

A COMPARISON OF SELECTED CHARACTERISTICS
OF STUDENTS ENROLLED IN TERMINAL AND
TRANSFER CURRICULA IN AGRICULTURE IN
FOUR TEXAS JUNIOR COLLEGES

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CHAPTER I

THE PROBLEM AND ITS SETTING

Introduction

The preparation of students for employment has long been a conceived function of the junior college. The changes that have occurred in the job market in recent years have direct implications to educational institutions as was reported by the President's Panel of Consultants on Vocational Education in 1963. With reference to this matter, Stewart (1) stated on page 4:

A major share of the responsibility for initial training and retraining of semi-professional skilled personnel will fall to junior colleges. Because of their two-year patterns, their flexibility in program planning, and their responsiveness to the needs of their communities, they are particularly geared to provide education for much of the technical manpower needed in the labor force.

With increased emphasis on vocational and technical training, junior colleges throughout the Nation have implemented numerous occupational-training programs for those students who do not choose to pursue a baccalaureate degree program in college, but desire college training which will enable them to obtain employment which offers satisfaction and future security. Research studies indicate that junior college students tend to be oriented toward the practical and applicable rather than the intellectual or abstract (2). The result of this is their identification and pursuit of college training which is relevant to their goals

and aspirations.

During the past five years, seven public junior colleges in the state of Texas initiated occupational training programs in agriculture to prepare students for employment in various positions in production, management, service or sales, and distribution in agriculture and agricultural related occupations after approximately two years of college training. These terminal curricula in agriculture are offered in addition to the transfer curricula in agriculture which are designed for those students who plan to pursue the baccalaureate degree in a senior college or university. The terminal programs were developed in order to supply the manpower needs of agricultural businesses in the region surrounding the junior colleges and elsewhere. Curricula in farm and ranch management, agricultural-business, irrigation technology, and agricultural-chemical technology are offered in one or more of the seven junior colleges. The curricular programs consist of technical courses in agriculture in addition to course work in supporting areas considered essential for the desired level of proficiency or knowledge. The curricula are rounded out with a complement of general education courses.

The terminal curricula in agriculture differ from the transfer curricula in that more specialized course work is required in the terminal curricula, especially during the second year of study. On-the-job training is a required part of the occupational programs in almost all of the junior colleges. Upon successful completion of the prescribed courses of study and other requirements, the student is granted the Associate in Applied Science degree.

Statement of the Problem

The junior college student who is enrolled in a terminal program of study has indicated by his choice of curriculum that he does not desire to attend college for four years, but desires the benefits to be obtained from two years of college training. Is the difference in the amount and type of college training desired a reflection of other differences between students enrolled in terminal curricula in agriculture and those enrolled in transfer curricula in agriculture?

This study proposes to determine if there are significant differences in selected characteristics of those students enrolled in terminal curricula in agriculture and those students enrolled in transfer curricula in agriculture in four Texas junior colleges.

Objectives and Hypotheses

In order to provide direction toward the attainment of the stated purpose of this study, objectives were formulated for the comparison of student characteristics in four areas. Hypotheses, stated in the null form, are submitted under the particular objective to which they apply.

The objectives of this study with applicable null hypotheses are:

Objective I. To compare selected socio-economic characteristics of the students enrolled in terminal curricula in agriculture to those of the students enrolled in transfer curricula in agriculture.

Null Hypotheses:

1. There is no relationship between the sex, age, race, marital status, and family size and type of curriculum in agriculture in which the students are enrolled.

2. There is no relationship between the level of educational attainment of the fathers and the type of curriculum in agriculture in which the students are enrolled.

3. There is no relationship between the occupational classification of the fathers of students and the type of curriculum in agriculture in which the students are enrolled.

4. There is no relationship between the population of the area where the students were reared and the type of curriculum in agriculture in which the students are enrolled.

5. There is no relationship between the size of the farms and ranches operated by parents and the type of curriculum in agriculture in which the students are enrolled.

6. There is no relationship between the income level of the parents of students and the type of curriculum in agriculture in which the students are enrolled.

7. There is no relationship between the source of family income and the type of curriculum in agriculture in which the students are enrolled.

8. There is no relationship between the type of farming operation carried on by the parents and the type of curriculum in agriculture in which the students are enrolled.

Objective II. To compare selected areas of the educational backgrounds and goals of the students enrolled in the terminal curricula in agriculture to those of the students enrolled in the transfer curricula in agriculture.

Null Hypotheses:

1. There is no relationship between the size of high school from which students were graduated and the type of curriculum in agricul-

ture in which the students are enrolled.

2. There is no relationship between the extent of enrollment in vocational agriculture in high school and the type of curriculum in agriculture in which the students are enrolled.

3. There is no relationship between the extent of participation in high school FFA and the type of curriculum in agriculture in which the students are enrolled.

4. There is no relationship between the level of achievement in high school FFA and the type of curriculum in agriculture in which the students are enrolled.

5. There is no relationship between the extent of participation in out-of-class activities in high school and the type of curriculum in agriculture in which the students are enrolled.

6. There is no relationship between the extent of participation in high school clubs or organizations and the type of curriculum in agriculture in which the students are enrolled.

7. There is no relationship between the extent of participation in high school varsity sports and the type of curriculum in agriculture in which the students are enrolled.

8. There is no relationship between awards and recognition received in high school and the type of curriculum in agriculture in which the students are enrolled.

9. There is no relationship between the extent of participation in junior college student organizations and the type of curriculum in agriculture in which the students are enrolled.

10. There is no relationship between the source of encouragement to enroll in college and the type of curriculum in agriculture in which the students are enrolled.

11. There is no relationship between the perceived major purpose in college attendance and the type of curriculum in agriculture in

which the students are enrolled.

12. There is no relationship between the highest level of education the students expect to complete and the type of curriculum in agriculture in which the students are enrolled.

13. There is no relationship between the plans of students upon completion of their junior college studies and the type of curriculum in agriculture in which the students are enrolled.

14. There is no significant difference between cumulative ranking scores of enrollees in terminal and transfer curricula for anticipated satisfaction from selected activities.

15. There is no significant difference between cumulative ranking scores of enrollees in terminal and transfer curricula for selected goals of college attendance.

16. There is no relationship between alternative plans of students if they were back in high school and the type of curriculum in agriculture in which they are enrolled.

Objective III. To compare the work experiences of the students enrolled in terminal curricula in agriculture to those of the students enrolled in transfer curricula in agriculture.

Null Hypotheses:

1. There is no relationship between the military status of the students and the type of curriculum in agriculture in which they are enrolled.

2. There is no relationship between the types of jobs at which students have worked and the type of curriculum in agriculture in which they are enrolled.

3. There is no relationship between enrollment in high school work-training programs and the type of curriculum in agriculture in which the students are enrolled.

4. There is no relationship between the occupation of the students in the year prior to present college enrollment and the type of curriculum in agriculture in which they are enrolled.

5. There is no relationship between the students' employment status and the type of curriculum in agriculture in which the students are enrolled.

Objective IV. To compare the scholastic abilities of the students enrolled in terminal curricula to those of students enrolled in transfer curricula in agriculture, as measured by quartile rank in high school graduating class, composite score on the ACT and the cumulative college grade point average.

Null Hypotheses:

1. There is no significant difference in the quartile ranks in high school graduating classes between those students enrolled in terminal curricula in agriculture and those students enrolled in transfer curricula in agriculture.

2. There is no significant difference in the mean composite score on the ACT entrance exam between those students enrolled in terminal curricula in agriculture and those students enrolled in transfer curricula in agriculture.

3. There is no significant difference in the mean cumulative college grade point average between those students enrolled in terminal curricula in agriculture and those students enrolled in transfer curricula in agriculture.

Scope of the Study

This study was made of students who were enrolled in terminal and transfer curricula in agriculture in four Texas junior colleges during the spring semester of the 1970-71 school year. A total of 356 students

were surveyed for the study. The students constituted two intact groups -- those students who were enrolled in terminal curricula in agriculture and those students who were enrolled in transfer curricula in agriculture. The study was restricted to those four junior colleges which offered a terminal curriculum in agriculture consisting of a number of courses which were not designed for transfer purposes.

The selected student characteristics which were treated in this study should not be considered as a complete profile or type description of either a terminal or transfer student enrolled in agriculture in Texas junior colleges.

Need for the Study

In the past, educational researchers have treated junior college students as a singular type from the standpoint of both educational and socio-economic background. Past research involving junior college students has mainly compared them to students in four-year colleges or universities. This type of research tends to create the idea that the junior college is an institution which attempts to duplicate the efforts of the senior college or university for the first two years of college work. Since the stated objectives of the majority of junior colleges indicate a much broader educational program in meeting the needs of a more heterogeneous population of students than that found in the senior college or university, more research should be directed toward the various subgroups of students found in junior colleges. Students enrolled in terminal or occupational-training curricula make up one such subgroup. Stewart (1) cited this need on page 4 where he stated:

Even though the need for technical manpower and the role of the junior college in its education have been recognized for some time, it is of interest to note that most of the research in higher education has centered around students who attend four-year colleges and universities or junior college students who plan

to transfer to such institutions. While students enrolled in occupation-centered curricula constitute a significant proportion of junior college enrollment, little is known about their characteristics, or about what happens to them once they leave the institution.

The occupational-training programs in agriculture in Texas junior colleges are still in a forming stage. In the development and implementation of these programs, the only considerations as to the kind of students that the training programs were to serve could be determined only as perceived by the observations and knowledge of the individuals involved in formulating the objectives of the program and designing the curricula to meet those objectives. Whether the offering of this terminal curricula attracted students which were different in a number of characteristics from the students enrolled in the transfer curricula, or provided an alternative to students who would have otherwise enrolled in a transfer curriculum has not been determined. To be able to adequately evaluate the success of these existing programs in meeting their objectives, to make meaningful changes, and to design effective new programs demands a more detailed knowledge of the students who are enrolled in occupational oriented curricula in agriculture and if and how they differ from the students enrolled in the more traditional transfer curricula.

Assumptions

Two basic assumptions to which the validity of the analyzed data in this study is subject are:

1. The responses of the students on the questionnaire were correct to the best of their ability.
2. The sample of terminal and transfer students was representative of the total population of terminal and transfer students enrolled in

the terminal and transfer curricula in the four junior colleges.

Definition of Terms

For the purpose of this study, the following definitions of terms are offered:

1. Terminal students - Junior college students enrolled in terminal curricula in agriculture.
2. Transfer students - Junior college students enrolled in transfer curricula in agriculture.
3. Terminal curricula in agriculture - Courses of study in agriculture which have been designed to prepare students for work in an agricultural related occupation upon successful completion. Courses in such a curriculum are not designed for transfer credit to a senior college or university.
4. Transfer curricula in agriculture - Courses of study in agriculture which have been designed to prepare a student pursuing a baccalaureate degree for transfer to a senior college or university.
5. Characteristic - A trait, quality, or property which distinguishes an individual or group of individuals.

CHAPTER II

REVIEW OF RELATED LITERATURE

As indicated in the previous chapter, there have been few educational studies conducted which have compared subgroups of junior college students. Most studies have treated them as intact groups in comparing the junior college student to his peer in the four-year college or universities, or in making descriptive studies of junior college students as singular groups.

Since the purpose of this study was to compare a number of selected characteristics of students enrolled in terminal curricula in agriculture and those students enrolled in transfer curricula in agriculture in four junior colleges, a review has been made of studies which provide an indication of the type of student which is found in either of the two curricula in junior colleges.

Socio-economic Backgrounds of Junior College Students

Past educational research has established that there are certain positive relationships between the socio-economic backgrounds of students, their academic abilities, and the amount of educational training they pursue. Fields (3) declared on page 272 that:

Students who possess high academic ability, who do well in high school, who come from an above-average socio-economic group and from homes in which at least one parent has been to college and in which the father is a "white-collar" worker, and who live in a college

community in an educationally advanced state are mostly likely to want a college education and have the best chance of attaining that wish. Conversely, those students who are below average in academic ability, who do not do well in high school, who come from a low socio-economic group and from homes in which neither parent has gone to college and in which the father is a laborer or a farmer, and who live a considerable distance from a college and in an educationally retarded state are unlikely to aspire to college, and even if they do, the chances are against their having the opportunity.

While college students in general tend to come from somewhat similar socio-economic backgrounds, research studies indicate that students from similar socio-economic backgrounds and having similar scholastic abilities enroll in the same types of institutions of higher learning. This would mean that junior college students would be expected to differ significantly on any number of variables from four-year college or university students.

In considering the socio-economic backgrounds of junior college students, Astin, Panos and Creager (4) reported that junior college students come from lower socio-economic status families. Their fathers tend to have lower incomes, work in lower classifications of occupations, and have less education than do the fathers of students in four-year colleges and universities.

