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Analysis of Selected Factors Contributing to Decrease in Post-High School Programs in Agriculture Education in Utah

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ANALYSIS OF SELECTED FACTORS CONTRIBUTING TO DECREASE IN POST-HIGH SCHOOL PROGRAMS IN AGRICULTURE EDUCATION IN UTAH

by

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF FIGURES

Figure Page

INTRODUCTION

Technology in agriculture has changed more in the past hundred years than in the previous thousand, and the rate of change seems to be accelerating. No longer can one farm successfully for the duration of a lifetime with the same knowledge, understanding and skill which he possessed as a young farmer (1).

Senators and Representatives recognized the need for the continuous preparation of farm people for proficiency in their chosen field and in 1917 introduced and passed the Smith-Hughes Act. This enabled school administrators to offer vocational instruction in agriculture to young and adult farmers by providing additional funds to local districts for classes in vocational education. The act also provided for agriculture education in the high school curriculum (15).

Seventy-nine per cent of the adult farmers in America dropped out of the educational systems before completing high school. Sixty-three per cent dropped out of school before enrolling in high school. This means that only about one-third of the farmers ever had an opportunity to enroll in all-day classes in agriculture (12).

Establishment in farming becomes more complex under conditions of increasing land value, increasing mechanization, growing trend toward urbanization, and larger and fewer farms (21). A little more than 20 years ago (in 1935), there were 30,695 farms in Utah; 10 years later, 26,322 farms (17); and the 1954 report shows 22,826 farms (23). In the same period of time (1935-1954) the average farm size increased from 203 acres

to 537 acres; the average farm value increased from $5,157 (17) to $24,865 (23).

Because of the large investments required in farming there is apparently a great need for post-high school training, but reports show that Utah evidently is not filling its needs. There has been a 45 per cent decrease in enrollment of young and adult farmer classes from the years 1949 to 1956. Figure 1 shows the decrease in this post-high school enrollment.

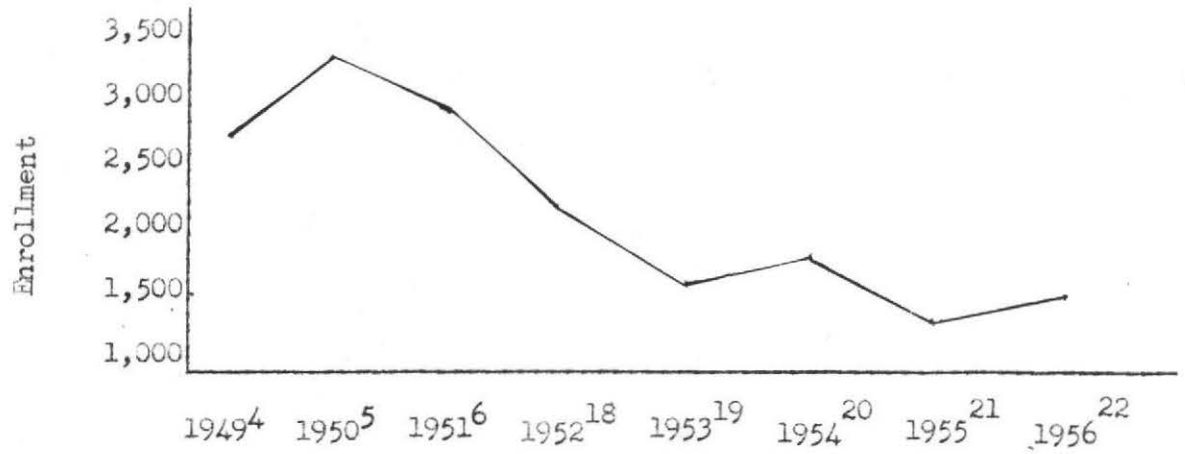

Figure 1. Combined young farmer and adult farmer enrollment in Utah

For the nation as a whole there was a two per cent increase in post-high school enrollment in agriculture in the same seven year period as presented in Figure 2.

Figure 2. Combined young farmer and adult farmer enrollment for the nation (22)

Figures 1 and 2 indicate that the largest enrollment in young and adult farmer classes in agriculture was in 1950. This large enrollment was mainly due to the World War II veterans who enrolled in the young farmer program. As more veterans used up their entitlement for instructional on-the-farm training, they dropped out of both the veterans and young farmer program.

The national enrollments in young farmer and adult farmer classes are about equal to those for Future Farmers. In Utah the total enrollments in post-high school vocational agriculture have not as yet equalled those of Future Farmer high school courses. It is hoped that eventually the national average will be achieved in this regard. Many leaders believe the young farmer program to be the core of the total program in vocational agriculture (24).

In Utah there are approximately 23,000 farmers (23). All of these farmers are in need of additional schooling, and many would be interested in attending post-high school classes in agriculture. But there are only

55 vocational agriculture teachers who are authorized to teach such classes, and only 40 per cent of these conduct such programs regularly.

The object of this study was to determine why there has been a decrease in enrollment in post-high school courses in agriculture in Utah from 1949 to 1956 while the nation's enrollment has gone upward during the same seven year period.

Six hypotheses were made after reviewing the literature and discussing the problem with the Utah directors of vocational agriculture. It was hypothesized that the Utah enrollment in post-high school programs in agriculture education was directly related to:

1. vocational agriculture teacher's feeling of preparedness to teach young and adult farmer classes.
2. vocational agriculture teacher's load.
3. vocational agriculture teacher's attitudes toward the teaching of post-high school programs in agriculture.
4. methods used by the vocational agriculture teacher to enroll or recruit farmers into these programs.
5. facilities of the school.
6. number of farmers in each patronage area.

The first four hypotheses are related to the teachers of vocational agriculture while hypotheses five and six concern factors over which the vocational agriculture teacher has little or no control.

REVIEW OF LITERATURE

It has been 40 years since the passage of the Smith-Hughes Act that provided training to present and future farmers for proficiency in farming. Approximately 10,000 vocational agriculture teachers, together with the 500 teacher trainers and supervisors, are presently engaged in programs for this purpose (9).

During the 1951-52 school year a questionnaire was prepared by Heitz (vocational agriculture instructor) and sent to every vocational agriculture teacher in Nebraska to determine what factors were hindering the out-of-school program. Several factors seemed to have a definite effect on whether or not an out-of-school class was taught: (a) instructor's personal likes, (b) professional preparation, (c) superintendent's and school board's attitudes, (d) time for out-of-school classes, and (e) instructors had not surveyed their communities to determine the interests and desires of farmers.

Heitz made five recommendations: school administrators should be informed, instructors should have time between 8:00 a.m. and 5:00 p.m. to spend on out-of-school classes, instructors should survey their local communities as to the desire and need for adult education, teacher training departments should strive to give beginning teachers as much training in adult education as possible, and the out-of-school program should be given more publicity (7).

Factors which seem to have little or no effect on whether out-of-school classes are taught in a particular school are age of instructors, years taught vocational agriculture, schools from which instructors have received

degrees, facilities of the local school and reimbursement. The number enrolled in the day school classes is one factor which seems to have a slight effect on whether or not an out-of-school class is taught (7).

Mr. Cushman (teacher trainer in agricultural education, Vermont) made a study of why so few vocational agriculture teachers conducted young farmer programs in Vermont. This report indicated many trouble spots but four stood out above the others. Some teachers indicated that they hesitated to conduct young farmer programs because they believed they had been inadequately prepared or their training was out-of-date. Many teachers reported that they had too many curricular and noncurricular assignments. The study showed that folks "just plain don't know about" young farmer programs. The teacher's philosophy regarding his job as a teacher of vocational agriculture had a direct bearing on whether or not he conducted a young farmer program.

Other problems that had a slight effect on the program were too heavy pupil load, lack of permission to leave the school building during the school day to work with young farmers, inadequate knowledge of the patronage area by the teacher, lack of knowledge by schoolmen of the number of young farmers who were interested in the program, and opposition from principal or superintendent. Teachers who supplemented their income with non-school employment such as operating a farm, building houses, etc., seldom conducted young farmer programs. It was interesting to note that in every Vermont community studied, a sufficient number of interested young farmers was found for a successful young farmer program (2).

Mr. Scarborough (teacher of Education, North Carolina State College) offers a suggestion to instructors of vocational agriculture in finding time to teach young farmer classes. He strongly believes that as long as the teacher is expected to develop a young farmer program after supper, it will

remain just that and be an imposition on the teacher's personal life (14).

According to Mr. Phipps (Education teacher, University of Illinois), when 994 Illinois farmers were asked why they had enrolled in the adult course they had just completed, he got the following results: (1) 30.5 per cent received a card about the course; (2) 31.4 per cent came because they were contacted by a council member, committee member or neighbor; (3) 32.4 per cent came because they were contacted by the teacher; (4) 22.9 per cent read publicly about the course; and (5) 5.2 per cent listed other reasons. About one-fourth of the farmers listed two or more of the above factors as influentials in motivating their enrollment (10).

In 1952 a survey was made of the attitudes of school administrators, board members, superintendents, principals, and instructors of vocational agriculture toward post-high school training in agriculture education in Utah. The study showed that in the opinion of those surveyed, there is a place for young farmer and adult farmer training in all districts of the state where vocational agriculture is regularly taught in the high school.

Mr. Nichols (Utah Director of Vocational Education) wrote that Utah adult farmer evening school programs are popular where vocational agriculture teachers are competent (1). Sanders reported that the personality and aggressiveness of the teachers of agriculture seems to be the most important factor in securing adult farmer interest and attendance (9).

Young and adult farmer programs on the national level have received increased attention during the last few years. Mr. Rockett (a vocational agriculture instructor in Texas) forecasts a strong adult program in the future:

> In 1976 the vocational agriculture teacher will have a well developed operating and successful post-high school course.

Here lies the most fertile field of development. Here is where the teacher has the greatest contribution to make to those who are actively engaged in or preparing to enter the business of farming (11).

METHOD OF PROCEDURE

In Utah there has been a 45 per cent decrease in enrollment of young and adult farmer classes from the year 1949 to the year 1956. The purpose of this study was to determine why there has been such a decrease in post-high school enrollment in agriculture education in the seven year period even though the local and state administration strongly favor such a program.

To accomplish the objective, the writer decided that the source of information should come from the experienced vocational agriculture instructors. Since these instructors, with two or more years' experience, were in 38 different schools in Utah, a questionnaire was thought to be most feasible to collect the information.

After a review of the literature, the writer composed a list of 23 questions which were made to test the six hypotheses found in the introduction. These questions were to obtain information in six different categories: the teacher's load, questions one to five; the teacher's attitudes, questions six to 13 and 22; the teacher's abilities, questions 14 to 16; the school's facilities, question 17; the number of farmers, question 18; and the actual effort being put forth by the vocational agriculture instructors to enroll young and adult farmers, questions 19 to 21.

The following general information was asked from each vocational agriculture instructor: (a) his name, (b) total years' teaching, (c) number of children, if married, and (d) present college degree. Since the questionnaire was not anonymous, great care was taken to make the questions as

impersonal as possible.

The questionnaire was validated by having five former and two regular teachers of vocational agriculture make comments and suggestions about each question.

A check mark after each question under the "yes" or "no" column and under one of the other three columns (very important, important or of little importance) was all that was required on 22 of the questions. Question number 23 asked them to designate which three factors out of 10 submitted were the main obstacles in hindering the conduction of post-high school programs in agriculture. Also, a space was made for their additional comments.

This questionnaire, with an enclosed stamped and addressed envelope, was mailed to the 45 Utah instructors of vocational agriculture who have had more than two years' teaching experience. To obtain complete information on the questionnaires, the writer personally contacted five teachers. During these interviews there was an opportunity to check on the accuracy of the information given by the teachers in the questionnaires, and to receive comments from these agriculture teachers.

The questionnaire returns were divided into three groups: (a) teachers who regularly taught post-high school classes in agriculture, (b) those who taught the classes part of the time, and (c) the teachers who have not taught post-high school classes in agriculture. A comparison of these three groups was then made.

In order to run a statistical analysis to prove or reject each hypothesis (see introduction) at the one per cent or five per cent confidence level and to determine the reliability of all data, points were assigned to the answers of each question. If an answer was "yes," it received 10 points; "no", 0 points; "very important," three points; "important," two points; and

"of little importance," one point. There were three exceptions to this rule; questions four, five and 11 were negatively related to the others. To prevent the cancelling of scores, the "yes" answers on these three questions were given no points; the "no" answers were given 10 points. The following was then determined for each of the three groups:

a. the mean

b. the standard deviation

c. the standard error of the mean

d. the standard error of the difference between means

e. t-ratio or critical ratio of difference between means

The definitions of the above five statistical terms, along with their formulas, can be found on pages 12, 13 and 14.

DEFINITION OF TERMS

For the purpose of this study the following definitions of terms have been adopted:

Vocational agriculture is the systematic instruction in agriculture of less than college grade for those engaged in, or about to become engaged in, the vocation of farming.

Post-high school courses are classes offered by vocational agriculture teachers to young farmers or prospective young farmers who have graduated from or have dropped out of schools, or classes offered to adult farmers.

