

OCCUPATIONS ENTERED BY AGRICULTURE EDUCATION GRADUATES
OF VIRGINIA POLYTECHNIC INSTITUTE 1948-1958

by

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CHAPTER I

DESCRIPTION OF STUDY

Background of the Study

After the passage of the federal Smith-Hughes Act in 1917, the Governor of Virginia proclaimed his acceptance of the provisions of the act and designated the State Board of Education as the agency to cooperate with the Federal Board for Vocational Education. In February, 1918, the Virginia legislature passed a bill accepting the provisions of the federal Smith-Hughes Act and at the same time provided funds to match the federal appropriation.

Following the rejection by the federal board of the proposed three-way teacher-training program to be conducted by the University of Virginia, Virginia Polytechnic Institute, and William and Mary, the State Board for Vocational Education on September 17, 1918, approved the Virginia Polytechnic Institute as the only training center in Virginia for white teachers of vocational agriculture.¹ On November 19, 1918, this final plan was approved by the State Board of Education whose members served in dual function as both the State Board of Education and the State Board for Vocational Education.

¹Duncan Lyle Kinnear, "A History of Agricultural Education in Virginia With Special Emphasis on the Secondary Level," Dissertation, Ph.D., 1952. The Ohio State University, 657 pp.

In the fall of 1918 the Agricultural Education Department was established in the School of Agriculture at Virginia Polytechnic Institute with the chief purpose to be the training of teachers of vocational agriculture. With the establishment of the Department of Agricultural Education in the School of Agriculture, it was made possible for the newly organized department to provide the required cultural and technical subject matter courses and to offer the needed professional courses for the prospective teachers of vocational agriculture.

The writer recognized that one method of determining the effectiveness with which the staff in Agricultural Education trains teachers of vocational agriculture is to collect, organize, and interpret current information on the status of its graduates. The most recent detailed study concerning the status of graduates, 1917-1947, was completed in 1947.

What have been the interests, opinions, and occupations of the graduates during the past 11 years, 1948-1958, in which so many changes have occurred in agriculture? The staff in Agricultural Education must know the answer to this question in order to maintain an accurate follow-up of the accomplishments of the graduates.

Statement of the Problem

The problem for this study was to determine the occupations entered by Agricultural Education graduates of Virginia Polytechnic Institute 1948-1958, their financial advancement, and relationship of undergraduate success to success after graduation.

Purposes

The problem of this study led the author to list the following specific purposes:

1. To determine the fields of employment which the graduates in Agricultural Education of Virginia Polytechnic Institute have entered from 1948 through 1958.
2. To determine the beginning salaries of the Agricultural Education graduates 1948-1958 and to compare the salaries of those who entered various job classifications.
3. To determine the number who have changed jobs and the reasons for the changes.
4. To determine the educational advancement made by the graduates.
5. To determine the relationship of quality credit average and co-curricular activities to occupational choices and advancement.
6. To determine the curriculum changes that the graduates think desirable to improve the Agricultural Education curriculum at Virginia Polytechnic Institute.

These purposes cover a rather wide area of research and the writer decided to limit their scope.

Limitations of the Study

This study was limited (1) to information concerning the baccalaureate and master's degree graduates in Agricultural Education of Virginia Polytechnic Institute from 1948 through 1958, and (2) to a con-

sideration of quality credit average and participation in co-curricular activities as factors for comparing undergraduate success to success after graduation for the Bachelor's Degree graduates only.

Those graduates who qualified to teach vocational agriculture at Virginia Polytechnic Institute but received their degrees in fields other than agricultural education were not included.

A questionnaire type of study was desirable because of the large number and widely scattered locations of the graduates, and the limited time and heavy expense involved by the author.

Definitions

Agricultural Education referred to in this study is a curriculum in the School of Agriculture at Virginia Polytechnic Institute involving a diversified coverage of the technical agricultural fields. The curriculum provides the fundamental courses in technical agriculture which are necessary to prepare teachers of vocational agriculture for service in the public high schools. Technical, agricultural, professional, and cultural courses are provided to meet state certification requirements.

The occupations entered are the vocations accepted by the graduates immediately after graduation from Virginia Polytechnic Institute.

The quality credit average (Q.C.A.) is figured on the basis that a grade of A equals three quality credits per credit hour; a grade of B equals two; and a grade of C equals one. The overall quality credit average is calculated by dividing the total quality credits received while attending Virginia Polytechnic Institute by the total hours passed.

In order to graduate from Virginia Polytechnic Institute, the student must have a quality credit average of one or above on all subjects within his curriculum and on all subjects of his major department.

The co-curricular activities of the former students included their membership and participation in honorary organizations and clubs as well as voluntary membership and participation in the various organizations and clubs on the campus of the Virginia Polytechnic Institute.

Assumptions

Previous studies reveal that graduates in Agricultural Education of Virginia Polytechnic Institute are employed in many different vocations. It was assumed by the author that there was a variation in the beginning salaries and in the increases received by the graduates; that the graduates had changed positions for a definite reason; that educational advancement had been made by some of the graduates; that there was a definite relationship of quality credit average and co-curricular activities to occupational choices and advancement, and that all information supplied in response to the questionnaire was valid.

Setting and Need

Previous studies have been made of the graduates of Agricultural Education of Virginia Polytechnic Institute through 1947; however, there has never been a similar study of the graduates from 1948 through 1958. None of the previous studies formulated any definite conclusion in determining the relationship of quality credit average or co-curricular

participation to occupational choices and advancement.

This study should be of interest to teachers, supervisors, and administrators in both vocational and general education. The results of this study will be useful to the Dean of Agriculture and to the staff in Agricultural Education at Virginia Polytechnic Institute in guidance, counseling, and placement of graduates.

Procedure of Study

The problem of determining just what occupations were entered by the Agricultural Education Graduates of Virginia Polytechnic Institute who graduated from 1948 through 1958, was selected and an outline on the problem was submitted in December, 1958. Available literature pertaining to this study was then reviewed to give the writer background material on what had been done on similar studies.

Upon the basis of the library work done in this area, a questionnaire was developed to obtain information from the graduates. This questionnaire was then revised in coverage and format with the aid of the Agricultural Education staff at Virginia Polytechnic Institute. The next step involved was that of testing the questionnaire on nine former students of agricultural education; after which the instructions for completing the questionnaire were improved and additional space was provided for the requested information.

After securing an endorsement for this study from Dr. T. J. Horne, Head of Agricultural Education at Virginia Polytechnic Institute, a list of the graduates in Agricultural Education from 1948 through 1958 was

obtained from the Vocational Education Department. This list was carefully checked for completeness and correctness with the Registrar of Virginia Polytechnic Institute.

Table 1 on page 18 reveals that from 1948 through 1958, 296 Bachelor's Degrees, 26 Master's of Education Degrees, and 34 Master's of Science Degrees were conferred, making a total of 356 degrees during the 11 year period. Of these 356 degrees, two of the Bachelor's Degree graduates were deceased and 21 of the Bachelor's Degree graduates received their Master's Degree during 1948-1958, making a total of 333 individuals in this study.

The present or last known address of each graduate was obtained from the Vocational Education Department and the Alumni Association at Virginia Polytechnic Institute. A list of the graduates by year graduated and kind of degrees earned, including their 1958 occupations and addresses, is included as Appendix E.

On February 24, 1959, a questionnaire with a letter of endorsement was mailed to each of the 333 graduates of Agricultural Education of Virginia Polytechnic Institute from 1948 through 1958. A self-addressed, stamped envelope was enclosed for returning the questionnaire. Five unclaimed letters were returned to the writer. These letters were remailed to revised addresses. By March 19, 1959, 191 (57.3 per cent) of the questionnaires had been returned.

On March 21, 1959, a follow-up letter, explaining the need for their cooperation in this study, was mailed to the 142 graduates who had not returned the questionnaire. From these, an additional 81 question-

TABLE 1

NUMBER OF AGRICULTURAL EDUCATION GRADUATES FROM VIRGINIA POLYTECHNIC
INSTITUTE 1948-1958 BY KIND OF DEGREE AND YEAR GRADUATED

Kind of Degree	Number of Graduates by Year of Graduation											Total 1948-1958
	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	
B.S.	23	19	43	42	29	25	24	12	25	29	25	296
M.Ed.					3	11	1	3	2	5	1	26
M.S.	2	2	6	2	3	4	5	2	4	3	1	34
Totals	25	21	49	44	35	40	30	17	31	37	27	356

naires were returned. A copy of the questionnaire, the letter of endorsement, and the follow-up letter are included in the Appendix.

Immediately following the proper distribution of the questionnaire, the quality credit average for each recipient of the Bachelor of Science Degree in Agricultural Education was obtained from the Registrar and from the former students' files in the Vocational Education Department of Virginia Polytechnic Institute. The writer then obtained a record of co-curricular activities engaged in by each individual of this group from the Virginia Polytechnic Institute Yearbooks. A numerical value of one was assigned to each membership in co-curricular activity and any office held in a recognized college organization in which the graduate had belonged during his undergraduate enrollment at Virginia Polytechnic Institute. The total value of co-curricular activities for each individual was determined by adding these numbers.

By April 16, 1959, 272 (81.7 per cent) of the 333 individuals included in this study had returned their questionnaires, nine of which were received by personal contact with the graduates. Eleven additional questionnaires were returned too late to be included in the study. The information given by these graduates would intensify the results shown in this study.

Twelve of the vocational agriculture teachers in Virginia gave an inadequate record of their past salary schedules. In order to make a more accurate comparison of the salaries of all the graduates, their salary schedules were obtained by the writer from the Assistant State Supervisor of Vocational Agriculture.

Averages and percentages were calculated on a calculator. After sorting, counting, and calculating the information in the questionnaire, the data were organized into tables or factual statements.

CHAPTER II

REVIEW OF LITERATURE

Although many studies have been made of agricultural education graduates, only three studies relating directly to the occupations of the graduates in Agricultural Education of Virginia Polytechnic Institute have been found. There have been additional studies made concerning graduates in agricultural education in other states, however, those studies made concerning the status of the graduates in Agricultural Education of Virginia Polytechnic Institute are of more importance to this study.

In an unpublished report of a follow-up of graduates in agricultural education from Virginia Polytechnic Institute from 1920 through 1957, Richard² found that since the Department of Agricultural Education was established in 1918, 671 persons received the Bachelor of Science Degree and 94 received the Master of Science or Master of Education Degree in Agricultural Education, making a total of 765 degrees granted to 729 different individuals. Thirty-six (5.3 per cent) of the Bachelor's degree graduates received the Master's degree in Agricultural Education.

Of the 729 individuals receiving degrees, 524 (71.9 per cent) have taught vocational agriculture one or more years. In 1957, 224 (42.7

²Claude E. Richard, "Follow-Up of Graduates in Agricultural Education from Virginia Polytechnic Institute from 1920 Through 1957," Unpublished Report, 1957, Virginia Polytechnic Institute, 4 pp. (Type-written.)

per cent) of the 524 graduates who started teaching vocational agriculture were still teaching. Of the 524 graduates who started teaching vocational agriculture, 243 (46.4 per cent) were still in the field of vocational education in agriculture, the majority or 94 per cent were employed in Virginia. The summary of this study reveals that in 1957 the 729 graduates were engaged in the following fields: education, 41.8 per cent; governmental agencies, 19.1 per cent; commercial or industrial, 16.5 per cent; professional group, 7.4 per cent; and miscellaneous group, 15.2 per cent.

Beamer³ studied 307 graduates of Agricultural Education who graduated from Virginia Polytechnic Institute from 1920 through 1947. Among the 307 graduates surveyed, 105 occupations were reported. These were grouped into five classifications: vocational education in agriculture, 45.6 per cent; other professional agriculture occupations, 14.4 per cent; related agricultural occupations, 14 per cent; education, non-vocational, 8.1 per cent; miscellaneous occupations, 17.9 per cent.

Incomes ranged from \$2,000 to more than \$10,000, with an average of \$4,050. The lowest average income was \$3,312 for the vocational-education-in-agriculture group, and the highest was for the miscellaneous-occupations group. The income differential between the vocational education in agriculture and the other-occupations group was slight for the first five years of employment, but with experience and service the

³Rufus W. Beamer, "A Follow Up Study of Virginia Polytechnic Institute Graduates in Agricultural Education Since 1918," Thesis, M.Sc., 1948, Virginia Polytechnic Institute, 90 pp.

spread became much greater.

This study revealed that 50.6 per cent of those who graduated from 1933 to 1947 were teaching on December 31, 1947. Twelve per cent of the graduates held Master's degrees. A Master's degree meant a \$300 increase in salary to the men who were teaching vocational agriculture.

In a follow-up study of graduates, post graduates, and those qualified to teach by taking certain classes in Agricultural Education at Virginia Polytechnic Institute, Pulley⁴ found that of the 432 men who qualified to teach vocational agriculture during 1918-1940, 60 per cent were engaged in that occupation. Most of the other 40 per cent were in occupations related to agriculture or to teaching.

Only 41 per cent of those who graduated from 1924 to 1928 were teaching vocational agriculture in 1940 compared with 72 per cent of those from the classes 1934 to 1938. The median annual salary for vocational agriculture teachers during 1928-1938 was \$1,750 for 234 teachers having the Bachelor of Science Degree compared with \$2,200 for eight teachers having the Master's degree.

In a study of why teachers of vocational agriculture leave the profession, Richard and Sanders⁵ reported that the four best liked features of the job of 49 former teachers of vocational agriculture in

⁴Mason H. Pulley, "A Follow-Up Study of Graduates, Post Graduates, and Those Qualified to Teach by Taking Certain Classes in Agricultural Education at Virginia Polytechnic Institute Since 1918," Thesis, M.Sc., 1940, Virginia Polytechnic Institute, 86 pp.

⁵C. E. Richard and H. W. Sanders, Why Teachers of Vocational Agriculture Leave the Profession, Mimeograph, Department of Vocational Education, Virginia Polytechnic Institute, May, 1945. 7 pp.

Virginia were: helping boys get started in farming; contact and work with farmers; contact and work with farm boys; and shop work. The four main disliked features were: reporting; monotony and confinement of routine class work; work with adult groups added to other duties; and low salary and lack of opportunity for advancement. It was also reported that the chief reasons for leaving the teaching profession were: low salary; lack of opportunity for advancement; more interested in the new job than in teaching; and teaching load too heavy.

Sultenfuss⁶ reported that 73 per cent of the 136 vocational agriculture teachers studied in the North Atlantic Region expected to remain in teaching. These teachers averaged 19 years of experience and had held an average of 2.42 positions. The most liked major areas reported by these same teachers were: working with school officials, Future Farmers of America advisors, and dealing with classroom duties, and supervised farming.

This study also revealed that 40 (29.4 per cent) of the graduates owned farms and a combined total of 50 (36.7 per cent) owned a farm or a business; 82 per cent indicated the farm or business helped them; 87.5 per cent stated they were staying in the teaching profession simply because they liked it; and 66 per cent indicated their salary was increasing.

Sultenfuss also found that almost two-thirds of the teachers had

⁶Vernon B. Sultenfuss, "What Teachers of Vocational Agriculture Like About Their Profession," Thesis, M.Sc., 1956, University of Maryland, 59 pp.

been offered other jobs, mostly as feed salesmen or Agricultural Extension Service workers. These teachers indicated that the major reason for turning down offers was the fact that the job would take them away from home.

In his study of 556 graduates of Alabama Polytechnic Institute, Tyler⁷ found that the occupations entered by these graduates were as follows: teachers of vocational agriculture, 227; teachers of veterans, 182; miscellaneous occupations, ten; Agricultural Extension Service, 23; Farmers Home Administration, ten; teaching other than vocational agriculture, 11; business, nine; entomology, seven; Soil Conservation Service, five; State Department of Agriculture, five; and farming, seven.

Of the total number of graduates surveyed, 29 of the graduates continued their education.

The chief reasons given by these graduates for entering occupations other than the teaching of vocational agriculture were: higher salaries, better opportunity for promotion, and the shortage of desirable positions in vocational agriculture.

Turpin⁸, in a study of the occupational distribution of graduates who majored in agricultural education at North Carolina State College

⁷James Durwood Tyler, "A Study of the Occupations Entered by Alabama Polytechnic Institute Baccalaureate Graduates in Agricultural Education from July 1, 1941 to July 1, 1951," Thesis, M.Sc., 1951, Alabama Polytechnic Institute, 76 pp.

⁸Charles B. Turpin, "Occupational Distribution of Graduates Who Majored in Agricultural Education at North Carolina State College From 1918 to 1950," Thesis, M.Sc., 1951, North Carolina State College, 63 pp.

from 1918 to 1950, reported that 633 graduates entered 34 different occupations immediately after graduation. In 1950 the graduates were employed in 55 different occupations and had entered a total of 75 different occupations. Distribution of the graduates immediately after graduation was as follows: vocational agriculture teachers, 73.1 per cent; related occupations, 19.6 per cent; non-related occupations, 1.8 per cent; and miscellaneous group, 5.5 per cent. The 1950 distribution of these graduates was: vocational agriculture teachers, 45.5 per cent; related occupations, 42.0 per cent; non-related occupations, 6.8 per cent; and a miscellaneous group, 5.7 per cent.

Two hundred and forty-one graduates left teaching vocational agriculture to enter 43 different related and non-related occupations; 89.2 per cent entered related occupations and 10.8 per cent entered non-related occupations. Factors influencing the graduates to leave the field of teaching vocational agriculture in order of frequency were: better opportunity to advance, financial reasons, other work more interesting, more desirable living conditions, retirement provisions, did not like teaching, and few teaching positions open. Since graduation, 81.2 per cent of the graduates taught vocational agriculture, while 18.8 per cent never taught. Sixty (9.5 per cent) of the 633 graduates received advanced degrees since graduation from North Carolina State College.

To determine why teachers of vocational agriculture who graduated from Louisiana State University from 1919 through 1948 left the service,

Stringfield⁹ studied 237 former teachers of vocational agriculture who had taught in Louisiana. The reasons listed most frequently by the former teachers of vocational agriculture for leaving the profession were: (1) income too low; (2) offered more money for other work; (3) limited chance of promotion; (4) preferred other work; (5) felt there was no future in the profession; (6) too much politics; (7) lack of security; and (8) school community demanded too much from teacher.

The occupations in which the former 237 teachers were engaged in 1948, in order of frequency, were: agricultural extension service, self-employed, college administrators and teachers, Farm Home Administration, military service, Veterans Administration, Soil Conservation Service, and secondary school administration.

In 1948 the median salary group for those who left the profession was \$4,400-4,599. The average number of years taught before leaving the profession was 4.2 years.

Another similar study of the tenure of teachers of vocational agriculture was made of the high schools of New York State from 1920 through 1952. This study, conducted by Tuthill¹⁰ in 1952, revealed that 627 former teachers gave 50 different reasons for leaving the profession. Of the reasons offered, 18.8 per cent gave inadequate salary; 9.4 per

⁹Roy C. Stringfield, "Why Louisiana Teachers of Vocational Agriculture Left the Service," Thesis, M.Sc., 1949, Louisiana State University, 61 pp.

¹⁰Fred Andrew Tuthill, "Tenure of Teachers of Vocational Agriculture in the High Schools of New York State," Thesis, M.Sc., 1953, Cornell University, 93 pp.

cent, too confining; 8.1 per cent, to enter field of administration; 7.8 per cent, limited chance for advancement; and 7.6 per cent, too much expected of agriculture teachers. These five reasons accounted for 51.7 per cent of the total.