Income Level of Parents

A study by Panos (5) of 6,860 entering freshmen students in accredited junior colleges in 1965, revealed that almost five percent of the students reported a gross annual family income of \$4000 or less, while 10 percent reported gross family incomes of \$20,000 or more annually. The modal income reported was from \$10,000 to approximately \$15,000 annually. These income levels were similar to those reported by Panos and

by Panos and Astin (6). Baird (7) reported that almost one-half of the students whose parents were in the lowest income category came from farms or open rural areas while approximately 12 percent of those students whose parents were in the lowest income category came from farms or open rural areas and approximately 12 percent of those students from the highest income families came from rural areas.

Fathers' Occupational Classification

From their study of more than 9,000 students, Medsker and Trent (8) concluded that the occupational classification of the father is an important variable in relationship to the type of college which a student attends. They stated the following on page 90:

Regardless of ability, children from professional and managerial families were mostly likely to enter universities and private colleges; students from low occupational levels, if they went to college at all, tended to go to public two-year colleges and extension centers.

Parents' Education Background

The educational level of parents is recognized as an indication of the amount of emphasis placed upon educational values and consequently upon the selection of a college to attend and the type of program in which to enroll. Panos and Astin (6) reported that more than 22 percent of junior college students' fathers had completed high school and had some college training compared to approximately 20 percent for their mothers. Almost 23 percent of the mothers had less than a high school education compared to approximately 28 percent of the fathers. Similar findings were reported by Medsker and Trent (8) and Panos (5).

Scholastic Abilities

Junior college students come from a wide range of socio-economic backgrounds which results in a wide range of academic talents within a junior college student body. From a study of more than 7,800 junior college freshmen in 1957, Seashore (9) reported that junior college freshmen were not as able scholastically as their peers in senior institutions. The median score on college entrance exams reported for junior college freshmen was near the twenty-fifth percentile for senior college freshmen. Similar trends were reported by Hoyt and Munday (10). From a sample of more than 25,000 junior college students they reported that the junior college students tend to average about 0.5 standard deviation below four-year college students on the composite of the ACT.

Junior college students' high school grade point average were found to be about one-third grade point lower than the high school grade point averages of four-year college students. Hoyt and Munday (10) concluded that there is a greater diversity of academic ability among junior college students than their peers in four-year colleges and universities.

Medsker and Trent (8) reported that a smaller percentage of junior college students came from the top two quintiles of their high school graduating classes, while a larger percentage came from the bottom two quintiles. These studies support the conclusion of Richards and Breskamp (11) that academically less able students go to two-year colleges.

Hall (12) conducted a study of achieving and non-achieving freshmen from different socio-economic backgrounds in a California junior college. On the College Qualification Tests, students from the lower socio-economic class and Mexican-Americans scored significantly lower

than did students from the middle class. In actual college work, much greater success was achieved by the middle class students.

Hall (12) also attempted to measure the motivation to achieve as a distinguishing characteristic between achievers and nonachievers. From his findings, he concluded that achieving lower class students had a higher need to achieve than did achieving middle class students. Because of the low level of academic achievement among the lower class students, Hall (12) suggested the need for special remedial and academic curricula which are more in line with the needs and aspirations of the students.

Participation and Achievement in School Activities

The interests of college students can be assessed from their participation in school clubs or activities in which they participate, either in high school or college. The literature reveals that few studies have compared the junior college student to his senior college or university peer from the standpoint of participation in school clubs or activities in either high school or college.

Panos and Astin (6) reported that senior college and university freshmen had more than twice as many secondary school achievements in practically all school activities. The only category in which junior college students had achieved at a level more similar to the senior college and university students was in varsity sports. Of the more than 40,000 freshmen surveyed, 42.3 percent of the junior college group had earned a varsity letter in sports while 44.6 and 56.4 percent, respectively, of the university and senior college students had earned a letter.

Baird, Richards, and Shevel (13) reported similar trends for parti-

icipation in junior college activities as those reported by Panos and Astin (6). They (13) stated the following on pages 58 and 59 about participation in college activities by junior college students:

Participation in departmental clubs and intramural athletics is fairly common, but participation in other areas is uncommon, especially in debate, acting and service clubs. These results suggest that many two-year college students are active participants in some extracurricular activity, but that achievement in the form of some public recognition of accomplishment is rare.

Richards and Braskamp (11) concluded that junior college students are less talented both academically and non-academically when they stated on page 80 that ". . . two year colleges tend to have less talented students than four-year colleges regardless of how talent is defined."

Baird (7) found achievement to be highly related to family income. He reported that in all cases except dramatic art, the number of achievements increased with family income.

In comparison of college-bound high school students to non-college bound students, Schoenfeldt (14) reported that college-bound high school students are less active socially than non-college students, but they spend more hours per week studying and are involved to a greater degree in school activities. In relationship to this, Cooley and Becker (15) reported that junior college students are more like non-college students in ability measures but more like college students in socio-economic variables.

Educational Aspirations and Related Factors

The decision to attend college, the type of college to attend and the curriculum in which to enroll are influenced by the educational aspirations of students. It is somewhat difficult to separate educational

and occupational aspirations since in the case of many college students, one is a reflection of the other. It is highly unlikely that any college student has exactly the same motives for college attendance as any other college student. Knoell (16) asserted on pages 73-74:

High school graduates enter college with a vast range of goals, interests, motivations and values. Some come with specific educational goals which they established many years earlier - e.g., medicine and teaching. Others seek only general education with no particular commitment to working for a degree. Still others, particularly in junior colleges, enter with no real goals and sometimes with little motivation for further education.

With the vast number of educational goals of students in institutions of higher learning, students enrolled in particular types of institutions and curricula within these institutions can be expected to have certain common goals which have been developed as a result of common backgrounds and experiences. Junior college students can therefore be expected to aspire to different goals in their educational experience than do the four-year college or university students. These aspirations should reflect different values and purposes in college attendance.

Richards and Braskamp (11) stated on page 80:

Students entering junior college are influenced more by practical considerations and less by intellectual or social emphasis in choosing their college. Similarly, they are more concerned with the instrumental value of college for a higher income and less concerned with personal and intellectual development.

A number of studies indicate that junior college students have high educational aspirations. Panos and Astin (6) reported that 74 percent of the junior college freshmen surveyed stated that they planned to obtain the baccalaureate degree. Of this number, 50 percent expressed plans for study beyond the bachelor's level. Similar findings were re-

ported by Baird, Richards and Shevel (13) from their study of junior college sophomores. These findings support the observation of Panos (5) that junior college students have unrealistically high aspirations in that more than 62 percent of the junior college sophomores who expressed definite plans for transferring to a senior institution, about one-third of them did not have the grade required to be able to transfer.

Lubick (17) conducted a study of more than 1,200 entering freshmen students in a California junior college to determine the factors which influence the choice of objectives and the type of objectives of the students. He reported that 34 percent of the freshmen were undecided as to what their occupational objectives were. Medsker and Trent (8) reported that junior college students were somewhat later in making a vocational choice by the end of their senior year of high school or had made their vocational choice during their senior year, while 43 percent and 36 percent, respectively, of senior college and university students made their vocational choices during this same period of time. This characteristic of late decision is also reflected in the time prior to actual college enrollment that the students decided to attend college. Junior college students and four-year college students were very similar in this factor since 30 and 32 percent, respectively, did not decide to attend college until their junior or senior year of high school, compared to only 18 percent of the university students.

The study by Medsker and Trent (8) indicates that the university student has thought about college much longer than either the junior college or four-year college students. It further points out that the junior college and four-year college students do not discuss the importance of college or receive as much advice and encouragement from teach-

ers and parents as did university students. The perception of the importance of a college education to junior college and four-year college students was at a much lower level than that expressed by the university students. The same trend was found for expressed satisfaction of high school.

Another factor which is related to the educational aspirations of college students is the type of program of study which they followed in high school. Medsker and Trent (8) reported that twice as many junior college as university students had enrolled in vocational or commercial-business programs in high school. A smaller number of junior college students had enrolled in college preparatory programs than had four-year college or university students.

The socio-economic background is recognized as a variable which influences the ambitions, aspirations, goals, and achievements of individuals in every facet of life, education particularly. Baird's (18) survey of more than 18,000 college bound students offers an insight into the relationship between the educational goals of the students and a number of other factors. It was found that the two most important general goals of students were to secure vocational and professional training and the development of mental and intellectual abilities. Baird (18) indicated that students whose major goal was to earn a higher income came from low income families and rural backgrounds; had the lowest high school grades; had low mean scores on the ACT; had experienced less achievement in non-academic areas; selected their college because of location, friends attending or athletic programs rather than intellectual qualities; and did not expect to participate in school clubs or student government.

Students whose major educational goals were of the nature of intellectual or personal development such as developing a philosophy, personality or mind tended to have obtained high scores on the ACT and had high grades in high school; plan to engage in student organizations; chose majors in social and political sciences, the arts, and humanities; and were concerned with the intellectual quality, reputation, and facilities of the schools which they selected. Students who expressed the goal of becoming a cultured person were from high income families and were concerned with the nature of the atmosphere of the school with regard to social opportunities such as the presence of sororities or fraternities. These students had moderately low ACT scores and average high school grades (18).

Students whose major educational goal was to secure vocational or professional training tended to come from lower income families; have wide variations in high school grades and ACT scores; be average in non-academic achievements; be influenced by special curricula in the choice of a college; and were the least undecided about a major field of study than all groups studied (18).

The degree to which the educational aspirations of junior college students are being fulfilled is, to some extent, dependent upon the nature of the goals the students hope to attain. The junior college student whose goal in attending college is to become a more well-rounded individual through the development of his personality, philosophy, or cultural enlightenment, would more likely feel that his educational experiences were leading to the accomplishment of his goals than would the individual who is attending college to be able to obtain a higher-paying job. Baird (18) stated on pages 26-27:

. . . the student who wants vocational or professional training from college will often expect college to provide him with specific instruction. He may expect answers, facts and skills which he thinks are needed for the job. He may feel that courses in English, social studies and the humanities are irrelevant to his goals. He may prefer the structure and detailed facts of vocational instruction to the ambiguous and abstract quality of general education.

Another factor which influences, at least partially, the realization of the educational goals or aspirations of junior college students is how closely the goals of the junior college, whether expressed or implied, are aligned to the goals of the majority of her students. It has been established that junior college students as a group tend to fall in the lower income families. They have had fewer recognized achievements than their peers in universities and the desire for recognition itself through academic achievement becomes a need, according to Hall (12) who stated on page 6:

The relatively high need to achieve scores of both lower socio-economic status subgroups (Mexican-American and all others) combined with the observation of the relative proportion of lower- and middle-class students who achieve academically, suggests that the junior college is either not providing curricula which meet the need of many of the students or that many of those persons working in junior colleges have not determined how their institutions may effectuate the aims for the junior college which have been generally accepted. Whatever the cause, a larger proportion of lower-class junior college entrants may be presumed to have experienced frustration and disillusionment in their aspirations to obtain post high school education.

Curriculum Choice

The choice of a curriculum by a college student is determined largely by the goals of the student. Stewart (1) concluded from his survey of students enrolled in 43 curricula in 20 California junior colleges

that curriculum choice is a systematic process since students with similar characteristics, as measured by the Omnibus Personality Inventory and Interest Assessment Scale, made similar decisions. Stewart (1) observed that interest variables were more closely related to curriculum choice than the personality variables.

Persistency and Related Factors

An acute problem in junior colleges nation wide is that of high student attrition rate. The junior college has been designated the institution which is best suited to meet the post-secondary educational needs of the masses of people. Yet, the high drop-out rate experienced by junior colleges had made questionable their success in fulfilling their objectives.

The drop-out problem is felt in all curricula in junior colleges, but it is especially noticeable in occupational curricula. If, as expressed by Armsby (19), the success of a program or an institution is measured by its holding power, then many factors apparently thwart the goals of the students in junior college occupational curricula. Thornton (20) sees the attrition problem as the result of a number of interesting factors. He stated on page 194:

One of the most pressing issues in occupational education continues to be that of helping students to choose the course of study for which they are best fitted. Some degree of error is avoidable; some degree is unavoidable; some students must be permitted to attempt a curriculum in which their success seems unlikely. A good deal of disproportion between ambition and achievement however, derives from inadequacies of junior colleges. In part, there is a failure to provide a suitable diversity of non transfer courses. . . . A second inadequacy lies in the failure to inform students and their parents, early in their high school careers,

of the availability and of the purposes of junior college occupational education. A good many students would choose their programs realistically if only they had appropriate information. Lack of effective personal guidance is another contributor to failure and drop-out. Students who are helped to see the relationship between their pattern of interests and abilities and the requirements of available occupations and of educational programs are enabled to choose wisely. Without such information, their choices must be blind and almost haphazard.