Young farmers are those who are established in farming in their respective communities and take courses in agricultural instruction under the supervision of the vocational agriculture teacher in order to keep abreast with methods of farming.

Arithmetic mean is a measure popularly known as the average. It is the truest measure (or most stable) of any measurement used in statistics. To obtain the mean of any group of figures, one must add them up and divide by the number of figures. To define the term more formally, "The mean is equal to the sum of the measure divided by their number." An example would be to add four, six, eight and 10 together, the sum of which would equal 28. Then divide by the number of measures (which is four) and one gets an answer of seven. To accept or reject a hypothesis in a thesis by a statistical measure, one must obtain the mean.

Standard deviation is a measure used to determine how well the arithmetic mean typifies the set of data from which it is derived. The standard devia-

tion is a measure of the extent to which the values of the variable tend to concentrate about the mean. Consider for example, two sets of numbers: Set I (5,6,10,16) and Set II (8,9,9,10). The mean of each set is 9, but it is obvious that the items of Set II are more concentrated about the mean than the items of Set I. The standard deviation is designed to measure the amount of this concentration.

Standard error of the mean is the amount of dispersion of sample means gives the clue as to how far such sample means may be expected to depart from the population mean. If one is to use a sample mean as an estimate of the population mean, any deviation of such a sample mean from the population mean may be regarded as an error of estimate. A standard error of a mean tells us how large these errors of estimation are in any particular sampling situation.

Standard error between the means is simply one step further along from the standard error of the mean. As shown on page 14, its formula is an estimate of what the standard deviation of a large number of differences between sample means would be.

Null hypothesis in this study simply asserts that the mean of Group A is greater than either Group B or Group C.

t-ratio is used to make a precise statement of probability (could the differences between the means of any two groups be due to sampling error?) This technique, when applied to test the difference between means, is called the t-ratio table (see page 14 for the formula). One can then look at a t-ratio table and tell if the null hypothesis should be accepted or rejected at a given confidence level.

SYMBOLS AND FORMULAS

For the purpose of the study the following symbols and formulas were adopted (16):

N = total number of cases (individual or observations) in a sample

M = arithmetic mean

S D or σ = standard deviation

σ M = standard error of the mean

σ d m = standard error of difference between means

t = t-ratio

Σ = sum

f = frequency

x = deviation units

M = midpoint of lowest interval $\left(\frac{\Sigma fx}{N}\right)$ interval

$$S D = \sqrt{\frac{\Sigma x^2}{N}}$$

$$\sigma M = \frac{\sigma}{\sqrt{N-1}}$$

$$\sigma d m = \sqrt{\sigma M^2_1 + \sigma M^2_2}$$

where:

σM_1 is σM of one of the samples

σM_2 is σM of another of the samples

$$t = \frac{M_1 - M_2}{\sigma dm}$$

DELIMITATION

Questionnaires were sent to only those vocational agriculture instructors who had two or more years experience in teaching agriculture. Of the 48 schools where vocational agriculture is taught in Utah, only 38 had teachers with this amount of experience.

Table 1. Schools in Utah where vocational agriculture teachers had two or more years teaching experience by the 1957-58 school year

Altamont	Hurricane	North Summit	Spanish Fork
American Fork	Lehi	Parowan	Springville
Bear River	Lincoln	Payson	Tooele
Beaver	Manti	Pleasant Grove	Uintah
Box Elder	Millard County	Provo	Union
Davis	Morgan County	Richfield	Valley
Dixie	North Cache	South Cache	Wasatch
Enterprise	North Emery	South Emery	Wayne
Escalante	North Sanpete	South Sevier	
Gunnison	North Sevier	South Summit	

From the 38 schools listed in the above table, 45 teachers were sent questionnaires. The questions pertained to factors effecting the conducting of young and adult farmer classes from July 1, 1949 to June 30, 1956.

GENERAL INFORMATION

In a previous section the procedure used to get the reaction of the vocational agriculture instructors was outlined. The following tables give the results of collecting the data for this study from 45 Utah agriculture teachers.

Table 2. Questionnaire returns (first attempt)

Group	Number Sent out	Number Returned	Per cent Returned
A	21	17	81
B	12	7	58
C	12	5	42
Total	45	29	64

Approximately 64 per cent of the total number sent out was returned. Three weeks later another letter was sent out to the 16 instructors of vocational agriculture who had not responded. The results are presented in the following table:

Table 3. Questionnaire returns (second attempt)

Group	Number Sent Out	Number Returned	Per cent Returned
A	4	4	100
B	5	2	40
C	7	7	100
Total	16	13	81

Since only three (6.6 per cent) of the total 45 teachers had not answered, the writer decided to call them by telephone. In this way all 45 questionnaires (100 per cent) were returned.

Table 4 shows how the group responded to each question. Each figure in the columns represent the number answering.

Table 4. Group responses to questions

Question		Group	Yes	No	Very important	Important	Of little importance
1. Does the present schedule of activities (curricular and non-curricular) leave vo-ag teachers sufficient time to meet with young or adult farmer classes?	1.	A	7	14	13	8	0
		B	0	12	5	7	0
		C	2	10	4	7	1
	Total		9	36	22	22	1
2. Does the present schedule of activities allow vo-ag instructors sufficient time to meet post-high school classes and fulfill personal and family obligations.	2.	A	2	19	11	10	0
		B	2	10	7	5	0
		C	1	11	8	4	0
	Total		5	40	26	19	0
3. Is present pupil load light enough to allow teachers to assume the responsibility of training young and adult farmers?	3.	A	8	13	9	12	0
		B	6	6	3	6	3
		C	4	8	3	7	2
	Total		18	27	15	25	5
4. Does the nature of the work of vo-ag instructors allow a teacher to engage in non-school employment such as farming, carpentry or other work?	4.	A	4	17	5	9	7
		B	3	9	1	9	2
		C	1	11	0	10	2
	Total		8	37	6	28	11
5. Do most vo-ag teachers with whom you are acquainted engage in any business or occupation other than teaching?	5.	A	8	13	1	10	10
		B	6	6	1	8	3
		C	6	6	1	8	3
	Total		20	25	3	26	16
6. Do school administrators allow teachers to leave the school building during the school day to work with young and adult farmers when such time is available?	6.	A	20	1	12	7	2
		B	10	2	1	10	1
		C	10	2	5	7	0
	Total		40	5	18	24	3

Table 4 (continued)

Question		Group	Yes	No	Very important	Important	Of little importance
7. Does the principal, superintendent, and school board encourage the conducting of post-high school classes in agriculture?	7.	A	18	3	13	7	1
		B	8	4	2	10	0
		C	11	1	5	7	0
	Total		37	8	20	24	1
8. Are post-high school programs in agriculture a part of vo-ag teacher's job?	8.	A	13	8	7	13	1
		B	9	3	1	10	1
		C	8	4	3	7	2
	Total		30	15	11	30	4
9. Do teachers prefer working with young and adult farmers to working with all-day students?	9.	A	12	9	1	16	4
		B	3	9	4	7	1
		C	5	7	2	10	0
	Total		20	25	7	33	5
10. Are most vo-ag instructors with whom you are acquainted interested in conducting young and adult farmer classes?	10.	A	6	15	11	9	1
		B	3	9	2	10	0
		C	5	7	4	7	1
	Total		14	31	17	26	2
11. Do teachers object to teaching at nights?	11.	A	14	7	6	12	3
		B	6	6	4	6	2
		C	26	19	13	26	6
	Total		26	19	13	26	6
12. Is the salary and mileage sufficient to encourage teaching post-high school education?	12.	A	12	9	9	12	0
		B	7	5	4	7	1
		C	6	6	1	10	1
	Total		25	20	14	29	2
13. Should vo-ag teachers attend the young farmer conventions to further inspire them to teach post-high school education?	13.	A	20	1	5	12	4
		B	9	3	1	6	5
		C	8	4	1	5	6
	Total		37	8	7	23	15
14. Have vo-ag instructors received adequate pre-service training in conducting young and adult farmer classes?	14.	A	12	9	11	10	0
		B	6	6	5	7	0
		C	7	5	5	5	2
	Total		21	24	21	22	2

Table 4 (continued)

Group			Group	Yes	No	Very important	Important	Of little importance
15.	Have vo-ag instructors received adequate pre-service training in helping farmers determine their educational needs and in leading them in planning a series of meetings to help meet these needs.	15.	A	12	9	11	10	0
			B	5	7	2	9	1
			C	7	5	3	8	1
		Total		24	21	16	27	2
16.	Have teachers received adequate training (from others or from their own experience) in locating and recruiting young and adult farmers?	16.	A	14	7	7	13	1
			B	4	8	0	11	1
			C	8	4	4	6	2
		Total		26	19	11	30	4
17.	Are facilities available for instruction of young and adult farmer groups (such as rooms, equipment, light, heat, references, etc.)?	17.	A	19	2	10	10	1
			B	8	4	4	6	2
			C	10	2	5	7	0
		Total		37	8	19	23	3
18.	Are there enough young farmers in the local district for a Young Farmer Program?	18.	A	17	4	11	8	1
			B	5	7	5	7	0
			C	1	11	8	4	0
		Total		40	5	18	27	0
19.	Do teachers contact the young farmers and try to recruit them into the post-high school program?	19.	A	18	3	10	11	0
			B	9	3	1	10	1
			C	9	3	6	6	0
		Total		36	9	17	27	1
20.	Do teachers contact the adult farmers and try to recruit them into the post-high school program?	20.	A	21	0	9	12	0
			B	8	4	1	11	0
			C	11	1	8	4	0
		Total		40	5	18	27	0
21.	Are the citizens in the district informed of the potentials of a post-high school program in agriculture?	21.	A	15	6	7	14	0
			B	9	3	3	8	1
			C	11	1	5	7	0
		Total		12	0	3	8	1
22.	Would established farmers profit through additional training in agriculture?	22.	A	21	0	8	13	0
			B	11	1	1	10	1
			C	12	0	3	8	1
		Total		44	1	12	31	2

Each teacher was asked to check the three main obstacles that stood in the way of conducting post-high school programs in agriculture. Table 5 has to do with the attitudes of teachers to various parts of question 23.

Table 5. Group responses to question 23

Question		Group A	Group B	Group C	Total
23.					
a.	Classes taught at night	8	3	5	16
b.	Poor working facilities	3	5	2	10
c.	Local administrators do not approve	1	1	0	2
d.	Teacher's abilities	5	1	1	7
e.	Not enough farmers	2	1	3	6
f.	Not enough interested farmers	8	8	11	27
g.	Teaching load too heavy	15	9	11	31
h.	Teachers have other jobs	2	0	1	3
i.	Teachers do not like to work with adult farmers	0	0	0	0
j.	Insufficient salary and mileage	4	2	2	8
k.	Other	8	2	3	13

ANALYSIS OF DATA

Hypothesis 1

The first hypothesis made by the writer was that the enrollment in post-high school education in agriculture was directly related to the vocational agriculture teacher's load. The purpose of this hypothesis was to determine whether the teachers of agriculture in Group A (those who regularly teach adult classes) had more time than the teachers in Group B (those who teach adult classes part of the time) or the teachers in Group C (those who do not teach post-high school courses). Questions one to five on the questionnaire were designed to obtain information in order that hypothesis one could be tested. The answers on questions one to five were converted into scores. If an answer was "yes" it received 10 points; "no," 0 points; "very important," three points; "important," two points; and "of little importance," one point. There were two exceptions to this rule; questions four and five were negatively related to the others.

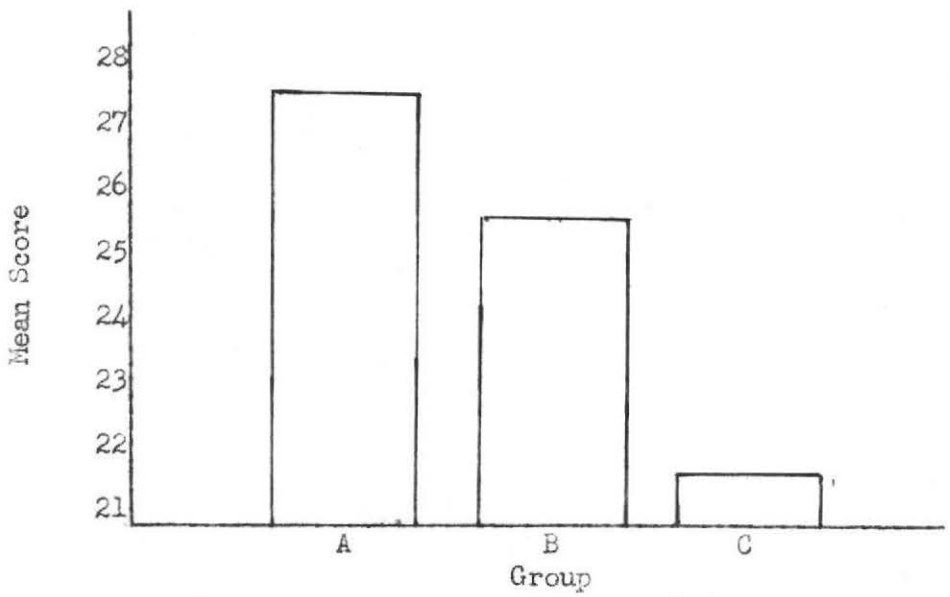

Figure 3. Arithmetic mean of each group indicating the agriculture teacher's load (hypothesis one). The lower the score the heavier the group of teachers believed its load to be

To prevent the cancelling of scores, the "yes" answer on these questions were given 10 points. The arithmetic mean for each of the three groups of instructors was computed and presented in Figure 3. The higher the mean score the better the opportunity for the vocational agriculture instructor to teach adult education classes. Figure 3 indicates that Group A had more time available for teaching post-high school classes than Group B, and Group B teachers had more time than Group C. A statistical analysis was made to determine if differences among the means of Groups A, B, and C were due to sampling error. Using the one-tailed test 3, the writer found that there was a significant difference between the means of Group A and Group C at the five per cent level of confidence. This supported the first hypothesis which stated that the enrollment in post-high school education was directly related to the teacher's load. In other words, the heavier the teacher's load the less likely that he would teach post-high school classes in agricultural education. These results were based on the opinions of the teachers.

