



8-1954

Determining the need for and making plans for establishing a terminal vocational agricultural program at Hiwassee Junior College

Charles W. Irons

Follow this and additional works at: https://trace.tennessee.edu/utk_gradthes

Recommended Citation

Irons, Charles W., "Determining the need for and making plans for establishing a terminal vocational agricultural program at Hiwassee Junior College. " Master's Thesis, University of Tennessee, 1954. https://trace.tennessee.edu/utk_gradthes/8999

This Thesis is brought to you for free and open access by the Graduate School at TRACE: Tennessee Research and Creative Exchange. It has been accepted for inclusion in Masters Theses by an authorized administrator of TRACE: Tennessee Research and Creative Exchange. For more information, please contact trace@utk.edu.

To the Graduate Council:

I am submitting herewith a thesis written by Charles W. Irons entitled "Determining the need for and making plans for establishing a terminal vocational agricultural program at Hiwassee Junior College." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Agricultural and Extension Education.

Bornard S. Wilson, Major Professor

We have read this thesis and recommend its acceptance:

A. J. Paulus

Accepted for the Council:

Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

July 23, 1954

To the Graduate Council:

I am submitting herewith a thesis written by Charles W. Irons entitled "Determining the Need for and Making Plans for Establishing a Terminal Vocational Agricultural Program at Hiwassee Junior College." I recommend that it be accepted for nine quarter hours of credit in partial fulfillment of the requirements for the degree of Master of Science, with a major in Agricultural Education.

Bonard S. Wilson
Major Professor

We have read this thesis
and recommend its acceptance:

Dr. Finck
A. J. Paulus

Accepted for the Council:

A. G. Waters
Dean of the Graduate School

DETERMINING THE NEED FOR AND MAKING PLANS FOR ESTABLISHING
A TERMINAL VOCATIONAL AGRICULTURAL PROGRAM
AT HIWASSEE JUNIOR COLLEGE

2/20

A THESIS

Submitted to
The Graduate Council
of
The University of Tennessee
in
Partial Fulfillment of the Requirements
for the degree of
Master of Science

by
Charles W. Irons
August 1954

TABLE OF CONTENTS

CHAPTER	PAGE
I. INTRODUCTION	1
II. DETERMINING THE NEED FOR AND OBJECTIVES OF A TERMINAL VOCATIONAL AGRICULTURAL PROGRAM	6
Establishing the service area	6
Surveys made	7
Related studies	18
College policies	28
Objectives	32
Summary and conclusions	42
III. THE CONSTRUCT	44
Advisory council	44
Policy making	46
Determining needs of students	47
Setting up objectives	48
Setting up means of evaluating	50
Providing ways and means	53
IV. PLANS FOR ESTABLISHING THE PROGRAM	71
Advisory council	71
Policy making	74
Determining needs of students	76
Setting up objectives	78

CHAPTER	PAGE
IV. (continued)	
Means of evaluating	80
Providing ways and means	83
V. FURTHER STUDIES NEEDED	100
BIBLIOGRAPHY	102
APPENDIX	106

LIST OF TABLES

TABLE	PAGE
I. Present Farming Status and Plans After Graduation of 478 Vo-Ag Seniors From Twenty-Four East Tennessee Counties, 1954 . .	10
II. Survey of Agriculture Service Job Opportunities Fifty Mile Radius of Hiwassee Junior College, Madisonville, Tennessee-1954	13
III. Reaction of Twenty Farmers to Questions Asked Relating to a Need for a Terminal Vocational Agriculture Program at Hiwassee Junior College, Monroe County, Tennessee-1954	17
IV. Number Farms and Farm Males 20-70 Years Old 1950, Expected Deaths 1950-60, and Number Passing Twentieth Birthday Each Year Twenty-Four Counties East Tennessee . .	19
V. Man-Equivalent of Farm Males for Different Ages Wisconsin, 1950	21
VI. Percent of Boys and Girls Gainfully Employed 16-19 Years of Age, U. S. 1890-1940	23
VII. Median Income in 1949, For Males 14 Years Old and Over with Income by Age and Years	

TABLE

PAGE

VII.	(continued)	
	of School Completed: United States,	
	April 1950	25
VIII.	Percent of High School and College Age Youth	
	Enrolled in School for Urban and Rural	
	Areas, U. S., 1940 and 1947	26
IX.	Expectation of Life of Men and Women, 18	
	Years of Age in the U. S. at Selected	
	Periods from 1900-1941	27
X.	Summary of Survey on Administration and	
	Supervision of Agricultural Programs in	
	Twelve Junior Colleges, United States-1954 .	34

CHAPTER I

INTRODUCTION

The Problem

The problem is to determine the need for, and make plans for establishing a Terminal Vocational Agricultural Program at Hiwassee Junior College.

Importance of the Study

The writer has been employed as a teacher in the agricultural program at Hiwassee Junior College since 1949. The agricultural program has been of a general nature with no clear cut objectives that have been accepted by the teacher and the administration. No study had been made to clearly show the need for the program or the kind of program it should be. The problem arose from this situation. Therefore, the writer needed to solve these problems in order to put the program on a sound basis.

The administration felt there was a need for a Terminal Vocational Agricultural training program. It encouraged the writer to make the study and was willing to give all the help possible.

Definition of Terms

Junior College for this study will mean an institution offering the first two years of college work. This is

through the sophomore year.

Terminal is interpreted to mean the formal course work ends with completion of the sophomore year. This work is not designed for transfer to a senior college or university.

The term vocational pertains to an occupation, in this study. It refers to the occupation of farming or employment in related fields of agriculture. Related fields of agriculture are those areas of occupation in jobs not directly in the business of farming but giving service to the business of farming.

Terminal vocational agricultural program is a course of work planned to prepare the student for gainful employment in his chosen area. This training combines the classroom work with actual participation on the job.

Service area is that area from which students come and the college gives its services.

Scope and Limitations

This study is limited to a vocational agricultural program at Hiwassee Junior College. This program is on a two year basis for all day classes. This study is on a vocational program not vocational and general.

Assumptions

The following are some assumptions made by the

writer:

1. There is a place for junior college.
2. There is a place for agriculture in junior college.
3. Vocational approach is better than general.
4. This program should be tied in with the college farm.

Procedure for the Study

The writer made surveys of high school vo-ag seniors in twenty-four counties of east Tennessee to help establish the need for the program at Hiwassee Junior College. This survey was to determine interest in this kind of program. Surveys were made of prospective employers, farmers and men in related fields to determine their interest in this program.

The writer made a study of some related studies in this area to secure additional evidence of need for the program. The college policies and attitudes of the college administration were studied to find if there would be conflicting purpose in the college policy and the purpose of this kind of program.

Surveys were made of other junior colleges having this kind of program or similar programs, to find their purposes and objectives, and also their administrative and supervisory procedures.

The writer had conferences with the administration of the College to determine its attitude and opinion of a program of this kind.

The history and purpose of the College was studied to determine the degree of compatability between them and a vocational agricultural program. The findings relating to a need for the program are found in Chapter II.

Through much reading and study the writer formulated some principles that were believed sound for guiding the planning and establishing of a program of this kind. These principles formed a construct for the program. Chapter III is this construct.

The construct served as a guide in making plans for the planning and establishing of a program at the College. This plan is found in Chapter IV.

The study and planning of this work revealed a great need for further study in this field of education. Some of these needs are to be found in Chapter V of this study.

CHAPTER II

DETERMINING THE NEED FOR AND OBJECTIVES OF A TERMINAL VOCATIONAL AGRICULTURAL PROGRAM

Establishing the Service Area

The service area of the terminal vocational agricultural program of Hiwassee Junior College was determined on the basis of homes of rural students who were enrolled from 1949 through 1953. This was done by studying personnel records in the Dean's office. The students were separated on a residence basis. Only those living in rural areas were selected.

Those rural students, with the exception of ten foreign students and twelve from widely scattered sections of the United States, were separated on the basis of their home counties. This area is shown in Figure 1.

The foreign students and widely scattered United States students were not considered because their numbers were considered insignificant. Also, they likely would not be interested in the agricultural program on a vocational basis.

A look at Figure 1 shows that the service area covers most of East Tennessee and Southwest Virginia. There are

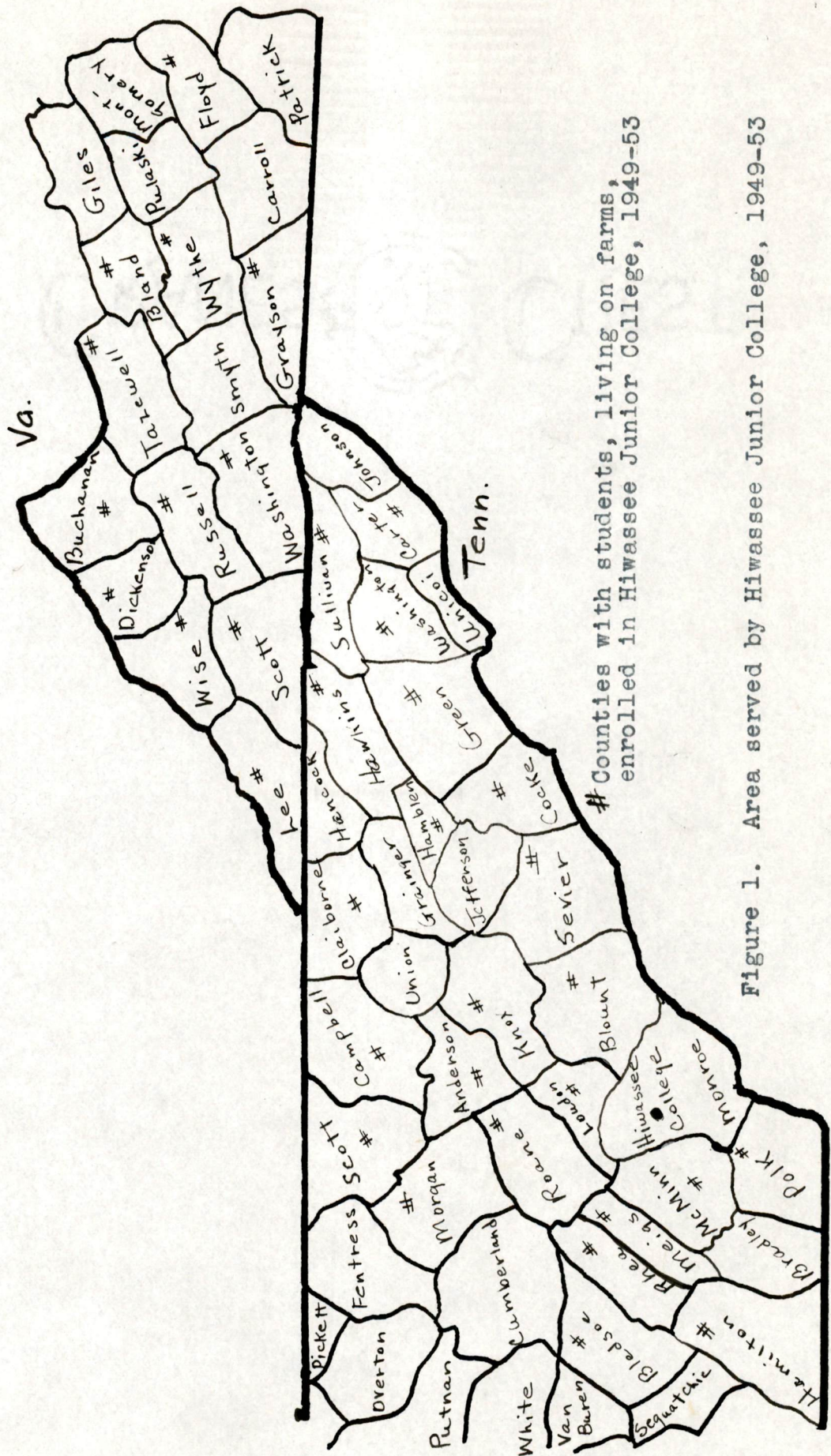


Figure 1. Area served by Hiwassee Junior College, 1949-53

students from twenty-four counties in East Tennessee and from thirteen counties in Southwest Virginia.

The numbers of rural students from each county in Tennessee and Virginia were counted and shown in Figure 2. This figure shows in a comparative way the numbers of students coming from the different counties. By studying this figure and Figure 1, one finds that the greatest number of students are from Monroe County and the immediate area. Monroe County is the home county of the College. It was concluded that the greater service-area is local. This conclusion was the basis for limiting some of the studies discussed later.

Surveys Made

High School Vo-Ag Seniors

A survey was devised and run to determine potential students for a terminal vocational agricultural program. This survey was limited to the twenty-four counties in East Tennessee. This limitation was necessary because of lack of time and money. It was believed justified, however, because of the greater number of students coming from the East Tennessee area. The great similarity of the Tennessee and Virginia areas in agriculture and topography was another basis for limiting the survey.