A number of studies have yielded some descriptive data which, although not conclusive, give some indication of the factors associated with persistency in college. Cohen, Brower and Connor (21) surveyed 259 entering freshmen in a large California junior college in an attempt to identify characteristics related to dropout. Their study did not reveal any major differences between the drop-out and the persister. However, it did indicate that the drop-outs were enrolled in less than a full-course load which the researchers concluded was an indication of less commitment to college work. The study also reported that drop-outs had attended more schools before the tenth grade which was an indication of family instability and the early establishment of a pattern of non-completion in educational endeavors (21).

Summerskill (22) and Medsker and Trent (8) reported that the drop-out rate is greater among students whose fathers were employed in skilled, semi-skilled or service occupations. This tends to indicate that students whose parents work in professional and managerial occupations place greater emphasis upon the importance of college education. Trent and Medsker (23) reported that a significantly higher percentage of the college persisters reported parental encouragement to attend college than did the college drop-outs.

The previously discussed factors contribute to the moulding of the

ambition and aspirations of the student in college and his expectation of college work. Trent and Medsker (23) concluded that persisters in college were more concerned and involved in their education both prior to and after entrance into college. They tended to see college training as being much broader in purpose than simply vocational training and expressed greater satisfaction with the results of their education.

Another area which is of considerable importance in dealing with the college dropout is that of academic ability. As has been indicated by Medsker and Trent (8), the students with higher ability make up a greater percentage of the college student population and can therefore be expected to have a high dropout rate percentage-wise. It was concluded that scholastic ability was not an absolute criterion for persistence, but that there is a strong general relationship between them. Summerskill (22) reported that dropouts have lower grades than college graduates.

When considering the paramount reason for dropping out of college, the literature does not indicate that a single factor is responsible. Combs (24), Summerskill (22), and Moorehead (25) reported that the most common reasons given by dropouts were lack of interest in studies, failure, financial difficulties and accepting a full-time job, and marriage plans. It would appear that each of these factors is related to dropout in a cause and effect pattern. In discussing this topic on page 74, Knoell (16) stated:

Decisions of individual students to withdraw and institutional rates of attrition both are a function of the interaction of student input (ability, interests, age, sex, motivation), the curriculum, methods of instruction, grading and retention standards, intellectual and other climates, student personnel services activities, and finally outside impinging forces such as family, national crises, and accidents. Programs

designed to change one or more of these factors should result in a change in volume and nature of attrition in particular situations.

The Junior College Transfer and Terminal Students

While the transfer function of junior colleges is vital, yet the junior college plays a far greater role in meeting the educational gaps left between the high school and the college or university as was indicated by Synder (26). While the student enrolled in occupational curricula makes up a significant percentage of the junior college enrollment, surprisingly few research studies are available to indicate how or if the terminal student differs from the transfer student in socio-economic status, scholastic ability, educational aspirations, as well as other characteristics.

In studying the background characteristics of students who reported plans for entrance into vocational-technical programs, Fenske (27) reported that students who planned to attend college, whether in a vocational-technical program or some other program, tended to rank in the highest 30 percent in scholastic ability and achievement, had one parent who had attended college, and a father who worked in a "white-collar" occupation. The non-college bound student tended to rank in the lowest 30 percent on at least one scholastic measure, had one parent with no higher than an eighth grade education, and a father who worked in a "blue-collar" occupation. Fenske (27) pointed out on page 93 that:

. . . the profile of the "typical" vo-tech senior remained indistinct; rank on scholastic ability was nearly as likely to be in the highest 30 percent as in the lowest 30 percent. There was no strong identity with a particular level of parental educational attainment or with the status of the father's occupation. The vo-tech senior remained amorphous when measured by the variables useful in describing other types of

seniors.

In comparing the ACT scores and the high school and college grade point averages of terminal and transfer students in five junior colleges in three states, Munday (28) concluded that the terminal and transfer students were more alike in academic ability than different. He reported a slight difference in the composite scores on the ACT and in high school grade point averages. Seashore (9) concluded that terminal students were distinctly less able academically than transfer students, based upon scores on the College Qualification Tests.

Fenske (27) reported a negative relationship between vocational-technical student plans and parental factors. He reported that of those students whose parents ranked high in both educational and occupational status, less than 10 percent expressed plans for post-high school vocational-technical training, while for those whose parents ranked low in educational and occupational status, almost 27 percent reported plans for post-high school vocational-technical training. Fenske (27) further concluded that high ability students from low socio-economic status backgrounds have a high tendency to select vocational-technical training after high school, as do those students having low scholastic ability and coming from high socio-economic status backgrounds.

In comparing more than 11,000 transfer and vocational students in 42 North Carolina community colleges and technical institutes, Bolick (29) reported that the typical transfer student was male, single, Caucasian, between 18 and 19 years of age, enrolled in academic curriculum in high school, and attended classes from 17 to 19 hours per week. The typical vocational student was described as being male, single, Caucasian, between the ages of 18-22 years (one-third were 26 years of age or more),

had been enrolled in a general curriculum in high school, attended classes more than 25 hours per week, and was probably employed at a full-time job. Of the students included in this survey who were enrolled in occupational programs in agriculture, two-thirds of them were between the ages of 19-22 years, more than 90 percent were Caucasian, 90 percent were males, and 86 percent were single.

The annual family income reported by transfer students was more than \$6,000 compared to more than \$4,000 for the vocational students. Of those students enrolled in occupational programs in agriculture, 20 percent reported annual family incomes of less than \$4,000 while 13 percent reported incomes of \$10,000 or more. The mother of the typical transfer student had graduated from high school and the father had not. Both parents of the typical vocational student had less than twelve years of formal education.

Summary

The literature indicates that junior college students are a much more diversified population of students than are four-year college or university students. When compared to the four-year college or university students for a particular characteristic, the junior college students generally reflect a much wider range of differences for that characteristic.

Junior college students tend to come from lower socio-economic status backgrounds than do senior college or university students. Their parents usually work at jobs in the lower occupational classification, have lower incomes, and have had less formal education than the parents of the senior college or university students. Junior college students

as a group tend to be scholastically less able than senior college or university students as measured by the more common tests of scholastic aptitude and other indicators. The junior college student has generally not experienced the degree of success or achievement in all school activities, with the exception of athletics. Compared to the senior college or university student, he has less definite objectives in mind for college attendance or a vocational choice. The junior college student has not received the same amount of encouragement or advice from his parents, teachers, or counselors as has the university student. The causative factors associated with the high drop-out rates of junior college students are not clearly established. Dropout is apparently the result of the interaction of a number of factors. However, there are indications that drop-out is greater among students from homes where less emphasis is placed upon the importance of a college education. The persisters is and has been more involved in his educational experience and has broader objectives in college attendance than for occupational training.

CHAPTER III

DESIGN AND CONDUCT OF THE STUDY

Introduction

This chapter describes the sampling techniques used for this study in addition to discussing the methods and procedures used in collecting and analyzing the data.

The Study Sample

Since the purpose of this study was to compare selected characteristics of students enrolled in terminal curricula in agriculture to those of students enrolled in transfer curricula in agriculture in Texas junior colleges, the researcher made a preliminary investigation early in 1970, to determine which junior colleges in the state offering courses of instruction in agriculture offered both transfer and terminal curricula. From this investigation, it was determined that seven junior colleges offered both transfer and terminal curricula in agriculture. A further study was made of the descriptions of agriculture courses given in the college catalogues of the seven junior colleges to determine if and how the courses offered in the terminal curricula differed from those offered in the transfer curricula. This study revealed that four junior colleges offered terminal curricula in agriculture which consisted of a number of courses in agriculture which were different from those listed in the transfer curricula and were not designed for transfer credit to

a senior college or university. The terminal curricula in agriculture of the other three junior colleges consisted of the same courses which were offered in the transfer curricula. This meant that a student enrolled in such a program of study could have declared himself to be a terminal student, yet if he desired, he could transfer to a senior institution without loss of credit hours in agriculture courses which he had satisfactorily completed in the junior college. The terminal courses in agriculture in the four junior colleges having the more distinct terminal curricula were identified in the college catalogues as being of a terminal nature by such terms as "technical." Therefore, the acceptance of such courses for transfer credit toward a baccalaureate degree would be left to the discretion of senior colleges and universities. The students who were enrolled in transfer and terminal curricula in agriculture in the four junior colleges having distinctly separate curricula were selected for the study population.

This study was based upon a total sample of 355 students. Of this number, 158 students were enrolled in the terminal curricula in agriculture in the four selected junior colleges, while 197 students were enrolled in transfer curricula in agriculture in the four institutions.

Collection of Data

This study compared two intact groups of students enrolled in four junior colleges on a number of characteristics which were treated as variables. Since the vast majority of the characteristics treated could only be determined from information which the students could supply, a questionnaire was designed to secure this information. In an attempt to locate and correct any apparent weaknesses in the questionnaire, the re-

searcher administered it to 50 students enrolled in courses in agriculture in a Texas junior college which was not included in the study sample. The questionnaire was also evaluated by the staff of the Department of Agricultural Education at Oklahoma State University and suggested changes were made. The questionnaire is shown in Appendix A.

On December 9, 1970, the questionnaire was mailed in quantity from Texarkana, Texas, to instructors in agriculture in both the terminal and transfer programs in the four junior colleges used for the study. These instructors had agreed to assist in conducting the study when it was being considered by the researcher. They had been given information and instructions about the study and obtaining the sample both in written communication and by way of telephone conversations prior to the time that the questionnaires were mailed to them.

The cooperating instructors administered the questionnaires to students enrolled in their classes, collected them from the students and returned them to the researcher. The study sample did not include all of the students enrolled in either of the two curricula since all students were not enrolled in the classes surveyed, some students were absent at the time the questionnaire was administered, and other reasons unknown to the researcher.

Other necessary information needed for the study was supplied to the researcher by the admissions offices of the four junior colleges. Records were not complete for all of the students sampled.

Analysis of the Data

Because of the highly varied nature of research, different scales or levels of measurement are recognized. The commonly cited levels of

measurement in educational research are nominal, ordinal, and interval scales. According to Guilford (30), nominal scale involves classification or assignment to a distinguishable class, while ordinal scale involves ordering of classes on a continuum and saying that one class is higher on the continuum than another without saying how much higher. Interval scale is still a higher and more exact level of measurement because the exact sizes of intervals between subjects can be determined and inferences can be made from them.

Various data treated in this study was measured at all three scales of measurement. However, most of the data was descriptive in nature and involved frequency counts for various student characteristics. Because of the varied nature of the data, a single statistical test for significance could not be used.

Statistical Treatment

This study compared terminal and transfer students enrolled in curricula in agriculture on a number of characteristics which were treated as variables. With the exception of the comparisons of scholastic abilities, the data was grouped into frequency distributions. In an attempt to gain as much information as possible from the data, percentages have been reported for all measures in addition to the appropriate statistical tests for significance.

The comparison of non-quantitative characteristics of the two study groups constituted a logical test of relationship between the student characteristics and the type of curriculum in agriculture in which they were enrolled. For this type of data, the chi-square test, as described by Guilford (30) on pages 227-236, was used to determine if a significant

relationship existed between the two variables. Chi-square values at the .05 level of significance were accepted as the basis for acceptance or rejection of each formulated hypothesis. The contingency coefficient, as described by Guilford (30) on pages 338-339, was computed for all Chi-square values which were significant. This coefficient indicates the degree of the relationship between the two variables. The formulae for computing Chi-square and the contingency coefficient are shown in Appendix B.

Since the study population was made up of two groups, the t test, as described by Popham (31) on pages 129-158, was utilized to test for significant differences between the group means for rating scores for the importance of goals of college attendance, ranking scores for expected satisfaction from selected activities, quartile rank in high school graduating classes, ACT composite scores, and college grade point ratios. The .05 level of significance was used as the level for acceptance or rejection of each of the formulated null hypotheses. The formula used for the computation of the t test is shown in Appendix B.

A number of items in the questionnaire allowed students to make multiple responses to different categories. Comparisons made for these and certain other data were made by determining the percentage of the total number of students in each category and then comparing the percentage difference between the two groups. For this study a percentage difference between terminal and transfer students of 20 percent or more was considered significant.

CHAPTER IV

PRESENTATION AND ANALYSES OF DATA

Introduction

The purpose of this study was to determine if there are significant differences in selected characteristics of students enrolled in terminal curricula in agriculture and those students enrolled in transfer curricula in agriculture in four Texas junior colleges. Specifically, the two groups of students were compared for selected socio-economic characteristics, educational backgrounds and goals, work backgrounds, and scholastic ability.

Data for the study were collected by means of a structured questionnaire which was administered to a total 356 students enrolled in terminal curricula and transfer curricula in agriculture in four Texas junior colleges.

Data treated were of such nature that analyses by both parametric and non-parametric statistical tests were deemed appropriate. Statistical tests used were the chi-square, contingency coefficient, and t Test. Frequency counts and percentages comparing the terminal and transfer students on the selected characteristics are shown in various constructed tables. Not all students responded to every item on the questionnaire since certain items did not apply to all students and because for unknown reasons, students did not respond to different items. Students could make more than one response on a number of items on the question-

naire. Tables including data related to these items which permitted multiple responses have been identified at the bottom of each table.