On question one (see appendix) 80 per cent of the Utah instructors of vocational agriculture indicated that their present schedule of activities (curricular and non-curricular) did not leave them time to meet with young and adult farmer classes. Of the nine teachers who indicated that they had sufficient time, seven were from Group A, nine from Group B, and two from Group C. The results as presented in Figure 4 showed that a higher percentage of Group A teachers had fewer time-consuming curricular and non-curricular activities than did either Group B or Group C. Two teachers in Group C indicated that they had time to conduct post-high school classes in agriculture but there were not enough farmers in their district to warrant such a program.

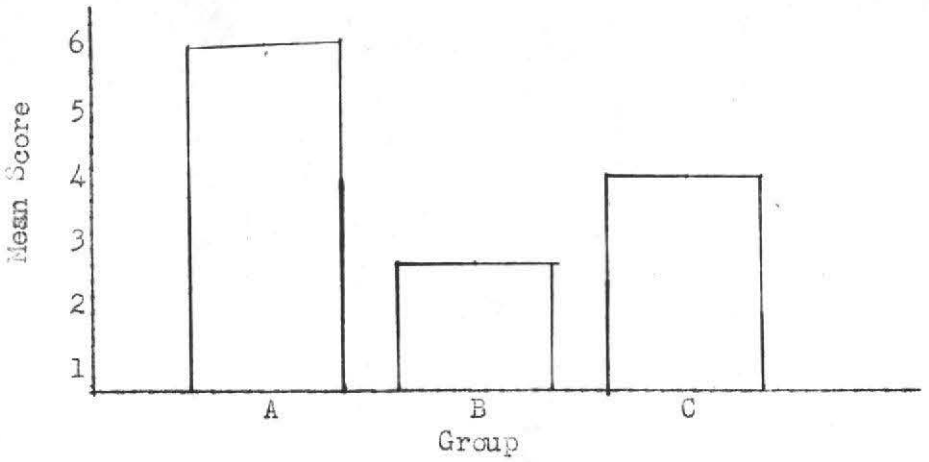

Figure 4. Mean scores for question one. The higher the score the more time the teacher's present schedule of activities (curricular and non-curricular) allowed them to meet with young and adult farmer classes.

On question two (see appendix) 40 of the 45 instructors of vocational agriculture (89 per cent) indicated that their present schedule of activities did not allow them time to meet post-high school classes and also fulfill personal and family obligations. Of the teachers who indicated they would have time, two were from Group A, two from Group B, and one from Group C. The mean score of each group for question two is shown in Figure 5. Since the percentages among Group A as in Group C indicated their present schedule

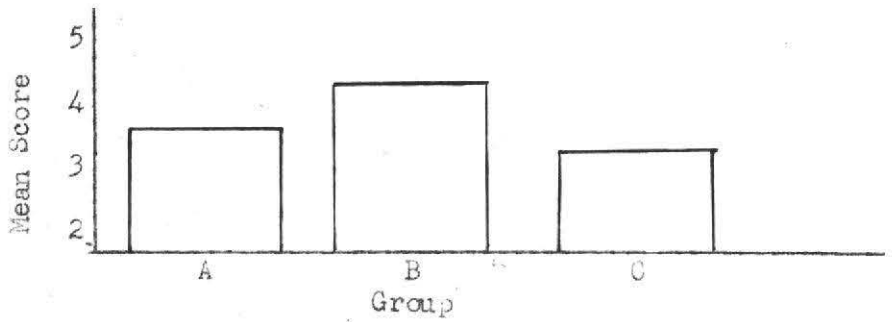

Figure 5. Mean scores for question two. The higher the score, the more time the group had to meet post-high school classes in agriculture and also fulfill personal and family obligations

of activities did not allow them to meet adult farmer classes and also fulfill personal and family obligations. Group B reported the most favorable situation in this respect as shown in Figure 5.

In question three (see appendix) 40 per cent of the reporting teachers of vocational agriculture indicated that the present pupil load was light enough to allow instructors to assume the responsibility of teaching young and adult farmers. Of the 27 teachers who stated that pupil load was too heavy, 13 were from Group A, six from Group B, and eight from Group C. The mean score of each group for question three is shown in Figure 6. Figure 6 also indicates that teachers in Group C had the heaviest pupil load and teachers in Group B the lightest pupil load.

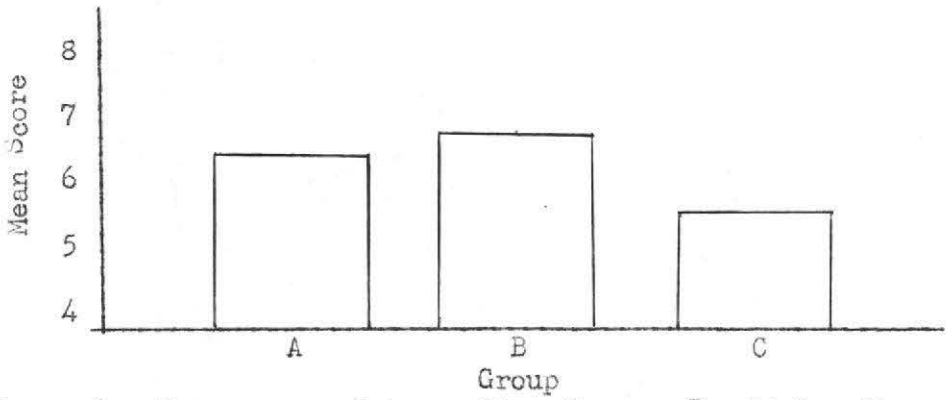

Figure 6. Mean scores for question three. The higher the score the lighter the pupil load

Approximately 82 per cent of the vocational agriculture teachers indicated in question four (see appendix) that the nature of their work would not allow them to engage in non-school employment. However, four teachers from Group A, three from Group B, and one from Group C replied that the day's schedule would allow them to find non-school employment. Figure 7 indicates that more teachers from Group B believe that the nature of their work allows

them to engage in non-school employment than in Group A or C.

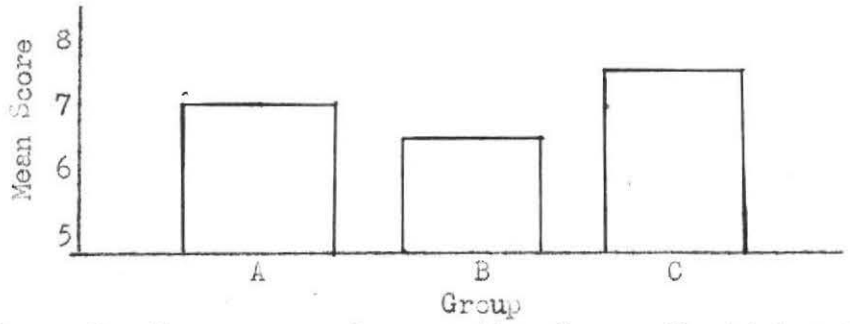

Figure 7. Mean scores for question four. The higher the score the higher the percentage of teachers in a group who indicated that the nature of their work would not allow them to engage in non-school employment.

Twenty-five of the 45 teachers of vocational agriculture indicated in question five (see appendix) that most of the vocational agriculture teachers with whom they were acquainted had engaged in another business or occupation other than teaching. Eight of those who reported this were in Group A, six in Group B, and six in Group C. Figure 8 shows that evidently a smaller percentage of teachers in Group A has additional jobs than do teachers in Group B or Group C. The mean score of each group for question five is found in Figure 8.

On the basis of the opinions of 25 of the 45 teachers of vocational agriculture, the reports showed that most teachers with whom they are acquainted were engaged in another business or occupation other than teaching. About 50 per cent of the teachers in both Group B and Group C are evidently engaged in businesses or occupations other than teaching. This may be one of the reasons they have difficulty in finding enough time to teach post-high school classes in agriculture. However, many of the vocational agriculture instructors have non-school jobs and yet teach adult education classes in agriculture.

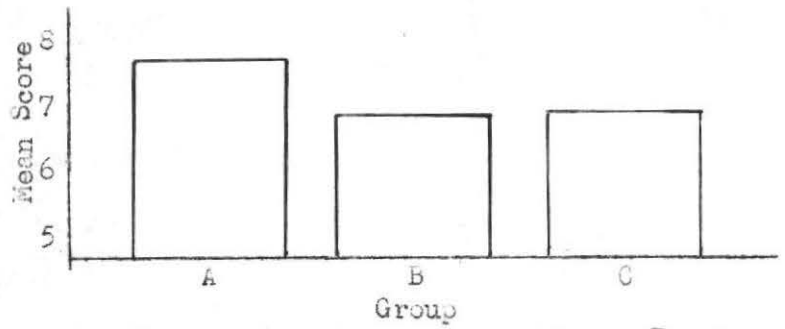

Figure 8. Mean scores for question five. The lower the score the higher the percentage of teachers in a group who evidently had another business or occupation than teaching.

Even though teachers in Group A had the highest mean score as presented in Figure 3, they did not have the highest mean score for each of the five questions. Figure 9 gives an overview of the mean scores for each question. As presented in Figure 9, Group A did not have the lowest score on any of the five questions and always ranked higher than Group C except for question number four. The higher the score, the less hindrance the teacher found in finding time to teach post-high school education classes. Some teachers in each of the three groups indicated that the teacher's load was too heavy and that this was a major factor in determining whether or not they conducted post-high school classes in agriculture.

It was interesting to note that all 21 teachers in Group A indicated that they were hindered somewhat by their present teacher load. Yet every teacher in this group was teaching post-high school education classes in agriculture each year. It appears, however, that the time factor is keeping many teachers in Group B and C from conducting post-high school classes.

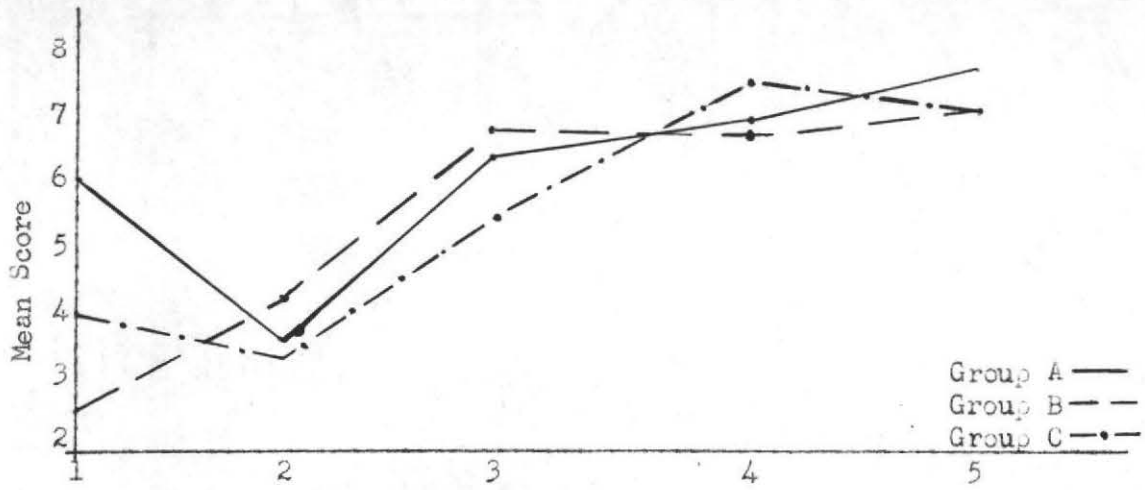

Figure 9. Mean scores of individual questions in testing hypothesis one (the teacher's load).

Hypothesis 2

Hypothesis two stated that the enrollment in post-high school education in agriculture is directly related to the teacher's attitudes toward the teaching of post-high school programs in agriculture.

Questions six to 13 and number 22 in the questionnaire were made to obtain information for testing this hypothesis. The questionnaire returns on these nine questions were converted into scores. If an answer was "yes" it received 10 points; "no", 0 points; "very important," three points; "important," two points; and "of little importance," one point. There was an exception to this rule; question 11 was negatively related to the others. To prevent the cancelling of scores, the "yes" answer for this question was given no points; the "no" was given 10 points. The arithmetic mean of each of the three groups of instructors was then computed and presented in Figure 10.