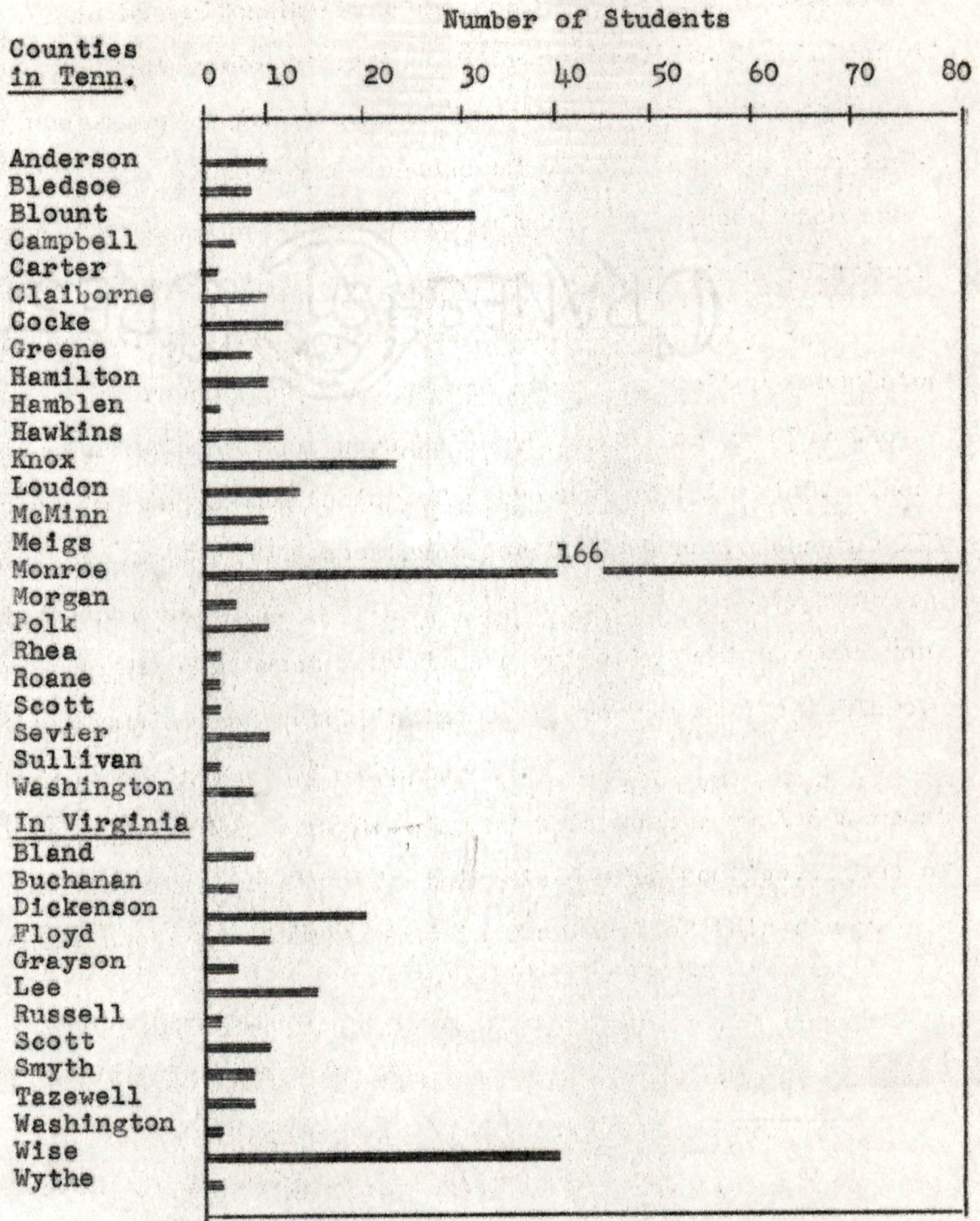


Figure 2. Number of students from Tennessee and Virginia enrolled in Hiwassee Junior College by counties: 1949-53.

This survey¹ was sent to each Vo-Ag teacher in the counties. They were asked to have their senior Vo-Ag students complete the forms and return all those from their school. Fifty-five Vo-Ag teachers received these forms. Thirty-seven teachers returned a total of 478 completed forms. This was a 67.6 percent return from teachers. Results of this survey were tabulated and are shown in Table I.

This survey shows that 83 percent of the Vo-Ag seniors returning forms live on farms. Thirty-five percent indicate they plan to farm for a living. This 35 percent could possibly use further training in agriculture. The large number who indicate they will not farm for a living could, with proper guidance, possibly be interested in the service field of agriculture. This would seem logical since they are farm boys and would have some experience in farming. It only indicates an area of possibility.

A very important fact is that ninety-three boys indicate plans for going to college for a degree in agriculture. This is only 20 percent of those Vo-Ag boys surveyed. The remaining 80 percent could be possible prospects for training in a program of terminal vocational agriculture on the junior college level.

¹See appendix for copy of survey.

TABLE I

PRESENT FARMING STATUS AND PLANS AFTER GRADUATION OF 478 VO-AG SENIORS
FROM TWENTY-FOUR EAST TENNESSEE COUNTIES, 1954

Question	Answering		No Reply
	Yes	No	
1. Live on a farm?	396	82	17
2. If so, how many acres in the farm?			
3. Own or rent farm?	296	68	20
4. Do you plan to follow farming as your life work?	163	208	65
5. Will you return to your home farm?	171	172	50
6. If not, why?			
7. Do you plan to attend college for a degree in the field of agriculture?	93	371	80
8. If not would you be interested in going two years beyond high school in a course of agriculture on the junior college level?			
9. If you do not plan to farm are you interested in any of the service fields of agriculture?	106	352	76
10. If your answer to number nine is yes what kind of employment will you seek?	146	326	73
			6

Another very important fact is that 106 boys said they were interested in a program of this kind. These boys are a definite potential enrollment in this program. The writer is aware of the possible guidance function of this program. One would not anticipate getting all these boys in this program or keeping them there. Many of those who did enroll would decide to continue on for a degree.

One hundred forty-six boys indicated interest in the service fields of agriculture. Sixty-eight of these had previously indicated interest in this junior college program which leaves seventy-eight new answers. This makes a total of 184 boys who are, or might be, interested in a terminal vocational agricultural program in a junior college.

Potential Employers

A survey was devised and run to determine the need for trained employees in the service fields of agriculture. Careful consideration of the area was made before deciding to limit the survey to a radius of fifty miles. This limitation reduced the reliability of the results, but it was felt that this would be offset by the generality of the information desired.

The business concerns to be surveyed were selected by checking directories of the towns and cities within this area. A list of sixty-eight concerns was made. Twenty-five

were selected from this list on the basis of our probable ability to provide training for the kind of personnel they needed. Fifteen of the twenty-five replied. This was a 60 percent return. These replies were tabulated and are shown in Table II.²

This survey shows that 140 people are employed by the fifteen concerns replying. Thirty-six are new employees each year. This probably indicates turnover rather than expansion. Nine of the fifteen require high school graduates, and three require special training. General agriculture and business training heads the list of training needed by the employees of these concerns.

The fact of greatest significance to this study is that all fifteen indicated that they would like to have better trained employees. They also indicated they would give preference to employees with special training in junior college over those without this training.

Three of the concerns replied with a letter in addition to the completed form. Following is an excerpt from one of the letters:

We think this is a very worth-while training which you are considering and we sincerely hope you will be successful in getting this course for the boys of your school. There is a very definite demand for this type of man in our line of business and has been for several years. More so now for this is a

²See appendix for copy of survey.

TABLE II

SURVEY OF AGRICULTURE SERVICE JOB OPPORTUNITIES FIFTY MILE RADIUS OF
HIWASSEE JUNIOR COLLEGE, MADISONVILLE, TENNESSEE-1954

Question	Answers	Number of Answers	Total
1. Kind of business?	Feed seed and fertilizer Farm machinery Feed manufacture General farm service Forest products	4 6 2 1 1	
2. Number of employees?	Average 9.4 each		140
3. How many men do you hire each year?	Temporary No certain number Six Two	3 4 6 2	36 4
4. What educational requirements do you have?	None High school graduate Some college Special training	2 9 1 3	
5. Would it help if your employees had more training than the minimum you require?	Yes	15	

TABLE II

SURVEY OF AGRICULTURE SERVICE JOB OPPORTUNITIES FIFTY MILE RADIUS OF
HIWASSEE JUNIOR COLLEGE, MADISONVILLE, TENNESSEE-1954 (continued)

Question	Answers	Number of Answers	Total
6. What special education or training would you like for them to have?	General agriculture and business. Dairy operation. Sales training. Interest in job, not afraid of work.	6 3 3 3	15
7. Do you have employees that need more training in the job they are doing?	Yes	15	15
8. If so, what kind of training?	Mechanical Salesmanship	5 15	15
9. Would you consider a prospective employee who has had special training of college level in the field of agriculture over one who has not had this training, this training on non-professional basis in a junior college?	Yes	15	15

selling market and we do not have the salesman.

This survey indicated the following significant facts:

1. Employers feel a need for better trained employees.
2. Employers are interested in this type of program.
3. Employers would give preference to prospective employees with this training.

This is a small sample and may not be reliable for all potential employers of Hiwassee College graduates. This, however, is only one of several factors used in determining the need for this type of program.

Farmers in the Community

Twenty farmers were selected to be surveyed by consulting business people, agricultural extension workers, and several farmers in the community. The basis for this selection was the success of these men in the business of farming. Also the possibility of their employing our graduates.

This survey³ was devised to get the opinion of the farmer on this type of program. It was decided to make personal interviews to secure the desired information.

³See appendix for copy of survey.

These farmers were all located in Monroe County, Tennessee. The College is centrally located in this county. The survey was limited to Monroe County because of the personal interview type survey, which is expensive and time consuming if carried over a large area. This limitation was believed justified on the fact that a large number of our students come from the immediate area of the College.

The writer visited each farmer and explained the purpose of the visit. The questions were written on a three by five inch card for reference if needed. The questions were not asked in a direct way but in a conversational manner. The tally sheet for answers was kept in the car and never shown. The writer believed this would avoid any suspicion on the part of the farmer, as to the intentions of the interviewer. The results of this survey are shown in Table III.

The findings show 75 percent of the farmers have difficulty getting reliable and efficient help. Eighty percent said they would be willing to pay more money for better help. This indicates a possible employment area for graduates in terminal vocational agriculture at Hiwassee Junior College.

TABLE III

REACTION OF TWENTY FARMERS TO QUESTIONS ASKED RELATING TO A NEED FOR A TERMINAL VOCATIONAL AGRICULTURE PROGRAM AT HIWASSEE JUNIOR COLLEGE, MONROE COUNTY, TENNESSEE-1954

Question	Answers	Number of Answers	Percent-age
1. Do you find it difficult to get reliable and efficient help?	Yes. Sometimes. Just do the work myself.	15 3 2	75 15 10
2. Would you pay more for a man who had training beyond high school in agriculture?	Yes. If he was worth more.	16 4	80 20
3. What special qualities would you want the man to have?	Not afraid of work. Get along with people. Dependable	20 15 18	100 75 90
4. What special abilities should the young man have?	Know how to farm.	20	100

Related Studies

Farmer Replacement Needs

Data on replacement needs of farmers in these twenty-four counties are shown in Table IV. This information was taken from a study made in 1953 by J. W. Brimm.⁴

This study shows a yearly need for 1,390 replacements in this area. It indicates that 2,829 farm males pass twenty years of age each year. This would indicate that potential replacements are ample. However, the study of high school Vo-Ag seniors plans after graduation made by the writer and previously presented indicated that only fifty-five percent of those may return to the home farm. One can still assume that the replacements will be ample by using these relative percentages. However, there is an approximate period of two years from the time a boy graduates from high school until he is twenty years of age. This two year period could be used for further training in a program in a junior college.