Personal Characteristics of the Students
Enrolled in Terminal and Transfer
Curricula

The number of students sampled in each of the four junior colleges, their enrollment classification and sex are shown in Table I. Numerically, the sample consisted of 159 students enrolled in terminal curricula and 197 students enrolled in transfer curricula. The two groups differed very little in the proportion of total students in each group which were classified as freshmen and sophomores. As revealed in Table I, 62 percent and 59.7 percent of the terminal and transfer students, respectively, were freshmen and 38 percent and 40.3 percent, respectively, were sophomores. The sex classification of the two groups, likewise, did not differ significantly. All of the transfer students sampled were males and only one female was enrolled in a terminal curriculum in agriculture.

Selected Socio-Economic Characteristics of
Students Enrolled in Terminal and
Transfer Curricula

The socio-economic characteristics which were considered in this study are concerned mainly with personal characteristics of the students, characteristics of their parents and families, income level and sources, type and extent of farming operations of parents, and areas where reared. The chi-square test and contingency coefficient were used to test the formulated null hypotheses.

TABLE I

NUMBER OF STUDENTS SAMPLED IN FOUR TEXAS JUNIOR COLLEGES, THEIR ENROLLMENT CLASSIFICATION AND SEX BY TYPE OF CURRICULUM IN AGRICULTURE

| Junior College | Type of Curriculum | | | | | |
|--------------------------------------|--------------------|-------|----------|-------|--------|-------|
| | Terminal | | Transfer | | Totals | |
| | N | % | N | % | N | % |
| A | 36 | 22.6 | 30 | 15.2 | 66 | 18.5 |
| B | 51 | 32.1 | 101 | 51.3 | 152 | 42.7 |
| C | 43 | 27.0 | 45 | 22.8 | 88 | 24.7 |
| D | 29 | 18.2 | 21 | 10.7 | 50 | 14.0 |
| Total | 159 | 100.0 | 197 | 100.0 | 356 | 100.0 |
| Enrollment Classification | | | | | | |
| Freshmen | 98 | 62.0 | 117 | 59.7 | 215 | 60.7 |
| Sophomore | 60 | 38.0 | 79 | 40.3 | 139 | 39.3 |
| Total | 158 | 100.0 | 196 | 100.0 | 354 | 100.0 |
| Sex | | | | | | |
| Male | 158 | 99.4 | 197 | 100.0 | 355 | 99.7 |
| Female | 1 | 0.6 | 0 | 0.0 | 1 | 0.3 |
| Total | 159 | 100.0 | 197 | 100.0 | 356 | 100.0 |

Age of Students

Presented in Table II is an analysis for the ages of students enrolled in terminal and transfer curricula in agriculture. The percentage of students in each of the age categories for the two groups did not differ greatly. Of terminal students, 58.2 percent were between the ages of 17 and 19 years of age, compared to 61.7 percent of the transfer

students. Those from 20 to 22 years of age represented 33.5 percent of the terminal students and 31.1 percent of the transfer students. The mean ages of terminal and transfer students were 19.6 and 19.7 years, respectively. The slight difference was probably due to the greater number of transfer students who were 26 years or above in age.

TABLE II
AGE BY TYPE OF CURRICULUM IN WHICH ENROLLED

| Age (In Years) | Type of Curriculum | | | | | |
|----------------------------|--------------------|--------|----------|--------|-------|-------|
| | Terminal | | Transfer | | Total | |
| | N | % | N | % | N | % |
| 17 - 19 | 92 | 58.2 | 121 | 61.7 | 213 | 60.2 |
| 20 - 22 | 53 | 33.5 | 61 | 31.1 | 114 | 32.2 |
| 23 - 25 | 12 | 7.6 | 10 | 5.1 | 22 | 6.2 |
| 26 or above | 1 | 0.6 | 4 | 2.0 | 5 | 1.4 |
| Total | 158 | 100.00 | 196 | 100.00 | 354 | 100.0 |
| Mean age | 19.6 | | 19.7 | | | |
| Standard Deviation | 1.67 | | 2.49 | | | |
| t = .22 (P.05 \geq 1.96) | | | | | | |

The t value of -0.22 with 194 and 157 degrees of freedom was not significant at the .05 level. The null hypothesis was, therefore, accepted.

Race of Students

The classification according to race of students enrolled in ter-

minal and transfer curricula in agriculture is presented in Table III. Collation of data presented in this table reveals that terminal and transfer students differed very little in race classification. Of terminal students, 95 percent were White, 1.3 percent were Negro, and 1.9 percent Mexican-American or American Indian. The transfer students were 95.4 percent White, 2.0 percent Negro, and 2.6 percent Mexican-American and American Indian.

TABLE III
RACE BY TYPE OF CURRICULUM IN WHICH ENROLLED

| Race | Type of Curriculum | | | | | |
|------------------|--------------------|------|----------|------|-------|------|
| | Terminal | | Transfer | | Total | |
| | N | % | N | % | N | % |
| White | 151 | 95.0 | 187 | 95.4 | 338 | 95.2 |
| Negro | 2 | 1.3 | 4 | 2.0 | 6 | 1.7 |
| Mexican-American | 1 | 0.6 | 1 | 0.6 | 2 | 0.6 |
| American Indian | 2 | 1.3 | 4 | 2.0 | 6 | 1.7 |
| Others | 3 | 1.9 | 0 | 0.0 | 3 | 0.9 |
| Total | 159 | | 196 | | 355 | |

Chi-Square = 0.44

χ^2 at .05 level = 3.84

The chi-square value of 0.44 with one degree of freedom was not significant at the .05 level. Therefore the null hypothesis that there is no relationship between the race of students and the type curriculum in which the students are enrolled was accepted.

Marital Status

An analysis of data related to the marital status of the students enrolled in terminal and transfer curricula in agriculture is shown in Table IV. This indicates that 86.2 percent and 91.3 percent of the terminal and transfer students, respectively, were single. The percentage of married terminal students (13.8 percent) represented more than twice the percentage of the married transfer students (6.1 percent).

TABLE IV
MARITAL STATUS BY TYPE OF CURRICULUM
IN WHICH ENROLLED

| Marital Status | Type of Curricula | | | | Total | |
|-----------------------|-------------------|-------|----------|------|-------|------|
| | Terminal | | Transfer | | N | % |
| | N | % | N | % | N | % |
| Single | 137 | 86.2 | 179 | 91.3 | 316 | 89.0 |
| Married | 22 | 13.8 | 12 | 6.1 | 34 | 9.6 |
| Separated or Divorced | 0 | 0.0 | 5 | 2.6 | 5 | 1.4 |
| Widowed | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Total | 159 | 100.0 | 196 | | 355 | |

Chi-square = 2.39

χ^2 at .05 level = 3.84

The chi-square value of 2.39 with one degree of freedom was not found significant at the .05 level. The null hypothesis that no significant relationship existed between the marital status of the students and the type of curriculum in which they were enrolled was, therefore,

accepted.

Family Size

Presented in Table V is an analysis of the family size of students enrolled in terminal and transfer curricula in agriculture. Of the twenty-one married terminal students, 14 (8.9 percent) had no children and seven (4.4 percent) had one child. For the thirteen married transfer students six (3.1 percent) had no children, three (1.5 percent) had one child, and four (2.1 percent) had two children. The percentage differences between the family sizes of the two groups were not adjudged significant.

TABLE V
FAMILY SIZE BY TYPE OF CURRICULUM

| Family Size | Type of Curriculum | | | | Percentage Difference |
|--|--------------------|-------|----------|-------|-----------------------|
| | Terminal | | Transfer | | |
| | N | % | N | % | |
| Husband & wife | 14 | 8.9 | 6 | 3.1 | + 5.8 |
| Husband, wife, one child | 7 | 4.4 | 3 | 1.5 | + 2.9 |
| Husband, wife two children | 0 | 0.0 | 4 | 2.1 | - 2.1 |
| Husband, wife three children | 0 | 0.0 | 0 | 0.0 | 0.0 |
| Husband, wife, more than three children | 0 | 0.0 | 0 | 0.0 | 0.0 |
| Unmarried | 137 | 86.7 | 182 | 93.3 | - 6.6 |
| Total | 158 | 100.0 | 195 | 100.0 | |

Another consideration which was given to the size of the families of students enrolled in terminal and transfer curricula in agriculture was the number of siblings of students. As presented in Table VI, the numbers of brothers and/or sisters for the two groups were quite similar. Analysis reveals that 5.7 percent, and 5.1 percent, respectively, of the terminal and transfer students have no brothers and/or sisters while 9.1 percent and 11.8 percent, respectively, have five or more brothers and/or sisters. The majority of both transfer and terminal students have from one to three siblings since 70.4 percent of the terminal students and 73.3 percent of the transfer reported this number.

TABLE VI
NUMBER OF SIBLINGS BY TYPE OF CURRICULUM IN WHICH ENROLLED

| Number of Siblings | Type of Curriculum | | | | Total | |
|--------------------|--------------------|-------|----------|-------|-------|-------|
| | Terminal | | Transfer | | N | % |
| | N | % | N | % | N | % |
| None | 9 | 5.7 | 10 | 5.1 | 19 | 5.4 |
| One | 36 | 22.6 | 46 | 23.6 | 82 | 23.2 |
| Two | 37 | 23.3 | 50 | 25.6 | 87 | 24.6 |
| Three | 39 | 24.5 | 47 | 24.1 | 86 | 24.3 |
| Four | 23 | 14.5 | 19 | 9.7 | 42 | 11.9 |
| Five | 5 | 3.1 | 9 | 4.6 | 14 | 4.0 |
| Six | 3 | 1.5 | 2 | 1.0 | 5 | 1.4 |
| Seven | 1 | 0.6 | 7 | 3.6 | 8 | 2.3 |
| Eight or More | 6 | 3.9 | 5 | 2.6 | 11 | 3.1 |
| Total | 159 | 100.0 | 195 | 100.0 | 354 | 100.0 |

Chi-square = 2.51

χ^2 at .05 level = 12.59

A chi-square test yielding a value of 2.51, having six degrees of freedom, was adjudged not significant at the .05 level. The null hypothesis that there is no relationship between the family size and the type of curriculum in agriculture in which the students are enrolled was accepted.

Level of Educational Attainment of Fathers

Shown in Table VII is the level of educational attainment of the fathers of students enrolled in terminal and transfer curricula in agriculture. Findings presented in Table VII reveal that 59 percent of the fathers of transfer students have completed at least a high school education compared to 50.6 percent of the fathers of terminal students. Likewise it was found that 41 percent and 49.3 percent of the fathers, respectively, have attained less than a high school education. The greatest percentage difference between the two groups in a single category was in the percent of fathers who are college graduates. Almost three times as many transfer students' fathers (9.5 percent) graduated from college than did the fathers of terminal students (3.3 percent)

The chi-square test yielded a value of 8.06 which with six degrees of freedom was not significant at the .05 level. The null hypothesis that there is no relationship between the level of educational attainment of the fathers of students and the type of curriculum in which the students are enrolled was therefore, accepted.

TABLE VII
LEVEL OF EDUCATIONAL ATTAINMENT OF FATHER BY TYPE OF CURRICULUM

| Level of Educational Attainment of Father | Type of Curriculum | | | | | |
|--|--------------------|--------------|------------|--------------|------------|--------------|
| | Terminal | | Transfer | | Total | |
| | N | % | N | % | N | % |
| Attended elementary school | 8 | 5.3 | 9 | 4.7 | 17 | 5.0 |
| Elementary school graduate | 21 | 14.0 | 16 | 8.4 | 37 | 10.9 |
| Attended high school | 45 | 30.0 | 53 | 27.9 | 98 | 28.8 |
| High School graduate | 50 | 33.3 | 69 | 36.3 | 119 | 35.0 |
| Attended college, less than two years | 14 | 9.3 | 14 | 7.4 | 28 | 8.2 |
| Attended college two years | 7 | 4.7 | 11 | 5.8 | 18 | 5.3 |
| College graduate | 5 | 3.3 | 18 | 9.5 | 23 | 6.8 |
| Total | 150 | 100.0 | 190 | 100.0 | 340 | 100.0 |

Chi-square = 8.06

χ^2 at .05 level = 12.59

Occupational Classification of Fathers

Data relating to the occupational classification of fathers of students enrolled in terminal and transfer curricula, in both groups, were placed in the separate categories as "Farmer or rancher" and "Skilled Worker or foreman." Of the terminal students responding, 42.9 percent reported that their fathers were farmers or ranchers and 27.3 percent reported that their fathers were skilled workers or foremen. The transfer students reported 38.9 percent and 27 percent, respectively, for the same occupational classification. The percent of students responding to the other categories were also very close except for the occupation category of "Professional." Twice as many transfer students

(9.2 percent) indicated that their fathers engaged in a professional occupation as did terminal students (4.6 percent).