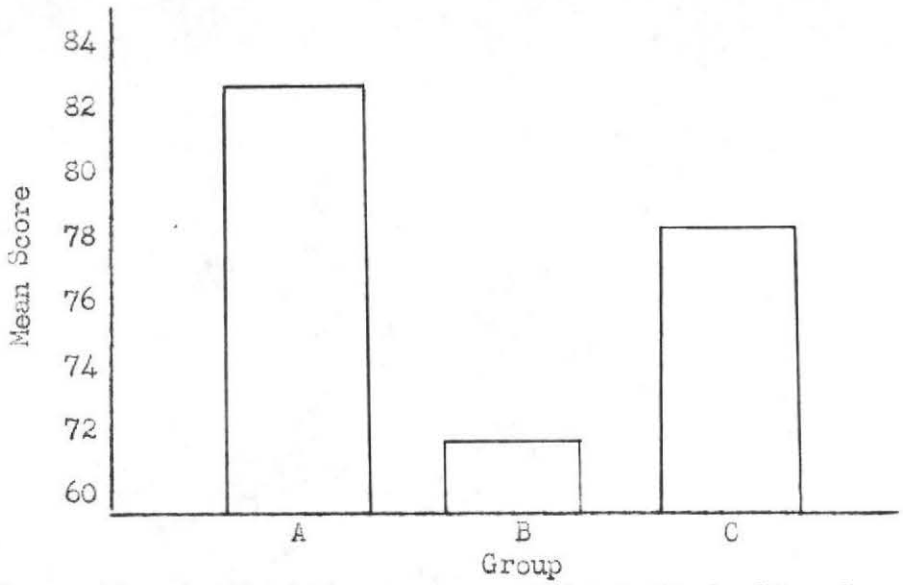

Figure 10. Arithmetic mean on questions six to 13 and number 22 for testing hypothesis two (the teacher's attitudes)

The higher the score in Figure 10 the better the attitudes were toward teaching post-high school classes in agriculture. The above table indicates that teachers in Group A had the most favorable attitudes of the three groups while teachers in Group B had the least favorable attitudes. Even though the teachers in Group A had the best over-all attitudes, they did not indicate the best attitudes in four of the nine questions asked.

In question six, 89 per cent of the vocational agriculture instructors reported that their school administrators allowed them to leave the school building during the school day to work with young and adult farmers when such time was available. Only 11 per cent of the teachers reported that they did not have such permission. Of the five who could not leave, one was from Group A, two from Group B, and two from Group C. The mean score of each group for question six is shown in Figure 11.

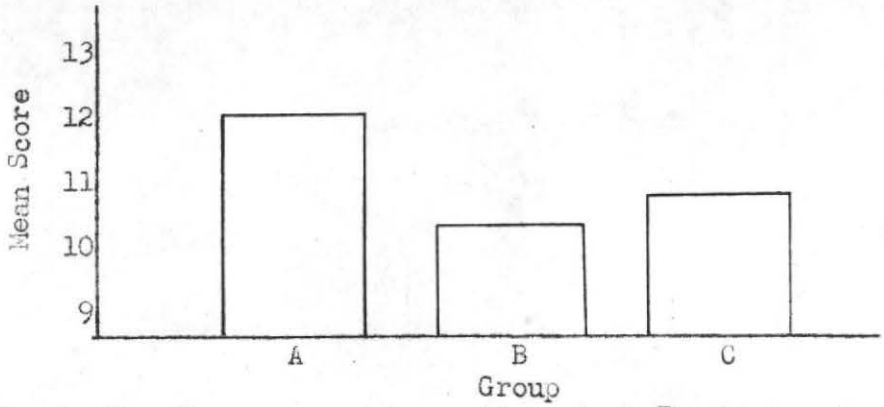

Figure 11. Mean scores of question six. The higher the score the higher the percentage of teachers in a group who were allowed to leave the school building during the school day to work with young and adult farmers

Only one teacher out of 21 in Group A did not have permission to leave the school building during the school day. This teacher reported that this was of little importance in his teaching of post-high school classes in agriculture. In fact, only one of the teachers who answered "no" to question six indicated that this difficulty was very important in hindering his teaching of post-high school classes. It may be noted that a higher percentage of teachers in Group A were allowed the more favorable conditions by their administrators.

The replies to question seven showed that approximately 82 per cent of the vocational agriculture teachers believed that their principal, superintendent and school board encouraged the conducting of post-high school classes in agriculture. Thirty-three per cent of Group B reported that they were not encouraged by their administrators to teach adult classes. Three teachers in Group A taught post-high school classes even though they were not encouraged by their local district to do so. Only one of 12 in Group C reported a negative answer. The mean scores for this question are found in Figure 12.

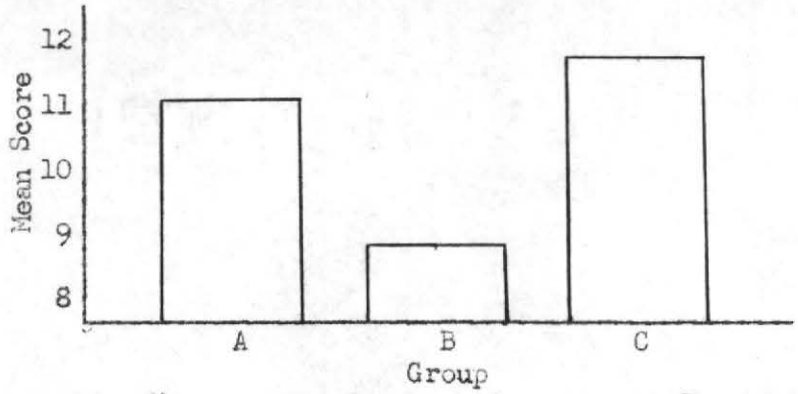

Figure 12. Mean scores for question seven. The higher the score the higher the percentage of teachers in a particular group who believed their principal, superintendent and school board encouraged the conducting of post-high school classes in agriculture.

Of the three teachers in Group A who indicated that the school administrators did not encourage them to teach post-high school classes in agriculture, two said this was very important. Since one-third of the teachers in Group B gave a negative answer, one may assume that this is a major hindrance in the teaching of adult education in agriculture.

The results for question eight showed that 67 per cent of the instructors of vocational agriculture believed that the post-high school programs in agriculture was a part of their job. The other 33 per cent gave negative answers. These negative answers were distributed almost evenly percentage wise among the three groups. The mean score comparisons may be found in Figure 13.

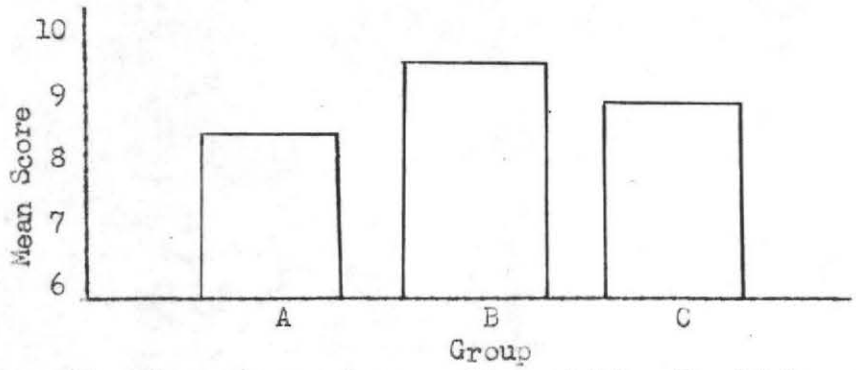

Figure 13. Mean scores for question eight. The higher the score the higher the percentage of teachers in the group who believe that the post-high school program in agriculture is part of their job.

As indicated in the preceding figure, Group B had the highest mean score. However, of the nine questions asked in testing hypothesis two, this is the only time Group B had the highest mean score.

In question nine 56 per cent of the agriculture instructors indicated that they did not prefer working with young and adult farmers to working with high school students. A higher percentage (57 per cent) of Group A teachers preferred working with young and adult farmers. Group B reported 75 per cent did not prefer the adult classes to high school students. The mean scores for each of the three groups are presented in Figure 14.

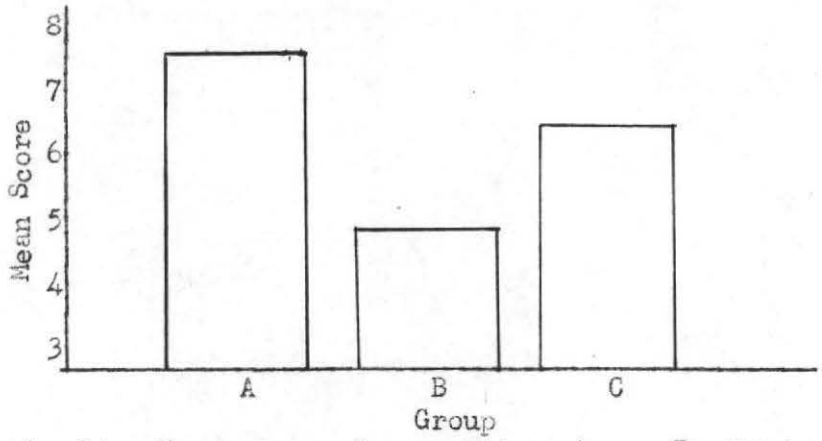

Figure 14. Mean scores for question nine. The higher the score, the higher the percentage of teachers in a group who preferred working with young and adult farmers to working with high school students

Teachers in Group B had the lowest mean score in Table 16. This means that a smaller percentage of teachers in this group preferred working with young and adult farmers to working with all-day students.

In question 10, 69 per cent of all the instructors of vocational agriculture reporting indicated that most teachers with whom they were acquainted were not interested in conducting young and adult farmer classes.

Only 29 per cent of Group A, 25 per cent of Group B, and 42 per cent of Group C reported that most vocational agriculture instructors were really interested in teaching post-high school classes. The mean scores for each of the three groups are presented in Figure 15.

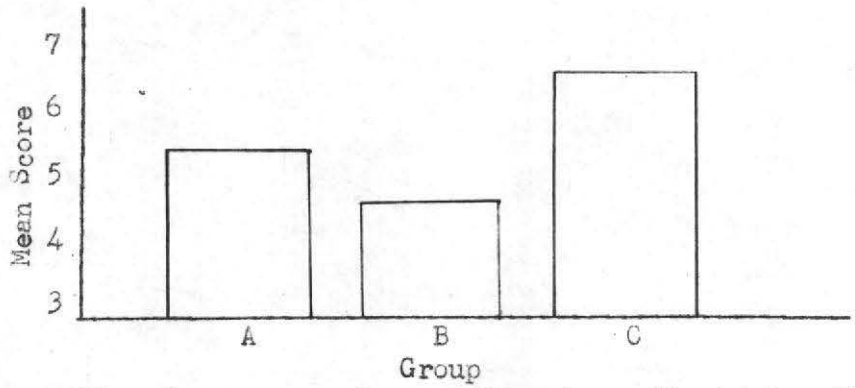

Figure 15. Mean scores for question ten. The higher the score the higher the percentage of teachers in a group who were interested in teaching post-high school classes in agriculture

Teachers in Group B had the lowest score again indicating that the lowest percentage of its teachers were interested in teaching post-high school classes in agriculture. Fifteen teachers in Group A gave a negative answer to this question. This means that these teachers in Group A who regularly teach adult classes are doing so because of some other reason. Of the three groups, teachers in Group C seemed to have the most interest toward the teaching of adult education classes in agriculture.

To question 11, approximately 58 per cent of the reporting teachers of vocational agriculture indicated that they object to teaching at night. The highest percentage of any one group objecting was Group A (67 per cent). In Group B and Group C, 50 per cent were against teaching at night. The mean scores for each of the three groups are shown in Figure 16.

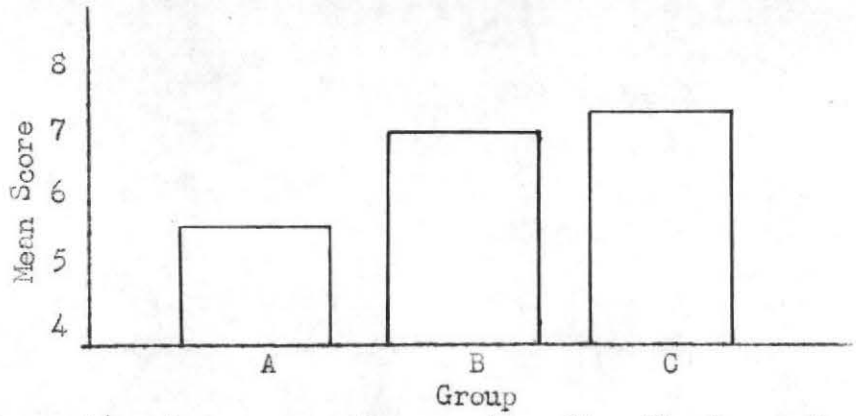

Figure 16. Mean scores for question 11. The lower the score the higher the percentage of teachers in a group who objected to teaching at night

Of the 45 teachers reporting, 26 objected to teaching at night. This supports the findings reported by Scarborough (14).