The information given in Table V in relation to man-equivalent of farm males for different ages was taken from

⁴J. W. Brimm, "Determining the Replacement Needs for Farmers in the State and Counties of Tennessee" (Unpublished problem, in lieu of thesis, The University of Tennessee, 1953)

TABLE IV

NUMBER FARMS AND FARM MALES 20-70 YEARS OLD 1950, EXPECTED DEATHS
1950-60, AND NUMBER PASSING TWENTIETH BIRTHDAY EACH YEAR
TWENTY-FOUR COUNTIES EAST TENNESSEE

County	1950		1960		Replacements		
	Number Farms	Number Farm Males	Deaths 1950-60	Passing 70th Birthday	10 yr Period	1 yr Period	Passing 20th Birthday
Anderson	1346	1870	196	183	379	38	82
Bledsoe	1058	1348	127	117	244	24	49
Blount	2946	3948	397	366	763	76	159
Campbell	1557	2307	237	235	472	47	107
Carter	2910	3550	348	314	662	66	168
Claiborne	3271	3698	374	362	736	74	164
Cocke	2575	3101	302	285	587	59	129
Greene	5978	6663	635	576	1211	121	264
Hamilton	2240	2930	305	274	579	58	119
Hamblen	1698	1886	192	190	382	38	72
Hawkins	4028	4572	459	440	899	90	172
Knox	4294	6315	647	577	1224	122	234
Loudon	1537	1948	204	198	402	40	82
McMinn	2570	3170	320	304	624	62	126
Meigs	872	1118	107	98	205	21	45

TABLE IV

NUMBER FARMS AND FARM MALES 20-70 YEARS OLD 1950, EXPECTED DEATHS
1950-60, AND NUMBER PASSING TWENTIETH BIRTHDAY EACH YEAR
TWENTY-FOUR COUNTIES EAST TENNESSEE (Continued)

County	1950		1960		Replacements		Passing 20th Birthday
	Number Farms	Number Farm Males	Deaths 1950-60	Passing 70th Birthday	10 yr Period	1 yr Period	
Monroe	2698	3422	323	290	613	61	152
Morgan	1380	1951	199	199	398	40	121
Polk	927	1203	102	114	216	22	51
Rhea	1290	1608	153	135	288	29	63
Roane	1632	2072	209	195	404	40	97
Scott	1336	1763	178	148	326	33	94
Sevier	3148	3615	349	303	652	65	150
Sullivan	3592	4247	427	403	830	83	170
Washington	3685	4195	425	391	816	82	159
Total	56228	69403	7215	6678	13893	1390	2829

TABLE V

MAN-EQUIVALENT OF FARM MALES FOR DIFFERENT AGES
WISCONSIN, 1950

Age of Farm Males	Percent of full day
10 years	15
15 years	30
18 years	80
20 years	88
25 years	100
30 years	100
35 years	100
40 years	96
45 years	90
50 years	84
55 years	70
60 years	65
65 years	50
70 years	40

J. W. Brimm's study.⁵ This shows that a young man eighteen years of age is only able to do about 80 percent of a full day's work. He can do 88 percent of a full day's work at twenty years of age, and somewhere between twenty and twenty-five years of age he can do a full day's work. These figures are for a day's work on the farm.

The significance of this information is that the older youth can do more work. This leads one to believe that the prospective employer would prefer the youth with more maturity. This young man could very profitably spend two additional years in training in agriculture.

Other Studies

Table VI gives some information by Phebe Ward⁶ relating to the initial employment age of American youth. This is offered in support of terminal vocational education in a junior college. Here was found the percentage of gainfully employed boys sixteen to nineteen years of age gradually decreasing since 1890 until in 1940 only 47 percent of boys in this age group were gainfully employed. This indicates a period of time when many of these boys could profitably spend some additional time in training.

⁵Ibid., p. 6.

⁶Phebe Ward, Terminal Education in the Junior College (New York: Harper and Brothers Publishers, 1947), p. 10.

TABLE VI

PERCENT OF BOYS AND GIRLS GAINFULLY EMPLOYED
16-19 YEARS OF AGE, U.S. 1890-1940

Year	Boys	Girls
	Gainfully Employed (16-19 Years)	Gainfully Employed (16-19 Years)
1890	65 percent	30 percent
1900	73 percent	32 percent
1910	77 percent	36 percent
1920	72 percent	37 percent
1930	56 percent	31 percent
1940	47 percent	27 percent

The information in Table VII⁷ further substantiates the statement that the above mentioned boys could profitably spend additional time in training. This information indicates that additional years of school adds considerably to the earning power of that individual.

A report of the President's Commission on Higher Education shows the information given in Table VIII.⁸ This gives the percent of high school and college age youth enrolled in school. Twenty-seven percent of rural farm youth are enrolled in school between the ages of eighteen and twenty years. Where are these youth?

We found in Table VI that 47 percent are gainfully employed. This makes a total of 74.6 percent employed and in school. The remaining 26.4 percent could be potential students for a terminal vocational agricultural program in a junior college.

Can the young man afford to attend school beyond the secondary level to further prepare himself for gainful employment? Table IX⁹ shows life expectation of men and

⁷United States Department of Commerce, Statistical Abstract of the United States (Washington: U.S. Government Printing Office, 1953), p. 112.

⁸Higher Education for American Democracy, A Report of the President's Commission on Higher Education (Washington: U. S. Office of Education, 1947), p. 10

⁹Vocational Education of College Grade, No. 18 (Washington: U. S. Office of Education, 1946), p. 20.

TABLE VII

MEDIAN INCOME IN 1949, FOR MALES 14 YEARS OLD AND OVER WITH INCOME BY AGE
AND YEARS OF SCHOOL COMPLETED: UNITED STATES, APRIL 1950

Age Over	Total	None	Years of School Completed												
			Elementary			High School			College						
			1-4 yrs	5-7 yrs	8 yrs	1-3 yrs	4 yrs	1-3 yrs	4 yrs	1-3 yrs	4 yrs				
25 Years	2,699	1,108	1,365	2,035	2,533	2,917	3,285	3,522	4,407						
14-17	495	345	327	305	305	308	411	341							
18-19	721	485	543	703	881	727	767	461							
20-21	1,316	679	826	1,056	1,364	1,471	1,617	786	854						
22-24	1,917	848	1,027	1,409	1,840	2,145	2,309	1,413	1,526						
25-29	2,338	1,016	1,281	1,763	2,255	2,573	2,892	2,764	2,928						
30-34	2,968	1,133	1,453	2,038	2,557	3,053	3,156	3,296	4,113						
35-44	3,085	1,267	1,562	2,252	2,803	3,178	3,523	3,962	5,142						
45-54	2,980	1,736	1,747	2,371	2,601	2,927	3,436	4,099	5,549						
55-64	2,553	1,736	1,727	2,172	2,601	2,927	3,436	3,601	5,142						
65-74	1,379	827	846	1,164	1,505	1,771	2,262	2,362	3,597						

TABLE VIII

PERCENT OF HIGH SCHOOL AND COLLEGE AGE YOUTH ENROLLED IN
SCHOOL FOR URBAN AND RURAL AREAS, U.S., 1940 AND 1947

Age and Year	Percent	Rural Non-farm Percent	Rural Farm Percent
14-17 Years			
1940	85	78.9	69.3
1947	84.3	79.5	76.5
18-19 Years			
1940	31.7	27.5	23.9
1947	27.8	27.7	27.6
20-24 Years			
1940	7.8	5.2	4.6
1947	12.5	8.8	6.5

TABLE IX

EXPECTATION OF LIFE OF MEN AND WOMEN, 18 YEARS OF AGE IN
THE U.S. AT SELECTED PERIODS FROM 1900-1941

Year or Period	White		Negro	
	Male	Female	Male	Female
1941	49.7	53.6	41.7	44.3
1940	49.4	53.0	41.2	43.3
1930-39	48.5	51.5	39.6	41.4
1929-31	47.7	50.3	37.4	38.6
1920-29	47.5	49.2	38.2	38.3
1919-21	47.2	48.1	39.6	38.3
1909-11	44.3	46.0	34.7	37.4
1901-10	44.0	46.0	35.0	37.3
1900-02	43.8	45.3	36.3	38.0

women from eighteen years of age in the U. S. population at selected periods from 1900 to 1941. This indicates that a young man just finishing high school can afford to attend school for an additional period of time and still have as many productive years as his father could expect at this age.

College Policies

History and Purpose

Hiwassee Junior College has not always been a junior college. It was founded in 1849 as a normal school and was cultural in nature. Great emphasis was placed on languages and the so-called cultural subjects. Later in its history it was a four year degree granting institution. The Bachelor of Arts degree was granted. Soon after the turn of the century major emphasis was placed on teacher training. This was while the state granted a permanent certificate on less than degree work. First certificates were granted on less than two years work. Later two years work was required. This function of the College made it terminal in nature. That is the education curriculum was planned with one objective - to train teachers in two years. However, the school's curricula in other areas were planned with transfer to a senior college as the main objective.

Until 1928 the college was affiliated with the

Methodist Church in an indirect way. The charter set up a board of directors which was not directly under the control of the Methodist Church conference. In 1928 the Holston Conference of the Methodist Church acquired ownership of the College and the charter was changed accordingly.

The College had several years of hard struggle for existence. This might be accredited to the fact that the function of the college was academic and traditional in nature. That was just offering two years of a four year college program with the exception of the teacher training program previously mentioned. Nevertheless, in about 1944 much discussion was going on in the Holston Conference as to the advisability of maintaining Hiwassee College. Those against it pointed to the fact that the conference was maintaining a four year institution, Emory and Henry, and another junior college, Tennessee Wesleyan. They argued that Hiwassee was an unnecessary burden.

There were those, however, who felt that Hiwassee had possibilities. Dr. H. A. Morgan, former president of the University of Tennessee, and chairman of the board of directors of The Tennessee Valley Authority was one of the leaders in defense of Hiwassee College. Dr. J. A. Bays, chairman of the board of directors of the College worked very closely with Dr. Morgan. The president of the College, D. R. Youell, was an untiring worker in support of the idea

that Hiwassee had value and should be preserved.

Dr. Morgan was the leader of that group who believed the College had possibilities of being a service institution and a community college. Through the efforts of this group, some friends of the College were persuaded to purchase land joining the College campus for farming and demonstration purposes. Mr. J. P. Roddy and Mr. Tom McCrosky, Knoxville business men, purchased the additional land. This was with the idea that the land would be used for a laboratory in the training of farmers and rural workers. Dr. Morgan envisioned a program of terminal vocational agricultural and rural life education at Hiwassee Junior College to meet the needs of the community.

The College administration is reluctant to some extent in giving up the original purpose of liberal arts for transfer to a senior college. However, the influence of Dr. Morgan, Dr. J. A. Bays, Mr. D. R. Youell and Mr. G. R. Cash, Vice-President, can be detected in the purpose of Hiwassee College as listed in the catalogue:

1. To provide adequate facilities for thorough liberal arts education, covering the first two years of college work in a distinctly Christian environment, at the lowest possible cost consistent with sound educational practice.
2. To give basic preparation to qualified students for leadership in the church, i.e., ministers, missionaries, church secretaries, laymen, etc.

3. To set out to all students the scientific, economical, social, and spiritual elements of factors basic to rural life understanding, and to stress the importance of soil fertility, and natural resources to citizens both rural and urban.
4. To prepare qualified students for advanced study in senior colleges, universities, or professional schools.
5. To provide terminal courses designed to train students who do not wish to pursue college work beyond junior college level, for a more intelligent Christian citizenship.
6. To stimulate rural community development and to provide educational opportunity for adults within its territory in every way possible.
7. To give students with limited financial resources the opportunity to secure a college education by providing work, funds, and scholarships to help defray expenses.

The writer has had conferences with the president, vice-president and members of the board of directors of the College. He is assured of the following policies:

1. The administration believes there is a need for a terminal vocational agricultural program at Hiwassee Junior College.
2. The facilities, resources, and income from the farm will be used in establishing and maintaining the program.
3. Resources of the College will be used in line with sound principles which do not jeopardize other areas of the College program.

4. Financial assistance will be granted when necessary.
5. The administration and supervision of the program will be the complete responsibility of the chairman of the department.

The president, D. R. Youell, makes the following statement: "There must be education for all youth. I never want it said that Hiwassee College turned down any worthy boy or girl who desires to improve educationally, and by all means not for lack of finances."

Objectives

Survey of Other Colleges

A survey¹⁰ was devised and run to secure information on objectives and administrative procedures of other junior colleges. The survey forms were mailed to thirty-eight colleges selected on the basis of their having a terminal agricultural program. This information was secured from the Junior College Directory. The forms were mailed to the department head and he was asked to complete and return. Twenty replies were received making a 52.6 percent return. Eight of those replying had discontinued the department (no reason given). This leaves twelve usable forms. These

¹⁰See appendix for copy of survey.

were summarized and are shown in Table X.

The writer desired information on the methods of determining the need for the program. Methods of determining needs of individual students was also desired. The objectives of the program were very important for this study.

Findings. There is a wide difference among schools in methods of determining the need for a program. Three schools stated the need for the program was based on the needs of the community. One school based the need for the program on the employment opportunities and need for training in agriculture for employment in the state. Seven schools or 58.3 percent of those usable replies say the need was decided by state committees or others outside the school.

Determining individual needs of students shows the same variety of methods. Two schools base these needs on the farming program of the student. Four schools use the personal conference method.