Fields of endeavor entered by men leaving the profession revealed that 33.3 per cent received promotions in the educational fields; 20.3 per cent entered farming; and 17.6 per cent entered agricultural business. Of the total that left the profession, 71.2 per cent entered one of these fields.

The occupational studies and related literature reviewed in this chapter are among the most recent and outstanding in the field of research along the lines of occupations entered by agricultural education graduates. No detailed study of the agricultural education graduates of Virginia Polytechnic Institute has been made since 1947. This fact created a desire on the part of the writer to learn what fields of employment the graduates from 1948 through 1958 have entered and what advancements they have made during the past eleven years.

CHAPTER III

PRESENTATION OF DATA

Graduates who majored in Agricultural Education at Virginia Polytechnic Institute from 1948 through 1958 have been employed in many different occupations during the past eleven years. In order to tabulate the information into a workable form, the 58 occupations represented by the 272 graduates were summarized into five major groups according to the type of occupation in which they were engaged.

Occupations Entered by the Graduates

The following is a list of the groups used in this study with a definition and breakdown for each:

- A. Vocational Education in Agriculture: Graduates whose occupations are in the field of vocational education in agriculture.
 1. Vocational Agriculture Teacher: Graduates who are teachers of vocational agriculture in secondary schools and including graduates employed as instructors of veteran farmer trainees.
 2. Teacher Educator: Graduates employed as teachers of agricultural education on the college level.
 3. Assistant State Vocational Agriculture Supervisor: Graduates employed by the Virginia State Board of Education as supervisors of vocational agriculture.
 4. District Vocational Agriculture Supervisor: Graduates employed by the Virginia State Board of Education as

district supervisors of vocational agriculture.

- B. Other Professional Agricultural Occupations: Graduates whose occupations are similar and related to teaching vocational agriculture.
1. College Teacher: Graduates employed as college teachers in the field of agriculture.
 2. County Agricultural Agent or Assistant Agent: Graduates employed by the Virginia Agricultural Extension Service as county agricultural agents or assistants.
 3. Soil Conservationist: Graduates employed by the United States Department of Agriculture in the Soil Conservation Service.
 4. Department of Agriculture Employee: Graduates employed by the Virginia Department of Agriculture.
 5. Farmer's Home Administration Supervisor: Graduates employed by the United States Department of Agriculture in the Farmer's Home Administration.
 6. Dairy Fieldman: Graduates employed as fieldmen of large dairy manufacturing concerns.
 7. Experiment Station Employee: Graduates employed at agricultural experiment stations.
 8. Farm Service Agent: Graduates employed as farm service agents by various concerns selling agricultural products.
 9. Agricultural Supervisor: Graduates employed by the United States Government as supervisors of agricultural programs.

10. Plant Identification Specialist: Graduates employed by the United States Department of Agriculture as specialists in the identification of plants.
 11. Bank Agricultural Representative: Graduates employed as agricultural representatives of banks.
 12. Breed Association Fieldman: Graduates employed as fieldmen of breed associations.
- C. Other Agricultural Occupations: Graduates whose occupations are related to teaching vocational agriculture in agriculture only.
1. Farmer: Graduates employed as farmers.
 2. Farm Manager: Graduates employed as farm managers.
 3. Agricultural Cooperative Employee: Graduates employed by farmer's cooperatives and dairy cooperatives.
 4. Agricultural Store Manager: Graduates employed as managers of concerns selling agricultural products.
 5. Agricultural Sales Trainee: Graduates employed by concerns selling agricultural products.
 6. Agricultural Salesman: Graduates employed as salesmen of agricultural products.
 7. Agricultural Sales Manager: Graduates employed as sales managers of businesses selling agricultural products.
 8. Nurseryman: Graduates employed as nurserymen.
 9. Tobacco Foreman: Graduates employed as foremen by large tobacco companies.

10. Milk Company Trainee: Graduates employed as trainees in the manufacture of dairy products by large milk companies.
 11. Power Company Agricultural Representative: Graduates employed as agricultural representatives of power companies.
 12. Dairy Plant Supervisor: Graduates employed as supervisors of dairy plants.
 13. Dairy Plant Foreman: Graduates employed as foremen of dairy plants.
- D. Educational Occupations -- Non-vocational: Graduates engaged in educational occupations other than vocational education in agriculture.
1. Assistant College Coach: Graduates employed as athletic coaches in college.
 2. Director of Instruction: Graduates employed as directors of instruction for subjects other than vocational agriculture in public schools.
 3. Pupil Transportation Supervisor: Graduates employed as supervisors of pupil transportation in the public schools of Virginia.
 4. High School Principal: Graduates employed as principals of public high schools.
 5. Assistant High School Principal: Graduates employed as assistant principals of public high schools.
 6. High School Teacher: Graduates employed as teachers of subjects other than vocational agriculture in the public

high schools.

7. Industrial Arts Teacher: Graduates employed as teachers of industrial arts in the public high schools.
 8. Elementary School Principal: Graduates employed as principals of public elementary schools.
 9. Elementary School Teacher: Graduates employed as teachers of subjects in the public elementary schools.
 10. Graduate Student: Graduates working toward a higher degree in college.
 11. Student: Graduates enrolled in college continuing their education in fields other than in agriculture.
- E. Miscellaneous Occupations: Graduates not classified in any of the other stated groups. This group includes graduates engaged in a wide diversity of occupations.
1. Military Service: Graduates in the armed services.
 2. Minister: Graduates in the ministry.
 3. Mail Carrier: Graduates employed as rural mail carriers.
 4. Assistant Book Editor: Graduates employed as assistant editors of book publishing companies.
 5. Insurance Agent: Graduates employed as insurance agents by insurance companies.
 6. Insurance Sales Manager: Graduates employed as managers of insurance sales by insurance companies.
 7. Insurance Adjuster: Graduates employed as an adjuster of insurance by insurance companies.

8. Drug Salesman: Graduates employed as salesmen of drugs by large pharmaceutical companies.
9. Hardware Salesman: Graduates employed as salesmen of hardware retail hardware stores.
10. Lumber Sales Manager: Graduates employed as sales managers of lumber companies.
11. Service Station Operator: Graduates employed as operators of service stations.
12. Products Inspector: Graduates employed as inspectors of manufactured products.
13. Telephone Operations Manager: Graduates employed as managers of operations for telephone companies.
14. Joint Diversified Occupations and Distributive Education Coordinator: Graduates employed as joint coordinators in diversified occupations and distributive education in the public schools.
15. Store Manager: Graduates employed as managers of retail stores selling non-agricultural merchandise.
16. Sanitarian: Graduates employed as sanitarians by the Virginia State Department of Health.
17. Industrial Therapy Supervisor: Graduates employed as supervisors of industrial therapy by the Veterans' Administration.
18. Rubber Plant Employee: Graduates employed as employees of rubber plants.

Table 2 lists the occupations entered by the 236 Bachelor's degree graduates. Of the total, 144 (61.0 per cent) entered vocational education in agriculture, 26 (11.0 per cent) entered other professional agricultural occupations, 19 (8.1 per cent) entered other agricultural occupations, 10 (4.2 per cent) entered education occupations -- non-vocational, and 37 (15.7 per cent) entered miscellaneous occupations. These graduates entered 24 different occupations immediately after graduation. The three major occupations and the number of graduates who entered each were: vocational agriculture teacher, 144; military service, 34; and assistant county agricultural agent, 12.

The occupations entered by the 55 Master's degree graduates are listed in Table 3 on page 37. Of the total, 37 (67.3 per cent) entered vocational education in agriculture, two (3.6 per cent) entered other professional agricultural occupations, three (5.4 per cent) entered other agricultural occupations, nine (16.4 per cent) entered education -- non-vocational occupations, and four (7.3 per cent) entered miscellaneous occupations. These graduates entered 12 different occupations immediately after graduation. The three major occupations and the number of graduates entering each were: vocational agriculture teacher, 31; high school principal, five; and teacher educator, four.

Beginning Salaries of the Graduates

Of the 236 Bachelor's degree graduates reporting, (Table 4, page 38), 144 started teaching vocational agriculture upon graduation, with an average beginning salary of \$3,076. In 1948, 15 graduates started teaching vocational agriculture at an average salary of \$2,533. In comparison,

TABLE 2

OCCUPATIONS ENTERED BY 236 OF THE 296 BACHELOR'S
DEGREE GRADUATES IN AGRICULTURAL EDUCATION
FROM VIRGINIA POLYTECHNIC INSTITUTE
1948 - 1958

Occupations	Number	Per Cent
A. Vocational Education in Agriculture	144	61.0
1. Vocational Agriculture Teacher	144	
B. Other Professional Agricultural Occupations	26	11.0
1. Assistant County Agricultural Agent	12	
2. Department of Agriculture Employee	5	
3. Soil Conservationist	3	
4. Farm Service Agent	2	
5. Experiment Station Employee	2	
6. Dairy Fieldman	1	
7. Plant Identification Specialist	1	
C. Other Agricultural Occupations	19	8.1
1. Agricultural Cooperative Employee	5	
2. Agricultural Salesman	4	
3. Farmer	3	
4. Farm Manager	2	
5. Milk Company Trainee	2	
6. Nurseryman	1	
7. Tobacco Foreman	1	
8. Agricultural Sales Trainee	1	
D. Educational Occupations -- Non-Vocational	10	4.2
1. Graduate Student	4	
2. High School Teacher	3	
3. Student	2	
4. High School Principal	1	
E. Miscellaneous Occupations	37	15.7
1. Military Service	34	
2. Mail Carrier	1	
3. Service Station Operator	1	
4. Products Inspector	1	
Totals	236	100.0

TABLE 3
 OCCUPATIONS ENTERED BY 55 OF THE 60 MASTER'S DEGREE
 GRADUATES IN AGRICULTURAL EDUCATION FROM
 VIRGINIA POLYTECHNIC INSTITUTE
 1948 - 1958

Occupations	Number	Per Cent
A. Vocational Education in Agriculture	37	67.3
1. Vocational Agriculture Teacher	31	
2. Teacher Educator	4	
3. District Vocational Agriculture Supervisor	2	
B. Other Professional Agricultural Occupations	2	3.6
1. Experiment Station Employee	1	
2. Assistant County Agricultural Agent	1	
C. Other Agricultural Occupations	3	5.4
1. Agricultural Salesman	2	
2. Agricultural Cooperative Employee	1	
D. Educational Occupations -- Non-Vocational	9	16.4
1. High School Principal	5	
2. High School Teacher	3	
3. Graduate Student	1	
E. Miscellaneous Occupations	4	7.3
1. Military Service	3	
2. Mail Carrier	1	
Totals	55	100.0

TABLE 4

AVERAGE BEGINNING SALARIES BY YEARS OF GRADUATION OF 272 AGRICULTURAL
EDUCATION GRADUATES FROM VIRGINIA POLYTECHNIC INSTITUTE 1948-1958

Year Graduated	First Employment of Bachelor's Degree Graduates				First Employment of Master's Degree Graduates			
	Beginning Salary of Teacher of Vo. Ag.		Beginning Salary All Other Occup.		Beginning Salary of Teacher of Vo. Ag.		Beginning Salary All Other Occup.	
	No.	Av. Salary	No.	Av. Salary	No.	Av. Salary	No.	Av. Salary
1948	15	\$2,533	7	\$3,074		\$	2	\$3,300
1949	11	2,677	5	2,713	2	3,550		
1950	29	2,664	3	2,667	3	3,300	2	3,490
1951	19	2,690	16	3,199			2	4,200
1952	7	2,994	15	3,619	2	3,800	4	3,373
1953	12	2,995	8	3,433	7	4,256	6	4,503
1954	7	3,000	12	3,420	4	3,844	2	4,700
1955	3	3,347	7	3,545	3	4,250	2	4,980
1956	11	3,591	5	4,076	5	4,462	1	5,500
1957	16	3,873	6	4,068	4	4,237	2	5,300
1958	14	4,105	8	4,468	1	4,848	1	4,704
Totals	144		92		31		24	
Average Salary		\$3,076		\$3,466		\$4,085		\$4,272
Average Salary for all Occupations			\$3,211				\$4,162	

the 14 graduates who started teaching vocational agriculture in 1958 reported salaries which averaged \$4,105 which is an increase of \$1,572 in the average starting salary of teachers of vocational agriculture during the past 11 years.

The variations of the salaries of the teachers of vocational agriculture during the years 1948 through 1954 were due to credit being given for military service. Beginning teachers of vocational agriculture were given an increase of \$100 over the base pay for each year of military service up to a maximum of four year's service.

The average beginning salary of the 92 Bachelor's degree graduates who entered other occupations was \$3,466 or \$390 more than the average beginning salary of teachers of vocational agriculture. Sixteen of the 92 graduates who entered occupations other than teaching vocational agriculture did not report their beginning salary. These graduates were not included in the computations.

In 1948, seven graduates entered occupations other than vocational agriculture with an average salary of \$3,074. In contrast, the eight graduates whose employment was in this same group in 1958 reported beginning salaries which averaged \$4,468 which was an increase of \$1,394 in the average beginning salary of the graduates in the other occupations group during the past 11 years.

The average beginning salary of the graduates who entered the all-other-occupations group was greater than the average salary of those who began teaching vocational agriculture in every year from 1948 through 1958. The greatest differential reported was in 1952 when seven teachers

of vocational agriculture reported salaries which averaged \$2,994 as compared with 15 graduates who entered the other occupations group at an average salary of \$3,619 or \$625 more than teachers of vocational agriculture.

As the beginning salaries of teachers of vocational agriculture increased, the salaries of the other occupations group increased and maintained a comparable differential throughout the 11 year period. Thus, it would seem that if Bachelor's degree graduates are to be given the same inducement to enter the field of teaching vocational agriculture, a beginning salary increase above the average increase of approximately \$400 would be required. In addition, an approximate sum of \$130 in average yearly increment will be necessary to maintain the rate of increase of the other occupations group.

The average of the beginning salaries for all occupations reported by the 236 Bachelor's degree graduates from 1948 through 1958 was \$3,211.

Thirty-one of the 55 Master's degree graduates entered the field of teaching vocational agriculture upon graduation with an average salary of \$4,085 or \$1,009 more than the 144 graduates holding only the Bachelor's degree. The variations of the salaries of the Master's degree graduates who started teaching vocational agriculture upon graduation were due to the length of prior teaching experience, to variations in salary schedules for holders of Master's degrees, and to credit given for military experience.

The 24 Master's degree graduates who entered the all-other-occupations group reported salaries which averaged \$4,272 or \$187 more than 31

teachers of vocational agriculture holding Master's degrees. Two of the 24 graduates who entered the all-other-occupations group did not report their beginning salary. These graduates were not included in the computations.

The beginning salary for those graduates who entered the all-other-occupations group was greater than the average salary of those in every year from 1948 through 1958 except in 1952 and 1958. The greatest differential reported was in 1955 when three teachers of vocational agriculture were earning an average salary of \$4,250 as compared with two graduates who entered the all-other-occupations group at an average salary of \$4,980 or \$730 more than teachers of vocational agriculture. The second greatest differential reported was in 1953 when seven teachers of vocational agriculture reported salaries averaging \$4,256 as compared with six graduates who entered the all-other-occupations group at an average salary of \$4,503 or \$247 more than teachers of vocational agriculture. From the beginning salaries reported by these 55 Master's degree graduates during the past 11 years, it would appear that if these graduates are to be given the same inducement to enter the field of teaching vocational agriculture, a beginning salary increase of approximately \$200 would be required.

The average of the beginning salaries for all occupations reported by the 55 Master's degree graduates from 1948 through 1958 was \$4,162 or \$951 more than the average of the beginning salaries for all occupations reported by the 296 Bachelor's degree graduates.

Table 5 compares the beginning salaries of vocational agriculture

TABLE 5

COMPARISON OF THE BEGINNING SALARIES BY FIELDS OF EMPLOYMENT OF 236 OF THE 296
BACHELOR'S DEGREE GRADUATES IN AGRICULTURAL EDUCATION FROM VIRGINIA
POLYTECHNIC INSTITUTE 1948-1958 BY YEARS OF GRADUATION

Year Graduated	Vo. Ag. Teachers		Other Prof. Agr. Occupations		Other Agr. Occupations		Ed. Occup. Non- Vocational		Miscellaneous Occupations	
	No.	Av. Salary	No.	Av. Salary	No.	Av. Salary	No.	Av. Salary	No.	Av. Salary
1948	15	\$2,533	6	\$2,936	1	\$3,900		\$		\$
1949	11	2,677	4	2,791	1	2,400				
1950	29	2,664			2	3,000	1	2,000		
1951	19	2,690	2	3,066	2	3,000	1	(a)	11	3,295
1952	7	2,994	1	3,300	4	4,350			10	3,339
1953	12	2,995	2	3,400	3	3,800	1	2,100	2	3,700
1954	7	3,000	1	3,936	3	3,300	3	2,700	5	3,720
1955	3	3,347	2	3,312			1	(a)	4	3,567
1956	11	3,591	3	3,600			1	(b)	1	4,200
1957	16	3,873	3	3,936	1	4,200			2	(c)
1958	14	4,105	2	4,520	2	3,550	2	(b)	2	4,500
Totals	144		26		19		10		37	
Average Salary		\$3,076		\$3,353		\$3,519		\$2,375		\$3,489

(a) Students not employed, (b) Graduate students not on salary, (c) No response

teachers with the beginning salaries of all other Bachelor's degree graduates in agricultural education by fields of employment. Twenty-six graduates who entered the other-professional-agricultura-occupations group reported salaries which averaged \$3,353, which was \$277 more than the average of the beginning salaries reported by the 144 graduates who entered the field of teaching vocational agriculture.

The average of the salaries reported by the 19 graduates who entered the other-agricultural-occupations group was \$3,519 or \$433 more than the vocational agriculture teachers. Of these 19 graduates, three did not report their beginning salaries. These graduates were not included in the computations.

Ten of the graduates who entered the educational-occupations group reported salaries which averaged \$2,375. This figure does not include in the computations four graduate students and two other students reporting no salaries. The average beginning salary for the four remaining graduates was \$701 less than that of the teachers of vocational agriculture. This was influenced by the fact that three of these graduates were high school teachers who were paid on a ten month's salary basis.

Of the 37 graduates who entered the miscellaneous-occupations group, seven graduates did not report their beginning salary. These graduates were not included in the computations. The remaining 30 graduates in this group were earning an average beginning salary of \$3,489, which was \$413 more than the average salary earned by those graduates who were teachers of vocational agriculture.