To question 12, approximately 55 per cent indicated that in their opinion the present salary and mileage was not sufficient to encourage teaching post-high school education. In each of the three groups between 40 and 50 per cent did not believe the salary and mileage were sufficient. The mean scores of each of the three groups may be found in Figure 17.

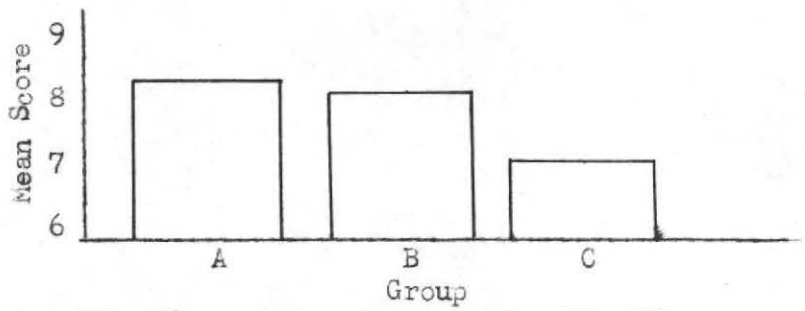

Figure 17. Mean scores for question 12. The higher the score the better satisfied the group of teachers were with the present salary and mileage

As Figure 17 shows, teachers in Group A and Group B have a slightly better attitude towards present reimbursement than teachers in Group C.

The results for question 13 showed that 82 per cent of the teachers of agriculture agreed that vocational agriculture teachers should attend the young farmer conventions in order that they may be further inspired to teach post-high school education. Teachers in Group C indicated the highest percentage of objections with 33 per cent; in Group B, 20 per cent objected; and in Group A, only 4 per cent objected.

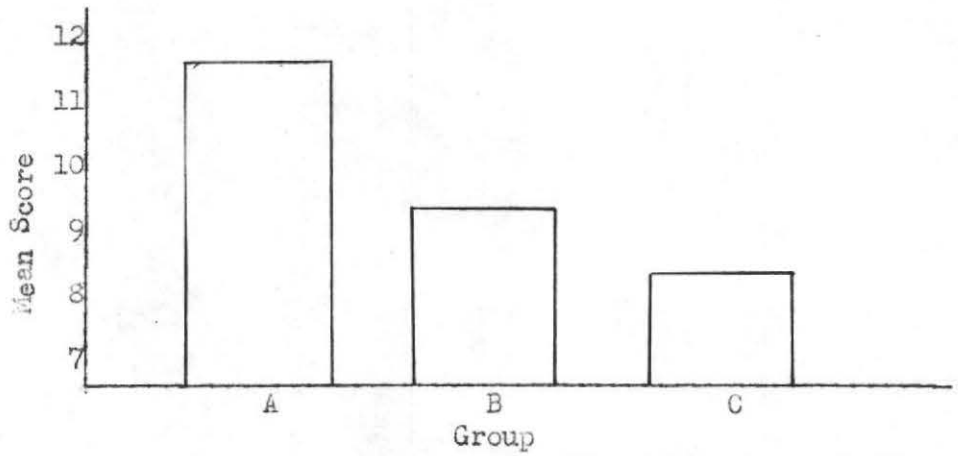

Figure 18. Mean scores for question 13, which show relative attitude toward vocational agriculture teachers attending the young farmer conventions

The information shown in Figure 18 seems to indicate that teachers in Group A have the most enthusiastic attitude towards the teaching of post-high school education classes in agriculture. Teachers in Group C seemed the least enthused.

To question 22, only one out of the 45 vocational agriculture teachers believed that established farmers would not profit through additional training in agriculture. This teacher belonged to Group B. Since practically all the teachers had the same views for this question, no further statistical analysis was made.

Of the nine questions made to test hypothesis two, teachers in Group A had the highest total score indicating that they had the most favorable attitudes toward the teaching of post-high school classes in agricultural education (see Figure 10). However, teachers in Group A had the lowest score of the three groups in answering questions eight and 11; they ranked second on questions seven and 10; and ranked first on questions six, nine, 12, 13 and 22. Figure 21 presents an overview of the mean scores in the testing of hypothesis two.

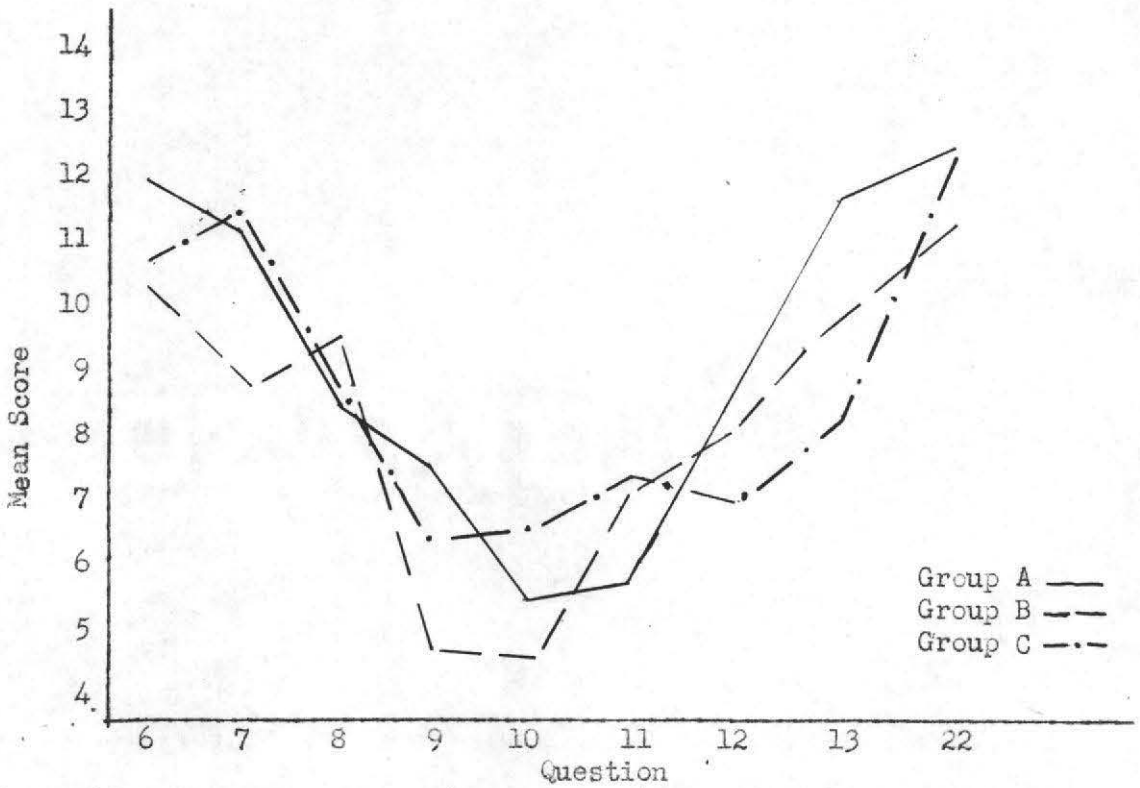

Figure 19. Mean score comparison of questions six to 13 and number 22 (the teacher's attitudes)

The higher the score, the better the teacher's attitudes toward the teaching of post-high school education in agriculture. Even though Figure 10 shows that teachers in Group B had the poorest attitude of the three groups,

they had the highest score on question eight and ranked second on question 11, 12 and 13.

Hypothesis two, which stated that the enrollment in post-high school education in agriculture is directly related to the teacher's attitudes toward the teaching of post-high school programs in agriculture was not supported by findings of this study. There were no significant differences in their reactions when the three groups were compared. These findings do not agree with the conclusions presented in the review of the literature (7).

Hypothesis 3

Hypothesis three stated that enrollment in post-high school education in agriculture is directly related to the vocational agriculture teacher's feeling of preparedness to teach young and adult farmer classes. Questions 14, 15 and 16 were designed to obtain information for testing this hypothesis. The questionnaire answers were converted into scores (10 points for each "yes" answer and no points for each "no" answer). The mean score for each of the three groups was computed. The results are shown in Figure 20.

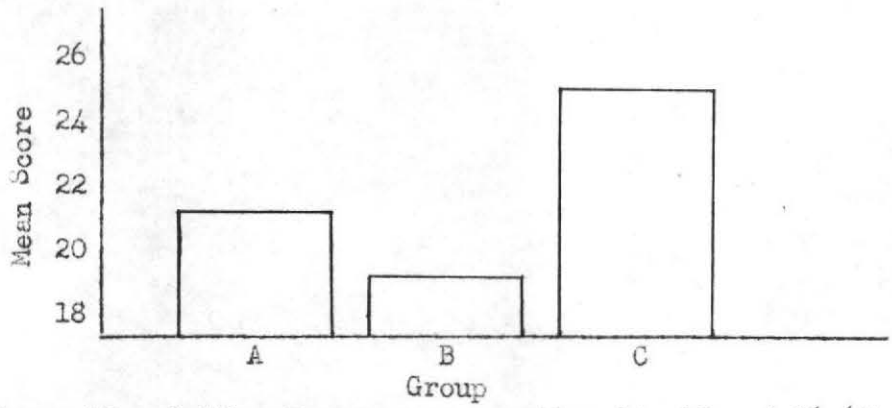

Figure 20. Arithmetic mean on question 14, 15 and 16 (the teacher's abilities).

A statistical analysis was made to determine if the differences among the means of the three groups was significant or due to sampling error. Using the one-tailed test (3), the writer found that there was a significant difference between the mean of Group A compared to Group B at the five per cent level of confidence. This, then, seems to indicate one of the reasons teachers in Group B do not regularly teach post-high school classes in agriculture. However, hypothesis three, which stated "The enrollment in post-high school education in agriculture is directly related to the vocational agriculture teacher's feeling of preparedness to teach young and adult farmer classes," could not be supported by this study. Teachers in Group C had the highest score, yet they enrolled no farmers in adult classes in agriculture.

In question 14 (see appendix) approximately 53 per cent of the 45 instructors of vocational agriculture believed that they had not received adequate preservice training in conducting young and adult farmer classes. A higher percentage of teachers in Group C felt that they had received adequate preservice training in conducting young and adult farmer classes than either Group A or Group B. The mean score of each group for question 14 is presented in Figure 21.

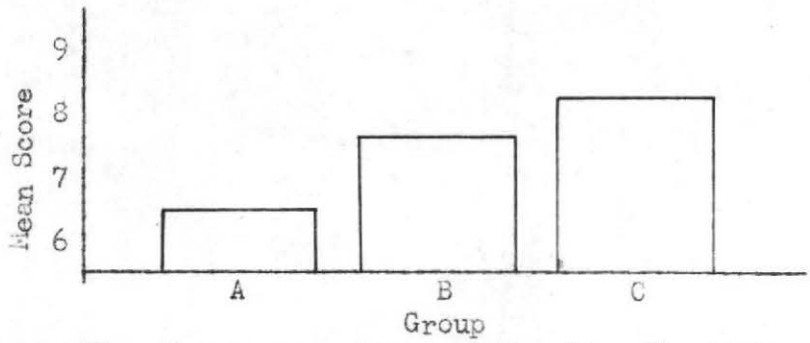

Figure 21. Mean scores for question 14. The higher the score the better the teachers felt they were prepared to teach young and adult farmer classes.

The results presented in Figure 21 indicate that the teachers in Group C (those who do not teach post-high school classes) felt they were better prepared than were teachers in the other groups. Teachers in Group A (those teachers who regularly teach these classes) felt they needed more training. If teachers in Group C had tried teaching post-high school classes they may not have felt so confident.

Returns on question 15 indicated that about 46 per cent of the 45 teachers did not feel they had received adequate preservice schooling in helping farmers determine their educational needs and in leading them in planning meetings to help meet these needs. Groups A and C had about the same mean scores, while Group B was far lower. The scores are presented in Figure 22.

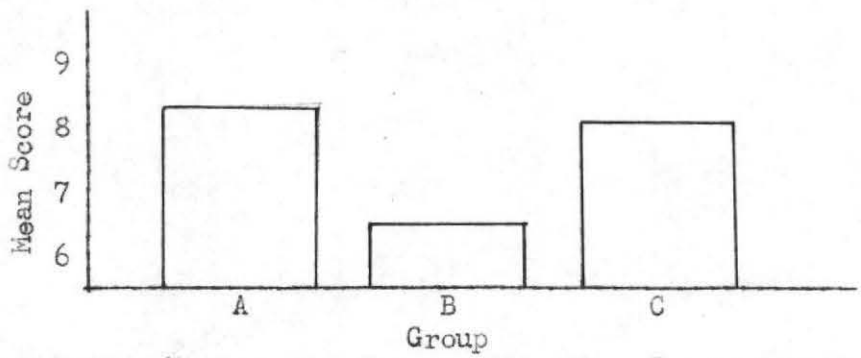

Figure 22. Mean scores for question 15. The higher the score the more adequate preservice schooling the teacher believed they had received

Of the 12 teachers in Group B, only five indicated they felt they had received adequate preservice schooling in this regard. The mean score was way below the mean scores of Group A and Group C. This may be one of the reasons that teachers in Group B do not teach post-high school classes in agriculture regularly.