The objectives of programs of agriculture vary from school to school. On the basis of this small sample, one may say that objectives are vague. Item four in Table X shows the answers received to the question on objectives. Two schools say the objective of their program is "to train students to become established in farming." Two schools train students for, "vocational competency in agriculture and related fields." Fifty percent list the

TABLE X

SUMMARY OF SURVEY ON ADMINISTRATION AND SUPERVISION OF AGRICULTURAL PROGRAMS
IN TWELVE JUNIOR COLLEGES, UNITED STATES-1954

Question	Answer	Times
1. When was the program established?	1952 1910 1928 1953 1936 1951 1925 No answer	1 1 1 1 1 1 1 5
2. How did you determine the need for the program?	On the needs of the community. Only such program in the area. Decided by state committee. Occupational employment opportunities and need for training in agriculture for employment in our state. Based on program in state university. No answer	3 1 2
3. How do you determine needs of individual students?	Testing. Home surroundings and farm conditions. Personal conference No answer	1 4 1 2 2 4 4

TABLE X

SUMMARY OF SURVEY ON ADMINISTRATION AND SUPERVISION OF AGRICULTURAL PROGRAMS
IN TWELVE JUNIOR COLLEGES, UNITED STATES-1954 (Continued)

Question	Answer	Times
4. What are the broad objectives of the program?	Become established in farming. Train students for vocational competency in agriculture and related fields. Prepare for last two years of college. No answer	2 2 6 4
5. How were they arrived at? Were they printed?	Based on sound educational policy. Consulting agriculture leaders. Home visits Study of senior college bulletins. Students request No answer Schools saying objectives printed.	1 1 1 3 1 5 3
6. How is your department financed?	Farm income and student fees. Tax supported. Church.	1 9 2
7. Are finances adequate?	Limited Fair Adequate Could use more	4 3 2 3

TABLE X

SUMMARY OF SURVEY ON ADMINISTRATION AND SUPERVISION OF AGRICULTURAL PROGRAMS
IN TWELVE JUNIOR COLLEGES, UNITED STATES-1954 (Continued)

Question	Answer	Times
<p>8. What minimum standards are required of the faculty and staff?</p> <p>a. Academic degree</p>	<p>Master's Degree. None specified. B.S. Degree. No answer.</p>	<p>6 3 2 1</p>
<p>b. Teaching experience</p>	<p>Nothing specified. Minimum of three years. No answer.</p>	<p>9 1 2</p>
<p>c. Farming experience</p>	<p>Farm background. One year experience. No answer.</p>	<p>9 1 2</p>
<p>9. What laboratory facilities are maintained?</p> <p>a. Farm</p> <p>b. Major enterprises</p>	<p>Have farm. Smallest farm 50 acres. Largest farm 1200 acres.</p> <p>Beef cattle. Dairy Poultry Sheep</p>	<p>8 6 9 4 1</p>

TABLE X

SUMMARY OF SURVEY ON ADMINISTRATION AND SUPERVISION OF AGRICULTURAL PROGRAMS
IN TWELVE JUNIOR COLLEGES, UNITED STATES-1954 (Continued)

Question	Answer	Times
	Swine Forage crops Field crops Truck crops Forestry Floriculture	7 10 10 5 3 1
c. Have greenhouse?	Yes	3
d. Others	Pasteurizing plant Soils testing laboratory	1 1
10. Do you have an advisory council?	Yes No	3 9
11. How did you select the managers?	Key farmers Requested to serve on basis of leadership ability. Selected by executive committee of farm club.	1 1 1
12. What records do you keep?	None Academic S.F.P. records Complete accumulative	3 6 1 2

TABLE X

SUMMARY OF SURVEY ON ADMINISTRATION AND SUPERVISION OF AGRICULTURAL PROGRAMS
IN TWELVE JUNIOR COLLEGES, UNITED STATES-1954 (Continued)

Question	Answer	Times
b. Departmental	Farm enterprise records. Farm expense and income records. Inventory of equipment. Records kept in business office. No answer.	2 3 1 4 2
13. Please list courses both general and technical	<u>Note:</u> All listings show a distinct similarity to senior college curricula.	
14. How do you evaluate the following?	(No usable answers given)	
a. The department	Program of work.	1
b. The students	Tests.	9
	No answer.	
15. Percentage of students rural?	90 percent	4
	85 percent	1
	95 percent	2
	60 percent	1
	100 percent	1
	No answer	3

TABLE X

SUMMARY OF SURVEY ON ADMINISTRATION AND SUPERVISION OF AGRICULTURAL PROGRAMS
IN TWELVE JUNIOR COLLEGES, UNITED STATES-1954 (Continued)

Question	Answer	Times
16. Where do they work after graduation?	No records Home farms No usable answer No answer	5 3 3 1
17. What is the average number of students?	30 students 25 students 45 students 60 students 160 students 150 students No usable answer	2 1 1 2 1 1 4
18. What is the average number of faculty?	One Two Two Three Eight Eleven No usable answer	2 1 1 2 1 1 4

TABLE X

SUMMARY OF SURVEY ON ADMINISTRATION AND SUPERVISION OF AGRICULTURAL PROBLEMS
IN TWELVE JUNIOR COLLEGES, UNITED STATES-1954 (Continued)

Question	Answer	Times
19. Related activities? Agriculture club, etc.	Agriculture club P. F. A. N. F. A. No answer	7 1 1 3
20. Percent of students living within fifty miles of campus?	45 percent 100 percent 75 percent 65 percent No definite answer	1 2 2 1 6

preparation for last two years of college as an objective.

Item five, of Table X, shows the variety of methods used for setting up objectives. Only three schools say the objectives are written down.

The small return of usable survey forms limits the validity of any conclusions drawn. However, it does suggest to the writer that a variety of methods are used in planning programs of agriculture in junior colleges. The objectives are not clear enough, therefore, planning is very difficult.

Other Studies

A. J. Cloud and Nicholas Ricciardi¹¹ said in summarizing information supplied by twenty-five California Junior College administrators in answer to a questionnaire submitted to them by the subcommittee on the Junior College Curriculum; (1) California Junior College administrators have not yet approached a common interpretation of the expression vocational education; (2) They have not yet arrived at common agreement on goals to be attained; (3) They are far apart yet in methods and techniques employed in attaining such goals as have been laid out in theory; and (4) With a few notable

¹¹A. J. Cloud and Nicholas Ricciardi, "The Present Program of Terminal Education," California Society of Education Monogram Series (Berkeley, California: California Society of Secondary Education, 1942), p. 62.

exceptions, they have not yet developed authoritative standards of measuring outcomes in direct relation to objectives to be sought.

This same situation appears to be true by the results of this very limited survey.

Summary and Conclusions

Need for the Program

The writer concludes there is a need for a terminal vocational agricultural program at Hiwassee Junior College. The following facts have been brought out in this study that justify this conclusion: (1) One hundred six senior Vo-Ag boys in thirty-seven high schools in East Tennessee say they are interested in a program of this kind; (2) Potential employers of graduates in the program are interested and would cooperate by giving preference to those graduates seeking employment; (3) Farmers in the community are interested in the program; (4) The gainful employment age of young men is increasing; (5) A large number of youth eighteen to twenty years of age are not in school; (6) This type of program is believed to be needed by the administration of the College; and, (7) Terminal vocational training is one purpose of the College.

Objectives of the Program

No definite conclusion could be made as to objectives on the basis of the survey made in this study. However, the writer has consulted the administration of the college and concluded the following objectives would be consistent with sound educational philosophy, and the purpose of the College. These are:

1. To increase the proficiency of young men in the jobs encountered in farming or related occupations.
2. Establish a confidence in the individual student in his ability to make decisions and carry those decisions to completion.
3. To develop an appreciation for those liberties enjoyed by individuals living in a democracy.
4. To develop an appreciation for, and ability to work constructively in the community and church.

CHAPTER III

THE CONSTRUCT

The construct is a summation of the writer's beliefs regarding the planning and establishing of a terminal vocational agricultural program at Hiwassee Junior College. These beliefs reflect the thinking of the writer based on a philosophy developed through reading, thinking, and studying problems encountered while teaching in this field. These statements are not final and will need revisions as new problems are encountered and solved.

Advisory Council

What. An advisory council should consist of members of the community representative of those areas in which training is offered. The advisory council for a terminal vocational agricultural program at Hiwassee Junior College should consist of farmers and men in the related field for which the students will be trained.

Who selects members. A committee should select the members of an advisory council. This committee should consist of the teacher or teachers of vocational agriculture, administrators of the college, a member of the board of directors, and other desirable people.

When. The writer believes the advisory council should be selected before any permanent planning is begun. The committee to select members of the advisory council should be appointed when the college administration first meets to consider this kind of program.

Now. The committee should secure nominations for members of the advisory council from those people interested in the program. Probably one hundred people should be asked in order to secure sufficient nominations. These nominations should come from people widely distributed geographically and representative of all classes in the community. This procedure should give a fair consensus about certain individuals in the area. Next the committee should determine if these individuals are representative of all groups to be served. When this is done, the committee should select a number of nominees to become members. This selection should be based on: (1) geographic distribution; (2) age; (3) distribution among organized and unorganized groups in the community; (4) persons representing the different areas of employment; (5) persons concerned with financial support of the school; (6) persons of different race in the community; and (7) men and women.

The members selected should be notified by letter including time, date, and place of meeting. The writer believes the members should receive a certificate of their

appointment to membership.

Why have a council. A council is an effective means of implementing the principle that those affected by decisions should have a part in making those decisions. The council members should understand the program and support it. They are able to give advice and opinions which represent the community if they have been selected properly.

Policy Making

What. Policies regarding the agricultural program should be adopted by the administration of the college. These policies should be guides for operating procedures. They would define the limits of the program.

These policies should answer such questions as:
(1) What is terminal vocational agriculture? (2) What is the service area? (3) What is its relationship to the total school program? (4) What is the scope of the program? (5) How will the program be financed? (6) How will the advisory council be organized and what are its functions?

Who should make policy. The administration should make policy. The vocational agricultural teacher and his council should recommend most of this policy. They have done the planning of the program and probably understand it

best. They are in position to know what policy is needed for them to operate the program as it is planned.

When. Policy formulation and adoption is a continuous process. It is impossible to anticipate all problems when the program is first planned. As evaluation is carried on, new needs for policy will be discovered. Some statements of policy should be made early in the planning of a program. However, most policy should be devised after the program has been planned.

Why. Statements of policy will give guidance to the teacher in making many decisions. These statements should clarify the limitations and scope of the program. Early statements of policy should define the boundaries of the program and allow planning to proceed.

How. Policy making should be done by those affected by it. The teacher and his council should formulate statements of policy in consultation with those affected. This should then be submitted to the administration for approval and adoption.

Determining Needs of Students

What are needs. Needs are those ideas, skills, understandings, and attitudes an individual should acquire in order to reach goals established by the individual with the help of his teacher.

How determined. Needs should be determined by making a comparison of the student's situation with what the situation should be. This is done by determining the jobs, skills, ideas, and attitudes required in a given area. This is a standard. Then we must determine where the boy is in relation to the ideal. This difference gives needs.

Why determine needs. Needs form the basis for all good teaching. A student is motivated to learn if he knows and feels a need. These needs are the basis for course content and should be used in setting up courses.

When to determine. Needs of the student should be determined after he has enrolled in school. The student should participate in the process of determining his needs as part of his class activity. This should be done early in the class work in order to stimulate his interest and provide a basis for goals and objectives.

Who. Needs should be determined by those concerned. The vocational agricultural teacher with the help of the council should determine general needs. The vocational agricultural teacher should make determining needs a class activity.

Setting Up Objectives

What are objectives. Objectives are those changes

needed or goals to attain. These may be long-time or short-time, depending on the scope and anticipated time required in reaching them. These needed changes may be attitudes of learner, abilities of learner, or skills of learner.

Why have objectives. Objectives give direction to teaching and to learning.¹ Objectives also provide a tool for evaluation. The teacher and learner are both on an endless road if no objectives are determined and written down.

Who determines objectives. Some over-all objectives of terminal vocational agriculture may be determined by the administration of the college. However, it is the responsibility of the teacher and those affected to determine the objectives of the program. The students should determine their own objectives in terms of their needs. This is a teaching activity and should be part of the course content.

When. The broad program objectives should be set up prior to the beginning of program planning. Course objectives should be set up after needs are determined.

How to determine objectives. Objectives for terminal vocational agriculture should be of two kinds. First, the

¹Carsie Hammonds, Teaching Agriculture (New York: McGraw-Hill Book Company, Inc., 1950), p. 41.

teacher, with the help of his advisory council and facts of the community agricultural situation, should determine desirable and attainable long-time objectives. These objectives become guides in planning the over-all program. Next, the teacher and the students study the large objectives in relation to the students' situation and decide on short-time objectives. These short-time objectives should contribute to the attainment of the large objectives. Objectives should be attainable by all concerned and in accord with the purposes of the program.

Setting Up Means of Evaluating

What is evaluation. Evaluation is an instrument for measuring progress. This progress should be in terms of results in reaching goals or objectives.

Why is evaluation necessary. A systematic means of evaluation is necessary if the teacher and students know where they are in relation to where they want to be. This knowledge stimulates interest in the program and reveals the following valuable information:

1. Strengths and weaknesses in the program.
2. Shows teacher needed improvements of the program.
3. Shows students improvements needed to accelerate their progress toward stated goals.