As illustrated in Table 6, the six Master's degree graduates who

TABLE 6

COMPARISON OF THE BEGINNING SALARIES BY FIELDS OF EMPLOYMENT OF 55 OF THE 60 MASTER'S
DEGREE GRADUATES IN AGRICULTURAL EDUCATION FROM VIRGINIA POLYTECHNIC
INSTITUTE 1948-1958 BY YEARS OF GRADUATION

Year Graduated	Vo. Ag. Teachers		All Others in Vo.Ed.in Agr.		Other Prof. Agr.Occup.		Other Agr. Occupations		Ed.Occup. Non-Voc.		Miscellaneous Occupations	
	No.	Av.Salary	No.	Av.Salary	No.	Av.Salary	No.	Av.Salary	No.	Av.Salary	No.	Av.Salary
1948		\$	1	\$4,200				\$	1	\$2,400		\$
1949	2	3,550										
1950	3	3,300	1	4,100	1	2,880						
1951			1	4,440			1	4,000				
1952	2	3,800							2	3,350	2	3,420
1953	7	4,256	1	5,260			1	3,600	2	3,550	2	5,530
1954	4	3,844					1	4,000	1	5,400		
1955	3	4,250	1	5,400	1	4,560						
1956	5	4,462							1	5,500		
1957	4	4,237							2	5,300		
1958	1	4,848	1	4,704								
Totals	31		6		2		3		9		4	
Average Salary		\$4,085		\$4,677		\$3,720		\$3,867		\$4,050		\$4,827

entered the all-others-in-vocational-education-in-agriculture group, reported beginning salaries averaging \$4,677, which was \$592 more than the average of the salaries reported by the graduates who entered the field of teaching vocational agriculture. This was a logical differential in average salary since this group contained the graduates who had been promoted and advanced in the field of vocational education in agriculture.

Two of the graduates who entered the other-professional-agricultural-occupations group reported salaries averaging \$3,720, which was \$365 less than the average of the beginning salaries reported by the vocational agriculture teachers.

An average beginning salary of \$3,867 was earned by the three graduates who entered the other-agricultural-occupations group, which was \$218 less than the average of the beginning salaries reported by the vocational agriculture teachers.

Of the nine graduates who entered the educational-occupations -- non-vocational group, one graduate student reported that he received no salary and was not included in the computations. The eight remaining graduates reported beginning salaries which averaged \$4,050, which was \$35 less than the average of the beginning salaries reported by the vocational agriculture teachers. This was influenced by the fact that three of these graduates were high school teachers who were paid on a ten month's salary basis.

The four graduates who entered the miscellaneous-occupations group reported beginning salaries which averaged \$4,827, which was \$742 more than the average of the beginning salaries reported by the vocational

agriculture teachers. One graduate in the miscellaneous-occupations group did not report his beginning salary. This graduate was not included in the computations.

Number and Frequency of Job Changes by the Graduates

As illustrated in Table 7 on page 47, 82 (30.1 per cent) of the 272 graduates had not changed their jobs since graduation. Eighty-five (31.3 per cent) had changed jobs once since graduation; 69 (25.4 per cent) had changed twice; 19 (7.0 per cent) had changed three times; 12 (4.4 per cent) had changed four times; and five (1.8 per cent) had changed five times. The greatest number of job changes occurred among the graduates who graduated from 1948 through 1954. Of the total graduates reporting, 190 (79.9 per cent) had changed jobs one or more times since graduation; 105 (38.6 per cent) had changed two or more times; 36 (13.2 per cent) had changed three or more times; and 17 (6.2 per cent) had changed four or more times. These figures indicate that the frequency of job changes reported by the graduates sharply declined after the second job change. None of the graduates reported changing jobs more than five times since graduation.

The questionnaires returned from 236 (80.3 per cent) of the 294 living Bachelor's degree graduates indicated that 144 (61.0 per cent) entered teaching vocational agriculture as their first job (Table 8 on page 48). Only 19 (20.6 per cent) of the 92 (39.0 per cent) graduates who entered other occupations upon graduation reported teaching vocational agriculture at a later time.

TABLE 7

JOB CHANGES BY YEARS AND FREQUENCY OF CHANGE AS REPORTED BY 272 OF THE 333
BACHELOR'S AND MASTER'S DEGREE GRADUATES IN AGRICULTURAL EDUCATION
FROM VIRGINIA POLYTECHNIC INSTITUTE 1948-1958

Year Graduated	Total No. Graduates By Year Graduated	Total No. Graduates Reporting by Year Graduated	Frequency of Job Changes By Number Who Changed					
			0	1	2	3	4	5
1948	25	24	5	9	7	1	2	
1949	21	18	5	6	3	3		1
1950	48	36	8	11	10	2	5	
1951	42 ^(a)	37	4	13	14	3	1	2
1952	33	26	7	4	7	5	2	1
1953	36	30	5	11	12	1	1	
1954	29	24	6	8	6	3	1	
1955	14	12	3	4	4			1
1956	27	18	6	9	2	1		
1957	32	24	14	6	4			
1958	26	23	19	4				
Totals	333	272	82	85	69	19	12	5
Per Cent		81.7	30.1	31.3	25.4	7.0	4.4	1.8

(a) Figure does not include two deceased graduates

TABLE 8

TENURE OF GRADUATES ENTERING TEACHING VOCATIONAL AGRICULTURE AS REPORTED BY 236 OF THE 296
BACHELOR'S DEGREE GRADUATES IN AGRICULTURAL EDUCATION FROM VIRGINIA POLYTECHNIC
INSTITUTE 1948-1958 BY YEARS OF GRADUATION

Year Graduated	Number of B.S. Degree Graduates	Graduates Reporting									
		First Employment Teaching Vo.Ag.		First Employment Other Occups.		Began Teaching Vo.Ag. Later		Teaching Vo. Ag. in 1958			
		No.	Per Cent By Class	No.	Per Cent By Class	No.	Per Cent By Class	No.	Per Cent By Class		
1948	23	22	95.7	15	68.2	7	31.8			5	22.7
1949	19	16	84.2	11	68.8	5	31.2	1	6.2	6	37.5
1950	43	32	74.4	29	90.6	3	9.4			14	43.7
1951	40 ^(a)	35	87.5	19	54.3	16	45.7	6	17.1	9	25.7
1952	29	22	75.9	7	31.8	15	68.2	5	22.7	3	13.6
1953	25	20	80.0	12	60.0	8	40.0	3	15.0	6	30.0
1954	24	19	79.2	7	36.8	12	63.2	2	10.5	5	26.3
1955	12	10	83.3	3	30.0	7	70.0	1	10.0	3	30.0
1956	25	16	64.0	11	68.7	5	31.3	1	6.2	6	37.5
1957	29	22	75.9	16	72.7	6	27.3			12	54.5
1958	25	22	88.0	14	63.6	8	36.4			13	59.1
Totals	294	236		144		92		19		82	
Per Cent for the 11 Year Period			80.3		61.0		39.0		8.0		34.7

(a) Figure does not include two deceased graduates

Of the 163 (69.1 per cent) graduates who had taught vocational agriculture during the period from 1948 through 1958, 82 (34.7 per cent) were teaching in 1958.

Reasons Graduates Entered Fields Other Than Teaching Vocational

Agriculture

Seventy-three (30.9 per cent) of the Bachelor's degree graduates reported that they had not taught vocational agriculture. Of these graduates, six did not reveal why they did not teach and 67 graduates checked or listed 11 different reasons for not teaching vocational agriculture (Table 9, page 50). Many of the graduates indicated more than one reason for not entering the profession. From the 11 different reasons checked or listed, the 67 graduates gave an average of 2.2 reasons per individual or a total of 146 reasons for not teaching vocational agriculture. Of the 11 different reasons checked or listed, the seven reasons given by the highest percentage of the 67 graduates were: better opportunity to advance (59.7 per cent); to obtain higher salary (59.7 per cent); other work more interesting (41.8 per cent); to obtain higher retirement income (25.4 per cent); more desirable living conditions (7.5 per cent); desired work near home (5.9 per cent); and did not like teaching (5.9 per cent). Each of the remaining four reasons were listed by less than five per cent of the graduates.

The questionnaires returned from 55 (91.7 per cent) of the 60 Master's degree graduates indicated that 31 (56.4 per cent) entered teaching vocational agriculture as their first job upon receiving their Master's degree (Table 10, page 51). Twenty-four (43.6 per cent) entered

TABLE 9

REASONS FOR NOT TEACHING VOCATIONAL AGRICULTURE AS REPORTED BY 67 of the 296 BACHELOR'S
DEGREE GRADUATES IN AGRICULTURAL EDUCATION FROM VIRGINIA POLYTECHNIC
INSTITUTE 1948-1958

Reasons for Not Teaching Vo. Ag.	No. of Reasons Checked or Given by Years of Graduation											Responses	
	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	No.	Per Cent
1. Better opportunity to advance	4	3	2	5	5	3	6	4	1	3	3	40	59.7
2. To obtain higher salary	5	3	2	5	7	3	6	5	1	2	1	40	59.7
3. Other work more interesting	4	1	2	4	6	2	6		2		1	28	41.8
4. To obtain higher retirement income	1	1		3	3	2	3	2		2		17	25.4
5. More desirable living conditions		1		1	1		1			1		5	7.5
6. Desire work near home	1						1			1	1	4	5.9
7. Did not like teaching				1	2						1	4	5.9
8. Too little time to call my own	1	1		1								3	4.5
9. No Vo.Ag. job available where desired	1						1		1			3	4.5
10. Too many reports	1											1	1.5
11. No Vo.Ag. job available at time of graduation	1											1	1.5
Totals	19	11	6	20	24	10	24	11	5	9	7	146	
Average No. Reasons Per Individual	2.7	2.2	1.5	2.2	2.6	2.5	2.2	1.8	1.2	2.2	1.7	2.2	

TABLE 10

TENURE OF GRADUATES ENTERING TEACHING VOCATIONAL AGRICULTURE IMMEDIATELY FOLLOWING
RECEIVING THE MASTER'S DEGREE AS REPORTED BY 55 OF THE 60 MASTER'S DEGREE
GRADUATES IN AGRICULTURAL EDUCATION FROM VIRGINIA POLYTECHNIC
INSTITUTE 1948-1958 BY YEARS OF GRADUATION

Year Graduated	Number of Master's Degrees	Graduates Reporting									
		Per Cent		First Employ- ment Teaching Vo. Ag.		First Employ- ment Other Occupations		Taught Vo. Ag. Before or After Receiving Master's		Teaching Vo. Ag. in 1958	
		No.	By Class	No.	By Class	No.	By Class	No.	By Class	No.	By Class
1948	2	2	100.0			2	100.0	2	100.0		
1949	2	2	100.0	2	100.0			2	100.0		
1950	6	5	83.3	3	60.0	2	40.0	5	100.0	2	40.0
1951	2	2	100.0			2	100.0	2	100.0		
1952	6	6	100.0	2	33.3	4	66.7	4	66.7	1	16.7
1953	15	13	86.7	7	53.8	6	46.2	10	76.9	5	38.5
1954	6	6	100.0	4	66.7	2	33.3	6	100.0	2	33.3
1955	5	5	100.0	3	60.0	2	40.0	4	80.0	1	20.0
1956	6	6	100.0	5	83.3	1	16.7	6	100.0	4	66.7
1957	8	6	75.0	4	66.7	2	33.3	6	100.0	3	50.0
1958	2	2	100.0	1	50.0	1	50.0	2	100.0	1	50.0
Totals	60	55		31		24		49		19	
Per Cent for the 11 Year Period		91.7		56.4		43.6		89.1		34.5	

the other occupations group upon graduation, while 49 (89.1 per cent) reported that they had taught either before or after receiving the Master's degree. In 1958, 19 (34.5 per cent) of the Master's degree graduates were teaching vocational agriculture, the majority (84.2 per cent) of whom had graduated from 1953 through 1958.

Six (10.9 per cent) of the Master's degree graduates reported that they had not taught vocational agriculture. Of these six, three received their Bachelor's degree during the 11 year study period and their reasons for not teaching vocational agriculture were included in Table 9 (page 50). The three remaining Master's degree graduates checked four different reasons for not teaching vocational agriculture. Of the reasons offered, one checked other work more interesting and desire work near home; one checked better opportunity to advance; and one checked no vocational agriculture job available when released from military service.

Reasons for Changing Jobs

The reasons for changing from teaching vocational agriculture to some other occupation are listed in Table 11 (page 53). One hundred and two of the 272 individuals in this study checked or listed 13 different reasons for leaving the profession. Many of the graduates indicated more than one reason for leaving the field. From the 13 different reasons checked or listed, the 102 graduates gave an average of 1.9 reasons per individual or a total of 198 reasons for changing from teaching vocational agriculture to some other occupation.

Table 12 (page 54) indicates the reasons for changing jobs of 77 of the 80 graduates who had never taught vocational agriculture or had

TABLE 11

REASONS FOR CHANGING FROM TEACHING VOCATIONAL AGRICULTURE TO SOME OTHER OCCUPATION AS REPORTED BY 102 OF THE 272 GRADUATES IN AGRICULTURAL EDUCATION FROM VIRGINIA POLYTECHNIC INSTITUTE 1948-1958

Reasons for Changing From Teaching Vo. Ag.	No. of Reasons Checked or Given by Years of Graduation											Responses	
	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	No.	Per Cent
1. Better opportunity to advance	7	2	6	15	7	10	3	1	1	2		54	52.9
2. To obtain higher salary	6	2	5	11	7	9	4	1	2	1		48	47.0
3. Other work more interesting	5	2	5	6	5	3	2	1	3			32	31.4
4. Desire work near home	3	1	2	2	2	2	1		2			16	15.7
5. To obtain higher retirement income	1		1	4	1	2	1	1	1	1		13	12.7
6. More desirable living conditions		2	1	1	1	1	1			1		8	7.8
7. No Vo. Ag. job available where desired	1	1	1			1		1	1	1		7	6.9
8. Did not like teaching	1	1	2	2	1							7	6.9
9. To complete military service									1	3	2	6	5.9
10. Excessive reports and night classes - not satisfied with total program	1					1	1	1				4	3.9
11. Refused to give false reports		1										1	1.0
12. To serve as assistant principal for one year		1										1	1.0
13. To enter ministry						1						1	1.0
Totals	25	13	23	41	24	31	13	6	11	9	2	198	
Average No. Reasons Per Individual	2.3	1.8	1.8	2.1	1.8	1.9	1.6	3.0	1.8	1.8	1.0	1.9	

TABLE 12

REASONS FOR CHANGING JOBS, OTHER THAN FROM TEACHING
 VOCATIONAL AGRICULTURE, AS REPORTED BY 77 OF THE
 272 GRADUATES IN AGRICULTURAL EDUCATION FROM
 VIRGINIA POLYTECHNIC INSTITUTE 1948-1958

Reasons Given for Changing or Leaving Jobs	Responses	
	No.	Per Cent
1. Discharged from the armed services	24	31.2
2. Promoted to a higher position	23	29.9
3. To obtain a higher salary	22	28.6
4. To enter military service	11	14.3
5. Didn't like the work	5	6.5
6. For self employment	4	5.2
7. To obtain an additional degree	4	5.2
8. Necessary to return to home farm	4	5.2
9. To return to home county or area	3	3.9
10. Too much travel required	3	3.9
11. Job was temporary	2	2.6
12. Company was sold	2	2.6
13. Better working conditions	2	2.6
14. Position was closed	2	2.6
15. Farms were sold	1	1.3
16. Preferred teaching	1	1.3
17. Completed graduate work	1	1.3
18. Work was too confining	1	1.3
19. Did not like assigned territory	1	1.3
Total Number Reasons	116	
Average number of reasons per individual	1.5	

changed jobs after leaving the teaching profession. Three graduates failed to indicate why they changed jobs. A total of 19 different reasons for changing or leaving their jobs were listed with an average of 1.5 reasons per individual.

The three reasons for changing jobs listed by the highest percentage of the graduates who were not teaching or had never taught were: first, discharged from the armed services; second, promoted to a higher position; third, to obtain a higher salary, while the three reasons given by the highest percentage of those graduates for not teaching vocational agriculture (Table 9, page 50) and for leaving the teaching profession (Table 11, page 53) were: first, better opportunity to advance; second, to obtain higher salary; and third, other work more interesting.

The reasons listed by each group for not teaching vocational agriculture or for changing and leaving jobs were similar with the exception of being discharged from the armed services, which could hardly be considered a reason over which they had control.

Educational Advancements

Thirty-three (14.0 per cent) of the 236 Bachelor's degree graduates reported that they had earned a total of 36 additional degrees (Table 13). Of the 33 individuals, 11 (33.3 per cent) of the graduates held a Master of Education Degree; 15 (45.4 per cent) of the graduates held a Master of Science Degree; three (9.1 per cent) of the graduates held both the Master of Science and Doctor of Philosophy Degree; two (6.1 per cent) of the graduates held a Master of Arts Degree; and two (6.1 per cent) of the graduates held a Bachelor of Divinity Degree.

TABLE 13

ADDITIONAL DEGREES EARNED BY 33 OF THE 296 BACHELOR'S DEGREE
GRADUATES IN AGRICULTURAL EDUCATION FROM VIRGINIA
POLYTECHNIC INSTITUTE 1948-1958 BY YEARS OF
GRADUATION AND KIND OF DEGREE HELD

Year Graduated	Number Graduates Holding Each Degree						Total Degrees By Years	
	M.Ed.	M.S.	Master's & Doctor's Degree	Ph.D.	M.A.	B.D.	No.	Per Cent
1948	1	2	1	1			5	13.9
1949	1	3					4	11.1
1950	2	2			1		5	13.9
1951	2	4	1	1	1	1	10	27.8
1952	2	3					5	13.9
1953	2	1				1	4	11.1
1954			1	1			2	5.5
1955	1						1	2.8
1956								
1957								
1958								
Totals	11	15	3	3	2	2	36	100.0
Per Cent	33.3	45.4	9.1	9.1	6.1	6.1		

The highest percentage (27.8 per cent) of the degrees were earned by those graduates who graduated in 1951. The class of 1955 reported the lowest percentage (2.8 per cent) of the additional degrees. No additional degrees were reported by the graduates in the class of 1956 through 1958.

Nineteen (8.0 per cent) of the 236 Bachelor's degree graduates reported that they had received a Master's degree in Agricultural Education from Virginia Polytechnic Institute. Nine received the Master of Education Degree and ten received the Master of Science Degree.

Fourteen (5.9 per cent) of the Bachelor's degree graduates reported the following degrees:

<u>No. and Degree</u>	<u>School Granting Degree</u>	<u>Date</u>	<u>Major Field</u>
1 - M.S.	Iowa State College	1951	Agricultural Economics
2 - M.S.	Virginia Polytechnic Institute	1951- 1955	Agricultural Economics
1 - M.S.	Virginia Polytechnic Institute	1954	Poultry
1 - M.S.	Virginia Polytechnic Institute	1954	Horticulture
1 - M.S.	Virginia Polytechnic Institute	1955	Dairy Manufacturing
1 - M.S.	University of Maryland	1956	Agricultural Economics
1 - M.S.	Cornell University	1958	Rural Sociology
1 - Ph.D.	Iowa State College	1956	Econometrics
1 - Ph.D.	Pennsylvania State University	1957	Agricultural Economics
1 - Ph.D.	Michigan State University	1957	Horticulture
1 - M.A.	Miami University (Ohio)	1954	Education
1 - M.A.	Marshall College	1956	Education
1 - M.Ed.	University of Virginia	1954	Education

Additional degrees continued

<u>No. and Degree</u>	<u>School Granting Degree</u>	<u>Date</u>	<u>Major Field</u>
1 - M.Ed.	Virginia Polytechnic Institute	1958	Vocational Education
1 - B.D.	Drew University	1955	Ministry
1 - B.D.	Virginia Theological Seminary	1958	Ministry

Only two (3.6 per cent) of the 55 Master's degree graduates reported that they had earned a higher degree. One graduate held a Doctor's degree in Education with a major in Agricultural Education, which was conferred by an institution other than Virginia Polytechnic Institute. The other Master's degree graduate reported that he had earned a Doctor's degree in Education with a major in Education, which was conferred by another institution. None of these graduates reported that they had earned college credit beyond their Doctor's degree.