TABLE VIII
FATHERS' OCCUPATIONAL CLASSIFICATION BY TYPE OF CURRICULUM

| Occupational Classification | Type of Curriculum | | | | | |
|--------------------------------|--------------------|-------|----------|-------|-------|-------|
| | Terminal | | Transfer | | Total | |
| | N | % | N | % | N | % |
| Professional | 7 | 4.6 | 17 | 9.2 | 24 | 7.1 |
| Farmer or rancher | 66 | 42.9 | 72 | 38.9 | 138 | 40.7 |
| Clerk or salesman | 9 | 5.8 | 15 | 8.1 | 24 | 7.1 |
| Skilled worker or foreman | 42 | 27.3 | 50 | 27.0 | 92 | 27.1 |
| Semi-skilled worker | 8 | 5.2 | 8 | 4.3 | 16 | 4.7 |
| Unskilled worker | 2 | 1.3 | 3 | 1.6 | 5 | 1.5 |
| Other | 20 | 13.0 | 20 | 10.8 | 40 | 11.8 |
| Total | 154 | 100.0 | 185 | 100.0 | 339 | 100.0 |

Chi-square = 3.94

X^2 at .05 level = 9.49

Yield of a chi-square value of 3.49 with four degrees of freedom was not adjudged significant at the .05 level. Therefore, the null hypothesis that there is no relationship between the occupational classification of father and the type of curriculum in which the student was enrolled was accepted.

Population of the Community Where Reared

The analysis of the population of the communities in which students

enrolled in terminal and transfer curricula in agriculture were reared is presented in Table IX. The population of the communities did not vary greatly between the two groups. The percentages of terminal and transfer students who were reared in a rural area on a farm or ranch were almost the same since 58.7 percent of the terminal students and 58.9 percent of the transfer students indicated that they were reared in such an area. More terminal students (11.6 percent) than transfer students (8.4 percent) were reared in a rural area but not on a farm. A greater number of terminal students (5.8 percent) than transfer students (2.1 percent) reported that they were reared in a city with a population of 250,000 or more.

TABLE IX
POPULATION OF COMMUNITY WHERE REARED BY TYPE OF CURRICULUM
IN WHICH ENROLLED

| Population of Community (Number of People) | Type of Curriculum | | | | | |
|---|--------------------|-------|-------------------------------------|-------|-------|-------|
| | Terminal | | Transfer | | Total | |
| | N | % | N | % | N | % |
| Rural, farm or ranch | 91 | 58.7 | 112 | 58.9 | 203 | 58.8 |
| Rural, non-farm | 18 | 11.6 | 16 | 8.4 | 34 | 9.9 |
| Town, under 1,000 | 8 | 5.2 | 12 | 6.3 | 20 | 5.8 |
| City, 1,000-9,999 | 13 | 8.4 | 28 | 14.7 | 41 | 11.9 |
| City, 10,000-24,999 | 8 | 5.2 | 12 | 6.3 | 20 | 5.8 |
| City, 25,000-49,999 | 5 | 3.2 | 2 | 1.5 | 7 | 2.0 |
| City, 50,000-249,999 | 3 | 1.9 | 4 | 2.1 | 7 | 2.0 |
| City, 250,000 or more | 9 | 5.8 | 4 | 2.1 | 13 | 3.8 |
| Total | 155 | 100.0 | 190 | 100.0 | 345 | 100.0 |
| Chi-square = 8.12 | | | X ² at .05 level = 12.59 | | | |

The chi-square test yielded a value of 8.12, which, with six degrees of freedom was not significant at the .05 level. Therefore, the null hypothesis that there is no relationship between the population of the area where the students were reared and the type of curriculum in agriculture in which the students were enrolled is accepted.

Operation of Farms or Ranches by Parents

The numbers and percentages of students enrolled in terminal and transfer curricula in agriculture whose parents either operate or did not operate farms or ranches is presented in Table X. Of the 157 terminal students who responded to this item on the questionnaire, 97 (61.8 percent) reported that their parents operated a farm or ranch while 60 (38.2 percent) reported that their parents did not operate a farm or ranch. A slightly higher percentage of transfer students reported that their parents operated a farm or ranch with 129 (66.5 percent) of the 194 respondents reporting parental operation, leaving 65 (33.5 percent) reporting parents as not operators. However, the chi-square test revealed that the differences were not significant.

In order to determine if the extent of engagement in farming or ranching by parents differed between students enrolled in terminal and transfer curricula in agriculture, students who indicated that their parents operated a farm or ranch were requested to indicate whether the farming or ranching operations were (1) full-time; (2) part-time, supplying over 50 percent of the family income; and (3) part-time, supplying less than 50 percent of the family income. Results of securing this information is shown in Table XI. Of the 97 terminal students whose parents operated a farm or ranch, 60 (61.9 percent) reported that the

TABLE X
OPERATION OF FARMS AND RANCHES BY STUDENTS' PARENTS BY
TYPE OF CURRICULUM IN WHICH ENROLLED

| | Type of Curriculum | | | | | |
|---|--------------------|-------|----------|-------|-------|---------------------------|
| | Terminal | | Transfer | | Total | |
| | N | % | N | % | N | % |
| Parents operate a farm or ranch | 97 | 61.8 | 129 | 66.5 | 226 | 64.4 |
| Parents do not operate a farm or ranch | 60 | 38.2 | 65 | 33.5 | 125 | 35.6 |
| Total | 157 | 100.0 | 194 | 100.0 | 351 | 100.0 |
| Chi-square = 0.84 | | | | | | X^2 at .05 level = 3.84 |

TABLE XI
EXTENT OF ENGAGEMENT IN FARMING OR RANCHING OPERATIONS BY STUDENTS'
PARENTS BY TYPE OF CURRICULUM IN WHICH ENROLLED

| | Type of Curriculum | | | | | |
|---|--------------------|-------|----------|-------|-------|---------------------------|
| | Terminal | | Transfer | | Total | |
| | N | % | N | % | N | % |
| Full-time operation | 60 | 61.9 | 72 | 55.8 | 132 | 58.4 |
| Part-time operation; supplies over 50 percent of the family income | 3 | 3.1 | 11 | 8.5 | 14 | 6.2 |
| Part-time operation; sup- plies less than 50 per- cent of the family income | 34 | 35.0 | 46 | 35.7 | 80 | 35.4 |
| Total | 97 | 100.0 | 129 | 100.0 | 226 | 100.0 |
| Chi-square = 2.99 | | | | | | X^2 at .05 level = 5.99 |

operation was full-time; three (3.1 percent) reported that the operation was part-time and supplied over half of the family income, while 34 (35 percent) reported that the operation was part-time and supplied less than half of the family income. The 129 transfer students whose parents operated a farm or ranch reported the following for the three respective categories: 72 (55.8 percent), full-time; 11 (8.5 percent), part-time, more than 50 percent of the family income; and 46 (35.7 percent), less than 50 percent of the family income.

The chi-square value of 2.99 with two degrees of freedom was not significant at the .05 level.

Size of Farms or Ranches Operated by Parents

The analysis of the sizes of farms or ranches operated by students enrolled in terminal and transfer curricula is presented in Table XII. This table reveals that there is not a consistent pattern in the sizes of farms or ranches operated by the parents of either terminal or transfer students. For the terminal and transfer students, 67 percent and 57.2 percent, respectively, reported that their parents operated farms or ranches from 50 to 1,000 acres in size; 13.4 percent and 17.4 percent, respectively, reported their parents' farms or ranches were from 1,000 to 2,000 acres in size; and 11.4 percent and 17.4 percent, respectively, reported that their parents operated farms or ranches which were greater than 2,000 acres in size.

The chi-square test yielded a value of 8.75 which with eight degrees of freedom was not sufficient to reject the null hypothesis that there is no relationship between the size of farms or ranches operated by the parents of students and the type of curriculum in agriculture in

which the students are enrolled.

TABLE XII
SIZE OF FARM OR RANCH OPERATED BY PARENTS BY TYPE OF
CURRICULUM IN WHICH ENROLLED

| Size of Farm or Ranch (Acres) | Type of Curriculum | | | | | |
|----------------------------------|--------------------|-------|----------|-------|-------|-------|
| | Terminal | | Transfer | | Total | |
| | N | % | N | % | N | % |
| Less than 50 | 8 | 8.2 | 10 | 7.9 | 18 | 8.1 |
| 50-249 | 24 | 24.7 | 21 | 16.7 | 45 | 20.2 |
| 250-499 | 14 | 14.4 | 20 | 15.9 | 34 | 15.2 |
| 500-799 | 15 | 15.5 | 23 | 18.3 | 38 | 17.0 |
| 800-999 | 12 | 12.4 | 8 | 6.3 | 20 | 9.0 |
| 1,000-1,499 | 9 | 9.3 | 13 | 10.3 | 22 | 9.9 |
| 1,500-1,999 | 4 | 4.1 | 9 | 7.1 | 13 | 5.8 |
| 2,000-2,499 | 2 | 2.1 | 9 | 7.1 | 11 | 4.9 |
| 2,500-3,000 | 0 | 0.0 | 1 | 0.8 | 1 | 0.4 |
| More than 3,000 | 9 | 9.3 | 12 | 9.5 | 21 | 9.4 |
| Total | 97 | 100.0 | 126 | 100.0 | 223 | 100.0 |

Chi-square = 8.74

X^2 at .05 level = 15.51

Type of Farming Operations of Parents

Presented in Table XIII is a summary of the types of farming operations carried on by parents of terminal and transfer students. The data reveal that the types of farming operations engaged in by parents of terminal and transfer students are very similar. The differences between

the two groups are less than five percent for each type operation.

Three types of operations which were predominant for parents of both terminal and transfer students were cow-calf production, cotton production, and commercial feed grain production. Of the terminal students, 54.6 percent reported cow-calf operations compared to 57.4 percent for transfer students. Cotton production was reported by 34 percent and 32.6 percent of the terminal and transfer students, respectively, while commercial feed grain production was reported by 16.5 percent and 20.0 percent of the two respective groups.

The null hypothesis that there is no relationship between the type of farming operation carried on by the parents and the type of curriculum in agriculture in which the students are enrolled was accepted since the percentage differences between the two groups were less than the level established for significance in this study.

Annual Income of Parents

Collated information with regard to the total annual income of the parents of 138 terminal students and 167 transfer students is shown in Table XIV. Examination of the various income levels reveals that there are no major differences in the incomes of the parents of students enrolled in terminal curricula and those enrolled in transfer curricula in agriculture. Of the terminal students, 23.9 percent reported their parents had annual incomes from \$3,000 to \$7,999 compared to 24 percent for the transfer students. Reporting total incomes ranging from \$8,000 to \$14,000 for their parents were 39.1 percent of the terminal students and 33 percent of the transfer students. Incomes of \$15,000 to \$24,999 were reported by 19.5 percent of the terminal and transfer

TABLE XIII
 TYPE OF FARMING OPERATION BY TYPE OF CURRICULUM

| Type of Operation | Type of Curriculum | | | | Percentage Difference |
|----------------------------------|--------------------|---------------|----------|----------------|-----------------------|
| | Terminal | | Transfer | | |
| | N* | % of 97 farms | N* | % of 129 farms | |
| Cow-calf production | 53 | 54.6 | 74 | 57.4 | - 2.8 |
| Feedlot operation | 5 | 5.2 | 8 | 6.2 | - 1.0 |
| Commercial feed grain production | 16 | 16.5 | 27 | 20.9 | - 4.4 |
| Wheat production | 6 | 6.2 | 6 | 4.7 | + 1.5 |
| Swine operation | 7 | 7.2 | 12 | 9.3 | - 2.1 |
| Dairy operation | 0 | 0.0 | 3 | 2.3 | - 2.3 |
| Sheep or goat production | 4 | 4.1 | 6 | 4.7 | - 0.6 |
| Cotton production | 33 | 34.0 | 42 | 32.6 | + 1.4 |
| Rice production | 1 | 1.0 | 3 | 2.3 | - 1.3 |
| Other types of operations | 7 | 7.2 | 11 | 8.5 | - 1.3 |

*Some respondents made more than one response

students, respectively while 12.4 percent of the terminal students and 13.8 percent of the transfer students reported their parents had incomes of \$25,000 or more.