Who should evaluate. All individuals, groups, and administrators concerned should participate in the evaluation of the program. This is obvious, since those individuals, groups, and others concerned are continually evaluating the program whether systematically or not. The following individuals should be included in a systematic plan for evaluating:

1. Persons from outside the community who are interested.
2. The advisory council.
3. Students (all-day and adult).
4. Parents of the students.
5. Employees of graduates of the program.
6. School administrators.
7. Professional men in the field of education.
8. The general public.

When to evaluate. Evaluation should begin when plans for the program begin. Evaluation is a continuous process and gives more meaning and purpose to a program when used continuously and with a planned system. There are times when the evaluation of a program should be intense. This should climax about twice a year when recordings and reports of results are made.

Where should evaluation take place. Evaluation should

be carried into all phases of the program such as:

1. Class instructions.
2. On farm instructions.
3. Public relations.
4. Laboratory instructions.
5. On the job.
6. In the home.
7. In the community.

What to evaluate. Evaluation should be in terms of results. These results should be changed behavior due to acquired skills, abilities, attitudes, and understandings.

How to evaluate. To evaluate one should apply effective evaluative criteria to the area being evaluated. These criteria should be in relation to an objective for which standards have been determined. They are questions to answer which will reflect progress toward the objective.

The following are some evaluative devices often used: (1) Records of farming program; (2) Study of occupational accomplishments; (3) Surveys of results, practices, attitudes, and opinions of persons and without training; (4) Rating scales; (5) Observation by the teacher; and (6) Paper and pencil tests, and many others.

Providing Ways and Means

Learning Activities

The planning of learning activities for students in a terminal vocational agricultural program at Hiwassee College presents two problems not found in the high school vocational agricultural program. The greater number of boys will be living on the campus and not have a supervised farming program on the home farm. However, an effort should be made to duplicate the boys' home farm conditions as much as practical. The two-fold purpose of the program, that of training boys for jobs on farms and for related fields, will require intense specialization in some areas of activity. For example, if boys want to study creamery practice they will specialize in that area by working in creamery and receiving special instructions in that area.

In Class

Who should plan. This involves planning and setting up course content and teaching calendar. The teacher should make preliminary plans based on the determined situation in the community or area. This preliminary plan should consist of the general course content based on major enterprises needed as determined by the advisory council. Finishing the plan should be a teacher-pupil procedure based on the objectives of the students.

What. A systematic plan for all phases of the class activities should be devised. This consists of the following steps:

1. Prepare a list of the enterprises to be included.
2. Decide on time allotment for each enterprise.
3. Determine job areas.
4. Decide on seasonal importance of jobs.
5. Make time schedule for jobs.
6. Teacher-student planning of individual course content.

When. The planning of learning activities in class is not a finished job. Revision and continued planning is necessary if teaching is to be most effective.

How. Providing learning activities in the classroom should be consistent with good teaching methods. The problem solving method is recognized and believed best for vocational agriculture. This method relates the material or desired learning to the personal problems of the student.

On School Farm

The scheduling of learning activities on the farm should be controlled by seasonal activities of the different enterprises. A farm for laboratory purposes is necessary in the junior college program. This is due to many students living on campus and not having access to their

home farm. The farm should be managed by the students under the supervision of the teacher or his designated assistant. This may be limited to some extent by the amount of time the students are able to devote to the farm activities. This amount of time should be the maximum the student can devote and not jeopardize other activities believed necessary to his proper development.

What. Learning activities on the farm should be of the following character: (1) manipulative jobs in the production of the selected enterprises; (2) managerial jobs such as field lay out, crop rotation, and farm mapping; (3) engineering practices, such as, soil and water management, and constructing buildings.

When. Learning activities on the farm should be integrated with those of the classroom. These activities should follow as closely as conditions permit to those activities of the classroom. The farm activities should be the doing part of the entire learning or teaching situation.

How. The farm enterprises should duplicate those of the boys in the program as much as possible. This means the farm should be run as a laboratory. The farming program of the school farm should be determined by the needs of the community and the students in the program.

Who. This should be planned by the teacher and the

boys. Here we have a modified type of supervised farming program. This planning should take place in farm management early in the course of study. Supervisory personnel on the farm should have a part in the planning so they will understand the situation. However, the farm activities should be under class supervision by the instructor.

Why. These on-farm learning activities are essential to developing certain skills, attitudes and managerial abilities. They provide the doing part of the classroom learning activities.

Extra Curricula Activities

Why have. Extra curricula activities can and should contribute to the development of the student. These activities should give the students greater freedom for individual and group action than the classroom and farm activities do. It should be an integral part of the total program. The writer believes that no better foundation for these activities can be found than that of the Future Farmers of America organization for vocational agriculture in high school. This foundation is: (1) leadership and character development, (2) sportsmanship, (3) co-operation, (4) service, (5) thrift, (6) scholarship, (7) improved agriculture, (8) organized recreation, (9) citizenship, and (10)

patriotism.²

Who for. These activities should be for those boys in the terminal vocational agricultural program. However, if a pre-agricultural program is offered for those who plan to transfer to a senior college for a degree in agriculture, these boys should be encouraged to participate.

What have. The writer believes all the extra curricular activities should be combined into one organization. This should be an Agricultural Club with a constitution and by-laws to govern the group. This would have to be a local organization with no broad affiliation since there is not a state or national organization. The writer believes, however, that a group of affiliated campus clubs for junior colleges would be of great help in developing terminal vocational agriculture.

When. These activities should have the same consideration as other activities when planning the program. When to have is a matter of scheduling and should have their logical place in the schedule of other activities.

In Shop

What. Learning activities in the shop should be integrated with class activities. Jobs should be scheduled

²Official Manual for Future Farmers of America (Baltimore, Maryland: The French-Bray Co., 1949), p. 3

with the seasonal importance in mind. These activities should consist of those jobs involving, skills, abilities, and understandings needed by the students.

Who. These activities should be planned by the teacher and students. This planning should be made a part of program planning in the classroom activities.

Why. The ever increasing mechanization of farming makes shop training more and more important. The shop activities in this program however, have an added importance. This is due to the anticipated desire of many students to major in farm machinery, repair and maintenance.

How. Learning activity in the shop should be on a project or job basis. The procedure should be that of presenting theory, teacher demonstrates, and students put theory to practice by doing the job or project.

Teaching Facilities and Materials - Classroom

Where. It may be desirable, in the junior college, to house the agricultural department in the science building. This should facilitate the use of existing laboratory equipment. However, this presents the danger of the thing happening that does so often. The agricultural department may not be in on the planning of the building or the building may already exist. This results in the classroom being either in a basement room or some other out-of-the-way

place. The teacher should never agree to this. The writer believes the agricultural department should be located in a separate building designed to meet the needs of the planned programs.

Who should plan. This building should be planned by all those having use of it. The administration should be asked for suggestions on the plans.

How plan. Careful planning is essential if the department is housed adequately. Planning involves two major steps: (1) Determining facilities needed for the program as now planned, and (2) Anticipating future expansions of the program.

What to consider. Many things must be considered in planning the classroom. Some of these are: (1) what and who is to be taught; (2) type of building; (3) location in relation to other buildings of the school and farm; (4) size and design; (5) heating, ventilating, and lighting; (6) equipment, kind and arrangement.

Who to use. The department should have exclusive use of the building and equipment. This is due to the extensive use the department should make of the facilities in carrying on the various activities. The classroom should have various materials available for interested agricultural students. If the classroom is used for other classes this material may be abused. This will require protection which

would put useful information out of reach of those boys who need it at frequent intervals.

On Farm

Where. The farm should be as near the school as possible. This makes for convenience in its use for laboratory purposes. The farm in many instances surrounds the campus area or is adjacent to the campus area. This is as it should be.

What. The farm should have adequate, modern machinery and equipment for carrying on the enterprises necessary for practical experience in the jobs studied in the classroom. Care should be taken in selecting this equipment for it will be abused to some extent by inexperienced students. This can be kept to a minimum by proper instructions on the care and use of the farm machinery.

When plan. The facilities of the farm should be planned when the program is planned. The farm should be designed to meet the needs of the department for instructional purposes. This purpose should come first.

The writer believes the farm can best serve its purpose if it is of sufficient size to provide experiences in actual production practices. These practices should lead to the production and marketing of a product. The farm could, however, make a sizeable contribution to the food supply of the college.

The following are some purposes of school land as given by E. W. Garris.³

1. It provides a place to demonstrate long-time projects as well as annual projects.
2. Students are able to participate in many situations on a farm-wide basis and supplement their farming experiences.
3. Students who have no facilities for obtaining supervised farming experiences at home can be provided land for crop projects and space for livestock projects or given work experience to meet the requirements.
4. The teacher has to keep his instruction on a more practical basis if he executes his work according to his class instruction.
5. It provides an ideal situation to make more effective use of the advisory council.
6. The school farm can furnish purebred animals, ornamental plants, and various types of seeds to the farmers of the community.

These should all be applicable to the school farm of the junior college. The fact that, as stated previously, the students will be living on campus, and for other reasons not have facilities of their own for farming experience, makes it absolutely necessary for the terminal vocational agricultural program to maintain a farm for this purpose.

Laboratory

What. The necessary laboratory facilities will depend on the extent and scope of the courses offered. The writer believes that the junior college should have

³E. W. Garris, Teaching Vocational Agriculture (New York: McGraw-Hill Book Co., 1954), p. 88

facilities for classes in soil testing, milk testing, and some bacteriological testing. The use of a greenhouse should help in plant demonstrations and experiments.

Where. These facilities should be a part of the regular classroom. The laboratory can easily be placed on one side of the room, or other convenient location. Equipment can be kept in wall cabinets. Having the facilities readily available will expedite their use. Also, the use of these facilities for demonstration purposes will be available for the whole class.

How. The provision of equipment and facilities for a laboratory should be governed by two things; adequacy of the equipment and use to which it will be put. The best quality of that equipment needed should be purchased. The amount of equipment needed should be determined very carefully. This will save waste of money. The amount should be determined by the number of students participating. This can be kept fairly close to needs since the purchase of additional equipment will only take a few days. The teacher should, however, plan his facilities for the maximum expected student participation. This refers to cabinet space, sinks, and other facilities of like nature.

In Shop

Who. The teacher and his advisory council should

make initial plans for the shop. These plans should be made after studying the community situation. The advisory council can be of great help in planning a shop that will meet the needs of those boys who want to enter the field of farm machinery maintenance and repair.

Students should have a part in the planning since they are the ones who will use it.

When. This planning should be an important part of program planning and be done when the total program is planned.

Why. Farm mechanics is more and more important as farming becomes increasingly more mechanized. A program of training in agriculture should take this into consideration, and give a fair share of planning and time for training in farm mechanics.

How. Planning the shop will be concerned with what to have, or equipment and facilities needed. This depends on: 1. What is to be taught; 2. Who is to be taught; 3. Physical facilities; 4. Equipment already available; 5. Finances available.

Teaching Staff

What. The reference to teaching staff means the individuals who are directly responsible for and perform the duty of teaching in the classroom and on farm.

The fact that the terminal vocational agricultural program trains young men who do not intend to transfer to senior college should not lower the standards for the teaching staff. The writer believes the teacher should be well trained in the field of vocational agriculture with courses in junior college methods.

The successful teacher of terminal vocational agriculture in junior college should have all the characteristics recognized as being essential in a high school vocational agricultural teacher. Phipps and Cook⁴ have given these as: (1) farm trained, (2) unquestionable character, (3) good personality, (4) rural mindedness, (5) leadership ability, (6) willingness to work, (7) intelligence, (8) emotional maturity, (9) health, and (10) broad interests. He should also have vision and understanding of the possibilities of terminal vocational agriculture in junior college.

How to select. The teacher should be selected on the basis of his academic achievement in the training institution. This is just one of several criteria, but is very important for he should know subject matter and methods. He should be

⁴Lloyd J. Phipps and Glen Charles Cook, Handbook on Teaching Vocational Agriculture (Danville, Illinois: The Interstate Printers, 1952), pp. 37-53.

able to furnish evidence of his character being unquestionable. Teachers and administrators in the training institution will be able to furnish evidence of these things plus personality ratings.

Supervisory Staff

What. The supervisory staff is those men who have the responsibility of supervision in the different enterprise areas. An example is the dairy enterprise. The teacher cannot be everywhere at one time and all the time; therefore, it is necessary to have a supervisor for this area. The supervisor will need to work very closely with the teacher.

Who. The supervisors should have thorough training in their respective areas. This doesn't mean they should positively have a college degree. However, that would be desirable if the program can finance it. The supervisor should have at least a high school education and experience enough to make him highly efficient. He should be briefed often as to the future plans of the program. An in-service training program for supervisory staff should be scheduled.

Budget

What. A budget is a detailed breakdown of expenses for operating the department for a year. In the junior college program this should include the following general areas: (1) teaching supplies and equipment for the classroom,

(2) administrative expenses such as salaries, public relations, and building maintenance, and (3) laboratory and farm operating expenses.