The results for question 16 indicated that 30 of the 45 teachers felt they had received adequate preparation in locating and recruiting young and

adult farmers. Of the 15 teachers who gave a negative answer, eight, or a little more than 53 per cent, were from Group A. The mean score for each group is presented in Figure 23.

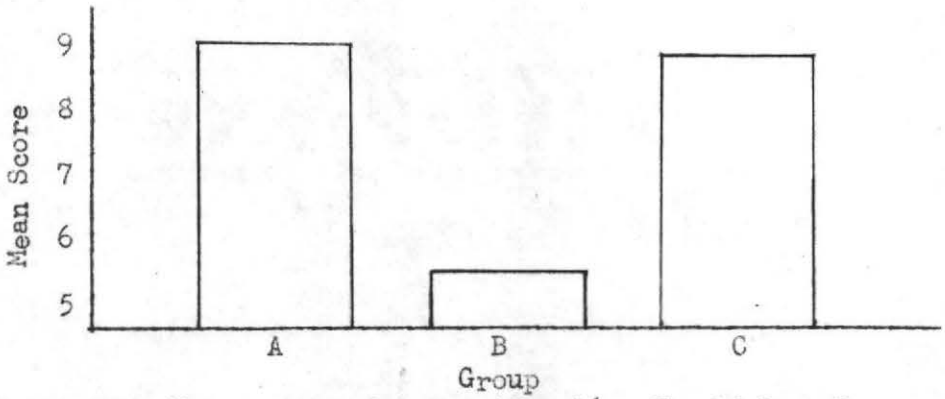

Figure 23. Mean scores for question 16. The higher the score the better the teacher's training in locating and recruiting young and adult farmers

The higher the score the more adequately prepared a group of teachers as a whole felt in their methods of locating and recruiting young and adult farmers. Only 33 per cent of the teachers in Group B felt confident in this respect and this may be a major reason why teachers in this group do not regularly teach post-high school classes in agriculture.

Figure 24 gives an overview of the mean score for each question made to test hypothesis three.

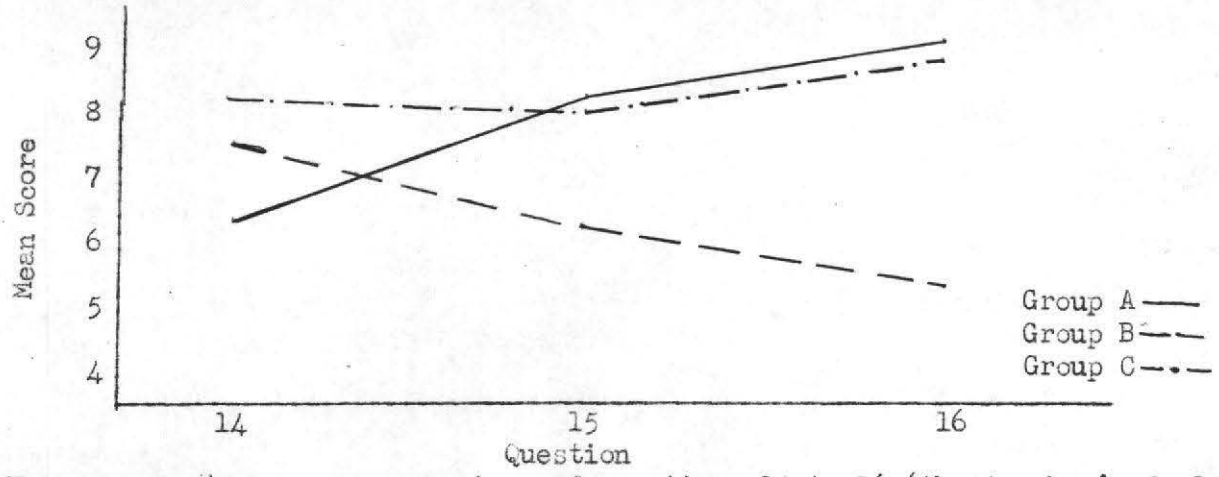

Figure 24. Mean score comparison of questions 14 to 16 (the teacher's feeling of preparedness)

The higher the score in Figures 20 to 24, the better the group as a whole felt towards their abilities in teaching adult education classes. Group C indicates that they have the most confidence in this respect. These results were exactly opposite to those the writer had predicted. This may be due to the fact that the teachers in Group C have never tried teaching post-high school education classes and therefore have not found their weaknesses. The results showed that teachers in Group B as a whole felt not as well prepared as teachers in the other two groups. This may be a major reason why the teachers in this group have failed to regularly teach post-high school classes in agriculture education.

Hypothesis 4

Hypothesis four states that the enrollment in post-high school programs in agriculture is directly related to the method used by the teacher to enroll or recruit farmers into these programs. Questions 19, 20 and 21 were designed to obtain information in order that the hypothesis could be tested. The returns for questions 19 to 21 were converted into scores (10 points for "yes" answers and no points for a "no" answer). The arithmetic mean for

each group of teachers was computed as presented in Figure 25.

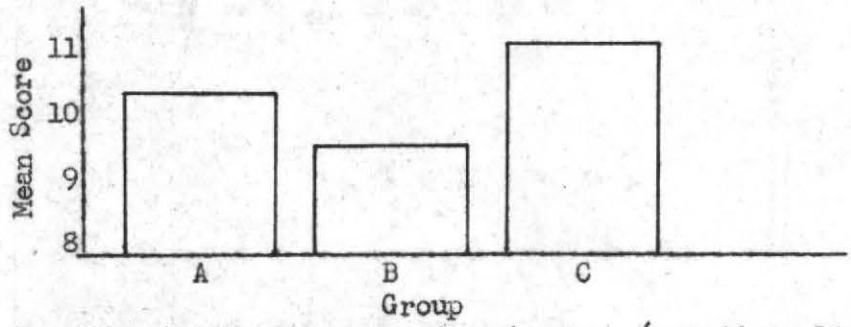

Figure 25. Arithmetic mean of each group (questions 19 to 21)

The higher the mean score in Figure 25, the better references the method used, or that could be used, by the teacher to recruit members into the young farmer and adult farmer programs. The above table indicates that teachers in Group C have the best methods at hand while Group B teachers have the poorest. The questionnaires showed that Group C was not highest in all three questions nor was Group B lowest in all three questions.

The results for question 19 indicated that three from each group (a total of nine) did not contact young farmers and try to recruit them into the post-high school program. Figure 26 shows that a lower percentage of teachers in Group A than in Groups B or C failed to contact young farmers and tried to enroll them in class.

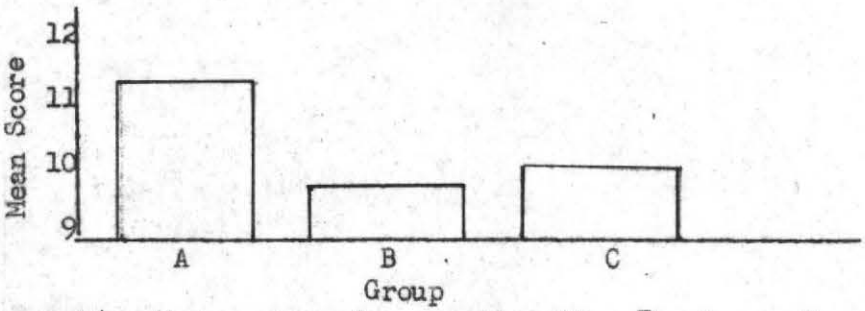

Figure 26. Mean scores for question 19. The lower the score the lower the percentage of teachers in a group who contact young farmers to try and recruit them into the post-high school program in agriculture

More teachers in Groups B and C than in Group A are not contacting farmers in recruiting membership into post-high school agriculture classes. This may be a major reason why Groups B and C have resulted in fewer enrollees in the post-high school program.

To question 20, which asked if teachers contact the adult farmers and try to recruit them into the post-high school program, only five of the 45 teachers said "no." Of these five teachers, four were in Group B and one in Group C. The mean score for each group is presented in Figure 27.

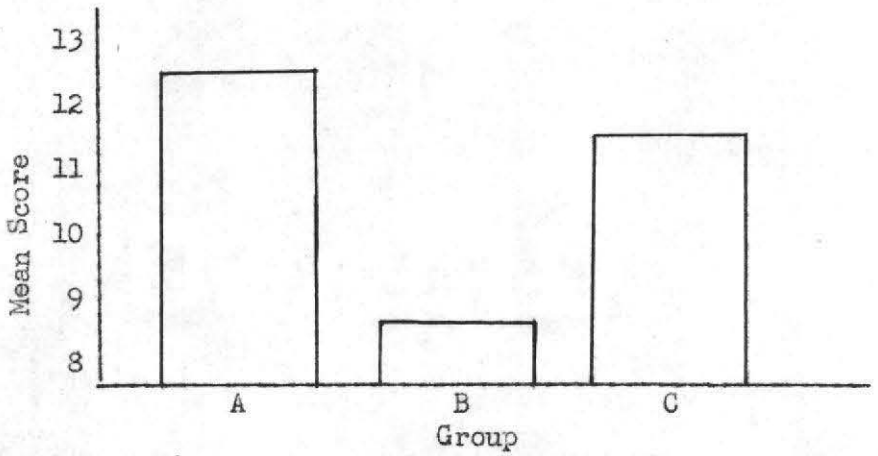

Figure 27. Mean scores for question 20. The lower the score the lower the percentage of teachers in a group who contact adult farmers to try and recruit them into the post-high school program in agriculture

Question 20 was the same as 19 with the exception of being related to adult farmers rather than young farmers. The results were more conducive for adult farmer classes than young farmer classes. The reason may well be that there are fewer young farmers in most communities than adult farmers; therefore more effort was made to enroll adult farmers. Evidently 89 per cent of the teachers contact adult farmers and try to recruit them into post-high school classes.

The results for question 21 indicated that 35 teachers believe the citizens in their respective districts are informed of the potentials of a post-high school program in agriculture. Of the 10 teachers who gave a negative answer, six were from Group A, three from Group B, and one from Group C. The mean scores for this question may be found in Figure 28.

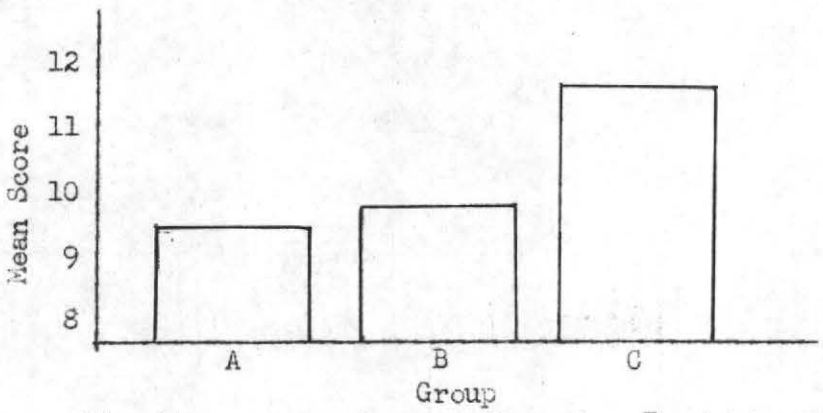

Figure 28. Mean scores for question 21. The higher the score the better the citizens in their respective districts were informed of the potentials of a post-high school program in agriculture

The results as shown in Figure 28 were exactly the opposite of the writer's prediction or hypothesis. Teachers in Group C who do not teach post-high school education classes seemed to believe more of their communities were informed of the potentials of a post-high school program in agriculture than did the teachers of the communities of Groups B or A. A higher percentage of teachers in Group A than in the other two groups indicated that communities were not the best informed.

Figure 29 gives an overview of the mean scores in questions 19 to 21 which were made to test hypothesis four.

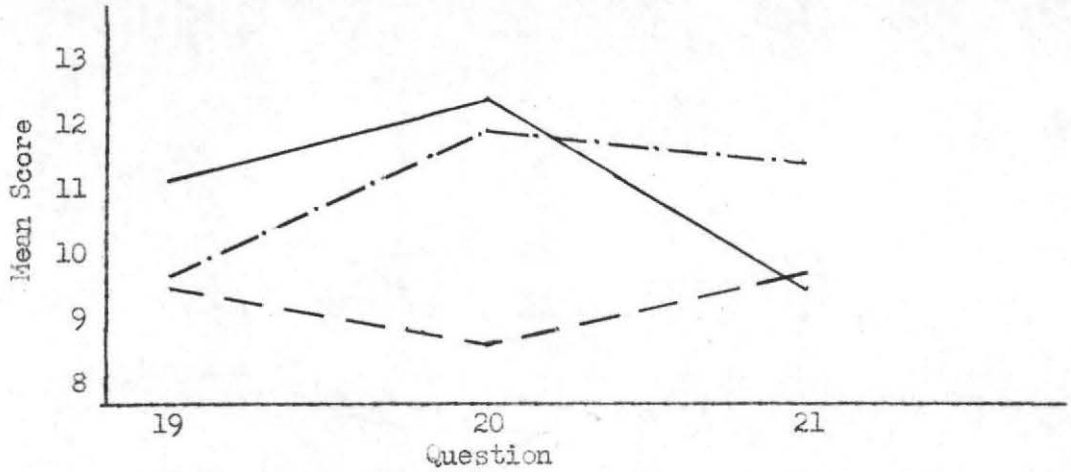

Figure 29. Mean score of individual questions in testing hypothesis four (methods of recruiting farmers)

The higher the scores in Figures 25 to 29 the better the teachers thought the methods were of enrolling young and adult farmers. It is interesting to note that a higher percentage of the teachers in Group A than in the other groups actually contact young and adult farmers to recruit them into post-high school programs. The teachers in Group A as a whole felt that their communities should be better informed than they are now. One reason for this may be that they are more aware of this fact.

