDENT'S STUDIES IN PROGRESS

(No author listed -- Tennessee State University)

A Study of the Attitude and Experience of Black Families with Financial Credit.

A Study of Fifteen Rural West Tennessee Counties of the Interrelationships of Education and Other Factors Leading to Low Income in the Area.

A Study of Programs Under the Vocational Education Act 1963-1968.

An Investigation of Public Sewer and Facility Construction in the Rural Communities of the Memphis-Delta Development District of Tennessee, 1973.

Evaluation of Rodent Eradication Program by the Metropolitan Nashville Health Department.

Evaluating the Multiscreening Health Program of Meharry Medical College.

Factors Influential in Industrial Locations in West Tennessee, 1960-1970.

Farm Planning for a Selected Group of Limited Resource Farmers in Crockett County to Increase Their Farm Incomes.

Study of Dropouts in Haywood County High School.

The Status of Housing in Fayette County, Tennessee, 1973.

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