TABLE XIV

ANNUAL INCOME OF PARENTS BY TYPE OF CURRICULUM IN WHICH ENROLLED

| Income in Dollars | Type of Curriculum | | | | | |
|-------------------|--------------------|-------|----------|-------|--------|-------|
| | Terminal | | Transfer | | Totals | |
| | N | % | N | % | N | % |
| Less than 3,000 | 7 | 5.1 | 3 | 1.8 | 10 | 3.3 |
| 3,000 - 5,999 | 12 | 8.7 | 20 | 12.0 | 32 | 10.5 |
| 6,000 - 7,999 | 21 | 15.2 | 20 | 12.0 | 41 | 13.4 |
| 8,000 - 9,999 | 21 | 15.2 | 23 | 13.8 | 44 | 14.4 |
| 10,000 - 14,999 | 33 | 23.9 | 32 | 19.2 | 65 | 21.3 |
| 15,000 - 19,999 | 17 | 12.3 | 26 | 15.6 | 43 | 14.1 |
| 20,000 - 24,999 | 10 | 7.2 | 20 | 12.0 | 30 | 9.8 |
| 25,000 - 29,999 | 6 | 4.4 | 6 | 3.6 | 12 | 3.9 |
| 30,000 or more | 11 | 8.0 | 17 | 10.2 | 28 | 9.2 |
| Totals | 138 | 100.0 | 167 | 100.0 | 305 | 100.0 |

Chi-square = 4.39

χ^2 at .05 level = 14.07

Analysis of data indicates that a greater percentage of the parents of transfer students than terminal students have incomes above \$15,000. However, the chi-square test yielded a value of 4.39, which with seven degrees of freedom, was not significant at the .05 level. The null hypothesis that there is no relationship between the income level of par-

ents and the curriculum in agriculture in which the students are enrolled was accepted.

Source of Family Income

For the purpose of comparing sources of family income for terminal and transfer students, the information contained in Table X and XI has been combined with income from full-time employed mothers of terminal and transfer students and is presented in Table XV. This table reveals that, overall, there are no major differences in the sources of family income. Of students whose fathers operate farms or ranches, 44.1 percent of the terminal group and 48.1 percent of the transfer group reported that their fathers worked full-time in addition to operating a farm or ranch.

Comparisons of the percentages of students whose mothers were employed full-time reveal no striking differences. Students whose mothers worked full-time accounted for 33.7 percent of the terminal group and 30 percent of the transfer group. This clearly established that the majority of the mothers of both terminal and transfer students do not work full-time.

The percentage differences between the two groups were not significant, consequently, the null hypothesis of no relationship between the source of family income and the type of curriculum in agriculture in which the students are enrolled was accepted.

TABLE XV

SOURCE OF FAMILY INCOME BY TYPE OF CURRICULUM IN WHICH ENROLLED

| Source of Family Income | Type of Curriculum | | | | Percentage Difference |
|--|--------------------|-------|----------|-------|--------------------------|
| | Terminal | | Transfer | | |
| | N | % | N | % | |
| <u>Farm Source</u> | | | | | |
| Farm or ranch, full-time | 61 | 61.9 | 72 | 55.8 | + 6.1 |
| Farm or ranch, part-time; supplies more than half of the family income | 3 | 3.1 | 11 | 8.5 | - 5.4 |
| Farm or ranch part-time; supplies less than half of the family income | 34 | 35.1 | 46 | 35.7 | - 0.6 |
| Total | 97 | 100.0 | 129 | 100.0 | |
| <u>Non-Farm Source</u> | | | | | |
| Father works full-time in addition to operating a farm or ranch | (N=102) | | (N=131) | | |
| | 45 | 44.1 | 63 | 48.1 | - 4.0 |
| Father's income from a non-farm source (Do not operate a farm or ranch) | (N=157) | | (N=194) | | |
| | 60 | 38.2 | 65 | 33.5 | + 4.7 |
| Mother works full-time | (N=159) | 33.7 | (N=190) | 30.0 | + 3.7 |

Selected Aspects of the Educational Background
of Students Enrolled in Terminal
and Transfer Curricula

The area of the educational backgrounds of students enrolled in terminal and transfer curricula in agriculture which were considered in this study consisted of comparisons of the sizes of high schools from which the students were graduated, the extent of enrollment in Vocational

Agriculture, participation and achievement in various high school and junior college clubs, organizations and activities, and sources of encouragement for the students to enroll in college. The chi-square test and contingency coefficient were used to test formulated hypotheses.

Size of the High School from Which Students Were Graduated

An analysis of the size of the high schools from which 157 students enrolled in terminal curricula and 195 students enrolled in transfer curricula in agriculture were graduated is presented in Table XVI. Examination of the percentages of students who were graduated from the various sizes of high schools reveals that they differed very little between terminal and transfer students. The majority of both terminal (65.6 percent) and transfer students (66.7 percent) were graduates of high schools which had enrollments from 200 to 1,999 students. The percentages of terminal and transfer students who were graduates of high schools having enrollments of less than 200 students were 30.6 percent and 28.7 percent, respectively. Only six terminal students (3.8 percent) and nine transfer students (4.6 percent) were graduates of high schools which had more than 2000 students enrolled.

The chi-square value of 1.91 with five degrees of freedom was not significant at the .05 level. The null hypothesis that there is no relationship between the size of high schools from which students were graduated and the type of curriculum in agriculture in which the students are enrolled was accepted.

TABLE XVI
 SIZE OF HIGH SCHOOL FROM WHICH GRADUATED BY TYPE OF
 CURRICULUM IN WHICH ENROLLED

| Size of High School (Number of Students) | Type of Curriculum | | | | | |
|---|--------------------|--------|----------|-------|-------|-------|
| | Terminal | | Transfer | | Total | |
| | N | % | N | % | N | % |
| Less than 100 | 18 | 11.5 | 23 | 11.8 | 41 | 11.6 |
| 100-199 | 30 | 19.1 | 33 | 16.9 | 63 | 17.9 |
| 200-499 | 51 | 32.5 | 67 | 34.4 | 118 | 33.5 |
| 500-999 | 29 | 18.5 | 42 | 21.5 | 71 | 20.2 |
| 1,000-1,999 | 23 | 14.6 | 21 | 10.8 | 44 | 12.5 |
| 2,000 or more | 6 | 3.8 | 9 | 4.6 | 15 | 4.3 |
| Total | 157 | 100.00 | 195 | 100.0 | 352 | 100.0 |

Chi-square = 1.91

X^2 at .05 level = 11.07

Extent of Enrollment in Vocational Agriculture in High School

Data with regard to the number of years which students enrolled in terminal and transfer curricula completed in Vocational Agriculture in high school is shown in Table XVII. This table reveals that the extent of enrollment in Vocational Agriculture did not differ greatly between terminal and transfer students, since 62.8 percent and 72.5 percent, respectively, had enrolled in Vocational Agriculture for at least three years or more. Students who did not enroll in Vocational Agriculture represented 20.5 percent of the terminal students and 17.9 percent of the transfer students.

TABLE XVII
 EXTENT OF HIGH SCHOOL ENROLLMENT IN VOCATIONAL AGRICULTURE
 BY TYPE OF CURRICULUM IN WHICH ENROLLED

| Enrollment in Vocational Agriculture in Years | Type of Curriculum | | | | | |
|--|--------------------|-------|----------|-------|-------|-------|
| | Terminal | | Transfer | | Total | |
| | N | % | N | % | N | % |
| Did not enroll | 32 | 20.5 | 35 | 17.9 | 67 | 19.0 |
| One year | 12 | 7.7 | 7 | 3.6 | 19 | 5.4 |
| Two years | 14 | 9.0 | 12 | 6.1 | 26 | 7.4 |
| Three years | 45 | 28.8 | 55 | 28.1 | 100 | 28.4 |
| Four years | 53 | 34.0 | 87 | 44.4 | 140 | 39.8 |
| Total | 156 | 100.0 | 196 | 100.0 | 352 | 100.0 |

Chi-square = 6.40

χ^2 at .05 level = 9.49

The chi-square value of 6.40 with four degrees of freedom was not significant at the .05 level. The null hypotheses that there is no relationship between the extent of enrollment in Vocational Agriculture in high school and the type of curriculum in agriculture in which the students are enrolled was accepted.

Participation in High School FFA

The extent of participation in high school FFA by students enrolled in terminal and transfer curricula is presented in Table XVIII. Of the two groups, 35.3 percent of the terminal students and 27.5 percent of the transfer students, were members but had not held a chapter office; 35.3 percent and 42.9 percent, respectively, had served as a chapter officer other than chapter president; and 9.2 percent and 10.7 percent, respec-

tively, had served as chapter president. Those students who were not members of the FFA chapter represented 20.3 percent of the terminal students and 18.9 percent of the transfer students.

TABLE XVIII
EXTENT OF PARTICIPATION IN FFA BY TYPE OF CURRICULUM
IN WHICH ENROLLED

| Extent of Participation in FFA | Type of Curriculum | | | | | |
|-----------------------------------|--------------------|-------|----------|-------|-------|-------|
| | Terminal | | Transfer | | Total | |
| | N | % | N | % | N | % |
| Non-member | 31 | 20.3 | 37 | 18.9 | 68 | 19.5 |
| President of chapter | 14 | 9.2 | 21 | 10.7 | 35 | 10.0 |
| Officer other than president | 54 | 35.3 | 84 | 42.9 | 138 | 39.5 |
| Member | 54 | 35.3 | 54 | 27.5 | 108 | 31.0 |
| Total | 153 | 100.0 | 196 | 100.0 | 349 | 100.0 |

Chi-square = 3.20

χ^2 at .05 level = 7.82

The chi-square value of 3.20 with three degrees of freedom was not significant at the .05 level. Therefore, the null hypothesis that there is no relationship between the extent of participation in high school FFA and the type of curriculum in agriculture in which the students are enrolled is accepted.

Achievement in High School FFA

The highest achievements in high school FFA for students enrolled

in terminal and transfer curricula in agriculture are shown in Table XIX. The Greenhand degree was the highest achievement for 9.7 percent and 9 percent of the terminal and transfer students, respectively. A slightly higher percentage of terminal students (51.3 percent) than transfer students (45.7 percent) had achieved the Chapter Farmer degree, while a greater percentage of transfer students (25 percent) than terminal students (16.2 percent) had achieved the Star Farmer degree.

TABLE XIX
HIGHEST ACHIEVEMENT IN FFA BY TYPE OF CURRICULUM
IN WHICH ENROLLED

| Highest Achievement | Type of Curriculum | | | | | |
|---------------------|--------------------|-------|----------|-------|--------|-------|
| | Terminal | | Transfer | | Totals | |
| | N | % | N | % | N | % |
| Did not participate | 34 | 22.1 | 36 | 19.2 | 70 | 20.5 |
| Greenhand | 15 | 9.7 | 17 | 9.0 | 32 | 9.4 |
| Chapter Farmer | 79 | 51.3 | 86 | 45.7 | 165 | 48.3 |
| Star Farmer | 25 | 16.2 | 47 | 25.0 | 72 | 21.0 |
| American Farmer | 1 | 0.7 | 2 | 1.1 | 3 | 0.9 |
| Total | 154 | 100.0 | 188 | 100.0 | 342 | 100.0 |

Chi-square = 4.19

χ^2 at .05 level = 7.82

Overall, there was no significant difference in the highest achievement in high school FFA since the chi-square value of 4.19 with three degrees of freedom was not significant at the .05 level. Consequently, the null hypothesis that there is no relationship between the highest

achievement in high school FFA and the type of curriculum in which the students are enrolled was accepted.

Participation in Out-of-Class Activities in High School

Shown in Table XX are the percentages of terminal and transfer students who had participated in selected activities in high school. A greater percentage of transfer students than terminal students had participated in all of the activities considered. The extent of participation in public speaking contests, school plays, and science fairs did not differ greatly for the two groups. Almost twice as many transfer students (38.1 percent) as terminal students (19.5 percent) indicated that they had participated in leadership contests and in a high school talent show. Of the transfer students, 66 percent indicated that they had participated in FFA or 4-H judging contests and exhibited livestock or poultry at fairs or shows. The extent of participation in these activities indicated by terminal students was more than 11 percent less.

The extent of participation in out-of-class activities in high school for students enrolled in terminal and transfer curricula did not differ significantly in percentage. The null hypothesis that there is no relationship between the extent of participation in out-of-class activities in high school and the type of curriculum in agriculture in which the students are enrolled was, therefore, accepted.

TABLE XX
HIGH SCHOOL PARTICIPATION IN OUT-OF-CLASS ACTIVITIES
BY TYPE OF CURRICULUM IN WHICH ENROLLED

| Out-of-class Activity | Type of Curriculum | | | | Percent Difference |
|---|--------------------|----------------------|----------------|----------------------|-----------------------|
| | Terminal N* | % of Total N(159) | Transfer N* | % of Total N(197) | |
| Leadership contests | 31 | 19.5 | 75 | 38.1 | - 18.6 |
| Public speaking contests | 10 | 6.3 | 23 | 11.7 | - 5.4 |
| Part in a school play | 35 | 22.0 | 52 | 26.4 | - 4.4 |
| FFA or 4-H judging contests | 87 | 54.7 | 130 | 66.0 | - 11.3 |
| Participation in high school talent show | 10 | 6.3 | 25 | 12.7 | - 6.4 |
| Exhibited livestock or poultry at fairs or shows | 83 | 52.2 | 130 | 66.0 | - 11.8 |
| Entered high school science fairs | 16 | 10.1 | 24 | 12.2 | - 2.1 |

*Some respondents made more than one response

Participation in High School Clubs or Organizations

The extent to which students enrolled in transfer curricula in agriculture participated in selected high school clubs and organizations is presented in Table XXI. With the exception of participation in the school band or music club, transfer students indicated a greater extent of participation in school clubs or organizations than did terminal students. The differences, percentage-wise, between the extent of participation for the two groups were negligible, with the exception of participation in 4-H clubs. The percentage of transfer students (29.9 per

cent) who indicated participation in 4-H was almost twice that of terminal students (15.7 percent).