Hypothesis 5

Hypothesis five stated that the enrollment in post-high school programs in agriculture is directly related to the facilities of the school. In other words, the teachers in Group A (teachers who are consistent in holding post-high school classes in agriculture) have the proper facilities in their schools to carry out the program. The teachers in Group C are handicapped by inadequate facilities and therefore do not teach such classes. However, this hypothesis had to be rejected or at least was not supported by the findings in this study. The mean scores for this question may be found in Figure 30.

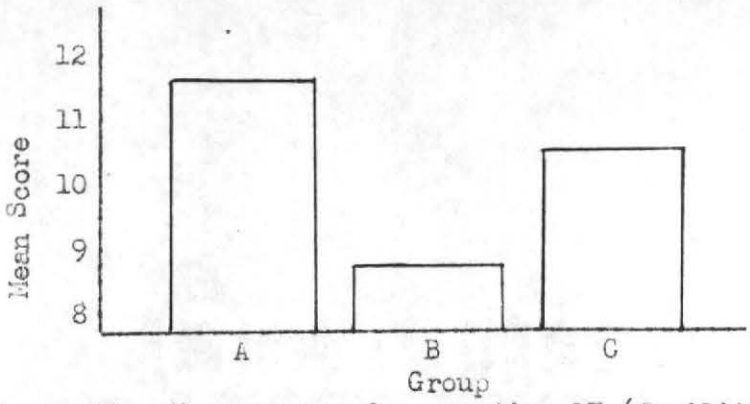

Figure 30. Mean scores for question 17 (facilities of the school)

It was interesting to note that there were teachers in each of the three groups who were hindered by inadequate facilities in the teaching of young and adult farmer classes. Of the eight teachers who stated the facilities were inadequate, two were in Group A, four in Group B, and two in Group C. There seemed to be no major differences in answers between Group A and C so one may assume that this is not the real cause that teachers in Group C do not teach post-high school classes.

Using the two-tailed test, the writer found a significant difference between the means of Group A and Group B at the per cent level of confidence. The inadequacy of school facilities may be a big reason why teachers in Group B do not teach young and adult farmer classes consistently.

Hypothesis 6

Hypothesis six states that the enrollment in post-high school education is directly related to the number of farmers in each patronage area. Question 18 asked each teacher if there were enough young farmers in the local district for a young farmer program. The "yes" answers were given 10 points and the "no" answer received no points. The mean scores of each group is presented in Figure 31.

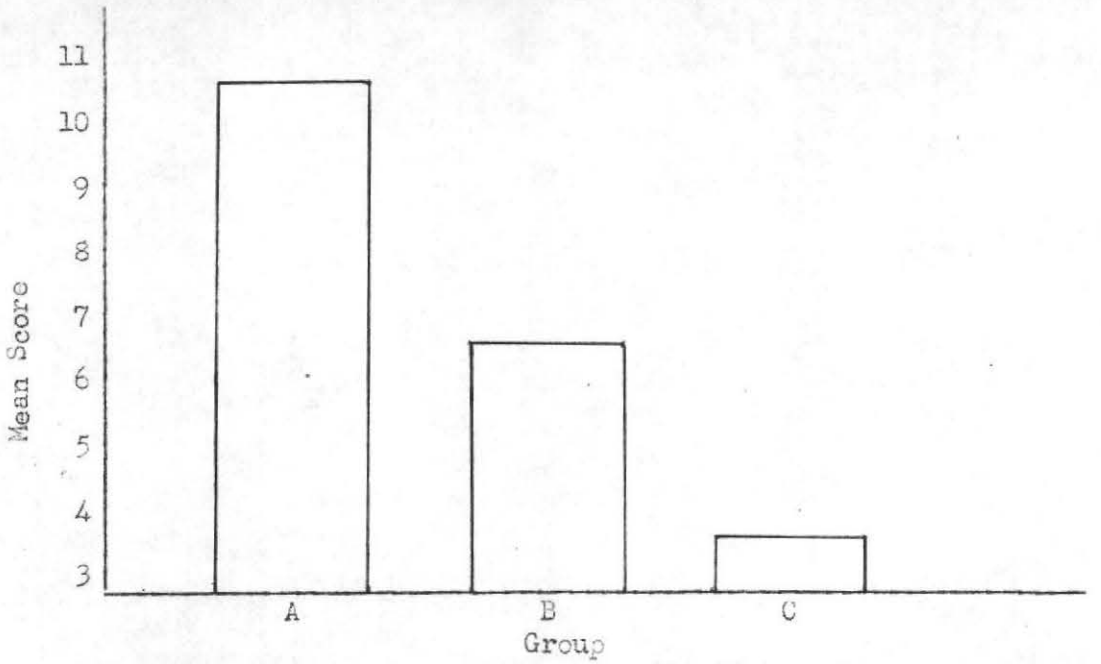

Figure 31. Mean scores for question 18. The higher the score the more farmers in the respective areas

Approximately 51 per cent of all the teachers indicated that there were enough young farmers in their respective areas for a young farmer program. Of the 22 teachers who reported that there were not enough farmers, four teachers were in Group A, seven were in Group B, and 11 in Group C.

In other words, 91 per cent of the teachers in Group C gave a negative answer, compared to 58 per cent of Group B, and 19 per cent of Group A.

Figure 31 indicates that teachers in general believe there are more farmers in areas where teachers in Group A are. The table also indicates that there are fewer farmers in areas where Group C teachers are located than either of the other two groups. This is exactly what the writer had predicted. A statistical analysis was made to see if there was a significant difference between the means (presented in Figure 33) among the three groups. Using the two-tailed test (16), the writer found that there was a significant difference between the means of Group A and Group C at the one per cent level of confidence. Also the results showed a significant difference between the

means of Group A compared to Group B. One can therefore say that there is only one chance of error in 100 of the results being wrong due to sampling error. This supported the sixth hypothesis which stated that the enrollment in post-high school education is directly related to the number of farmers in each patronage area.

Question 23 was submitted to the teachers to attempt to get a few more specific reasons why some teachers were not conducting young or adult farmer classes, or to find some of the difficulties experienced by all the teachers. This question was broken down into 11 categories to get teachers to rank the three greater obstacles to conducting young and adult farmer classes into first, second or third positions. The results are shown in Figures 32, 33 and 34.

In teaching young and adult farmers all of the categories except "teachers do not like to work with adult farmers" were reported as obstacles to one or more of the teachers in Group A. Most of the teachers in Group A listed one of two items as obstacle number one. Either their teaching load was too heavy or there were not enough interested farmers in the local area. For obstacle number two, five teachers in Group A reported that their teaching load was too heavy, and five indicated that they objected to teaching at night. For obstacle number three, three teachers objected to teaching at night.

Several teachers listed other obstacles: local administrators do not help promote the program, too much competition for rural people's time, after teaching the same people for years the barrel goes dry, no released time, and the administration thinks we are overpaid. Three teachers did not like to recruit members into young and adult farmer classes. It is interesting to note that teachers in Group A have indicated many obstacles that they

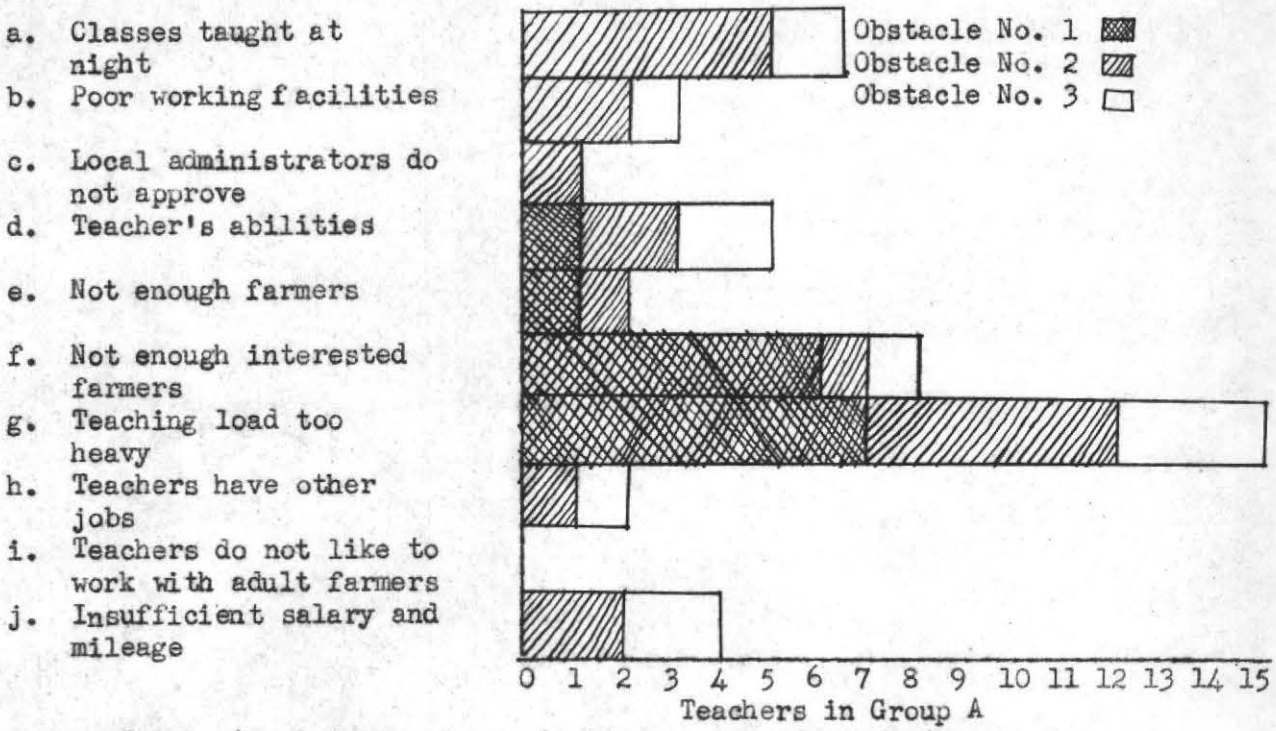

Figure 32. Teacher's obstacles to conducting young and adult farmer classes listed in order of severity (1, 2 and 3)

encounter in the teaching of young and adult farmer classes, yet in the same way they overcome these obstacles and regularly conduct post-high school classes in agriculture.

The main obstacles Group B reported were that the teaching load was too heavy, there were not enough interested farmers, and the school facilities were inadequate.

As presented in Figure 34, questionnaire returns from teachers in Group C indicated three major obstacles in the conducting of young and adult farmer classes: not enough interested farmers, teaching load too heavy, and classes taught at night.