Two hundred and five Bachelor's degree graduates reported that they had received an average of 4.7 quarter hours of college credit beyond their Bachelor's degree (Table 14). The graduates who graduated in the class of 1955 reported the highest average (9.3 quarter hours credit) beyond the Bachelor's degree. The lowest average (1.4 quarter hours credit) was reported by the graduates in the class of 1957.

One hundred and twenty-eight (62.4 per cent) of the graduates reported that they had not earned any college credit beyond their Bachelor's degree. Sixty-one (25.8 per cent) of the graduates completed graduate work beyond the Bachelor's degree ranging in number of credit hours from three to 15. The number of quarter hours of credit, the number of individuals and the per cent were: three credits, 21 graduates (10.2 per

TABLE 14

COLLEGE CREDIT BEYOND THE BACHELOR'S DEGREE COMPLETED BY 205 OF THE 236 BACHELOR'S
DEGREE GRADUATES IN AGRICULTURAL EDUCATION FROM VIRGINIA POLYTECHNIC
INSTITUTE 1948-1958 BY NUMBER OF GRADUATES AND YEAR GRADUATED

No. Quarter Hrs. College Credit	Number of Graduates Who Received College Credit Beyond The Bachelor's Degree by Years of Graduation											Total for 11 Year Period	
	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	No.	Per Cent
0	12	6	11	17	7	10	14	5	11	19	16	128	62.4
3		1	3	3	4	5	2		2	1		21	10.2
6		1	4	3	1	2	1	1			1	14	6.8
9	4		4	3	1			1	1		2	16	7.8
12		1	1		1					1		4	1.9
15		1	2		1					1	1	6	2.9
18	1											1	0.5
21				1			1					3	1.5
24													
27	1	1	1									3	1.5
30				1				1				2	1.0
33					1						1	2	1.0
36			1		1							2	1.0
39								1				1	0.5
42													
45		1										1	0.5
48 or more									1			1	0.5
Totals	18	12	27	28	17	17	18	9	15	22	22	205	100.0
Av.No.Hrs.	4.5	9.0	6.4	3.7	8.5	1.6	1.8	9.3	5.5	1.4	4.2	4.7	

cent); six credits, 14 graduates (6.8 per cent); nine credits, 16 graduates (7.5 per cent); 12 credits, four graduates (1.9 per cent); and 15 credits, six graduates (2.9 per cent). Sixteen (7.8 per cent) of the graduates reported that they had earned 18 or more quarter hours of college credit. Only two (1.0 per cent) of the graduates reported holding 45 or more quarter hours of college credit, which indicated that they were candidates for a Master's degree.

Sixty-one Master's degree graduates reported that they had received an average of 16.2 quarter hours of college credit beyond their Master's degree (Table 15, page 61). The graduates who had received their Master's degree in 1954 reported the highest average (43.6 quarter hours credit) beyond the Master's degree. The lowest average (three quarter hours credit) was reported by the graduates who received their Master's degree in 1955.

Twenty-four (39.3 per cent) of the graduates reported that they had not earned any college credit beyond their Master's degree. Sixteen (26.2 per cent) of the graduates reported that they had earned 18 or more quarter hours of college credit. Six (9.8 per cent) of the graduates had earned 50 or more quarter hours of college credit and were candidates for a Doctor's degree.

Occupations of the Graduates in 1958

Table 16, page 62, lists the 1958 occupations of the 236 Bachelor's degree graduates. Of the total, 84 (35.6 per cent) were in vocational education in agriculture, 44 (18.6 per cent) were in other professional agricultural occupations, 39 (16.5 per cent) were in other agricultural

TABLE 15

COLLEGE CREDIT BEYOND THE MASTER'S DEGREE COMPLETED BY 61 OF THE 272 AGRICULTURAL
EDUCATION GRADUATES FROM VIRGINIA POLYTECHNIC INSTITUTE 1948-1958 BY NUMBER
OF GRADUATES AND YEAR ADVANCED DEGREE WAS RECEIVED

No. Quarter Hrs. College Credit	Number of Graduates Who Received College Credit Beyond The Master's Degree by Years of Graduation											Total for 11 Year Period	
	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	No.	Per Cent
0			2	1	2	4	4	4	4	2	1	24	39.3
3				1		2	1		1	1		6	9.8
6						2			2	1	2	7	11.4
9		2		1				2		1		6	9.8
12													
15			1				1					2	3.3
18	1				1	1						3	5.0
21				1		1			1			3	5.0
24					1							1	1.6
27													
30-49			1			2						3	5.0
50-75						1	1			1	1	4	6.5
76-150							2					2	3.3
Totals	1	2	4	4	4	13	9	6	8	6	4	61	100.0
Av.No.Hrs.	18	9	15.7	8.2	10.5	15.9	43.6	3	4.5	14.2	19.5	16.2	

TABLE 16

OCCUPATIONS IN 1958 OF 236 OF THE 296 BACHELOR'S DEGREE GRADUATES
IN AGRICULTURAL EDUCATION FROM VIRGINIA POLYTECHNIC
INSTITUTE 1948-1958

Occupations	Number	Per Cent
A. Vocational Education in Agriculture	84	35.6
1. Vocational Agriculture Teacher	82	
2. Assistant State Vocational Agriculture Supervisor	1	
3. District Vocational Agriculture Supervisor	1	
B. Other Professional Agricultural Occupations	44	18.6
1. Assistant County Agricultural Agent	14	
2. Department of Agriculture Employee	8	
3. County Agricultural Agent	5	
4. Farmers Home Administrative Supervisor	4	
5. Experiment Station Employee	3	
6. College Teacher	2	
7. Soil Conservationist	2	
8. Dairy Fieldman	2	
9. Bank Agricultural Representative	1	
10. Breed Association Fieldman	1	
11. Farm Service Agent	1	
12. Plant Identification Specialist	1	
C. Other Agricultural Occupations	39	16.5
1. Farmer	11	
2. Agricultural Cooperative Employee	8	
3. Agricultural Salesman	7	
4. Power Company Agricultural Representative	3	
5. Agricultural Store Manager	2	
6. Dairy Plant Supervisor	2	
7. Farm Manager	2	
8. Agricultural Sales Manager	1	
9. Dairy Plant Foreman	1	
10. Nurseryman	1	
11. Tobacco Foreman	1	
D. Educational Occupations -- Non-Vocational	23	9.8
1. High School Teacher	6	
2. High School Principal	4	
3. Elementary School Principal	4	
4. Graduate Student	4	
5. Assistant High School Principal	2	
6. Assistant College Coach	1	
7. Industrial Arts Teacher	1	
8. Pupil Transportation Supervisor	1	

TABLE 16 - Continued

Occupations	Number	Per Cent
E. Miscellaneous Occupations	46	19.5
1. Military Service	26	
2. Insurance Agent	5	
3. Minister	2	
4. Assistant Book Editor	1	
5. Insurance Sales Manager	1	
6. Insurance Adjustor	1	
7. Joint D.O-D.E. Coordinator	1	
8. Telephone Operations Manager	1	
9. Drug Salesman	1	
10. Store Manager	1	
11. Sanitarian	1	
12. Industrial Therapy Supervisor	1	
13. Hardware Salesman	1	
14. Rubber Plant Employee	1	
15. Mail Carrier	1	
16. Lumber Sales Manager	1	
Totals	236	100.0

occupations, 23 (9.8 per cent) were in education -- non-vocational occupations, and 46 (19.5 per cent) were in miscellaneous occupations. These 236 graduates were employed in 50 different occupations. The six major occupations and the number employed in each were: vocational agriculture teachers, 82; military service, 26; assistant county agricultural agent, 14; farmer, 11; department of agriculture employee, eight; and agricultural cooperative employee, eight.

Only 24 occupations were represented by these 236 Bachelor's degree graduates in their first employment after graduation as compared with 50 occupations represented in their 1958 employment. By comparing Table 2 on page 36 with Table 16 on page 62, other changes can be seen that have taken place. As their first occupation 144 graduates were employed as vocational agriculture teachers, which is the occupation or specialized field for which they were trained. In 1958, there were 84 graduates in the field of vocational education in agriculture. Of these graduates, 82 were vocational agriculture teachers, one was an assistant state vocational agriculture supervisor, and one was a district vocational agriculture supervisor. These latter two graduates were promoted from their positions as vocational agriculture teachers to supervisors of vocational agriculture in Virginia. Each of the four remaining occupational groups gained in the total number of graduates employed. These occupational groups and the number of graduates gained in each were: other professional agricultural occupations, 18; other agricultural occupations, 20; educational occupations -- non-vocational, 13; and miscellaneous occupations, nine.

The 1958 occupations of the 55 Master's degree graduates were as listed in Table 17. Of the total, 25 (45.5 per cent) were in vocational education in agriculture, three (5.4 per cent) were in other professional agricultural occupations, four (7.3 per cent) were in other agricultural occupations, 19 (32.7 per cent) were in educational occupations -- non-vocational, and five (9.1 per cent) were in miscellaneous occupations. These 55 graduates were employed in 22 different occupations. The six major occupations and the number employed in each were: vocational agriculture teacher, 19; high school principal, seven; teacher educator, four; high school teacher, four; assistant high school principal, two; and director of instruction, two.

Only 12 occupations were represented by the 55 Master's degree graduates in their first employment after graduation as compared with 23 occupations represented in their 1958 employment. A comparison of the data in Table 3 (page 37) with Table 17 (page 66) revealed that of the 37 graduates who were employed in vocational education in agriculture as their first occupation, 25 were teaching vocational agriculture in 1958. Nine graduates were employed in educational occupations -- non-vocational immediately after graduation but since graduation nine additional Master's degree graduates, with their advanced training and experience in the field of education, have accepted administrative positions, paying higher salaries, in the field of general education. No apparent change has occurred in the number of graduates in the remaining occupational groups.

TABLE 17

OCCUPATIONS IN 1958 OF 55 OF THE 60 MASTER'S DEGREE GRADUATES
IN AGRICULTURAL EDUCATION FROM VIRGINIA POLYTECHNIC
INSTITUTE 1948-1958

Occupations	Number	Per Cent
A. Vocational Education in Agriculture	25	45.5
1. Vocational Agriculture Teacher	10	
2. Teacher Educator	4	
3. Assistant State Vocational Agriculture Supervisor	1	
4. District Vocational Agriculture Supervisor	1	
B. Other Professional Agricultural Occupations	3	5.4
1. Experiment Station Employee	1	
2. Assistant County Agricultural Agent	1	
3. Agricultural Supervisor	1	
C. Other Agricultural Occupations	4	7.3
1. Agricultural Salesman	1	
2. Farmer	1	
3. Agricultural Cooperative Employee	1	
4. Agricultural Sales Manager	1	
D. Educational Occupations -- Non-Vocational	18	32.7
1. High School Principal	7	
2. High School Teacher	4	
3. Director of Instruction	2	
4. Assistant High School Principal	2	
5. Industrial Arts Teacher	1	
6. Elementary School Teacher	1	
7. Graduate Student	1	
E. Miscellaneous Occupations	5	9.1
1. Military Service	1	
2. Assistant Book Editor	1	
3. Mail Carrier	1	
4. Insurance Agent	1	
5. Insurance Sales Manager	1	
Totals	55	100.0

Salaries of the Graduates in 1958

The 82 Bachelor's degree graduates (Table 18) who were teaching vocational agriculture in 1958, reported salaries which averaged \$4,643. Thirteen vocational agriculture teachers who graduated in 1958, reported salaries which averaged \$4,173, which was the lowest average of the salaries reported for the 11 year period. The six teachers who graduated in 1949 received salaries which averaged \$1,214 more than the 13 teachers who graduated in 1958. The highest average of the salaries reported was \$5,387, which was given by six teachers of vocational agriculture who graduated in 1949. The average of the salaries ranged from \$4,816 to \$5,387 for 37 agricultural teachers who graduated from 1948 through 1952. In contrast, the average of the salaries ranged from \$4,173 to \$4,615 for 45 vocational agriculture teachers who graduated from 1953 through 1958. The teachers who were receiving the higher salaries graduated from 1948 through 1952 and had been teaching a greater number of years than those teachers who were receiving the lower salaries.

The 154 graduates who were in the all-other-occupations group reported salaries which averaged \$5,584 or \$941 more than the average of the salaries reported by those 82 graduates who were teaching vocational agriculture. Thirteen of the 154 graduates who were engaged in the all-other-occupations group did not report their 1958 salary. These graduates were not included in the computations. Seventeen graduates, who graduated in 1948, reported salaries which averaged \$6,194, which was the highest average salary for graduates engaged in the all-other-occupations group. The lowest average of the salaries reported was \$4,070 which was

TABLE 18

AVERAGE 1958 SALARIES BY YEARS OF GRADUATION OF 272 OF THE 333 AGRICULTURAL EDUCATION
GRADUATES FROM VIRGINIA POLYTECHNIC INSTITUTE 1948-1958

Year Graduates	1958 Salaries of Bachelor's Degree Graduates				1958 Salaries of Master's Degree Graduates			
	Vo. Ag. Teachers		All Other Occup.		Vo. Ag. Teachers		All Other Occup.	
	No.	Av. Salary	No.	Av. Salary	No.	Av. Salary	No.	Av. Salary
1948	5	\$5,172	17	\$6,194		\$	2	\$7,125
1949	6	5,387	10	6,049			2	6,786
1950	14	5,024	18	5,857	2	5,950	3	7,117
1951	9	4,816	26	6,005			2	7,350
1952	3	4,917	19	5,446	1	5,350	5	5,066
1953	6	4,615	14	4,744	5	5,484	8	6,111
1954	5	4,490	14	5,647	2	5,070	4	5,798
1955	3	4,392	7	5,875	1	5,250	4	6,913
1956	6	4,342	10	4,924	4	5,030	2	5,710
1957	12	4,211	10	4,388	3	5,760	3	5,300
1958	13	4,173	9	4,070	1	4,848	1	4,704
Totals	82		154		19		36	
Average Salary		\$4,643		\$5,584		\$5,374		\$6,162
Average Salary for All Occupations			\$5,235			\$5,889		

given by nine graduates who graduated in 1958.

The 1958 average salaries were greater for those graduates engaged in the all-other-occupations group from 1948 through 1957. The average of the salaries for 90 graduates engaged in the all-other-occupations group, who graduated from 1948 through 1952, ranged from \$5,446 to \$6,194. In comparison, the average of the salaries ranged from \$4,070 to \$4,744 for 64 graduates engaged in the all-other-occupations group who graduated from 1953 through 1958. There was a definite correlation between the average of the salaries received by the graduates and the length of time since graduation. In general, the graduates with the greatest number of years of experience since graduation reported salaries which averaged higher than those graduates of recent years.

The average of the salaries for all occupations reported by the 236 Bachelor's degree graduates from 1948 through 1958 was \$5,235.

Nineteen of the 55 Master's degree graduates, who were vocational agriculture teachers, reported salaries which averaged \$5,374 (Table 18 on page 68). The highest average of the salaries reported in this group was \$5,950, which was for two graduates in the class of 1950. The lowest salary reported was \$4,848, which was for one graduate in the class of 1958. The variations of the average salaries of the teachers of vocational agriculture were due to the length of teaching experience, credit given for military service, and the salary scale in the states in which the graduates were employed.

The 36 Master's degree graduates engaged in the other occupations group reported salaries which averaged \$6,162. This salary was \$788 more

than the average of the salaries reported by the 19 Master's degree graduates who were teaching vocational agriculture. One graduate student, in the all-other-occupations group, reported that he received no salary and was not included in the computations.

The average of the salaries for all occupations reported by the 55 Bachelor's degree graduates from 1948 through 1958 was \$5,889.

Table 19 compares the 1958 average salaries of vocational agriculture teachers with the average 1958 salaries of all other Bachelor's degree graduates by occupational groups. Thirteen of the graduates who were engaged in occupations other than vocational education in agriculture did not report their 1958 salary; three of these were in the other-agricultural-occupations group; four were in the educational-occupations -- non-vocational group; and six were in the miscellaneous-occupations group. These graduates were not included in the computations.

The two graduates who had been promoted to supervisors of vocational agriculture reported salaries averaging \$5,568, which was \$925 more than the average of the salaries reported by the teachers of vocational agriculture who graduated from 1948 through 1958.

The 44 graduates engaged in the other-professional-agricultural-occupations group reported salaries which averaged \$5,583 or \$940 more than the average of the salaries reported by the teachers of vocational agriculture. The highest average of the salaries reported in this group was \$6,348, which was for five graduates who graduated in 1949. Four graduates in the class of 1957 reported the lowest salaries for this group, which averaged \$4,467.

Thirty-nine graduates employed in the other-agricultural-occupa-

TABLE 19

COMPARISON OF THE 1958 SALARIES BY FIELDS OF EMPLOYMENT OF 236 OF THE 296 BACHELOR'S
DEGREE GRADUATES IN AGRICULTURAL EDUCATION FROM VIRGINIA POLYTECHNIC
INSTITUTE 1948-1958 BY YEARS OF GRADUATION

Year Graduated	Vo. Ag. Teachers		All Others in Vo.Ed. in Agr.		Other Prof. Agr. Occup.		Other Agr. Occupations		Ed. Occup. Non-Voc.		Miscellaneous Occupations	
	No.	Av.Salary	No.	Av.Salary	No.	Av.Salary	No.	Av.Salary	No.	Av.Salary	No.	Av.Salary
1948	5	\$5,172		\$	7	\$6,231	3	\$5,732	4	\$5,062	3	\$8,080
1949	6	5,387			5	6,348	2	7,300	1	4,300	2	4,925
1950	14	5,024	1	6,432	6	6,154	5	5,200	3	4,833	3	7,155
1951	9	4,816			7	5,769	6	6,087	4	5,800	9	6,219
1952	3	4,917			4	5,072	8	6,030	3	3,982	4	6,050
1953	6	4,615	1	4,704	2	4,920	4	5,050			7	4,492
1954	5	4,490			5	5,151	4	5,290	1	4,050	4	6,933
1955	3	4,392			1	4,920	2	5,340			4	6,431
1956	6	4,342			3	4,771	1	4,000	2	4,650	4	5,555
1957	12	4,211			4	4,467	2	4,478	2	3,800	2	(a)
1958	13	4,173					2	4,400	3	2,550	4	4,500
Totals	82		2		44		39		23		46	
Average Salary		\$4,643		\$5,568		\$5,583		\$5,531		\$4,732		\$6,045

(a) No response

tions group, reported salaries averaging \$5,531, which was \$888 more than the average of the salaries reported by the teachers of vocational agriculture. The highest average of the salaries reported in this group was \$7,300, which was for two graduates who graduated in 1949. One graduate in the class of 1956 reported the lowest salary for this group, which was \$4,000.

The average of the salaries reported by 23 graduates engaged in the educational occupations -- non-vocational was \$4,732. Eight of these graduates were paid on a ten month's salary schedule. Four graduates in the class of 1951 reported the highest salaries for this group, which averaged \$5,800. The lowest average of the salaries reported for this group was \$2,550, which was given by one graduate who graduated in 1958. These 23 graduates received salaries which averaged \$89 more than the vocational agriculture teachers.