TABLE XXI

EXTENT OF PARTICIPATION IN SELECTED HIGH SCHOOL CLUBS OR ORGANIZATIONS
BY TYPE OF CURRICULUM IN WHICH ENROLLED

| Club or Organization | Type of Curriculum | | | | Percent Difference |
|--|--------------------|----------------------|----------|----------------------|--------------------|
| | Terminal | | Transfer | | |
| | N* | % of Total N(159) | N* | % of Total N(197) | |
| School Band or Music Club | 31 | 19.5 | 37 | 18.8 | + 0.7 |
| Political Science or Social Science Clubs | 1 | 0.6 | 3 | 1.5 | - 0.9 |
| Language Clubs | 7 | 4.4 | 15 | 7.6 | - 3.2 |
| Student Council | 15 | 9.4 | 26 | 13.2 | - 3.8 |
| Newspaper or Yearbook | 27 | 17.0 | 47 | 23.9 | - 6.9 |
| Drama Club | 8 | 5.0 | 12 | 6.1 | - 1.1 |
| Science Club | 7 | 4.4 | 19 | 9.6 | - 5.2 |
| Scholastic Honor Society | 4 | 2.5 | 11 | 5.6 | - 3.1 |
| 4-H Club | 25 | 15.7 | 59 | 29.9 | - 14.2 |

*Some respondents made more than one response

Participation in Varsity Sports in High School

Findings pertaining to the extent to which students enrolled in terminal and transfer curricula in agriculture participated in varsity sports in high school is shown in Table XXII. Except for the category

of "participated four years," the percentage differences for participation in varsity sports are less than one percent. The extremely low chi-square value of 0.05 indicates how little the extent of participation in varsity sports for the students in the two groups varied. Since the chi-square value of 0.05 with four degrees of freedom was not significant at the .05 level, the null hypothesis that there is no relationship between the extent of participation in varsity sports in high school and the type of curriculum in agriculture in which the students are enrolled was accepted.

TABLE XXII

EXTENT OF PARTICIPATION IN VARSITY SPORTS IN HIGH SCHOOL
BY TYPE OF CURRICULUM IN WHICH ENROLLED

| Extent of Participation | Type of Curriculum | | | | | |
|--------------------------|--------------------|-------|----------|-------|--------|-------|
| | Terminal | | Transfer | | Totals | |
| | N | % | N | % | N | % |
| Did not participate | 55 | 35.7 | 69 | 36.3 | 124 | 36.1 |
| Participated one year | 24 | 15.6 | 29 | 15.3 | 53 | 15.4 |
| Participated two years | 21 | 13.6 | 25 | 13.2 | 46 | 13.4 |
| Participated three years | 17 | 11.0 | 22 | 11.6 | 39 | 11.3 |
| Participated four years | 37 | 24.0 | 45 | 22.7 | 82 | 23.8 |
| Total | 154 | 100.0 | 190 | 100.0 | 344 | 100.0 |

Chi-square = 0.05

χ^2 at .05 level = 9.49

High School Awards or Recognition

A comparison of the high school awards and recognition received by students enrolled in terminal and transfer curricula in agriculture is made in Table XXIII. The analysis reveals that 17.6 percent of terminal students and 18.3 percent of the transfer students had been elected to Who's Who or class favorite. A greater percentage of both groups indicated that they had received awards for exhibiting livestock or poultry in shows or fairs. Transfer students received a greater number of such awards as was indicated by a 55.3 percent response compared to 37.7 percent for the terminal group. The percentage of both groups who had received awards or recognition for participation in other areas such as science fairs, speech contests, or for National Merit recognition were extremely small.

The percentage difference between the two groups for high school awards or recognition received did not equal or exceed the level established for significance in this study. Therefore, the null hypothesis that there is no relationship between awards and recognition received in high school and the type of curriculum in agriculture in which the students are enrolled was accepted.

Participation in Junior College Student Organizations

Presented in Table XXIV is an analysis of the participation in junior college student organizations by students enrolled in terminal and transfer curricula in agriculture. Both groups of students participated equally in "aggie" or rodeo clubs as was indicated by responses from 53.4 percent of the terminal students and 54.8 percent of the transfer students. The only other organized activity in which either group of

TABLE XXIII
HIGH SCHOOL AWARDS OR RECOGNITION BY TYPE OF CURRICULUM
IN WHICH ENROLLED

| Achievement or Recognition | Type of Curriculum | | | | Percentage Difference |
|--|--------------------|-----------------|----------|-----------------|--------------------------|
| | Terminal | | Transfer | | |
| | N* | % of total N | N* | % of total N | |
| Elected Who's Who or Class Favorite | 28 | 17.6 | 36 | 18.3 | -0.7 |
| Winner or high placing in regional or state science fair | 1 | 0.6 | 3 | 1.5 | -0.9 |
| Winner or high placing in state or regional speech contest | 0 | 0.0 | 5 | 2.5 | -2.5 |
| National Merit Recognition | 3 | 1.9 | 1 | 0.5 | +1.4 |
| Had original writing published | 4 | 2.5 | 6 | 3.0 | -0.5 |
| Prizes, trophies, banners for exhibiting livestock, poultry, or other types of exhibiting | 60 | 37.7 | 109 | 55.3 | -17.6 |

* Some respondents made more than one response

students participated was intramural athletics. The percentage of transfer students (20.8 percent) who participated in this activity was considerably higher than that for terminal students (8.8 percent).

The percentage differences between terminal and transfer students for participation in the various junior college organizations were not significant. Therefore, the null hypothesis that there is no relationship between the extent of participation in junior college student organizations and the type of curriculum in agriculture in which the students are enrolled was accepted.

TABLE XXIV

EXTENT OF PARTICIPATION IN SELECTED JUNIOR COLLEGE STUDENT ORGANIZATIONS
BY TYPE OF CURRICULUM

| Extent of Participation | Type of Curriculum | | | | Percent Difference |
|---|--------------------|----------------------|----------|----------------------|--------------------|
| | Terminal | | Transfer | | |
| | N* | % of total N(159) | N* | % of total N(197) | |
| Aggie or Rodeo Club | 85 | 53.4 | 108 | 54.8 | -1.4 |
| Science Club | 0 | 0.0 | 0 | 0.0 | 0.0 |
| Language Club | 0 | 0.0 | 0 | 0.0 | 0.0 |
| College Band | 0 | 0.0 | 2 | 1.0 | -1.0 |
| Athletic Squad | 1 | 0.6 | 4 | 2.0 | -1.4 |
| Intramural Athletics | 14 | 8.8 | 41 | 20.8 | -12.0 |
| Drama Club | 0 | 0.0 | 0 | 0.0 | 0.0 |
| Phi Theta Kappa | 2 | 1.3 | 1 | 0.5 | +0.8 |
| Young Democrats or Young Republicans | 0 | 0.0 | 5 | 2.5 | -2.5 |
| Service Clubs | 2 | 1.3 | 6 | 3.0 | -1.7 |

TABLE XXIV (Continued)

| Extent of Participation | Type of Curriculum | | | | Percent Difference |
|-------------------------------|------------------------------|--------|------------------------------|--------|--------------------|
| | Terminal % of total N* | N(159) | Transfer % of total N* | N(197) | |
| Social Fraternity or Sorority | 0 | 0.0 | 0 | 0.0 | 0.0 |
| Debate Club | 0 | 0.0 | 0 | 0.0 | 0.0 |

*Some respondents made more than one response.

Encouragement to Enroll in College from Selected Sources

Assuming that the amount of encouragement an individual receives from different sources varies with the socio-economic environment from which the individual comes, an attempt was made in this study to determine if the extent of encouragement to enroll in college from selected sources differed for students enrolled in terminal and for those pursuing transfer curricula in agriculture. Six selected sources of encouragement shown in Table XXV reveal that of the six sources, both terminal and transfer students rated their parents as having encouraged them the most, since 70.7 percent of the terminal students and 75.3 percent of the transfer students indicated extent of parent encouragement as "quite a lot." The chi-square test yielded a value of 2.49 which was not found significant at the .05 level.

Ratings of the high school vocational agriculture teacher as a source of encouragement to enroll in college by terminal and transfer students differed slightly in percentages of students who rated them "quite a lot" and "little or none." A slightly greater percentage of

transfer students (41.9 percent) than terminal students (36.9 percent) gave the vocational agriculture teacher the top rating. Conversely, a slightly smaller percentage of transfer students (24.4 percent) compared to terminal students (29.2 percent) gave the vocational agriculture teacher the bottom rating. Percentages of both groups who gave him the middle rating were almost identical. The chi-square value for the differences between the ratings of the terminal students and transfer students was not significant at the .05 level.

Examination of the ratings of other high school teachers as a source of encouragement to enroll in college indicates that transfer students were encouraged more from this source than was true for terminal students. Of the transfer students, 38.7 percent indicated having been encouraged by their high school teachers "quite a lot," compared to 22.3 percent of terminal students. Greater numbers of terminal students (47.9 percent) than transfer students (39.9 percent) indicated that they were encouraged "some" by their high school teachers.

The chi-square value of 8.79 was found significant at the .05 level and the contingency coefficient of 0.17 indicated a significant relationship between the extent of encouragement to enroll in college from high school teachers and the type of curriculum in agriculture in which the students are enrolled.

The ratings of the high school counselor as a source of encouragement to enroll in college were quite equally divided among terminal students. However, a greater percentage of transfer students (43.5 percent) indicated that the high school counselor had encouraged them "quite a lot." The chi-square value of 3.92 for this source of encouragement to enroll in college was not significant at the .05 level.

TABLE XXV

EXTENT OF ENCOURAGEMENT TO ENROLL IN COLLEGE FROM SELECTED SOURCES BY TYPE OF CURRICULUM IN WHICH ENROLLED

| Source of Encouragement | Type of Curriculum | | | | | | | |
|--|--------------------|-----------|-------------------|----------------|--------------------|-----------|-------------------|----------------|
| | Terminal Responses | | | | Transfer Responses | | | |
| | Quite a lot | Some | Little or none | Total Resp. | Quite a lot | Some | Little or none | Total Resp. |
| N (%) | N (%) | N (%) | N | N (%) | N (%) | N (%) | N | |
| Parents ¹ | 104 (70.7) | 32 (21.8) | 11 (7.5) | 147 | 143 (75.3) | 40 (21.1) | 7 (3.7) | 190 |
| High School Vocational Agriculture Teacher ² | 48 (36.9) | 44 (33.8) | 38 (29.2) | 130 | 72 (41.9) | 58 (33.7) | 42 (24.4) | 172 |
| Other High School Teachers ³ | 27 (22.3) | 58 (47.9) | 36 (29.8) | 121 | 63 (38.7) | 65 (39.9) | 35 (21.5) | 163 |
| High School Counselor ⁴ | 41 (35.7) | 41 (35.7) | 33 (28.7) | 115 | 67 (43.5) | 38 (24.7) | 49 (31.8) | 154 |
| Friends Who Were Enrolling In College ⁵ | 29 (25.2) | 57 (49.6) | 29 (25.2) | 115 | 58 (38.4) | 55 (36.4) | 38 (25.2) | 151 |
| College Agriculture Instructor ⁶ | 20 (18.0) | 37 (33.3) | 54 (48.6) | 111 | 39 (26.2) | 28 (18.8) | 82 (55.0) | 149 |

¹Chi-square = 2.49 χ^2 at .05 level = 5.99 (with two degrees of freedom)²Chi-square = 1.10³Chi-square = 8.79 - Contingency Coefficient = 0.17⁴Chi-square = 3.92⁵Chi-square = 6.15 - Contingency Coefficient = 0.15⁶Chi-square = 7.74 - Contingency Coefficient = 0.17

Findings shown in Table XXV further indicate that friends who were enrolling in college encouraged a greater percentage of transfer students (38.7 percent) to enroll "quite a lot" than terminal students (25.2 percent). Terminal students tended to be encouraged "some" by friends enrolling in college to a greater extent than did the transfer students. The chi-square value of 6.15 with two degrees of freedom was significant at the .05 level. The contingency coefficient of 0.15 indicates a significant relationship between the extent of encouragement to enroll in college by friends who were enrolling in college and the type of curriculum in agriculture in which the students are enrolled.