Who. The teacher should prepare this with the aid of the students. This is especially true of the farm operations. The budget should be part of student learning activities.

When. The budget should be prepared just prior to the beginning of a new year. This is needed where the school administration finances the program entirely.

Why. A well planned budget based on needs determined by studying inventory and financial records of a department is good business. It will keep the administrator of the program out of the dark so to speak. He will know where he is heading for that year. A well-planned budget is a good tool for securing additional funds for the program.

Financing the Program

Who. Financing a program of terminal vocational agriculture in the private junior college should be the responsibility of the school administrators. However, this may oftentimes be inadequate. Relatively speaking, the cost of this kind of training is high. Therefore, the teacher should investigate other methods.

How. The farm operation should be under the direction of the terminal vocational agricultural department, and any profits from farm operations should be available to the

department. The relatively high use of expendable materials in a program of this kind makes it necessary to spend considerable money per student. The normal tuition charged will not pay this expense. The department should collect from each student a laboratory fee equal to this additional expense. This money should be paid to the department and kept there for use when it is needed.

What. Financing can be divided into the following: (1) all-day classes, (2) evening classes, (3) laboratory and farm, (4) administrative.

When. Plans for financing should be a part of program planning. These plans should be made when the budget is planned and presented to the administration at the same time. The teacher should use the administration in planning means of financing. Students should be used in this planning. They will need to know the problems of the department in order to give their fullest cooperation. This is probably more important in the adult classes.

Records and Reports

A. Records

What. Records should be kept of: (1) advisory council meetings and minutes, (2) budget, (3) community data, (4) program of department, (5) inventory, (6) student personnel records, (7) public relations, (8) farm financial records, (9) teaching plans, (10) evaluative results of the program,

(12) records of experimental results, (13) follow-up, and (14) job opportunities. Records are evidence of what has transpired in the past.

When. These records should be kept at all times. Information for records should be collected at the time the information is first available. A system of record keeping is no better than the information collected for these records.

Why. Records are necessary if evaluation is effective. Records give a basis for a sound, intelligent report of the condition of the program at any one time or for a period of time. Records give evidence of the situation in the evaluative process.

Where. All records should be kept filed in the office of the department. They should be readily available for use at all times.

How. Keeping records is a two-step procedure. First, a system of collecting needed information should be devised. Second, a system of recording and filing this information should be devised. These things should be done when planning the system: (1) Decide on information needed, (2) decide on methods of collecting this information, (3) decide on method of recording information, (4) devise system of filing information, and (5) devise method of summarizing this information.

B. Reports

What. The school administration will require certain

reports. These may be financial reports made to the board of directors of the college or to other designated administrative officers. Other reports required should be reports on students academic program and absences from class. These are required by the dean of the school. An annual report should be made to the dean, president, and board of directors of the school. This report should include the following: (1) activities of advisory council, (2) enrollment, (3) activities of the teacher, (4) farm activities, (5) job placement, and (6) student follow-up.

Who. The vocational agricultural teacher should assume responsibility for making these reports. The department should have, if at all possible, a combined secretary and bookkeeper to keep records and make reports. This is absolutely necessary if the department has a large farm operation in the department.

When. Reports should be made as often as necessary to keep the people informed of the department's progress. The reports of student progress should be turned in monthly and then summarized at the end of each quarter or semester whichever applies. An annual program of work should be made and filed with the Dean. This report should be made before a new school year begins.

How. A form for summarizing the information needed

in a report should be devised. This form should show desired information as a complete and easily understood summary.

Why. Reports are a good public relations device. They inform as to the progress and plans of a program. Reports are a way of evaluation used by the administrators. This is very important. The administrator who has in his hands reports from the department has a ready tool for evaluating. The teacher who has made complete and thorough reports will avoid being evaluated on casual observations of his activities.

CHAPTER IV

PLANS FOR ESTABLISHING THE PROGRAM

This chapter is a plan for establishing and planning a program of terminal vocational agricultural training at Hiwassee Junior College. The principles and beliefs stated in the Construct were used in devising this plan.

Advisory Council

The council membership will probably consist of six farmers from the area and one each from farm machinery sales and repair, feed manufacturing and sales, feed, seed and fertilizer sales, dairy products manufacturing, commercial cannery specialist and forest products manufacturing.

I. Organizing the Council

A. Arrange a meeting of the College administration before planning begins.

1. Get the administration to determine policies for organization and operation of the council.
2. Get the administration to appoint a twelve man nominating committee from the following groups:

- (a) Community farmers
- (b) Community business men

- (c) Members of College staff
- (d) Member of board of directors
- (e) Other interested people.

B. Organizing the committee.

1. Notify members of their selection and date for a meeting.
2. Conduct meetings for instructing the members of the procedure for securing nominations.
 - (a) Elect a chairman.
 - (b) Discuss importance and function of a council.
 - (c) Stress importance of getting members who truly represent the groups who should be represented.
 - (d) Have committee decide on number of nominations.
 - (e) Have committee decide on method of securing nominations.
 - (f) Decide on number of members council will have.
 - (g) Set a date for meeting to select members of council.

C. Conduct meeting for purpose of selecting

council members.

1. Chairman will preside.
2. Nominations and qualifications will be presented.
3. Discuss criteria for judging the eligibility of nominees to become members.
4. Select nominees for membership.
5. Present selected members to administration for approval and appointment.

II. Organizational meeting of newly elected members.

- A. Notify members of appointment and first meeting date. The meeting will probably be a dinner meeting held in the college cafeteria.
- B. Teacher will call meeting to order and proceed with organization and orientation.
 1. Elect officers
 - (a) Chairman
 - (b) Vice chairman
 - (c) Secretary
 2. Discuss policies governing the operation of the council.
 - (a) Those by school administration.
 - (b) Those by the council: (1) Time and length of meetings; (2) Frequency of

meetings; (3) Use of committee;

(4) What committees to have.

(c) Appointment of council committees.

(1) By chairman.

III. Use of council

The council will be called together early in the year to advise and make decisions on many phases of the program. Some of these are:

- A. Determining needs.
- B. Deciding and recommending policy within its limits.
- C. Studying employment opportunities in the area.
- D. Discussing role of the College farm in the program.
- E. Helping develop objectives of the program.

Many other uses and functions will be discovered as the council functions in the program.

Policy Making

Who. The teacher and the council will make recommendations to the administration regarding policy for the program. The administration will be asked to study these recommendations, revise same, if needed, and adopt as guides for the administration of the program.

When. Policy matters will arise throughout the

planning of the program. However, some statements of policy will be needed before planning begins.

How. The teacher will arrange a meeting with the school administration to secure statements in regard to the program, before the actual planning begins. These statements will answer such questions as the following:

1. What is the relationship of this program to the entire school program?
2. What finances will the school give to the program?
3. What cooperation will they give in selecting members and organizing a council?
4. What method of enrolling students should be used?
 - (a) Plan for public relations.
 - (b) Plan for financing public relations.

Upon organization of the advisory council the council and teacher will discuss and formulate statements of policy that appear adequate for the efficient operation of the program. These statements will outline the framework of the program.

The following questions will be introduced one at a time to the council for discussion:

1. What is terminal vocational agriculture?
2. What groups in the area should it serve?

3. What geographic area should it serve?
4. What will be the relationship of this kind of program to other programs in the area?
5. How will the advisory council function in planning and administering the program?
6. Who should do the planning of the program?

Many other questions will arise as planning continues, therefore, policies may change as needs change. However, at this time a statement of policies will be devised and submitted to the administration for study and approval.

Determining Needs of Students

Needs of individual students will be determined. The program will be based upon these needs.

Needs will be determined continuously, but the major effort will be made at the beginning of the program and at the beginning of each course.

How Determine. Needs of students will be determined by:

1. Orientation in class.
 - A. Discuss terminal vocational agricultural training.
 - B. Discuss job and training possibilities in the areas.
 - C. Discuss possibilities in those job areas in

which students show interest.

2. Have student determine what he needs to know to do what he wants to do.

A. The students who plan to return to home farm.

(1) List enterprises now on farm.

(2) Add those he would like to have.

(3) Make list of what he needs to know in order to be where he wants to be.

(a) Study information from Agricultural Experiment Station on approved practices and production goals.

(4) Determine what he now knows.

(a) Make home farm and enterprise surveys.

(b) Make level of abilities survey on himself.

(5) Determine needs by finding the difference between his situation and what he wants it to be.

B. The student who plans to enter one of the service areas.

(1) Make survey of abilities needed in the desired area. (talk to prospective employers)

- (2) Study job analysis of area if available.
 - (3) Make list of things he needs to know in order to be where he wants to be.
 - (4) Determine where student is now.
 - (a) Make level of abilities survey.
 - (5) Find needs by finding the difference between his situation and what he wants it to be.
3. Have students make a list of all these determined needs.
 4. Study College farm program to see what facilities are available and what are needed.

Setting Up Objectives

Who. The teacher, his council, and the students will participate in determining objectives for the program. This will be done after basic data concerning the community, and job area have been collected and summarized.

How. The teacher will discuss the community and job area situation with the council to find the needs. The following steps will be used:

1. Present the summary of basic data showing the situation.
2. Discuss the situation in relation to what it should be.

- (a) The community agricultural situation.
 - (b) The situation in related fields.
3. Discuss possible objectives in relation to:
- (a) Their compatability with democratic values.
 - (b) Their being based on human needs.
 - (c) Their being based on agricultural and related field needs.
 - (d) Their being in terms of changed behavior of people.
 - (e) Their being attainable.
 - (f) Their being in terms of skills, abilities, attitudes, and understandings that can be evaluated.
 - (g) Their covering all activities of the program.
 - (h) Their being specific and clearly stated.
 - (i) Their being challenging to all concerned.
 - (j) The possibility of determining when they have been attained.
4. Select those objectives that conform to the above mentioned criteria.
5. List these objectives as either long-time or short time.

The objectives for this program may differ to some extent to those of a high school vo-ag program. However,

the only difference is the added importance of training for proficiency in jobs related to agriculture. This will not decrease the importance of objectives which deal with changing the community situation and this change being due to changed behavior in human beings.

Students will be concerned more with the short-time objectives relating to their individual needs. The teacher and students will set up objectives for the individual and group, by making determining objectives a part of classroom activities.

Means of Evaluating

What. Evaluation is a measuring of progress toward objectives. Evaluation in this case will be primarily concerned with results obtained. However, if adequate results have not been obtained, the procedure will be examined to see what changes are needed in order to get the desired results.

Who. All those concerned with the program and its outcome will be involved in evaluation. This will include teacher, advisory council, students, College administration, and others. The students will be concerned with the overall evaluation but primarily concerned with the evaluation of their own progress toward their own objectives.

When. Evaluation will be continuous. There will be

periodic check-ups at the end of teaching units, at the end of the quarters, and at the end of the year.

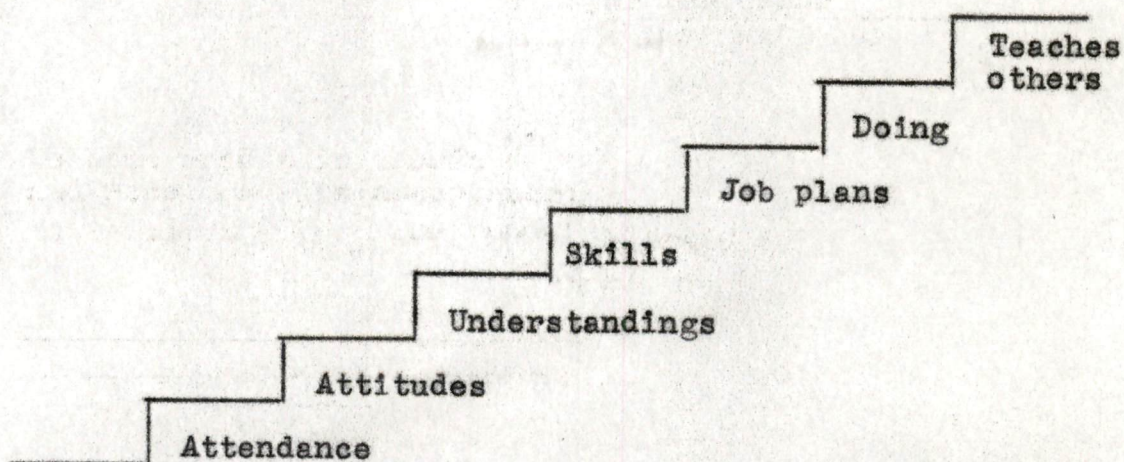
How. Evaluation will be divided somewhat into two parts, evaluation of the program as a whole and the evaluation of the individual student's progress. The procedure for evaluation will be as follows:

1. Objectives will be set up as indicated in the preceding section on objectives for the program as a whole and for individual students.
2. The evidence to be used for purposes of evaluation will be decided upon.
3. Methods of collecting and recording this evidence will be determined.
4. Evidence will be collected and recorded.
5. This evidence will be weighed, and a judgment reached regarding progress toward objectives.
6. Improvements will be suggested for:
 - (a) Objectives
 - (b) Ways and means
 - (c) Evaluation

Evaluation of the objectives of the program will be done by the teacher, advisory council and representatives of the administration and the student body. Evaluation of the students individual objectives will be done by the students

with the help of the teacher. It is not possible to state at this time what the objectives are, or the evidence that will be used for evaluation, since all those concerned will have a share in making these decisions. However, the following is an example of what the writer has in mind and will be used as a guide in helping students and the advisory council in arriving at a procedure for evaluation:

Certain factors indicating changes in behavior have been used successfully in vocational agriculture to evaluate results of progress toward objectives. These will be listed in stair-step fashion as below.