Of the 46 graduates engaged in the miscellaneous-occupations group, 40 reported salaries averaging \$6,045. Three graduates in the class of 1948 reported the highest salaries of this group which averaged \$8,080. The lowest average of the salaries reported for this group was \$4,500, which was for two graduates in the class of 1958. These 40 graduates received salaries which averaged \$1,402 more than the teachers of vocational agriculture.

A pictorial comparison of these data (Table 19 on page 71) is presented by bar graphs in Figure 1 on page 73.

Sixty-nine of the 82 vocational agriculture teachers, holding only the Bachelor's degree, were teaching in Virginia (Table 20, page 74).

Average 1958 Salary

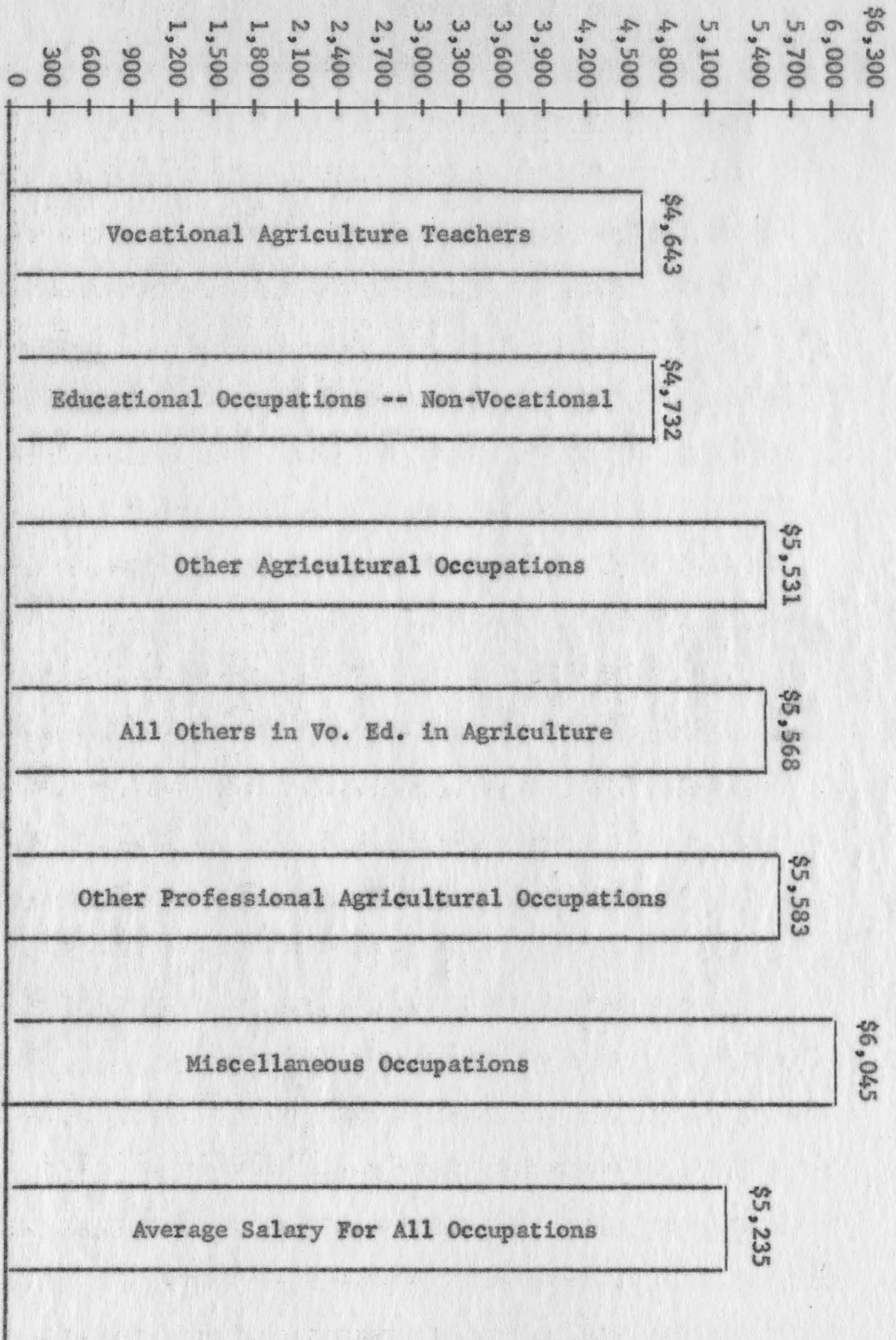


FIGURE 1

COMPARISON OF THE 1958 SALARIES BY FIELDS OF EMPLOYMENT OF 236 OF THE 296 BACHELOR'S DEGREE GRADUATES IN AGRICULTURAL EDUCATION FROM VIRGINIA POLYTECHNIC INSTITUTE 1948-1958

TABLE 20

COMPARISON OF THE 1958 SALARIES OF TEACHERS OF VOCATIONAL AGRICULTURE IN VIRGINIA
 BY TENURE GROUPS OF 69 BACHELOR'S DEGREE GRADUATES IN AGRICULTURAL EDUCATION
 FROM VIRGINIA POLYTECHNIC INSTITUTE 1948-1958 WHO HOLD ONLY THE
 BACHELOR'S DEGREE

Salary Bracket	Tenure Groups									
	1 to 3 Yrs.		3 to 5 Yrs.		5 to 7 Yrs.		7 to 9 Yrs.		9 to 11 Yrs.	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
3900-4099	8	22.9								
4100-4299	14	40.0					1	6.7		
4300-4499	9	25.7	1	20.0	1	16.7	1	6.7		
4500-4699	3	8.6	4	80.0	1	16.7	4	26.7		
4700-4899					3	50.0	4	26.7	2	25.0
4900-5099	1	2.8					2	13.2	4	50.0
5100-5299					1	16.6	3	20.0	2	25.0
Totals	35	100.0	5	100.0	6	100.0	15	100.0	8	100.0
Average Salary		\$4,244		\$4,531		\$4,717		\$4,779		\$4,953

Of the 69 teachers who were teaching in Virginia, 35 had been teaching from one to three years; five, from three to five years; six, from five to seven years; 15, from seven to nine years; and eight, from nine to 11 years. The average salaries per calendar year of the teachers in each tenure group were: \$4,244; \$4,531; \$4,717; \$4,779; and \$4,953 respectively. These figures indicate that the teachers salaries increased at a faster rate during the first five years of teaching than during the second five years. This appears to support the general belief that salaries of teachers in Virginia tend to level off and increase at a slower rate after about ten years of teaching experience.

Eight of the 82 vocational agriculture teachers earned Master's degrees in Agricultural Education from Virginia Polytechnic Institute during this 11 year study. Six are teaching in Virginia, one in Pennsylvania, and one in Maryland.

Five of the 82 vocational agriculture teachers holding only the Bachelor's degree, were teaching in five different states. These states were: Maryland, West Virginia, Indiana, North Carolina, and Florida. The five graduates reported salaries which averaged \$6,046 and had an average of 6.0 years of teaching experience. They received salaries which averaged \$1,329 more than the teachers in Virginia with five to seven years of teaching experience, \$1,267 more than the teachers in Virginia with seven to nine years of teaching experience, and \$1,093 more than the teachers in Virginia with nine to 11 years of teaching experience. These figures indicate that the salary schedules for teachers of vocational agriculture, in those states in which these five Bachelor's degree graduates were teaching, were higher in 1958 than the salary

schedule in Virginia

The 19 teachers of vocational agriculture holding Master's degrees (Table 21) reported salaries averaging \$5,374 or \$1,157 less than six graduates engaged in the all-others-in-vocational education-in-agriculture group. The highest average of the salaries reported by the teachers of vocational agriculture was \$5,950, which was for two teachers who graduated in 1950. One graduate in the class of 1958 reported the lowest salary for this group, which was \$4,848. In comparison, the highest salary reported by the six graduates in the all-others-in-vocational-education-in-agriculture group was \$8,850 and the lowest salary was \$4,704.

Three graduates in the other-professional-agricultural-occupations group were earning an average salary of \$6,813. The highest salary reported was \$8,800 and the lowest salary was \$4,920. This salary was \$1,439 more than the average of the salaries reported by the vocational agriculture teachers.

Four graduates engaged in the other-agricultural-occupations group reported salaries averaging \$7,933. The highest salary reported was \$10,000 and the lowest was \$6,593. These graduates received \$2,559 more in average salary than the teachers of vocational agriculture.

The average of the salaries reported by 18 graduates engaged in the educational-occupations -- non-vocational group was \$5,248. The highest salary was \$6,800 and the lowest salary was \$4,700. Seven of these graduates were paid on a ten month's salary basis. One graduate student reported no salary and was not included in the computations. This occupational group received \$126 less in average salary than the vocational

TABLE 21

COMPARISON OF THE 1958 SALARIES BY FIELDS OF EMPLOYMENT OF 55 OF THE 60 MASTER'S DEGREE
GRADUATES IN AGRICULTURAL EDUCATION FROM VIRGINIA POLYTECHNIC INSTITUTE
1948-1958 BY YEARS OF GRADUATION

Year Graduated	Vo. Ag. Teachers		All Others in Vo.Ed. in Agr.		Other Pro.Agr. Occupations		Other Agr. Occupations		Ed.Occup. Non-Vocational		Miscellaneous Occupations	
	No.	Av.Salary	No.	Av.Salary	No.	Av.Salary	No.	Av.Salary	No.	Av.Salary	No.	Av.Salary
1948		\$	1	\$8,850				\$	1	\$5,400		\$
1949									1	6,372	1	7,200
1950	2	5,950	1	6,900	1	8,800					1	5,650
1951							1	10,000	1	4,700		
1952	1	5,350							4	4,950	1	5,530
1953	5	5,484	1	7,500			1	7,400	5	4,869	1	9,600
1954	2	5,070					1	6,593	2	4,750	1	7,100
1955	1	5,250	1	6,432	1	6,720	1	7,700	1	6,800		
1956	4	5,030			1	4,920			1	6,500		
1957	3	5,760	1	4,800					2	5,800		
1958	1	4,848	1	4,704								
Totals	19		6		3		4		18		5	
Average Salary		\$5,374		\$6,531		\$6,813		\$7,933		\$5,248		\$7,016

agriculture teachers.

Five graduates engaged in the miscellaneous-occupations group reported salaries averaging \$7,016. The highest salary reported was \$9,600 and the lowest salary was \$5,530. These five graduates received \$1,642 more than the average of the salaries received by the vocational agriculture teachers.

Fourteen of the 19 Master's degree graduates who were teaching vocational agriculture were teaching in Virginia. Of the 14 teachers who were teaching in Virginia (Table 22), two had been teaching from one to three years; one, from three to five years; three, from five to seven years; two, from seven to nine years; two, from nine to 11 years; and four, 11 years or more. The average salaries of the teachers in each tenure group were: \$4,470, \$4,800, \$5,063, \$4,924, \$5,340, and \$5,470 respectively. These figures indicate an increase in salary for each tenure group except in the seven to nine year tenure group.

Five Master's degree graduates were teaching in other states; two in Pennsylvania, two in North Carolina, and one in Maryland. These graduates reported salaries which averaged \$5,998 and had an average of 8.4 years of teaching experience. They received salaries which averaged \$1,074 more than the teachers in Virginia with seven to nine years of teaching experience and \$528 more than the teachers in Virginia with 11 years or more of teaching experience. These figures indicate that the salary schedules for teachers of vocational agriculture, in those states in which these five Master's degree graduates were teaching, were higher in 1958 than the salary schedule in Virginia.

TABLE 22

COMPARISON OF THE 1958 SALARIES OF TEACHERS OF VOCATIONAL AGRICULTURE IN VIRGINIA
 BY TENURE GROUPS OF 14 MASTER'S DEGREE GRADUATES IN AGRICULTURAL EDUCATION
 FROM VIRGINIA POLYTECHNIC INSTITUTE 1948-1958

Salary Bracket	Tenure Groups											
	1 to 3 Yrs.		3 to 5 Yrs.		5 to 7 Yrs.		7 to 9 Yrs.		9 to 11 Yrs.		11 Yrs. or More	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
4400-4599	2	100.0										
4600-4799					1	33.3						
4800-4999			1	100.0			1	50.0				
5000-5199					1	33.3	1	50.0				
5200-5399									1	50.0	2	50.0
5400-5599					1	33.4			1	50.0	1	25.0
5600-5799											1	25.0
Totals	2	100.0	1	100.0	3	100.0	2	100.0	2	100.0	4	100.0
Average Salary		\$4,470		\$4,800		\$5,063		\$4,924		\$5,340		\$5,470

A comparison of the average salaries of the Bachelor's degree graduates (Table 20, page 74) with the average salaries of the Master's degree graduates in the same tenure group (Table 22, page 79) indicated that the Master's degree graduates received a higher salary than the Bachelor's degree graduates. The teachers with Master's degrees who had been teaching in Virginia from one to three years received \$226 per year more than those holding only a Bachelor's degree. In the tenure groups of three to five years, five to seven years, seven to nine years, nine to 11 years, the Master's degree graduates received salaries which averaged \$269, \$346, \$145, and \$387 more per year respectively. These figures indicate that the teachers holding Master's degrees were paid higher salaries for each tenure group than the teachers holding only the Bachelor's degree.

Relationship of Quality Credit Average to Occupational Choices

A summary of the 144 graduates who entered teaching vocational agriculture revealed that 27.8 per cent were in the 1.0 to 1.49 range in quality credit average; 42.4 per cent were in the 1.5 to 1.99 range; and 29.8 per cent were in the 2.0 to 2.99 range. Dividing the 26 individuals who entered the other professional agricultural occupations into the quality credit ranges, 42.3 per cent were in the 1.0 to 1.49 range; 46.2 per cent were in the 1.5 to 1.99 range; and 11.5 per cent were in the 2.0 to 2.99 range. Of the 19 graduates who entered the other agricultural occupations, 15.8 per cent were in the 1.0 to 1.49 range; 47.4 per cent were in the 1.5 to 1.99 range; and 36.8 per cent were in the 2.0 to 2.99 range in quality credit average. Twenty per cent of the ten graduates

who entered the educational occupations -- non-vocational were in the 1.0 to 1.49 range; 40.0 per cent were in the 1.5 to 1.99 range; and 40.0 per cent were in the 2.0 to 2.99 range. Arithmetical analysis revealed that 27.0 per cent of the 37 graduates who entered the miscellaneous occupations were in the 1.0 to 1.49 range; 35.2 per cent were in the 1.5 to 1.99 range; and 37.8 per cent were in the 2.0 to 2.99 range in quality credit average.

Of the 236 Bachelor's degree graduates reporting, 66 (28.0 per cent) had a range in quality credit average of 1.0 to 1.49; 99 (41.9 per cent) had a range in quality credit average of 1.5 to 1.99; and 71 (30.1 per cent) had a range in quality credit average of 2.0 to 2.99 (Table 23).

Approximately 61 per cent of the graduates in each range in quality credit average entered teaching vocational agriculture. A relatively low percentage (4.2 per cent) of the 71 graduates in the highest range (2.0 to 2.99) in quality credit average entered the other-professional-agricultural-occupations group, while a low percentage (4.5 per cent) of the 66 graduates in the lowest range (1.0 to 1.49) in quality credit average entered the other-agricultural-occupations group. A relatively low percentage of the graduates in each range in quality credit average entered the educational-occupations -- non-vocational group. Of the 37 graduates who entered the miscellaneous-occupations group, 27 (72.9 per cent) of these graduates had a range in quality credit average of 1.5 to 2.99. No apparent difference in the quality credit average occurred in the other major occupational groups in comparison with the graduates who entered teaching vocational agriculture.

TABLE 23

RELATIONSHIP OF QUALITY CREDIT AVERAGE TO INITIAL FIELDS OF EMPLOYMENT ENTERED BY
236 OF THE 296 BACHELOR'S DEGREE GRADUATES IN AGRICULTURAL EDUCATION FROM
VIRGINIA POLYTECHNIC INSTITUTE 1948-1958

Fields of Employment	Range in Quality Credit Average					
	1.0-1.49		1.5-1.99		2.0-2.99	
	No.	Per Cent	No.	Per Cent	No.	Per Cent
Vocational Agriculture Teachers	40	60.6	61	61.6	43	60.6
Other Professional Agricultural Occupations	11	16.7	12	12.1	3	4.2
Other Agricultural Occupations	3	4.5	9	9.1	7	9.9
Educational Occupations -- Non-Vocational	2	3.0	4	4.1	4	5.6
Miscellaneous Occupations	10	15.2	13	13.1	14	19.7
Totals	66	100.0	99	100.0	71	100.0

The distribution of the ranges of quality credit average in 1958 of the 82 graduates who were teaching vocational agriculture was: 24.4 per cent (1.0-1.49); 47.6 per cent (1.5-1.99); and 28.0 per cent (2.0-2.99). One of the two graduates who were in the all-others-in-vocational-education-in-agriculture group was in the 1.5 to 1.99 range in quality credit average, and the other was in the 2.0 to 2.99 range. Arithmetical analysis revealed that 34.1 per cent of the 44 graduates who were in the other professional agricultural occupations were in the 1.0 to 1.49 range; 36.4 per cent were in the 1.5 to 1.99 range; and 29.5 per cent were in the 2.0 to 2.99 range in quality credit average. Of the 39 graduates who were in the other agricultural occupations, 25.6 per cent were in the 1.0 to 1.49 range; 46.2 per cent were in the 1.5 to 1.99 range; and 82.2 per cent were in the 2.0 to 2.99 range in quality credit average. Classifying the 23 individuals who were in the educational occupations -- non-vocational into the quality credit range groups revealed that 26.1 per cent were in the 1.0 to 1.49 range, 30.4 per cent were in the 1.5 to 1.99 range, and 43.5 per cent were in the 2.0 to 2.99 range in quality credit average. A summary of the 46 graduates who were in the miscellaneous occupations revealed that 32.6 per cent were in the 1.0 to 1.49 range in quality credit average; 39.1 per cent were in the 1.5 to 1.99 range; and 28.3 per cent were in the 2.0 to 2.99 range.

In 1958 the highest percentage of the graduates in each range in quality credit average were teaching vocational agriculture (Table 24). A higher percentage (39.4 per cent) of the graduates in the 1.5 to 1.99 range in quality credit average were teaching vocational agriculture as

TABLE 24

RELATIONSHIP OF QUALITY CREDIT AVERAGE TO THE 1958 FIELDS OF EMPLOYMENT OF 236
OF THE 296 BACHELOR'S DEGREE GRADUATES IN AGRICULTURAL EDUCATION
FROM VIRGINIA POLYTECHNIC INSTITUTE 1948-158

Fields of Employment	Range in Quality Credit Average					
	1.0-1.49		1.5-1.99		2.0-2.99	
	No.	Per Cent	No.	Per Cent	No.	Per Cent
Vocational Agriculture	20	30.3	39	39.4	23	32.4
All Others in Vo. Ed. in Agriculture			1	1.0	1	1.4
Other Professional Agricultural Occupations	15	22.7	16	16.2	13	18.3
Other Agricultural Occupations	10	15.2	18	18.2	11	15.5
Educational Occupations -- Non-Vocational	6	9.1	7	7.0	10	14.1
Miscellaneous Occupations	15	22.7	18	18.2	13	18.3
Totals	66	100.0	99	100.0	71	100.0

compared with the agriculture teachers who were in the 1.0 to 1.49 and 2.0 to 2.99 ranges. Of the remaining major occupational groups, the lowest percentage of the graduates in each range of quality credit average were in the educational-occupations -- non-vocational group. In the three ranges in quality credit averages, 39.4 per cent in the 1.0 to 1.49 range, 47.4 per cent in the 1.5 to 1.99 range, and 47.9 per cent in the 2.0 to 2.99 range were engaged in the field of education. These percentages were obtained for each range in quality credit average by adding the percentage of graduates engaged in three fields of employment: vocational agriculture teachers, all others in vocational education in agriculture, and educational occupations -- non-vocational. No apparent difference in the quality credit average occurred in the other major occupational groups in comparison with the graduates who were teaching vocational agriculture.