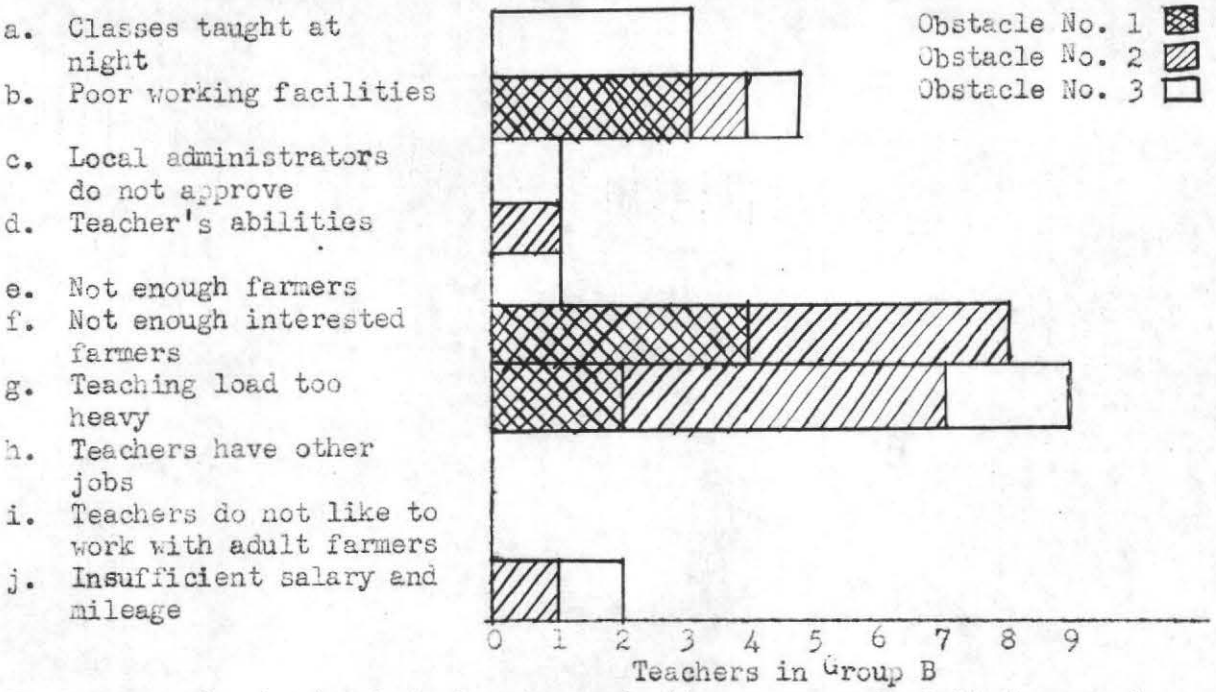

Figure 33. Teacher's obstacles to conducting young and adult farmer classes listed in order of severity (1, 2 and 3)

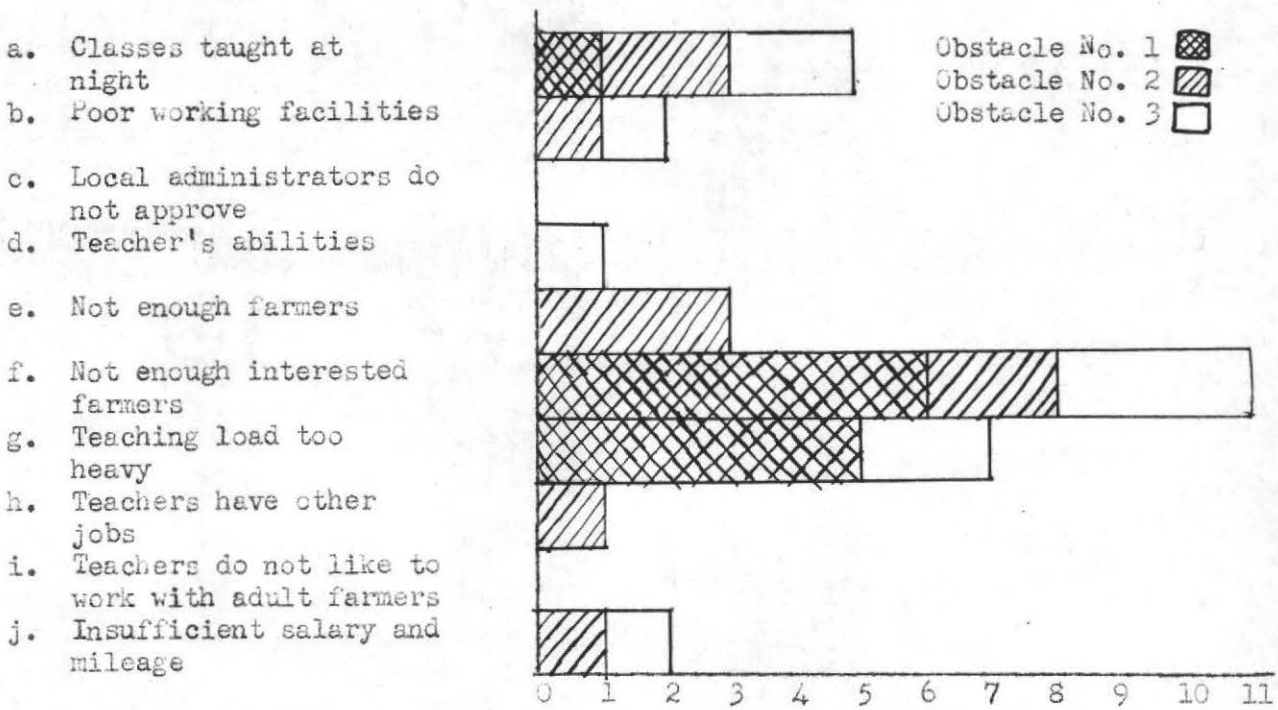

Figure 34. Teacher's obstacles to conducting young and adult farmer classes listed in order of severity for Group C

Teachers in Group C listed other problems in teaching young and adult farmers besides those in the questionnaire. Those listed were: not enough

full time farmers, competition for the farmer's time, and too many extra curricular activities for the teacher. One teacher wrote, "Everyone would like to teach post-high school classes in agriculture if they didn't have to coax farmers to enroll."

Figures 32, 33 and 34 show that teachers in all three groups indicated that their teaching load was too heavy and there were not enough interested farmers. Teachers in Groups A and C indicated their third obstacle was that they did not like to teach at night. The third major obstacle as reported by teachers in Group B was that their school facilities were inadequate. It was interesting to note that the obstacles listed as the major three were identical in both Groups A and C. The only difference was that teachers in Group A said obstacle number one was that their teaching load was too heavy, while teachers in Group C reported that there were not enough farmers in their patronage area. In other words, they had the same obstacles but listed in a different order of severity.

SUMMARY AND CONCLUSION

1. This investigation was undertaken to determine why there has been a decrease in enrollment in post-high school courses in agriculture in Utah from 1949 to 1956 while the nation's enrollment has gone upward in the same seven year period.

2. It was hypothesized that the Utah enrollment in post-high school programs in agriculture education was directly related to (1) the vocational agriculture teacher's load, (2) the vocational agriculture teacher's attitudes toward the teaching of post-high school programs in agriculture, (3) the vocational agriculture teacher's feeling of preparedness to teach young and adult farmer classes, (4) the methods used by the vocational agriculture teacher to enroll or recruit farmers into these programs, (5) the facilities of the school, and (6) the number of farmers in each patronage area. The first four hypothesis are related to the teachers of vocational agriculture while hypothesis five and six concern factors over which the vocational agriculture teacher has little or no control.

3. Questionnaires were sent to 45 vocational agriculture instructors in Utah who had two or more teaching years' experience. Of the 45 questionnaires sent out, 45 or 100 per cent were returned.

4. The questionnaire returns were divided into three groups: (1) teachers who conduct post-high school classes in agriculture, (2) those who carry out part of the program, and (3) the teachers who have little or no program in post-high school education in agriculture. A comparison of these three groups was then made.

5. Hypothesis one which stated that the enrollment in post-high school education in agriculture is directly related to the vocational agriculture teacher's load was supported when the writer used the one-tailed test at the five per cent level of confidence. In other words, teachers in Group C indicated that they believed they had the heaviest load. Group B seemed to have the next heaviest while Group A had the lighter load.

6. The writer found no significant differences among the three groups when studying the vocational agriculture teacher's attitudes toward the teaching of post-high school classes in agriculture. Therefore hypothesis two was not supported by this study.

7. Hypothesis three which stated, "The enrollment in post-high school classes in agriculture is directly related to the vocational agriculture teacher's feeling of preparedness to teach young and adult farmer classes," could not be supported by this study. Using the one-tailed test, the writer found there was a significant difference between the means of Group A compared to Group B at the five per cent level of confidence. This, then, seems to indicate one of the reasons teachers in Group B do not regularly teach post-high school classes in agriculture. Teachers in Group C felt the best prepared probably because they had not taught young and adult farmer classes.

8. Hypothesis four, which states that the decrease in enrollment is directly related to the method used by the teacher to enroll or recruit farmers into these programs could not be supported by this study. It was interesting to note that a higher percentage of the teachers in Group A than in either of the other two groups actually contact young and adult farmers to recruit them into post-high school programs in agriculture. The teachers in Group A as a whole felt that their communities could be better informed. One reason for this may be that they are more aware of this fact.

9. Hypothesis five could not be supported by this study. In other words, the teachers in Group A have no better facilities in their schools than do teachers in Group C. It was interesting to note that there were teachers in each of the three groups who were hindered by inadequate facilities in the teaching of young and adult farmer classes. However, one-third of the teachers in Group B reported they had inadequate school facilities. This may be a reason why these teachers do not teach post-high school classes regularly.

10. This study indicated that hypothesis six was correct. "The enrollment in post-high school classes in agriculture was directly related to the number of farmers in each patronage area." Approximately 92 per cent of the teachers in Group C indicated that they believed there were not enough farmers in their areas for them to teach young and adult farmer classes. Approximately 58 per cent of the teachers in Group B and about 20 per cent of Group A reported there were not enough farmers in their patronage areas.

11. All three groups of teachers indicated that the two major obstacles to conducting young and adult farmer classes were that their teaching load was too heavy and there were not enough interested farmers in the patronage areas. Yet teachers in Group A taught post-high school classes in agriculture regularly, while teachers in Group B taught post-high school classes part of the time. Teachers in Group C taught no post-high school classes in agriculture.

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A P P E N D I X

December 6, 1957

Dear Teacher of Vocational Agriculture:

Young and adult farmer programs have received increased attention during the last few years. A study in 1952 showed that over 80 per cent of the administrators and vocational agriculture teachers in Utah were in favor of post-high school programs in agriculture. Yet the enrollment in Utah has gone down about 50 per cent since 1949 while the national enrollment has increased. It is realized that the number of farmers has greatly reduced while at the same time the importance of agriculture occupations has risen.

To determine what needs to be done in Utah for young farmer and adult farmer programs we need your opinions. The answers will be kept in strict confidence. No one from the state department or University staff will see your name or be able to trace the questionnaire to you.

In order to beat the Christmas rush, I would greatly appreciate it if you would send this questionnaire back by December 15.

Respectfully yours,

Dean P. Barton
Utah State University
Logan, Utah

example

January 6, 1958

Mr.
Vocational Agriculture Instructor
Utah

Dear Mr.

We at the college are very anxious to get your response on the young and adult farmer questionnaire. We need only yours and others to get our needed 100 per cent.

In case our last questionnaire was misplaced, we are sending another copy. Please help us by mailing the letter this week!

We appreciate your time and efforts.

Respectfully yours,

Dean P. Barton
Utah State University
Logan, Utah

Name_____ Department: ☐ Ag. Science ☐ Farm Mch. ☐ Both

Total years teaching Vocational agriculture_____ Number of children if married_____

Present degree_____

College graduate: Master's degree

After each question place a check (✓) under either the yes or no column, and also under one of the other three columns.

The following questions pertain to factors effecting the conduction of Young Farmer and Adult Farmer classes from July 1, 1957 to June 30, 1958	Yes	No	Importance as a factor effecting the conducting of post-high school classes in a local district. Very important	Important	Of Little Importance
1. Does the present schedule of activities (curricular and non-curricular) leave vo-ag teachers sufficient time to meet with young and adult farmer classes?					
2. Does the present schedule of activities allow vo-ag instructors sufficient time to meet post-high school classes and fulfill personal and family obligations?					
3. Is present pupil load light enough to allow teachers to assume the responsibility of training young and adult farmers?					
4. Does the nature of the work of vo-ag instructors allow a teacher to engage in nonschool employment such as farming, carpentry, or other work?					
5. Do most vo-ag teachers with whom you are acquainted engage in any business or occupation other than teaching?					
6. Do school administrators allow teachers to leave the school building during the school day to work with young and adult farmers when such time is available?					
7. Does the principal, superintendent, and school board encourage the conducting of post-high school classes in agriculture?					
8. Are post-high school programs in agriculture part of vo-ag teacher's job?					
9. Do teachers prefer working with young and adult farmers to working with all-day students?					

	Yes	No	Very Important	Important	Of Little Importance
10. Are most vo-ag instructors with whom you are acquainted interested in conducting young and adult farmer classes?					
11. Do teachers object to teaching at night?					
12. Is the salary and mileage sufficient to encourage teaching post-high school education?					
13. Should vo-ag teachers attend the Young Farmer conventions to further inspire them to teach post-high school education?					
14. Have vo-ag instructors received adequate pre-service training in conducting young and adult farmer classes?					
15. Have vo-ag instructors received adequate pre-service training in helping farmers determine their educational needs and in leading them in planning a series of meetings to help meet these needs?					
16. Have teachers received adequate training from others or from their own experience in locating and recruiting young and adult farmers?					
17. Are facilities available for instruction of young and adult farmer groups (such as rooms, equipment, light, head, reference, etc.)					
18. Are there enough young farmers in the local district for a Young Farmer program?					
19. Do teachers contact the young farmers and try to recruit them into the post-high school program?					
20. Do teachers contact the adult farmers and try to recruit them into the post-high school program?					
21. Are the citizens in the district informed of the potentials of a post-high school program in agriculture?					
22. Would established farmers profit through additional training in agriculture?					

23. Check in order (1-2-3) the three main obstacles that stand in the way of conducting post-high school programs in agriculture.

_____ a. Classes taught at night.
_____ b. Poor working facilities.
_____ c. Local administrators don't approve.
_____ d. Teacher's abilities.
_____ e. Not enough farmers.
_____ f. Not enough interested farmers.
_____ g. Teaching load too heavy.
_____ h. Teachers have other jobs.
_____ i. Teachers don't like to work with adult farmers.
_____ j. Insufficient salary and mileage

If other please list:

_____ k.
_____ l.
_____ m.