Since these indicate progress toward an objective, an objective will be listed.

Objective: To develop the ability to keep farm enterprise records efficiently. Now we will decide on what

evidence to collect, how to collect, and how to record evidence on each factor. This will be done as shown below:

<u>Factors</u>	<u>Evidence to Collect</u>	<u>How Collect</u>	<u>How Record</u>
Attendance	Attends class	Check roll	Roll book
Attitudes	Wants to learn	Observe	Roll book
Understandings	Knows how	Practical tests	Roll book
Skills	Keeps practice set of records	Observe in class	Student folder and roll book
Job plans	Has plans to keep records	Check note book	Same as above
Doing	Keeps S.F.P. records and on home farm	Check record book	Same as above
Teaches others	Father learns	Observe, being told	Same as above

Providing Ways and Means

Learning Activities - In Class and On School Farm

The planning of learning activities in the program will require the integration of classroom activities with those of the farm. All learning activities of the program will reflect the students' needs.

In class:

Who. The students and teacher will plan the classroom

learning activities of the program.

How. The following steps will be used in planning classroom activities:

1. Develop attitude of students to want to share in planning.
 - A. Class discussions on principle of sharing in decisions affecting the students.
 - B. Make students aware of the importance of their developing ability to solve own problems.
2. Develop a procedure for teacher-pupil planning.
 - A. How to develop with students.
 - (1) Class discussion on principles of program planning in vocational agriculture.
 - (2) Summarize discussion of principles of program planning into a plan for planning.
 - B. This is a suggested procedure on how to plan with students. These suggestions are the writer's ideas on how it should be done.
 - (1) Make teaching calendar
 - (a) List enterprises to include.
 - (b) Arrange enterprises in order of importance.

- (c) Decide on amount of time to give each area or enterprise.
 - (d) List jobs in these areas or enterprises.
 - (e) Decide on amount of time for each job.
 - (f) Record this as a teaching calendar.
 - 1. List enterprises or areas.
 - 2. List jobs in seasonal sequence.
 - 3. Give each job a date and amount of time to spend on it.
- (2) Mimeograph copies of planned classroom activity for each student.

On school farm:

Who. The teacher and the students will plan the farm program in farm management class activity.

What. The farm program will be planned to fit the objectives of agricultural program. That is, the students' situation or needs will be considered.

How. Learning activities on the farm will be provided by planning the farm activities or program around those of the class. Things to consider are (1) What is taught in class; (2) Size of farm; (3) Objectives of program; (4) Equipment needed; (5) Seasonal importance.

Procedure for planning. Planning will be done after

the students have planned their programs of study by:

1. Discussing with students the possibility of the farm activity and class activity being correlated.
2. Inventory present school farm situation.
3. Determine what it should be in terms of the students' objectives.
4. Determine the difference between what it is and what it should be.
5. List this difference as needs.
6. Begin class in farm management in order to plan the farm activities.
7. Give boys job areas on farm to fit their interests and make them responsible for their area.

Extra-Curricular Activities

What. All extra curricular activities will be sponsored by an agricultural club which will be known as the Ag. Club. These activities will contribute to the development of the boy by giving him additional opportunity to express himself. The possible areas of activity will be: (1) social; (2) community and school service; (3) organized recreation; and (4) improved agriculture.

When plan. The teacher will discuss the possibility of organizing the Club with his council. The council will be asked to suggest possible objectives for the Club. These

objectives will be in relation to those of the program. Planning the organization of the Ag. Club will be done when other planning for the program is done.

How plan. Planning these activities will be a part of classroom activity. The Club will be organized early in the first year. Procedure for organization:

1. At an early council meeting discuss:
 - (a) Purpose of the Club.
 - (b) Organization set-up of the Club.
 - (c) Membership.
 - (d) Constitution and by-laws.
2. In an early class meeting discuss the organization of the Club with the students.
 - (a) Purposes.
 - (b) Organizational set-up.
 - (c) Activities of the Club.
 - (d) Constitution and by-laws.
 - (e) When to organize
3. Call meeting for organization of Club.
 - (a) Elect officers.
 - (b) Adopt constitution.
 - (c) Decide on and appoint needed committees.
4. Plan activities of the Club at regular meetings. These activities will be in relation to, and contribute to attainment of the stated objectives of the total program.

In shop:

What. Learning activities in the shop will be designed to aid the boy in reaching certain objectives which he will plan in class. These activities will closely correlate those of the classroom. For example, if the boy is studying harvesting small grain in class he will need to know something about the operation, maintenance and care for the machinery necessary in harvesting small grain. When planning the course of study the objective, "To successfully operate, maintain and care for the machinery necessary in harvesting small grain," will be part of that boy's course in farm shop.

The course for the boy who plans to enter the field of farm machinery sales and repair will be designed to accomplish the objectives determined desirable and needed by the boy.

How. Learning activities will be planned by the teacher and the students with help of the council. The council will be asked to discuss the abilities, skills and understandings needed by farmers, and those in related fields. This discussion will be summarized into believed and known needs for: (1) farmers, and (2) those in related fields.

The planning of shop activities will be done principally in class. The students will participate in:

1. Determining needs in the community and of individual students.

A. Community.

- (1) Make farm mechanics survey.
- (2) Study census data to determine machinery on farms and trends in use of machinery.
- (3) Summarize in terms of situation in:
 - (a) Farm shop work.
 - (b) Farm power and machinery.
 - (c) Farm buildings and conveniences.
 - (d) Soil and water management.
 - (e) Rural electrification.
- (4) Use recommendations of council and available data on what the standard should be.
- (5) Determine the difference in situation and standard and summarize in terms of needs.

B. Individual Students.

- (1) Make level of abilities survey to determine what the students' situations are.
- (2) Discuss the standard for the boys' area of interest.
- (3) Have each boy make a list of abilities, attitudes, and understandings he thinks he needs.

- (4) Help students make list of those needs in terms of objectives.
- C. Teacher and students study objectives in terms of skills, abilities and understandings needed to attain the objectives.
 - D. Teacher and students schedule these activities with the following in mind:
 - (1) Seasonal importance.
 - (2) Correlation with enterprise study in classroom.

Teaching Facilities and Materials

In Classroom:

Where. A classroom will be provided for the agriculture department in a building, to be built, separate and apart from other buildings. This building will be planned to meet the present and anticipated needs of the program.

Who plan. Planning the building and equipment will be done by the administration, the council, teacher, advisors from available sources, and an architect.

How plan. Planning will involve two major steps:
(1) Determining facilities needed for housing and teaching as the program will now be planned; (2) Anticipating future expansion of the program.

Many things will need consideration in planning the classroom and facilities: (1) What and who is to be

taught; (2) Type of building; (3) Location in relation to other buildings of the school and farm; (4) Size and design; (5) Heating, ventilating and lighting; (6) Equipment, kind and arrangement.

Procedure. Planning will be a cooperative effort. The teacher will discuss the situation with the council, and administration of the school. The following things will need consideration:

1. Anticipated activities of the program.
2. Anticipated future activities of program.
3. List enterprises to be taught.
4. Anticipated maximum number of students.

On the basis of the information at hand and the discussion with the council and administration of the school the teacher will make summary of recommendations and suggest a broad general plan. The teacher will consult people in the Agricultural Education Department at the University of Tennessee to secure their suggestions. These will be incorporated into the general plan and then taken to a reliable architect where complete plans will be drawn.

Financing. The school administrators will plan this, therefore, it is not a problem of the department.

Teaching facilities. Teaching facilities will be selected by use of suggested lists for different areas by:

1. Making list of enterprises and other units to be

taught.

2. Make list of recommended teaching needs for these enterprises or units.
3. Go over list with other teachers of Vo-Ag to get their reaction.

Teaching facilities and materials will be considered in the following groups: (1) Equipment for specific areas; (2) Audio-visual equipment; (3) Reference books and materials; (4) Farm magazines.

Classroom equipment. Classroom equipment will depend on instructional needs. The following will be considered in the plan:

1. Table and chairs.
2. Chalkboards.
3. Cabinets for bulletins, magazines, illustrative material and others.
4. Bulletin board.
5. Teacher's desk
6. Filing cabinets for bulletins and records.

Careful consideration will be given to the arrangement of all facilities to insure the most convenient and efficient use of time and equipment.

On Farm:

Who plans. The teacher, council, and students will plan these facilities.

Why. The facilities of the farm should be adequate for meeting the farm experience needs of the students in classroom instructions. The doing part of learning will be done on farm.

When. Plans for providing these facilities should be made as plans for teaching the jobs necessary to provide needed learning experiences are made.

How. When the farming program is planned early in class the teacher and students will make plans for farm facilities. These facilities will be determined by: (1) What is taught in class; (2) Who is taught in class. The students will make a detailed list of equipment needed for each enterprise or project planned for the school farm.

Laboratory:

What. The laboratory activity will be considered a part of classroom instruction. However, plans for facilities and materials must be made.

When. These plans must be made when program plans are made.

How. The teacher will assume responsibility for providing these facilities and materials. The course content and who will be taught will dictate certain laboratory needs. The following facilities appear to be desirable: (1) Soil testing; (2) Milk testing; (3) Seed germination; (4) Bacteriological testing.

In Shop:

Who. The teacher and his council will make initial plans for the shop. Members will give valuable advice on equipment needed for training those boys who want to enter the field of farm machinery sales, maintenance, and repair. Students will also have a part in planning.

When. Planning the farm mechanics program will be a part of the total program planning.

How. A meeting of the Council will be devoted to this planning. This procedure will be used:

1. Present basic data on farm mechanics situation in community.
2. Discuss and draw conclusions as to needs.
3. Secure the opinions of needs in the area of farm mechanics' service to agriculture.
4. Summarize all these into apparent needs.
5. The students will be asked to participate in class activities dealing with providing facilities and materials for the farm group.

The needs of the students will have been determined by now. These needs will dictate certain facilities needed in the farm shop. The students and teacher will make a list of these facilities and materials. This list will be checked by comparing it with a suggested list. (These lists can be secured from Agricultural Education Departments in

state universities) This student list will then be revised if needed.

Procurement. Dealers who handle recommended equipment will be asked to make prices on all equipment. The dealer giving the best price on the best quality of equipment will get to supply the equipment.

Finances. It appears that finances will be available through the operational arrangement of the school farm. That is, the farm is operated on a separate budget to that of the College. The farm arranges its own financing and receives the income from its products.

Records and Reports

A. Records

What. Records are written evidence of what has transpired. Records are necessary if intelligent reports are to be made.

Who. The teacher and his staff will keep records. Students will have opportunity to participate in keeping records of the farm enterprises. Office help will be secured from the business education department. These students do a good job.

How. Information will be recorded of the following: (1) Advisory council (members and minutes); (2) Community and farm surveys; (3) Departmental program; (4) Departmental budget; (5) Departmental policies; (6) Inventory;

(7) Accumulative records on students; (8) Publicity plans; (9) Farm operating records; (10) Farm enterprise records; (11) Records of experimental results; and (12) Follow-up job opportunities.

This information will be filed in legal size filing cabinets under appropriate headings.

The Illinois system for filing bulletins will be used.

B. Reports

What. Three kinds of reports will be made to the school administration:

1. Financial report of the total program.
2. Progress report to President and Board of Directors.
3. The annual report to the President and Dean.

How. The financial report will be made at the end of the fiscal year which is the thirty-first of August. The books will be audited at this time and an audit report made. A progress report will be made in November of each year. This is made to the President and includes: any added equipment, fixtures, livestock, buildings, and other improvements.

The annual report will be made to the Chairman of the Board of Directors, to the President, and to the Dean. This report will include: (1) community studies; (2) statement

of objectives; (3) evaluation; (4) enrollment; (5) program of work; (6) advisory council activity; (7) Ag. Club activities; (8) on farm activity; and (9) guidance and placement.

Staff

A. Teaching staff

What. This staff will be responsible for planning and conducting learning activities in classroom and on farm.