The greatest number of those changing fields of employment in each range in quality credit average occurred among the teachers of vocational agriculture (Table 25). However, of the 66 graduates who were in the 1.0 to 1.49 range in quality credit average, 40 entered teaching vocational agriculture as their first employment. In 1958, 20 or 50.0 per cent as many graduates in the same range in quality credit average were teaching vocational agriculture. In the 1.5 to 1.99 range in quality credit average, which included 99 graduates, 61 entered teaching vocational agriculture as their first employment, and in 1958, 39 or 63.9 per cent as many graduates in this same range in quality credit average were teaching vocational agriculture. Of the 71 graduates who were in

TABLE 25

CHANGES IN FIELDS OF EMPLOYMENT BY RANGES IN QUALITY CREDIT AVERAGES OF 236 OF THE 296
BACHELOR'S DEGREE GRADUATES IN AGRICULTURAL EDUCATION FROM VIRGINIA
POLYTECHNIC INSTITUTE 1948-1958

Fields of Employment	Ranges in Quality Credit Average								
	1.0-1.49			1.5-1.99			2.0-2.99		
	No. Graduates 1st Emp.	No. Emp. in '58	Change + or - in '58	No. Grad. 1st Emp.	No. Grad. in '58	Change + or - in '58	No. Grad. 1st Emp.	No. Emp. in '58	Change + or - in '58
Vocational Agricultural Teachers	40	20	-20	61	39	-22	43	23	-20
All Others in Vo. Ed. in Agriculture	0	0	0	0	1	+ 1	0	0	+ 1
Other Professional Agri- cultural Occupations	11	15	+ 4	12	16	+ 4	3	13	+10
Other Agricultural Occupa- tions	3	10	+ 7	9	18	+ 9	7	11	+ 4
Educational Occupations -- non-vocational	2	6	+ 4	4	7	+ 3	4	10	+ 6
Miscellaneous Occupations	10	13	+ 5	13	18	+ 5	14	13	- 1
Totals	66	66		99	99		71	71	

the 2.0 to 2.99 range in quality credit average, 43 entered teaching vocational agriculture as their first employment, and in 1958, 23 or 53.5 per cent as many graduates in the same range in quality credit average were teaching vocational agriculture. By 1958, there was a loss of 50.0 per cent in the number of graduates in the 1.0 to 1.49 range, 36.1 per cent in the 1.5 to 1.99 range, and 46.5 per cent in the 2.0 to 2.99 range in quality credit averages.

In the 1.0 to 1.49 and 1.5 to 1.99 ranges, the greatest increase in the number of employments was in the other-agricultural-occupations field, while in the 2.0 to 2.99 range the greatest increase was in the other-professional-agricultural-occupations field.

The second greatest increase in the number of employments for the 1.0 to 1.49 and 1.5 to 1.99 ranges was in the miscellaneous-occupations field. In the 2.0 to 2.99 range, the second greatest increase in the number of employments was in the educational-occupations -- non-vocational field.

No effort was made to establish a pattern of change from teaching vocational agriculture to other occupations.

On the basis of their first employment and their employment in 1958 there was no definite relationship between quality credit averages and fields of employment selected by the graduates.

Relationship of Co-Curricular Activities to Occupational Choices

The 236 Bachelor's degree graduates participated in a total of 1071 co-curricular activities which was an average of 4.5 for each graduate (Table 26). The number of co-curricular activities ranged from

TABLE 26

DISTRIBUTION OF CO-CURRICULAR ACTIVITIES AMONG 236 OF THE
296 BACHELOR'S DEGREE GRADUATES IN AGRICULTURAL
EDUCATION FROM VIRGINIA POLYTECHNIC
INSTITUTE 1948-1958

Number of Co-Curricular Activities	Graduates Participating		Total No. Co-Curricular Activities
	No.	Per Cent	
0	9	3.8	0
1	20	8.5	20
2	42	17.8	84
3	45	19.1	135
4	20	8.5	80
5	24	10.2	120
6	22	9.3	132
7	18	7.6	126
8	13	5.5	104
9	3	1.3	27
10	7	3.0	70
11	2	0.8	22
12	3	1.3	36
13	4	1.7	52
14	2	0.8	28
15	0		
16	0		
17	1	0.4	17
18	1	0.4	18
Totals	236	100.0	1071
Average Number of Co-Curricular Activities			4.5

zero through 18. The number of co-curricular activities participated in by the highest percentage of the 236 graduates were: three activities (19.1 per cent); two activities (17.8 per cent); five activities (10.2 per cent); and six activities (9.3 per cent). The data revealed that nine (3.8 per cent) of the graduates did not participate in any co-curricular activities. One hundred and twenty-seven (53.8 per cent) of the graduates participated in one to four activities, 80 (33.9 per cent) participated in five to nine activities, and 20 (8.5 per cent) participated in ten to 18 activities.

The distribution of the ranges in co-curricular activities of the 144 graduates who entered teaching vocational agriculture was 63.2 per cent (0-4 activities); 31.3 per cent (5-9 activities); and 5.5 per cent (10 or more activities). Of the 26 graduates who entered the other professional agricultural occupations, 50.0 per cent were in the zero to four range; 46.2 per cent were in the five to nine range; and 3.8 per cent were in the 10 or more range in co-curricular activities. Of the 19 graduates who entered the other agricultural occupations, 47.4 per cent were in the zero to four range; 36.8 per cent were in the five to nine range; and 15.8 per cent were in the 10 or more range in co-curricular activities. Sixty per cent of the 10 graduates who entered the educational occupations -- non-vocational were in the zero to four range, 20.0 per cent were in the five to nine range, and 20.0 per cent were in the 10 or more range. Arithmetical analysis revealed that 46.0 per cent of the 37 graduates who entered the miscellaneous occupations were in the zero to four range; 37.8 per cent were in the five to nine range; and

16.2 per cent were in the 10 or more range in co-curricular activities.

The highest percentage of the graduates in each range in co-curricular activities entered teaching vocational agriculture (Table 27). The next highest percentage of the graduates in each range in co-curricular activities entered the miscellaneous occupations. The lowest percentage (4.4 per cent) of the 136 graduates in the zero to four range entered the educational-occupations -- non-vocational group, while the lowest percentage (2.5 per cent) of the 80 graduates in the five to nine range also entered this same group. Only one (5.0 per cent) of the graduates in the ten or more range in activities entered the other professional agricultural occupations, which was the lowest percentage for this range in co-curricular activities. No apparent difference in the co-curricular activities occurred in the other major occupational groups in comparison with the graduates who entered teaching vocational agriculture.

The number of graduates in each field of employment in 1958 and the per cent of each in the three ranges in co-curricular activities were: 82, vocational agriculture teachers, 64.6 per cent (0-4), 31.7 per cent (5-9), and 3.7 (10 or more); two, all others in vocational education in agriculture, 50.0 per cent (0-4); 50.0 per cent (5-9), and none (10 or more); 44, other professional agricultural occupations, 63.6 per cent (0-4), 27.3 per cent (5-9), and 9.1 per cent (10 or more); 39, other agricultural occupations, 56.4 per cent (0-4), 33.3 per cent (5-9), and 10.3 per cent (10 or more); 23, educational occupations -- non-vocational, 56.5 per cent (0-4), 39.1 per cent (5-9), and 4.4 per cent (10 or more); and 46, miscellaneous occupations, 41.3 per cent (0-4), 41.3 per cent (5-9),

TABLE 27

RELATIONSHIP OF CO-CURRICULAR ACTIVITIES TO INITIAL FIELDS OF EMPLOYMENT ENTERED
 BY 236 OF THE 296 BACHELOR'S DEGREE GRADUATES IN AGRICULTURAL EDUCATION
 FROM VIRGINIA POLYTECHNIC INSTITUTE 1948-1958

Fields of Employment	Ranges in Co-Curricular Activities					
	0-4		5-9		10 or More	
	No.	Per Cent	No.	Per Cent	No.	Per Cent
Vocational Agriculture Teachers	91	66.9	45	56.3	8	40.0
Other Professional Agricultural Occupations	13	9.6	12	15.0	1	5.0
Other Agricultural Occupations	9	6.6	7	8.7	3	15.0
Educational Occupations -- Non-Vocational	6	4.4	2	2.5	2	10.0
Miscellaneous Occupations	17	12.5	14	17.5	6	30.0
Totals	136	100.0	80	100.0	20	100.0

and 17.4 per cent (10 or more).

In 1958 the highest percentage of the graduates in the zero to four and five to nine ranges in co-curricular activities were teaching vocational agriculture, while the highest percentage of the graduates in the ten or more range were engaged in the miscellaneous occupations (Table 28, page 93). Of the remaining major occupational groups, the lowest percentage of the graduates in each range in co-curricular activities were in the educational occupations -- non-vocational. No apparent difference in the co-curricular activities occurred in the other major occupational groups in comparison with the graduates who were teaching vocational agriculture.

Table 29 (page 94) presents the changes in fields of employment by co-curricular activities. The greatest number of those changing fields of employment in each range in co-curricular activities occurred among the teachers of vocational agriculture. However, of the 136 graduates who were in the zero to four range in co-curricular activities, 91 entered teaching vocational agriculture as their first employment. In 1958, 53 or 58.2 per cent as many graduates in the same range in co-curricular activities were teaching vocational agriculture. In the five to nine range in co-curricular activities, which included 80 graduates, 45 entered teaching vocational agriculture as their first employment, and in 1958, 26 or 57.7 per cent as many graduates in this same range in co-curricular activities were teaching vocational agriculture. Of the 20 graduates who were in the ten or more range in co-curricular activities, eight entered teaching vocational agriculture as their first employment, and in 1958,

TABLE 28

RELATIONSHIP OF CO-CURRICULAR ACTIVITIES TO THE 1958 FIELDS OF EMPLOYMENT OF
236 OF THE 296 BACHELOR'S DEGREE GRADUATES IN AGRICULTURAL EDUCATION
FROM VIRGINIA POLYTECHNIC INSTITUTE 1948-1958

Fields of Employment	Range in Co-Curricular Activities					
	0-4		5-9		10 or More	
	No.	Per Cent	No.	Per Cent	No.	Per Cent
Vocational Agriculture Teachers	53	39.0	26	32.5	3	15.0
All Others in Vo. Ed. in Agriculture	1	0.7	1	1.2	0	00.0
Other Professional Agricultural Occupations	28	20.6	12	15.0	4	20.0
Other Agricultural Occupations	22	16.2	13	16.2	4	20.0
Educational Occupations -- Non-Vocational	13	9.5	9	11.3	1	5.0
Miscellaneous Occupations	19	14.0	19	23.8	8	40.0
Totals	136	100.0	80	100.0	20	100.0

TABLE 29

CHANGES IN FIELDS OF EMPLOYMENT BY RANGES IN CO-CURRICULAR ACTIVITIES OF 236 OF
THE 296 BACHELOR'S DEGREE GRADUATES IN AGRICULTURAL EDUCATION
FROM VIRGINIA POLYTECHNIC INSTITUTE 1948-1958

Fields of Employment	Range in Co-Curricular Activities								
	0-4			5-9			10 or More		
	No. Grad. 1st Emp.	No. Emp. in '58	Change + or - in '58	No. Grad. 1st Emp.	No. Emp. in '58	Change + or - in '58	No. Grad. 1st Emp.	No. Emp. in '58	Change + or - in '58
Vocational Agriculture Teachers	91	53	-38	45	26	-19	8	3	- 5
All Others in Vo.Ed. in Agriculture	0	1	+ 1	0	1	+ 1	0	0	0
Other Professional Agricultural Occup.	13	28	+15	12	12	0	1	4	+ 3
Other Agricultural Occupations	9	22	+13	7	13	+ 6	3	4	+ 1
Educational Occup.-- Non-Vocational	6	13	+ 7	2	9	+ 7	2	1	- 1
Miscellaneous Occupations	17	19	+ 2	14	19	+ 5	6	8	+ 2
Totals	136	136		80	80		20	20	

three or 37.5 per cent as many graduates in the same range in co-curricular activities were teaching vocational agriculture. By 1958, there was a loss of 41.8 per cent in the number of graduates in the zero to four range, 42.3 per cent in the five to nine range, and 62.5 per cent in the ten or more range in co-curricular activities.

In the zero to four and ten or more ranges the greatest increase in the number of employments was in the other-professional-agricultural-occupations field, while in the five to nine range the greatest increase was in the educational-occupations -- non-vocational field.

The second greatest increase in the number of employments for the zero to four and five to nine ranges was in the other-agricultural-occupations field. In the ten or more range, the second greatest increase in the number of employments was in the miscellaneous-occupations field.

No effort was made to establish a pattern of change from teaching vocational agriculture to other occupations.

On the basis of their first employment and their employment in 1958, there was no definite relationship between co-curricular activities and fields of employment selected by the graduates.

Relationship of Quality Credit Average and Co-Curricular Activities to Advancement

The data in Table 30 indicates that the graduates who had the highest quality credit average in their undergraduate work participated in more co-curricular activities while in college, earned more advanced degrees, both Master's and Doctor's, and were receiving salaries that averaged higher than those who had the lower quality credit average.

TABLE 30

RELATIONSHIP OF QUALITY CREDIT AVERAGE AND AVERAGE NUMBER OF CO-CURRICULAR ACTIVITIES
TO ADVANCEMENT AFTER GRADUATION OF 236 OF THE 296 BACHELOR'S DEGREE GRADUATES
IN AGRICULTURAL EDUCATION FROM VIRGINIA POLYTECHNIC INSTITUTE 1948-1958

Range in Quality Credit Average	Graduates		Average No. Co-Curricular Activities	No. Graduates Holding Master's Degree	No. Graduates Holding Ph.D. Degree	Average Salary in 1958	Average Total Salary Increases Since Graduation
	No.	Per Cent					
1.0-1.49	66	28.0	3.8	3	0	\$5,142 ^(a)	\$1.916 ^(a)
1.5-1.99	99	41.9	4.4	13	1	5,218 ^(b)	2,062 ^(c)
2.0-2.99	71	30.1	5.4	14	2	5,383 ^(d)	2,251 ^(c)

(a) Four individuals were not included because they did not provide data on this question or were graduate students when the data was secured.

(b) Five individuals - same reasons as (a)

(c) Six individuals - same reasons as (a)

(d) Four individuals - same reasons as (a)

The 66 graduates who were in the 1.0 to 1.49 range in quality credit average had an average of 3.8 co-curricular activities, while the 99 graduates in the 1.5 to 1.99 range had an average of 4.4 activities, and the 71 graduates in the 2.0 to 2.99 range had an average of 5.4 activities.

Only three (4.5 per cent) of the graduates in the 1.0 to 1.49 range in quality credit average held Master's degrees, while 13 (13.1 per cent) of the graduates in the 1.5 to 1.99 range and 14 (19.7 per cent) of the graduates in the 2.0 to 2.99 range held Master's degrees. No Doctor of Philosophy Degrees were represented in the 1.0 to 1.49 range. Three Doctor of Philosophy Degrees were held by the graduates, one in the 1.5 to 1.99 range and two in the 2.0 to 2.99 range in quality credit average.

The graduates in the 1.5 to 1.99 range in quality credit average reported 1958 salaries which averaged \$5,218 or \$76 more than the average of the salaries reported by the graduates in the 1.0 to 1.49 range. In the 2.0 to 2.99 range, the graduates reported 1958 salaries averaging \$5,383 which was \$165 more than the average of the salaries the graduates reported in the 1.5 to 1.99 range, and \$241 more than the average of the salaries the graduates reported in the 1.0 to 1.49 range.

In the 1.5 to 1.99 range, the graduates reported salaries which had an average total salary increase since graduation of \$2,062 or \$146 more than the graduates in the 1.0 to 1.49 range. The graduates in the 2.0 to 2.99 range reported salaries which had an average total salary increase since graduation of \$2,251 or \$189 more than the graduates in the 1.0 to 1.49 range in quality credit average. These figures indicate

that the graduates with the higher quality credit average had received greater annual salary increases since graduation than the graduates with lower quality credit averages.

Suggested Curriculum Changes

The graduates suggested 52 different curriculum changes or improvements and six different suggestions other than course offerings, which are included in Appendix D (page 131). The suggestions offered by the graduates were influenced by the experience and the type of occupation in which they had been engaged since graduation. An analysis of the questionnaires revealed that the graduates who were teaching vocational agriculture tended to suggest that additional courses be included in technical subjects in agriculture, in professional educational courses, and that more practical work be included in all courses. Those who were not teaching agriculture tended to suggest that additional courses be included in technical subjects in agriculture, in agricultural business courses, in basic science courses, and in the humanities. However, some of the teachers of vocational agriculture did suggest that additional courses be included in agricultural business courses, in basic science courses, and in the humanities.

Over one-third (36.4 per cent) of the 272 graduates did not suggest any curriculum changes or stated the curriculum was satisfactory. One hundred and seventy-three graduates (63.6 per cent) offered specific changes or improvements in the curriculum.

Suggestions given by the 173 graduates for increases in course

offerings are summarized as follows:

	Number	Per Cent
1. Include more technical subjects in agriculture	158	91.3
a. Concentration of more technical subjects in agriculture	30	
b. Additional or more practical work in soils and soils management	23	
c. Add courses in practical farm management	19	
d. Additional laboratory courses in livestock production and management	17	
e. Give more technical courses on livestock	14	
f. Provide additional courses in Ag.Engr.Dept.	12	
g. Offer additional courses in veterinary science	11	
h. Add technical courses in agronomy	8	
i. Additional farm power and machinery courses	6	
j. Provide additional courses in entomology and plant pathology	5	
k. Include a course in ornamental horticulture	5	
l. Add more technical courses in poultry	3	
m. Improve and give more emphasis to forestry courses	3	
n. Add more courses in dairying	2	
2. Provide additional professional education courses	89	51.4
a. Additional work in farm mechanics	20	

	Number	Per Cent
b. Provide a wide variety of agricultural education subjects	19	
c. Include additional practice teaching	11	
d. Provide additional courses in professional education	9	
e. Add a course in "Organizing and Conducting Young Farmer Instruction" or "Teaching Out of School Groups"	8	
f. Add a course in public relations	5	
g. Offer a course emphasizing school curriculum and personal relations	5	
h. Include additional courses psychology	4	
i. Course required in audio-visual aids	4	
j. Include courses in typing	2	
k. Rework methods courses	2	
3. Include additional agricultural business courses	52	30.0
a. Provide agricultural business courses	25	
b. Add basic business courses	14	
c. Include more principles of agricultural economics subjects	13	
4. Increase basic science courses	46	26.6
a. Additional courses in chemistry	18	
b. Add more courses in mathematics	11	
c. Additional course work in biological sciences	9	

	Number	Per Cent
d. Include a course in physics	8	
5. Require additional practical work	42	24.3
a. Additional practical and applied work in all courses	25	
b. More practical laboratory work	17	
6. Require additional work in the humanities	33	19.1
a. Require more liberal arts courses	9	
b. Provide additional courses in public speaking	8	
c. Require more English	8	
d. Require additional course in journalism	6	
e. Add a course on types of communities	1	
f. Give a basic economics course	1	
7. Allow students to select more electives	7	4.0

The suggestions given by the graduates for decreasing course offerings were:

1. Curtailment of course offerings	29	16.8
a. Offer fewer courses in:		
(1) Professional education	9	
(2) Psychology	5	
(3) Methods of teaching	4	
(4) Shop work	2	
(5) Chemistry	2	
(6) English literature by at least three quarter credit hours	1	

	Number	Per Cent
b. Drop courses in:		
(1) Sociology	2	
(2) General biology and chemistry	2	
(3) Genetics and forestry	1	
(4) Practice teaching	1	

The six areas in which increased course offerings were suggested by the highest percentage of the 173 graduates were: include more technical subjects in agriculture (91.3 per cent); provide additional professional education courses (51.4 per cent); include additional agricultural business courses (30.0 per cent); increase basic science courses (26.6 per cent); require additional practical work (24.3 per cent); and require additional work in the humanities (19.1 per cent).

A reduction or elimination of course offerings was suggested by some of the graduates. However, in no case was there more than five per cent of the graduates who suggested any specific reduction or elimination in hours or course offerings.

Suggestions other than specific curriculum changes.

Of the six suggested changes other than course offerings, three individuals suggested that five years be required for the completion of the curriculum. This suggestion in general involves administrative policy regarding the total curriculum. Each of the remaining five suggestions was administrative and general in nature and was suggested by one individual only.

The suggestions other than course offerings were as follows:

1. Require five years for completion of the curriculum.

2. Maintain closer co-ordination between students and professors during the junior and senior years.
3. Maintain a working relationship with the extension service.
4. Employ several staff members who have forward and modern ideas on the agricultural education staff.
5. Teach boys and farmers instead of Smith-Hughes Act.
6. Require farm background for entrance into the curriculum.

CHAPTER IV

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This study was devoted to discovering the occupations entered by the 333 living individuals who graduated in Agricultural Education from Virginia Polytechnic Institute from 1948 through 1958, their financial advancement, and relationship of undergraduate success to success after graduation.

The purposes were to determine: (1) the fields of employment which the graduates in Agricultural Education of Virginia Polytechnic Institute have entered from 1948 through 1958, (2) the beginning salaries of the Agricultural Education graduates 1948-1958 and to compare the salaries of those who entered various job classifications, (3) the number who have changed jobs and the reasons for the changes, (4) the educational advancements made by the graduates, (5) the relationship of quality credit average and co-curricular activities to occupational choices and advancement, and (6) the curriculum changes that the graduates thought desirable to improve the Agricultural Education curriculum at Virginia Polytechnic Institute.

Summary

A list of the names of the graduates in Agricultural Education from 1948 through 1958 was obtained from the Vocational Education Department. The addresses of these graduates were obtained from the Vocational Education Department and the Alumni Association at Virginia Polytechnic Institute. The author prepared and mailed a questionnaire

which is given in the appendix of the thesis, to secure the data from the graduates. Information was returned by 272 (81.7 per cent) of the 333 graduates which is summarized as follows:

A. Fields of Employment

1. The 236 Bachelor's degree graduates in Agricultural Education from Virginia Polytechnic Institute, from whom information was obtained, entered 24 different occupations immediately after graduation but in 1958 they were employed in 50 different occupations. The three major occupations entered and the number of graduates entering each were: vocational agriculture teacher, 144; military service, 34; and assistant county agricultural agent, 12. In 1958, the six major occupations and the number of graduates employed in each were: vocational agriculture teacher, 82; military service, 26; assistant county agricultural agent, 14; farmer, 11, department of agriculture employee, eight; and agricultural cooperative employee, eight.

2. These 236 graduates in their first employment after graduation were distributed in the five major occupational groups as follows: 144 (61.0 per cent) entered vocational education in agriculture, 26 (11.0 per cent) entered other professional agricultural occupations, 19 (8.1 per cent) entered other agricultural occupations, ten (4.2 per cent) entered education -- non-vocational occupations, and 37 (15.7 per cent) entered miscellaneous occupations. In 1958, the 236 graduates were employed as follows: 84 (35.6 per cent) were in vocational education in agriculture, 44 (18.6 per cent) were in other professional agricultural occupations, 39 (16.5 per cent) were in other agricultural occupations,

23 (9.8 per cent) were in education -- non-vocational occupations, and 46 (19.5 per cent) were in miscellaneous occupations.

3. The 55 Master's degree graduates in Agricultural Education from Virginia Polytechnic Institute, from whom information was obtained, entered 12 different occupations immediately after graduation but in 1958 they were employed in 23 different occupations. The three major occupations entered and the number of graduates entering each were: vocational agriculture teacher, 31; high school principal, five; and teacher educator, four. In 1958 the six major occupations and the number of graduates employed in each were: vocational agriculture teacher, 19; high school principal, seven; teacher educator, four; high school teacher, four; assistant high school principal, two; and director of instruction, two.

4. These 55 Master's degree graduates in their first employment after graduation were distributed in the five major occupational groups as follows: 37(67.3 per cent) entered vocational education in agriculture, two (3.6 per cent) entered other professional agricultural occupations, three (5.4 per cent) entered other agricultural occupations, nine (16.4 per cent) entered education -- non-vocational occupations, and four (7.3 per cent) entered miscellaneous occupations. In 1958, these 55 graduates were employed as follows: 25 (45.5 per cent) were in vocational education in agriculture, three (5.4 per cent) were in other professional agricultural occupations, four (7.3 per cent) were in educational occupations -- non-vocational, and five (9.1 per cent) were in miscel-

laneous occupations.

B. Salaries of the Graduates

1. The 144 Bachelor's degree graduates, whose first employment was teaching vocational agriculture, reported beginning salaries averaging \$3,076, while 92 Bachelor's degree graduates whose first employment was in the all-other-occupations group reported beginning salaries averaging \$3,466. The average beginning salary of the graduates who entered the all-other-occupations group was greater than the average salary of those who began teaching vocational agriculture in every year from 1948 through 1958. Of the 92 graduates in the all-other-occupations group, the number of graduates in each major occupational group and the average of the salaries for each group were: 26, other professional agricultural occupations, \$3,353; 19, other agricultural occupations, \$3,519; ten, educational occupations -- non-vocational, \$2,375; and 37, miscellaneous occupations, \$3,489.

2. In 1958, the 82 Bachelor's degree graduates who were teaching vocational agriculture reported salaries averaging \$4,643, while 154 Bachelor's degree graduates in the all-other-occupations group reported salaries averaging \$5,584. The number of graduates in each occupational group and the average of the salaries reported by each group of the 154 graduates in the all-other-occupations group were: two, all others in vocational education in agriculture, \$5,568; 44, other professional agricultural occupations, \$5,583; 39, other agricultural occupations, \$5,531; 23, educational occupations -- non-vocational, \$4,732; and 46, miscellaneous occupations, \$6,045.

3. The 31 Master's degree graduates, whose first employment was teaching vocational agriculture reported salaries averaging \$4,085 while 24 Master's degree graduates whose first employment was in the all-other-occupations group reported beginning salaries averaging \$4,272. The number of graduates in each occupational group and the average of the salaries for each group reported by the 24 graduates in the all-other-occupations group were: six, all others in vocational education in agriculture, \$4,677; two, other professional agricultural occupations, \$3,720; three, other agricultural occupations, \$3,867; nine, educational occupations -- non-vocational, \$4,050; and four, miscellaneous occupations, \$4,827.

4. In 1958, the 19 Master's degree graduates who were teaching vocational agriculture reported salaries which averaged \$5,374, while 36 Master's degree graduates in the all-other-occupations group reported salaries which averaged \$6,162. Of the 36 graduates in the all-other-occupations group, the number of graduates in each occupational group and the average of the salaries reported by each group were: six, all others in vocational education in agriculture, \$6,531; three, other professional agricultural occupations, \$4,933; 18, educational occupations -- non-vocational, \$5,248; and five, miscellaneous occupations, \$7,016.

5. The average of the beginning salaries for all occupations reported by the graduates was \$3,211 for the Bachelor's degree graduates and \$4,162 for the Master's degree graduates.

6. The average of the 1958 salaries for all occupations reported by the graduates was \$5,235 for the Bachelor's degree graduates and

\$5,889 for the Master's degree graduates.

7. Sixty-nine of the 82 vocational agriculture teachers, holding only the Bachelor's degree, were teaching in Virginia. Of the 69 teachers who were teaching in Virginia, 35 had been teaching from one to three years; five, from three to five years; six, from five to seven years; 15, from seven to nine years; and eight, from nine to 11 years. The average salaries per calendar year of the teachers in each tenure group were: \$4,244; \$4,531; \$4,717; \$4,779; and \$4,953 respectively. Five of the 82 vocational agriculture teachers holding only the Bachelor's degree, who were teaching in five different states other than Virginia, reported salaries which averaged \$6,046 and had an average of 6.0 years of teaching experience. They received salaries which averaged \$1,329 more than the teachers in Virginia with five to seven years of teaching experience, \$1,267 more than teachers in Virginia with seven to nine years of teaching experience and \$1,093 more than the teachers in Virginia with nine to 11 years of teaching experience.

8. Fourteen of the 19 Master's degree graduates who were teaching vocational agriculture were teaching in Virginia. Of the 14 teachers who were teaching in Virginia, two had been teaching from one to three years; one, from three to five years; three, from five to seven years; two, from seven to nine years; two, from nine to 11 years; and four, 11 years or more. The average salaries of the teachers in each tenure group were: \$4,470, \$4,800, \$5,063, \$4,924, \$5,340, and \$5,470 respectively. The five Master's degree graduates who were teaching vocational agriculture in three states other than Virginia reported salaries which

averaged \$5,998 and had an average of 8.4 years of teaching experience. They received salaries which averaged \$1,074 more than the teachers in Virginia with seven to nine years of teaching experience and \$528 more than the teachers in Virginia with 11 years or more of teaching experience.

9. The teachers with Master's degrees who had been teaching in Virginia from one to three years received salaries which averaged \$226 per year more than those holding only a Bachelor's degree. In the tenure groups of three to five years, five to seven years, seven to nine years, and nine to 11 years, the Master's degree graduates received an average salary of \$269, \$346, \$145, and \$387 more per year respectively.

C. Number and Frequency of Job Changes

1. Eighty-two (30.1 per cent) of the 272 individuals included in this study had not changed their jobs since graduation while 190 (69.9 per cent) had changed jobs one or more times since graduation. Of the total graduates reporting, 85 (31.3 per cent) had changed jobs once since graduation, 69 (25.4 per cent) had changed twice; 19 (7.0 per cent) had changed three times; 12 (4.4 per cent) had changed four times; and five (1.8 per cent) had changed five times. The greatest number of job changes occurred among the graduates who graduated from 1948 through 1954.

D. Reasons Graduates Entered Fields Other Than Teaching Vocational Agriculture

1. Only 19 (20.6 per cent) of the 92 Bachelor's degree graduates who entered other occupations upon graduation reported teaching vocational

agriculture at a later date. Of the 163 (69.1 per cent) Bachelor's degree graduates who had taught vocational agriculture during the period from 1948 through 1958, 82 (34.7 per cent) were teaching in 1958.

2. Seventy-three (30.9 per cent) of the Bachelor's degree graduates reported that they had not taught vocational agriculture. Of these graduates, six did not reveal why they did not teach and 67 graduates checked or listed 11 different reasons for not teaching vocational agriculture. From the 11 different reasons checked or listed, the 67 graduates gave an average of 2.2 reasons per individual or a total of 146 reasons for not teaching agriculture. Of the 11 different reasons checked or listed, the seven reasons given by the highest percentage of the 67 graduates were: better opportunity to advance (59.7 per cent); to obtain higher salary (59.7 per cent); other work more interesting (41.8 per cent); to obtain higher retirement income (25.4 per cent); more desirable living conditions (7.5 per cent); desire work near home (5.9 per cent); and did not like teaching (5.9 per cent). Each of the remaining four reasons were listed by less than five per cent of the graduates.

3. Only six (10.9 per cent) of the 55 Master's degree graduates reported that they had not taught vocational agriculture.

E. Reasons for Changing Jobs

1. One hundred and two of the 272 individuals in this study checked or listed 13 different reasons for leaving the profession. From the 13 different reasons checked or listed, the 102 graduates gave an average of 1.9 reasons per individual or a total of 198 reasons for changing from teaching vocational agriculture to some other occupation. Of the 13 dif-

ferent reasons checked or listed by the graduates, the ten reasons given by the highest percentage of the graduates were: better opportunity to advance (52.9 per cent); to obtain higher salary (47.0 per cent); other work more interesting (31.4 per cent); desire work near home (15.7 per cent); to obtain higher retirement income (12.7 per cent); more desirable living conditions (7.8 per cent); no vocational agriculture job available where desired (6.9 per cent); did not like teaching (6.9 per cent); to complete military service (5.9 per cent); and excessive reports and night classes - not satisfied with total program (3.9 per cent). Each of the remaining three reasons were listed by less than four per cent of the graduates.

2. Of the 77 graduates who had never taught vocational agriculture or had changed jobs after leaving the teaching profession, a total of 19 different reasons for changing or leaving their jobs were listed with an average of 1.5 reasons per individual. The eight reasons given by the highest percentage of the graduates were: discharged from the armed services (31.2 per cent); promoted to a higher position (29.9 per cent); to obtain a higher salary (26.6 per cent); to enter military service (14.3 per cent); didn't like the work (6.5 per cent); for self employment (5.2 per cent); to obtain an additional degree (5.2 per cent); and necessary to return to home farm (5.2 per cent). Each of the other reasons were listed by less than five per cent of the graduates.

F. Educational Advancements

1. Thirty-three (14.0 per cent) of the 236 Bachelor's degree graduates reported that they had earned a total of 36 additional degrees. Of

the 33 individuals, 11 (33.3 per cent) of the graduates held a Master of Education Degree; 15 (45.4 per cent) of the graduates held a Master of Science Degree; three (9.1 per cent) of the graduates held both the Master of Science and Doctor of Philosophy Degree; two (6.1 per cent) of the graduates held a Master of Arts Degree; and two (6.1 per cent) of the graduates held a Bachelor of Divinity Degree.

2. Nineteen (8.0 per cent) of the 236 Bachelor's degree graduates reported that they had received a Master's degree in Agricultural Education from Virginia Polytechnic Institute. Nine received the Master of Education Degree and ten received the Master of Science Degree.

3. Only two (3.6 per cent) of the 55 Master's degree graduates reported that they had earned a higher degree. None of these graduates reported that they had earned college credit beyond their Doctor's degree.

4. Two hundred and five Bachelor's degree graduates reported that they had received an average of 4.7 quarter hours of college credit beyond their Bachelor's degree. One hundred and twenty-eight (62.4 per cent) of the graduates reported that they had not earned any college credit beyond their Bachelor's degree. Only two (1.0 per cent) of the graduates reported holding 45 or more quarter hours of college credit, which indicated that they were candidates for a Master's degree.

5. Sixty-one Master's degree graduates reported that they had received an average of 16.2 quarter hours of college credit beyond their Master's degree. Twenty-four (39.3 per cent) of the graduates reported that they had not earned any college credit beyond their Master's degree. Six (9.8 per cent) of the graduates had earned 50 or more quarter hours

of college credit and were candidates for a Doctor's degree.

G. Relationship of Quality Credit Average to Occupational Choices

1. Of the 236 Bachelor's degree graduates reporting, 66 (28.0 per cent) had a range in quality credit average of 1.0 to 1.49; 99 (41.9 per cent) had a range in quality credit average of 1.5 to 1.99; and 71 (30.1 per cent) had a range in quality credit average of 2.0 to 2.99.

2. Approximately 61 per cent of the graduates in each range in quality credit average entered teaching vocational agriculture. A relatively low percentage (4.2 per cent) of the 71 graduates in the highest range (2.0-2.99) in quality credit average entered the other-professional-occupations group, while a low percentage (4.5 per cent) of the 66 graduates in the lowest range (1.0-1.49) in quality credit average entered the other-agricultural-occupations group. A relatively low percentage of the graduates in each range in quality credit average entered the educational-occupations -- non-vocational group. Of the 37 graduates who entered the miscellaneous-occupations group, 27 (72.9 per cent) had a range in quality credit of 1.5 to 2.99.

3. In 1958, the highest percentage of the graduates in each range in quality credit average were teaching vocational agriculture. A higher percentage (39.4 per cent) of the graduates in the 1.5 to 1.99 range in quality credit average were teaching vocational agriculture as compared with the agriculture teachers who were in the 1.0 to 1.49 and 2.0 to 2.99 range. In the three ranges in quality credit averages, 39.4 per cent the 1.0 to 1.49 range, 47.4 per cent in the 1.5 to 1.99 range, and 47.5 per cent in the 2.0 to 2.99 range were engaged in the field of education.

4. The greatest number of those changing fields of employment in each range in quality credit average occurred among the teachers of vocational agriculture. By 1958, there was a loss of 50.0 per cent in the number of graduates in the 1.0 to 1.49 range, 36.1 per cent in the 1.5 to 1.99 range, and 46.5 per cent in the 2.0 to 2.99 range in quality credit averages. In the 1.0 to 1.49 and 1.5 to 1.99 ranges, the greatest increase in the number of employments was in the other-agricultural-occupations field, while in the 2.0 to 2.99 range the greatest increase was in the other-professional-agricultural-occupations field.

H. Relationship of Co-Curricular Activities to Occupational Choices

1. The 236 Bachelor's degree graduates participated in a total of 1071 co-curricular activities which was an average of 4.5 for each graduate. The number of co-curricular activities ranged from zero through 18. The number of co-curricular activities participated in by the highest percentage of the 236 graduates were: three activities (19.1 per cent); two activities (17.8 per cent); five activities (10.2 per cent); and six activities (9.3 per cent). The data revealed that nine (3.8 per cent) of the graduates did not participate in any co-curricular activities. One hundred and twenty-seven (53.8 per cent) of the graduates participated in one to four activities, 80 (33.9 per cent) participated in five to nine activities, and 20 (8.5 per cent) participated in ten to 18 activities.

2. The highest percentage of the graduates in each range in co-curricular activities entered teaching vocational agriculture. The next highest percentage of the graduates in each range in co-curricular

activities entered the miscellaneous occupations. The lowest percentage (4.4 per cent) of the 136 graduates in the zero to four range entered the educational-occupations -- non-vocational group, while the lowest percentage (2.5 per cent) of the 80 graduates in the five to nine range also entered this same group. Only one (5.0 per cent) of the 20 graduates in the ten or more range in activities entered the other professional agricultural occupations.

3. In 1958, the highest percentage of the graduates in the zero to four and five to nine ranges in co-curricular activities were teaching vocational agriculture, while the highest percentage of the graduates in the ten or more range were engaged in the miscellaneous-occupations group. Of the remaining major occupational groups, the lowest percentage of the graduates in each range in co-curricular activities were in the educational occupations -- non-vocational.