How select. The College administration will be responsible for selecting the teaching staff. However, the department head will make recommendations. These recommendations will be made after sufficient evidences are shown to make reasonable assurance that a desirable teacher is being selected. These criteria will be used:

1. Is the applicant farm reared?
2. Does he have unquestionable character?
3. Is he willing to work?
4. Is he physically fit?
5. Is he well trained in his field?
6. Is he emotionally mature?
7. Does he possess leadership ability?
8. Is he rural minded?
9. Does he possess broad interests?
10. Has he good scholastic standing with at least an M.S. degree in Agricultural Education?

This information will be secured from the training institution, former employers, people with whom he has worked and business people who know him.

Training of staff. Staff members will be required to attend school for additional training at least one summer out of every three. The staff will be employed on twelve months basis and receive pay for time in school.

B. Supervisory staff

What. This staff will be responsible for seeing that the planned farm program, as well as other phases of the program, is carried out in the absence of the teachers. They will be directly responsible to the teaching staff.

How. Men for these jobs would be more desirable if they had a college degree. However, the program will probably not be able to finance this. In that case, a man with a high school education will be the minimum. He will be well experienced in his area. The same criteria will be used for selecting supervisory staff as that for the teaching staff.

An in-service training program will be planned for this staff.

Budget

What. The budget is a plan for all needed expenses and anticipated income for the year. It will contain such

items as: (1) Salaries; (2) Teaching supplies and equipment; (3) Public relations; (4) Farm operating expenses; (5) Miscellaneous expenses.

How. This will be made a classroom activity. The students will participate extensively in the farm operating phase of the budget. This will be done in farm management.

Procedure. Previous budgets and financial reports will be studied. These will give a basis for estimating some of the cost. The budget will be broken into two parts showing a breakdown of consumable goods and additions to equipment.

Financing the Program

Who. The teacher and administration of the College will agree on plans for financing the program.

How. The operation of the farm will be under the supervision of the Agricultural Department. Any profit from this operation will be used by the department.

The students will pay a fee to the department for expendable supplies used by the students. Part of this fee will be used from time to time for reference materials.

The administration will be asked to finance the initial cost of establishing the program. However, this may be inadequate due to limited finances. In this case, a sufficient number of productive enterprises will be already established to supply some finances to the program.

CHAPTER V

FURTHER STUDIES NEEDED

This brief study has by no means answered all the questions nor solved all the problems involved in establishing a program of this kind in a Junior College. This study has been an attempt to answer enough questions to provide a basis for justifying and establishing a program at Hiwassee Junior College. The investigations made have brought to light many questions that need answering. Some of these are:

1. What is the relationship of terminal vocational agricultural training in junior college to vocational agricultural training in the high schools?
2. Should Federal Aid be extended to include training of this kind in lower division college work of a terminal nature?
3. What constitutes a good program of terminal vocational agriculture on the junior college level?
4. What are desirable techniques for determining the need for a program in a junior college?
5. What is a sound basis for deciding on the kind of course to offer (vocational or academic)?
6. How should the school farm be run in relation to

the training program?

7. What should be the relationship of the junior college to the four year college?
8. Should there be a state system of junior colleges to meet the need of students for lower division work, therefore, letting the senior college or university concentrate on upper division and graduate programs?
9. What should be considered a teacher load in a program of terminal vocational agricultural training in junior college?
10. What constitutes a good public relations program for an agricultural program in junior college.
11. Is there a place for the junior college in our educational system?
12. Are junior colleges meeting the needs of their communities?

Many questions will need answering as the program is established at Hiwassee Junior College. All of these cannot be anticipated at this time. However, as these questions demand an answer, in order for the program to function properly, an attempt will be made to answer these questions.

BIBLIOGRAPHY

BIBLIOGRAPHY

Books

- Brown, Francis J. Educational Sociology. New York: Prentice-Hall, Inc., 1947.
- Brubacher, John S. A History of the Problems of Education. New York: McGraw-Hill Book Company, Inc., 1947.
- Butts, R. Freeman. A Cultural History of Education. New York: McGraw Hill Book Company, Inc., 1947.
- Chapman, Paul W. Occupational Guidance. Atlanta: Turner E. Smith and Company, 1950.
- Dewey, John. Democracy and Education. New York: The MacMillan Book Company, 1931.
- Deyoe, George P. Supervised Farming in Vocational Agriculture. Danville, Illinois: The Interstate Printers and Publishers, 1943.
- Ekstrom, George F. and McClelland, John B. Adult Education in Vocational Agriculture. Danville, Illinois: The Interstate Printers and Publishers, 1952.
- Hamlin, Herbert M. Agriculture Education in Community Schools. Danville, Illinois: The Interstate, 1949.
- Harrighurst, Robert J. Human Development and Education. New York: Langmans, Green and Company, 1953.
- Hoppock, Robert. Group Guidance Principles, Techniques, and Evaluation, First Edition. New York: McGraw-Hill Book Company, Inc., 1949.
- Lancelot, W. H. Permanent Learning, a Study in Educational Techniques. New York: John Wiley and Sons, Inc., 1944.
- Lee, Edwin A. Objectives and Problems of Vocational Education, First Edition. New York: McGraw-Hill Book Company, Inc., 1928.
- Magill, Walter H. Administering Vocational Education. Minneapolis: Educational Publishers, Inc., 1941.

- Mays, Arthur B. Principles and Practices of Vocational Education. New York: McGraw Hill Book Company, 1948.
- Mursell, James L. Successful Teaching. New York: McGraw Hill Book Co., Inc., 1946.
- Nichols, Mark. Young Farmers. Danville, Illinois: The Interstate, 1953.
- Phipps, Lloyd J. Handbook on Teaching Vocational Agriculture, Sixth Edition. Danville, Illinois: Interstate Printing Company, 1952.
- Shartle, Carroll L. Occupational Information, Its Development and Application. New York: Prentice-Hall, Inc., 1946.
- Spears, Harold. Principles of Teaching. New York: Prentice-Hall, Inc., 1946.
- Stewart, W. F. Methods of Good Teaching. (publisher not given) 1950.
- Struck, F. Theodore. Vocational Education For a Changing World. New York: John Wiley and Sons, Inc., 1946.
- Thut, I. N. and Gerberich, J. Raymond. Foundations of Method For Secondary Schools. New York: McGraw-Hill Book Company, Inc., 1949.

Publications

- Colvert, C. C. "The Ideal Junior College Teacher," Junior College Journal, Vol. XXII, No. 9 (May 1952), 502-507.
- Crane, W. J. "Work Experience Programs in Junior Colleges," Junior College Journal, Vol. XXII, No. 8 (April 1952) 460-465.
- Eells, Walter Crosby. "Junior College Development in Japan," Junior College Journal, Vol. XXII, No. 1 (September 1951) 3-11.
- French, Albert E. "The Community College in a Rural Area," Junior College Journal, Vol. XXII, No. 5 (January 1952) 267-272.

- Martorana, S. V. "Recent State Legislation Affecting Junior Colleges," Junior College Journal, Vol. XXIV, No. 8 (April 1954) 459-471.
- Punke, Harold H. "Academic Qualifications of Junior College Faculties," Junior College Journal, Vol. XXIII, No. 7 (March 1953) 366-379.
- Redemsky, Louis W. "The Vocational Technical Aspect of Junior College Terminal Education," Junior College Journal, Vol. XXIII, No. 4 (December 1952) 219-224.
- Rice, Louis A. "The Implementation of a Student Personnel Philosophy," Junior College Journal, Vol. XXIII, No. 5, (January 1953) 245-249.
- Talley, William Pearson. "The Junior College in American Education," Junior College Journal, Vol. XXIII, No. 8 (April 1953) 423-425.

APPENDIX



Agriculture Department
Hiwassee Junior College
Madisonville, Tennessee

I hope the enclosed material and the time I am asking of you will not be a great imposition.

Would you consent to help me with this survey of your senior vo-ag boy's plans upon graduation? I have assumed that there is a need for a two year course beyond high school vo-ag. on the junior college level. This assumption is part of a thesis I am doing at the University of Tennessee under the direction of Drs. B. S. Wilson and G. W. Wieggers. Also the results will be used in our program here at the college. I will send you a copy of the results in the near future.

Sincerely yours,

Chas. W. Irons
Instructor

Ag. Dept. Hiwassee Junior College
Madisonville, Tennessee

Date _____

School _____

County _____

SURVEY OF VO-AG SENIOR'S PLANS
AFTER GRADUATION

1. Do you live on a farm? Yes ___ No ___.
2. If so, how many acres in the farm? _____.
3. Does your father own or rent? Own ___ Rent _____.
4. Do you plan to follow farming as your life work? Yes ___
No ___.
5. Will you return to your home farm? Yes ___ No ___.
6. If not, why? _____
7. Do you plan to attend college for a degree in the field
of agriculture? Yes ___ No ___.
8. If your answer is no to No. 7, would you be interested in
going two years beyond high school in a course of agri-
culture on the Junior College level? Yes ___ No ___.
9. If you do not plan to farm, are you interested in any of
the many service fields of agriculture on a non-profes-
sional basis? (A few of these are implement salesman and
repair, milk inspectors, dairy helpers, creamery special-
ists and others.) Yes ___ No ___.
10. If your answer to No. 9 is yes, what kind of employment
will you seek? _____

Agriculture Department
Hiwassee Junior College
Madisonville, Tennessee

Dear Sir:

We of the Agriculture Department of Hiwassee College need your help on a problem which will effect the training that is given to our students in the field of agriculture. We are in the process of planning a program for training young men in the service fields of agriculture. We believe we can train young men who are interested in this type of work and that with this training they will be better employees.

Enclosed is a group of nine questions to which we need answers. Would you take just a minute to write down your answers on the enclosed postal card in the spaces provided corresponding to the numbers on the question sheet? Your answers do not obligate you in any way. We are only trying to do a better job in training young men in agriculture.

Thanks in advance for your cooperation and may your business prosper.

Yours sincerely,

C. W. Irons,
Agriculture Manager

Agriculture Department
Hiwassee Junior College
Madisonville, Tennessee

Study of Agricultural Service Job Opportunities

1. Kind of business?
2. Number of employees?
3. How many men do you usually hire each year?
4. What educational requirements do you have?
5. Would it help if your employees had more training than the minimum you require?
6. What special education or training would you like for them to have?
7. Do you have any employees that need special training in the job they are doing?
8. If so, what kind of training?
9. Would you consider a prospective employee who has had special training of college level in the field of agriculture over one who has not had such training, this training on non-professional basis in a junior college?

QUESTIONS ASKED FARMERS IN COMMUNITY
ON OPINION INTERVIEW

1. Do you find it difficult to get help that is reliable and efficient?
2. Would you be willing to pay more for a man with two years additional training in junior college.
3. What special qualities would you desire in the individual?
4. What kind of training should he have?

CRANES CREST

AGRICULTURE DEPARTMENT
HIWASSEE JUNIOR COLLEGE
MADISONVILLE, TENNESSEE

June 17, 1954

Dear Sir:

Enclosed is a short survey form which I hope will not be a great inconvenience for you to fill out and return. This is part of a thesis on planning a program of agriculture training on the junior college level. I will be happy to send you a copy of the results of this survey if you desire.

Any additional information you can send along will be useful and greatly appreciated. Possibly a catalog or bulletin including your curriculum would be a great help. I will be glad to send our catalog if you will indicate you want it on the survey form.

Yours sincerely,

CHARLES W. IRONS
Charles W. Irons
Graduate Student

CWI:evl

Enclosure

CRANES CREST

Agriculture Department
Hiwassee Junior College
Madisonville, Tennessee

June 17, 1954

SURVEY FORM FOR DEPARTMENTS OF AGRICULTURE IN JUNIOR COLLEGES

Note: All questions may or may not apply to 11th, 12th, 13th and 14th years.

Please state if a two or a four year program. _____

1. When was the program established? Year _____
2. How did you determine the need for the program?
3. How do you determine needs of individual students?
4. What are the broad objectives of the program? Please list.
5. How were they arrived at? Were they printed?
6. How is your department financed?
7. Are finances adequate?
8. What minimum standards are required of the faculty and staff?
 - a. Academic degrees _____
 - b. Teaching experience _____
 - c. Farming experience _____

9. What laboratory facilities are maintained?
- a. Farm Acres
 (Yes) (No)
- b. List major enterprises
- c. Greenhouses Size
 (Yes) (No)
- d. Other
10. Do you have an advisory council?
 (Yes) (No)
11. If yes, how did you select the members?
12. What records do you keep?
- a. Student
- b. Departmental
13. Please list in this space the courses included in your program, both general and technical. A catalog or bulletin will be helpful.
14. How do you evaluate the following?
- a. The department
- b. The student
15. Percentage of students? Rural Urban

16. Where do they work after graduation?
17. What is the average number of students? _____
18. What is the average number of faculty? _____
19. What related activities do you have? Agr. Club, etc.
20. What per cent of students live within 50 miles of
campus? _____
21. Would you like to have one of our catalogs?
(Yes) (No)

CRANES ST CREST