4. The greatest number of those changing fields of employment in each range in co-curricular activities occurred among the teacher of vocational agriculture. By 1958, there was a loss of 41.8 per cent in the number of graduates in the zero to four range, 42.3 per cent in the five to nine range, and 62.5 per cent in the ten or more range in co-curricular activities. In the zero to four and ten or more ranges the greatest increase in the number of employments was in the other-professional-agricultural-occupations field, while in the five to nine range the greatest increase was in the educational-occupations -- non-vocational field.

I. Relationship of Quality Credit Average and Co-Curricular Activities to Advancement

1. The Bachelor's degree graduates who had the highest quality credit average in their undergraduate work participated in more co-curricular activities while in college, earned more advanced degrees, both Master's and Doctorates, and were receiving salaries that averaged higher than those who had the lowest quality credit average.

2. In the 1.0 to 1.49 range in quality credit average, 66 graduates participated in an average of 3.8 of co-curricular activities, earned three Master's degrees, reported salaries which averaged \$5,142, and had earned \$1,916 in average total salary increases since graduation. The 99 graduates in the 1.5 to 1.99 range in quality credit average participated in an average of 4.4 of co-curricular activities, earned 13 Master's degrees, one Doctor of Philosophy Degree, reported salaries averaging \$5,218, and had earned \$2,062 in average total salary increases since graduation. Seventy-one graduates in the 2.0 to 2.99 range in quality credit average participated in an average of 5.4 co-curricular activities, earned 14 Master's degrees, two Doctor of Philosophy Degrees, reported salaries averaging \$5,383, and had earned \$2,251 in average total salary increases since graduation.

J. Suggested Curriculum Changes

1. Over one-third (36.4 per cent) of the 272 graduates did not suggest any curriculum changes or stated the curriculum was satisfactory. One hundred and seventy-three (63.6 per cent) of the graduates offered 52 different curriculum changes or improvements.

2. The six areas in which increased course offerings were suggested by the highest percentage of the 173 graduates were: include more technical subjects in agriculture (91.3 per cent), provide additional professional education courses (51.4 per cent), include additional agriculture business courses (30.0 per cent), increase basic science courses (26.6 per cent), require additional practical work (24.3 per cent), and require additional work in the humanities (19.1 per cent).

3. Eight graduates offered six different suggestions other than specific curriculum changes.

Conclusions

On the basis of the data obtained in this study, the following conclusions seem justified:

1. Graduates in Agricultural Education from Virginia Polytechnic Institute engage in a variety of occupations upon graduating from college. The number of the occupations represented becomes greater as the period of time since graduation lengthens.

2. The broad scope of the Agricultural Education curriculum at Virginia Polytechnic Institute seems to qualify the graduates for many related and non-related occupations.

3. A higher percentage of the graduates have entered and remained in teaching vocational agriculture than any other related or non-related occupation.

4. About three-fifths of the Bachelor's degree graduates in Agricultural Education from Virginia Polytechnic Institute can be expected to enter the field of teaching vocational agriculture as their first

employment and approximately ten per cent of those graduates who do not start teaching vocational agriculture immediately after graduation can be expected to teach vocational agriculture at a later date.

5. Based on the literature reviewed in this study, the percentage of the Agricultural Education graduates from Virginia Polytechnic Institute still engaged in vocational education in agriculture is approximately the same as for agricultural education graduates of other institutions.

6. Agricultural Education graduates from Virginia Polytechnic Institute employed in occupations other than teaching vocational agriculture receive salaries that average higher than those graduates employed as teachers of vocational agriculture.

7. An increase of approximately \$400 in the beginning salary of teachers of vocational agriculture would give the Bachelor's degree graduates who enter the field of teaching vocational agriculture about the same financial inducement as those entering other fields of employment. An additional \$130 above the average yearly increase in the salaries of teachers of vocational agriculture would maintain about the same salaries of the graduates who enter other occupations.

8. The beginning salaries of the graduates who enter occupations other than teaching vocational agriculture increase at a faster rate than the beginning salaries of teachers of vocational agriculture.

9. A greater salary differential between Virginia teachers of vocational agriculture who have been employed more than five years as compared to those who have been employed less than five years would provide financial opportunities to attract and hold more graduates in the field

of vocational agriculture.

10. The years of teaching experience alone cannot be used as the sole factor in estimating the salaries for teachers of vocational agriculture in Virginia.

11. Graduates of Agricultural Education from Virginia Polytechnic Institute with Master's degrees receive salaries that average higher than the graduates with only a Bachelor's degree regardless of the fields of employment.

12. Virginia teachers of vocational agriculture with Master's degrees receive salaries that average higher than the teachers of vocational agriculture who hold only a Bachelor's degree.

13. Both the Bachelor's and Master's degree graduates in Agricultural Education from Virginia Polytechnic Institute, who teach vocational agriculture in other states, receive salaries that average higher than the graduates who teach vocational agriculture in Virginia.

14. A majority of the graduates do not change jobs more than once during the first ten years after graduation.

15. A higher percentage of the agricultural education graduates would enter and continue teaching vocational agriculture if there were better opportunity for advancement and higher salaries offered.

16. The reasons graduates in Agricultural Education from Virginia Polytechnic Institute do not enter or leave the field of teaching vocational agriculture are similar to the reasons the graduates change jobs regardless of the fields of employment in which they enter.

17. During the first ten years after receiving the Bachelor's degree,

less than 15.0 per cent of the graduates in Agricultural Education from Virginia Polytechnic Institute can be expected to receive additional or advanced degrees, while about 13.0 per cent of those receiving the Master's degree will pursue graduate work leading to a Doctor's degree.

18. There is no definite relationship between quality credit average or co-curricular activities and fields of employment selected by the graduates.

19. There is an apparent relationship between quality credit averages and participation in co-curricular activities to success and advancement after graduation.

20. In the opinion of the graduates, an increase in the number of credit hours in technical agriculture and professional education would improve the curriculum in Agricultural Education at Virginia Polytechnic Institute.

Recommendations

The following recommendations are made as a result of the findings of this study.

1. The Agricultural Education staff at Virginia Polytechnic Institute continue to offer a curriculum with a broad scope that will prepare graduates for several occupations.

2. Beginning salary of teachers of vocational agriculture in Virginia be increased \$400, and that the salary schedule and differential in years of teaching experience be studied and adjusted by the administrative staff concerned in an effort to attract and hold graduates in the field of voca-

tional education in agriculture.

3. More qualified Bachelor's degree graduates be urged to pursue graduate work in Agricultural Education at Virginia Polytechnic Institute.

4. A statistical study be conducted to determine the relationship of quality credit average and co-curricular activities to occupational choices and advancement.

5. The Agricultural Education and vocational agriculture supervisory staffs in Virginia evaluate and revise the curriculum in Agricultural Education at Virginia Polytechnic Institute to include more credit hours in technical agriculture and in professional education for those who plan to teach.

6. That a similar study be conducted of the graduates in Agricultural Education from Virginia Polytechnic Institute approximately every ten years, using similar objectives and procedures so that it will be possible to make valid comparisons of the results.

BIBLIOGRAPHY

1. Beamer, Rufus W. "A Follow Up Study of Virginia Polytechnic Institute Graduates in Agricultural Education Since 1918," Thesis, M.Sc., 1948, Virginia Polytechnic Institute, 90 pp.
2. Kinnear, Duncan Lyle. "A History of Agricultural Education in Virginia With Special Emphasis on the Secondary Level," Dissertation, PhD., 1952, The Ohio State University, 657 pp.
3. Pulley, Mason H. "A Follow Up Study of Graduates, Postgraduates, and Those Qualified to Teach by Taking Certain Classes in Agricultural Education at Virginia Polytechnic Institute Since 1918", Thesis, M.Sc., 1940, Virginia Polytechnic Institute, 86 pp.
4. Richard, Claude E. "Follow-Up of Graduates in Agricultural Education From Virginia Polytechnic Institute From 1920 Through 1957," Unpublished Report, 1957, Virginia Polytechnic Institute, 4 pp. (Type-written.)
5. Sanders, Harry W. and Richard, Claude E. Why Teachers of Vocational Agriculture Leave the Profession, Mimeograph, Department of Vocational Education, Virginia Polytechnic Institute, May, 1945, 7 pp.
6. Stringfield, Roy C. "Why Louisiana Teachers of Vocational Agriculture Left the Service," Thesis, M.Sc., 1949, Louisiana State University 61 pp.
7. Sultenfuss, Vernon B. "What Teachers of Vocational Agriculture Like About Their Profession," Thesis, M.Sc., 1956, University of Maryland, 59 pp.
8. Turpin, Charles B. "Occupational Distribution of Graduates Who Majored in Agricultural Education at North Carolina State College From 1918 to 1950," Thesis, M.Sc., 1951, North Carolina State College, 63 pp.
9. Tuthill, Fred Andrew, "Tenure of Teachers of Vocational Agriculture in the High Schools of New York State," Thesis, M.Sc., 1953, Cornell University, 93 pp.
10. Tyler, James Durwood, "A Study of the Occupations Entered by Alabama Polytechnic Institute Baccalaureate Graduates in Agricultural Education from July 1, 1941 to July 1, 1951," Thesis, M.Sc., 1951, Alabama Polytechnic Institute, 76 pp.
11. Files and Records of the Department of Vocational Education at the Virginia Polytechnic Institute.

12. Records of the Alumni Association at the Virginia Polytechnic Institute.
13. Records of the Registrar at the Virginia Polytechnic Institute.

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APPENDICES

APPENDIX A
QUESTIONNAIRE

NAME _____ ADDRESS _____

OCCUPATIONS ENTERED BY AGRICULTURAL EDUCATION GRADUATES
OF VIRGINIA POLYTECHNIC INSTITUTE 1948 - 1958

The purpose for securing this information is to determine the fields of employment, salaries, educational advancement, reasons for changing jobs, and suggestions for Agricultural Education curriculum changes from persons who were awarded B.S. and Master's degrees in Agricultural Education at Virginia Polytechnic Institute from 1948 through 1958.

All information will be treated confidentially and will be used only in making group or occupational comparisons.

INSTRUCTIONS: Under each heading, please fill in the answer necessary to describe your situation. Notations will be appreciated whenever they will assist in giving an accurate account.

I. Educational Advancement.

- A. List the degree(s) held (other than B.S. in Ag.Ed.), school granting the degree(s), date, and major field. (Write appropriate answers in blanks)
- | Degree | School | Date | Major Field |
|--------|--------|-------|-------------|
| _____ | _____ | _____ | _____ |

- B. The total number of hours of college credit received beyond your highest degree is: (Write the number of total hours in the blank below.)

____ quarter hours or ____ semester hours beyond the B.S. degree.
No. No.

____ quarter hours or ____ semester hours beyond the M.S. or M.Ed. degree.
No. No.

____ quarter hours or ____ semester hours beyond the Doctorate degree.
No. No.

II. Reasons for not teaching Vocational Agriculture.

- A. If you did not teach vocational agriculture or have changed from teaching vocational agriculture to other occupations, check reasons. (Check one or more if applicable.)

Better opportunity to advance	_____	Did not like teaching	_____
More desirable living conditions	_____	To obtain higher salary	_____
Other work more interesting	_____	To obtain higher retire-	_____
No Vo. Ag. job available	_____	ment income	_____
		Desire work near home	_____

List other reasons:

III. Occupational Information.

A. List below the fields of employment since graduation from V.P.I. List each job on a separate line, accounting for the period of time from graduation to present. When listing your present salary, list your 1958 salary. (Write appropriate answer in blanks and please be sure that each appropriate column is filled in.)

Occupation	Employer (Organization, Agency or Self)	Date of Employ- ment.From - To	Beginning Salary	Ending Salary	1958 Salary	Reason for Leaving
Example: Teacher of Vo. Ag.	School Board of Montgomery County	July 1, 1948 to June 30, 1952	\$2400	\$3200		Increased salary in another state

IV. Curriculum Changes.

A. List the curriculum changes that you think desirable to improve the Agricultural Education curriculum at Virginia Polytechnic Institute.

- | | |
|----------|----------|
| 1. _____ | 3. _____ |
| 2. _____ | 4. _____ |

() Check here if you would like a summary of the completed study.

Please complete this questionnaire and mail it in the enclosed addressed envelope, as soon as possible, to:

L. C. Heiskell
 Department of Vocational Education
 Virginia Polytechnic Institute
 Blacksburg, Virginia

APPENDIX B

LETTER OF ENDORSEMENT

VIRGINIA POLYTECHNIC INSTITUTE
Department of Vocational Education
Blacksburg, Virginia

February 21, 1959

TO: Former Students of Agricultural Education Who Received Degrees
From V.P.I.

We are involved in a rather detailed study of our role in serving farm people of Virginia. Since you graduated in Agricultural Education at V.P.I., we are very much interested in knowing of your success in your area of work. This will help us in improving our service in training future graduates in this department.

You will find a number of items on the forms which you are asked to provide. You will find that you can supply the information in a very few minutes. Please remember that the information will not be used in any way that will be detrimental to you or to the department. Your name will not be used in any way that will divulge any information which you provide. If you should be interested in the results of this study, we will be glad to supply you with a summary.

Mr. Heiskell is conducting this study and we should appreciate it if you would cooperate with him by supplying the information that will enable us to do a more effective job. Your help will render a definite service to future graduates of this department. In addition, it will enable us to determine to some degree the success that has been achieved up to this time.

Our very best wishes to each of you in the work that you are doing.

Sincerely yours,

T. J. Horne, Head
Agricultural Education

TJH:hc
Enclosure

APPENDIX C

FOLLOW-UP LETTER

VIRGINIA POLYTECHNIC INSTITUTE
Department of Vocational Education
Blacksburg, Virginia

March 21, 1959

TO: Former Students of Agricultural Education Who Received Degrees
From V.P.I.

Several weeks ago you received a short questionnaire as a part of a study here at V.P.I., but as yet I have not received a reply.

I know from experience how easy it is to misplace a questionnaire by laying it aside, expecting to answer it in the future. Perhaps this happened in your case, if so, you will find enclosed for your convenience another copy of the questionnaire.

As stated in the enclosed form, all information will be held in strict confidence, so please do not hesitate to answer the questions accurately and completely. Your cooperation will be of great value to the study.

It would be greatly appreciated if you will take the time to help us in securing the necessary information for this study.

Sincerely yours,

L. C. Heiskell

The response to date has been very good. We are striving for 100 per cent response because we want every graduate to have a part in further improving our program in Agricultural Education at V.P.I. The stronger we can make our program, the more valuable your degree in Agricultural Education becomes to you. We are looking forward to receiving your reply at an early date.

With every best wish, I am

Sincerely,

T. J. Horne, Head
Agricultural Education

APPENDIX D

CURRICULUM CHANGES SUGGESTED BY 272 OF THE 335 AGRICULTURAL
EDUCATION GRADUATES OF VIRGINIA POLYTECHNIC INSTITUTE
1948-1958

Suggested Curriculum Changes	No. of Graduates Indicating This Re- sponse
1. No suggested changes or curriculum is satisfactory	99
2. Concentration of more technical agricultural subjects	30
3. Additional farm mechanics and farm power and machinery courses	26
4. Additional practical and applied work in all courses	25
5. Provide agricultural business courses	24
6. Additional or more practical work in soils and soils management	23
7. Add courses in practical farm management	19
8. Provide a wide variety of agricultural education subjects	19
9. Additional courses in chemistry	18
10. More practical laboratory work	17
11. Addition laboratory courses in livestock production and management	17
12. Add basic business courses	14
13. Give more technical courses on livestock	14
14. Include more principles of agricultural economics subjects	13
15. Provide additional courses in agricultural engineering department	12
16. Add more courses in mathematics	11
17. Offer additional courses in veterinary sciences	11
18. Include additional practice teaching	11
19. Additional course work in biological sciences	9
20. Require more liberal arts courses	9
21. Provide additional courses in professional education	9
22. Decrease the number of courses in professional education	9
23. Provide additional courses in public speaking	8
24. Add a course in "Organizing and Conducting Young Farmer Instruction" or "Teaching Out-of-School Groups"	8
25. Include a course in physics	8
26. Require more English	8
27. Add technical courses in agronomy	8
28. Allow students to select more electives	7
29. Additional course in journalism	6

Suggested Curriculum Changes	No. of Graduates Indicating This Re- sponse
30. Add a course in public relations	5
31. Provide additional courses in entomology and plant pathology	5
32. Include a course in ornamental horticulture	5
33. Offer a course emphasizing school curriculum and personal relations	5
34. Fewer courses in psychology	5
35. Include additional courses in psychology	4
36. Course required in audio-visual aids	4
37. Less emphasis on methods of teaching	4
38. Add more technical courses in poultry	3
39. Improve and give more emphasis to forestry courses	3
40. Require additional drafting and sketching	3
41. Add more courses in dairying	2
42. Less emphasis on shop work	2
43. Drop all sociology courses	2
44. Drop general basic courses of biology and chemistry	2
45. Rework methods courses	2
46. Include courses in typing	2
47. Fewer courses in chemistry	2
48. Add a course on types of communities	1
49. Give a basic economics course	1
50. Reduce requirements in English literature by at least three quarter credit hours	1
51. Drop genetics and forestry from the requirements	1
52. Eliminate practice teaching	1
53. Require more credits to graduate	<u>1</u>
Total No. Suggestions	559

Suggestions other than course offerings:

1. Require five years for completion of the curriculum	3
2. Maintain closer coordination between students and professors during the junior and senior years	1
3. Maintain a working relationship with the extension service	1
4. Employ several staff members who have forward and modern ideas on the agricultural education staff	1
5. Teach boys and farmers instead of Smith-Hughes Act	1
6. Require farm background for entrance into the curriculum	<u>1</u>
Total No. Suggestions	<u>8</u>

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ABSTRACT

OCCUPATIONS ENTERED BY AGRICULTURAL EDUCATION GRADUATES OF VIRGINIA POLYTECHNIC INSTITUTE 1948-1958

The Problem. -- To determine occupations entered by Agricultural Education graduates of Virginia Polytechnic Institute from 1948 through 1958, their financial advancement, and relationship of undergraduate success to success after graduation.

Purposes. -- To determine fields of employment, beginning salaries, number who have changed jobs, reasons for job changes, educational advancements, relationship of quality credit average and co-curricular activities to occupational choices and advancement, and curriculum changes graduates thought desirable.

Method. -- Study was based on student records and on objective questionnaire which was mailed to each of the 333 living individuals to secure additional data. Returns were received from 272 (81.7 per cent) of the graduates.

Findings. -- The 236 Bachelor's degree graduates entered 24 different occupations immediately after graduation, but in 1958 they were employed in 50 different occupations. Beginning salaries for all occupations averaged \$3,211, while the 1958 salaries averaged \$5,235. Salaries averaged \$3,076 for 144 beginning teachers of vocational agriculture. In 1958, 82 teachers of vocational agriculture received salaries averaging \$4,643.

One hundred and ninety (69.9 per cent) graduates changed jobs one or more times since graduation. Better opportunity to advance and to

obtain a higher salary were the major reasons for not teaching vocational agriculture and for leaving the profession. Less than 15.0 per cent of the graduates earned advanced degrees.

There was no definite relationship between quality credit averages or participation in co-curricular activities and fields of employment, but an apparent relationship existed between these factors and success and advancement.

Six areas of increased course offerings were suggested.