College agriculture instructors were recognized by respondents of both groups of students as providing encouragement to enroll in college to a lesser extent than any other selected source, as indicated on the rating scale. For the terminal students, 48.6 percent indicated that they were encouraged to enroll in college "little or none" by the college agriculture instructor, compared to 55 percent of the transfer students. A greater percentage of terminal students indicated that they were encouraged to enroll in college by this source "some" while a greater percentage of transfer students indicated that they were encouraged "quite a lot." The chi-square value of 7.74 was found to be significant at the .05 level and the contingency coefficient of 0.17 indicated a significant relationship between the extent of encouragement to enroll in college by agriculture instructors and the type of curriculum in agriculture in which the students are enrolled.

The chi-square tests indicated that there was no relationship in the extent of encouragement to enroll in college by parents, high school counselor, high school vocational agriculture teacher and the type of

curriculum in agriculture in which the students are enrolled. The chi-square tests and contingency coefficients indicated a significant relationship between the extent of encouragement to enroll in college by other high school teachers, friends who were enrolling in college, college agriculture instructors and the type of curriculum in agriculture in which the students are enrolled.

Educational Goals and Interests of Students
Enrolled in Terminal and Transfer
Curricula

In an attempt to determine whether the educational goals and interests of students enrolled in terminal and transfer curricula in agriculture may differ, students were requested to respond to a number of items on the questionnaire which were designed to determine if differences in the educational goals and interests existed.

The chi-square test was used to test the null hypotheses for all of the goals and interests measures except for student scores for the importance of selected goals of college attendance and the importance of selected activities according to anticipated satisfaction. For these measures, the t Test was used to test the null hypotheses.

Major Purpose in Junior College Attendance

Examination of the data presented in Table XXVI reveal that the major purpose in junior college attendance differs distinctly for students enrolled in terminal and transfer curricula in agriculture. The major purpose of junior college attendance to which terminal students responded most frequently were: (1) to prepare for a specific job in my local area (37.3 percent); (2) to obtain general employment (30 percent);

and (3) to increase my general knowledge and education (21.3 percent). Only 9.3 percent of the terminal students reported "to prepare for transfer to a four-year college or university" as their major purpose for attending junior college. Responses of students enrolled in transfer curricula indicated a quite different stated major purpose in junior college attendance, since 74.2 percent of this group indicated preparation for transfer to a four-year college or university as their major purpose in attending junior college. The preparation for a specific job in the local area was the major purpose in attending a junior college for only 5.8 percent of the transfer students. To obtain general preparation for employment and to increase their general knowledge and education were the major purposes of 7.4 percent and 8.9 percent, respectively, of the transfer students.

TABLE XXVI
MAJOR PURPOSE IN COLLEGE ATTENDANCE BY TYPE OF CURRICULUM
IN WHICH ENROLLED

| Major Purpose | Type of Curriculum | | | | Totals | |
|--|--------------------|------|---------------|------|--------|------|
| | Terminal N | % | Transfer N | % | N | % |
| To prepare for a specific job in my local area | 56 | 37.3 | 11 | 5.8 | 67 | 19.7 |
| To obtain general prepara- tion for employment | 45 | 30.0 | 14 | 7.4 | 59 | 17.4 |
| To prepare for transfer to a four-year college or university | 14 | 9.3 | 141 | 74.2 | 155 | 45.6 |
| To increase my general knowledge and education | 32 | 21.3 | 17 | 8.9 | 49 | 14.4 |

TABLE XXVI (Continued)

| Major Purpose | Type of Curriculum | | | | | |
|-------------------------|--------------------|-------|----------|-------|--------|-------|
| | Terminal | | Transfer | | Totals | |
| | N | % | N | % | N | % |
| To have something to do | 3 | 2.0 | 5 | 2.6 | 8 | 2.4 |
| Other | 0 | 0.0 | 2 | 1.1 | 2 | 0.6 |
| Total | 150 | 100.0 | 190 | 100.0 | 340 | 100.0 |

Chi-square = 151.17

 χ^2 at .05 level = 7.82

Contingency coefficient = 0.56

The chi-square test yielded a value of 151.17. With three degrees of freedom a chi-square value of 7.82 was needed to reject the null hypothesis. The contingency coefficient of 0.56 indicated a significant relationship between the major purpose of college attendance and the type of curriculum in agriculture in which the students are enrolled. Therefore, this formulated null hypothesis was rejected.

Level of Education Students Expect to Complete

Analysis of the level of education students enrolled in terminal and transfer curricula in agriculture expect to complete is presented in Table XXVII. This data reveals striking differences in the highest level of education the two groups expect to complete. Of the terminal students, 78.7 percent reported that the junior college degree or its equivalent is the highest level of education they expect to complete, while 14.2 percent reported that they expected to receive a bachelor's degree. Transfer students definitely indicated expectations to complete

higher levels of education than did terminal students. While 13 percent of transfer students indicated they expect to complete the junior college degree or its equivalent, 65.1 percent of expressed expectations of receiving the Bachelor's degree with 16.2 percent indicating an expectation of completion of the Master's degree or equivalent.

TABLE XXVII

HIGHEST LEVEL OF EDUCATION EXPECTED TO COMPLETE
BY TYPE OF CURRICULUM IN WHICH ENROLLED

| Level of Education | Type of Curriculum | | | | | |
|--|--------------------|-------|----------|-------|--------|-------|
| | Terminal | | Transfer | | Totals | |
| | N | % | N | % | N | % |
| Junior college degree or equivalent | 122 | 78.7 | 25 | 13.0 | 147 | 42.4 |
| Bachelor's degree or equivalent | 22 | 14.2 | 125 | 65.1 | 147 | 42.4 |
| One or two years of graduate study (Master's degree or equivalent) | 5 | 3.2 | 31 | 16.2 | 36 | 10.4 |
| Doctor of Philosophy or Doctor of Education | 0 | 0.0 | 2 | 1.0 | 2 | 0.6 |
| Doctor of Veterinary Medicine | 2 | 1.3 | 6 | 3.1 | 8 | 2.3 |
| Other | 4 | 2.6 | 3 | 1.6 | 7 | 2.0 |
| Total | 155 | 100.0 | 192 | 100.0 | 347 | 100.0 |

Chi-square = 156.14

χ^2 at .05 level = 5.99

Contingency coefficient = 0.56

The chi-square value of 156.14 with two degrees of freedom greatly surpassed the value of 5.99 which was needed for significance at the .05 level. The contingency coefficient of 0.56 indicates a significant relationship. Consequently, the null hypothesis that there is no relationship between the highest level of education students expect to complete and the type of curriculum in agriculture in which the students are enrolled was rejected.

Students' Plans Upon Completion of Junior College Studies

An analysis of responses of students enrolled in terminal and transfer curricula in agriculture regarding plans upon completion of their junior college studies is presented in Table XVIII. Data indicate that there are definite differences in the plans of the two groups. Of the terminal students, 51.6 percent responded that they definitely planned to obtain a full-time job upon completion of their junior college studies, while 16.5 percent indicated that they either definitely planned to transfer or hope to transfer to a four-year college or university if their grades are sufficient. Another 9.5 percent of the terminal students indicated a desire to obtain a full-time job, but if unable to do so, they would probably transfer to a four-year institution. Those planning to return to work on their parents farms represented 10.2 percent of the terminal respondents.

Conversely, 58.9 percent of the transfer students indicated definite plans for transferring to a four-year college or university and another 24 percent indicated that they planned to transfer if their grades are sufficient. Only 2.6 percent of the transfer students expressed plans to return to work on their parents' farms or ranches.

TABLE XXVIII

STUDENTS' PLANS UPON COMPLETION OF JUNIOR COLLEGE STUDIES
BY TYPE OF CURRICULUM IN WHICH ENROLLED

| Plans | Type of Curriculum | | | | | |
|--|--------------------|-------|----------|-------|--------|-------|
| | Terminal | | Transfer | | Totals | |
| | N | % | N | % | N | % |
| Will continue with present employment | 10 | 6.4 | 4 | 2.1 | 14 | 4.0 |
| Definitely plan to obtain a full-time job | 81 | 51.6 | 12 | 6.3 | 93 | 26.7 |
| Definitely plan to transfer to a four-year college or university | 14 | 8.9 | 113 | 58.9 | 127 | 36.4 |
| Hope to transfer to four-year college if grades are sufficient | 12 | 7.6 | 46 | 24.0 | 58 | 16.6 |
| Hope to get a full-time job; if unable to get one, will probably transfer to four-year college or university | 15 | 9.5 | 7 | 3.6 | 22 | 6.3 |
| Plan to enter Armed Services | 3 | 1.9 | 3 | 1.6 | 6 | 1.7 |
| Plan to return to work on my parents farm or ranch | 16 | 10.2 | 5 | 2.6 | 21 | 6.0 |
| Other | 6 | 3.8 | 2 | 1.0 | 8 | 2.3 |
| Total | 157 | 100.0 | 192 | 100.0 | 347 | 100.0 |

Chi-square = 155.84

 χ^2 at .05 level = 11.07

The chi-square test yielded a value of 155.84 which with five degrees of freedom, was significant. The contingency coefficient of 0.56 indicated a significant relationship between the plans of students upon completion of their junior college studies and the type of curriculum in agriculture in which the students are enrolled.

Importance of Selected Goals of College Attendance

For the purpose of determining if students enrolled in terminal and transfer curricula in agriculture have similar goals in attending college, seven selected goals were included in the questionnaire (See Appendix A). These goals were rated on a Likert-type scale by the students. Each goal could be rated, as perceived by the students, "very important," "important," "somewhat unimportant," and "not of any importance."

In order to obtain a mean score for each group of students on each of the selected goals, values of 4, 3, 2, and 1 were assigned to the rating categories in descending order of importance. From these scores, group means for terminal and transfer students were obtained and were tested for significant differences by the t Test. These mean scores and t values are found in Table XXIX.

The selected goal, "learning to enjoy life," received a mean score of 3.36 by the terminal students and 3.40 by the transfer students. This indicated that the degree of importance of this as a goal of college attendance was almost the same for the two groups. The t value of -0.49 with 349 degrees of freedom was not significant at the .05 level.

The goal, "developing my mind and intellectual abilities," received high ratings by both terminal and transfer students. The mean scores of 3.46 for terminal students and 3.45 for transfer students indicated the goal is of equal importance to both groups. The t value of 0.07 with 344 degrees of freedom was not significant at the .05 level.

"Securing vocational or professional training" received high ratings by both groups of students. The mean score of 3.55 for transfer students compared to 3.48 for terminal students indicated a slightly higher ranking by the transfer students. However, the t value of -0.91 with 341

TABLE XXIX

A COMPARISON OF THE SCORES FOR THE IMPORTANCE OF SELECTED GOALS OF
COLLEGE ATTENDANCE FOR TERMINAL AND TRANSFER STUDENTS

| Goal | Type of Student | Number | Standard Deviation | Mean Score | t |
|---|-----------------|--------|--------------------|------------|--------|
| Learning to enjoy life | Terminal | 157 | 0.7910 | 3.36 | |
| | Transfer | 194 | 0.7413 | 3.40 | -0.49 |
| Developing my mind and intellectual abilities | Terminal | 153 | 0.6369 | 3.46 | |
| | Transfer | 193 | 0.6381 | 3.45 | 0.07 |
| Securing vocational or professional training | Terminal | 151 | 0.6630 | 3.48 | |
| | Transfer | 192 | 0.6500 | 3.55 | -0.91 |
| To be able to earn a higher income | Terminal | 150 | 0.7524 | 3.39 | |
| | Transfer | 191 | 0.6895 | 3.57 | -2.20* |
| To become a cultured person | Terminal | 148 | 1.4873 | 2.52 | |
| | Transfer | 188 | 0.9456 | 2.82 | -2.13* |
| To develop a satisfying philosophy | Terminal | 148 | 0.9695 | 2.58 | |
| | Transfer | 185 | 0.9015 | 2.90 | -3.04* |
| To make a desirable marriage | Terminal | 139 | 1.1555 | 2.67 | |
| | Transfer | 177 | 1.1774 | 2.70 | -0.19 |

P .05 1.960

*Significant at .05 level

degrees of freedom was not significant at the .05 level.

The goal "to be able to earn a higher income" received a higher mean score (3.57) from transfer students than from terminal students (3.39). Both groups of students perceived this goal as being important to very important. The t value of -2.20 with 339 degrees of freedom was significant at the .05 level.

The goal "to become a cultured person" is somewhat less than important to both terminal and transfer students. However, the mean score of 2.82 for transfer students compared to 2.52 for terminal students indicated that this goal is more important to the transfer students. The t value of -2.13 with 334 degrees of freedom was significant at the .05 level.

"To develop a satisfying philosophy" is of much greater importance to transfer students than to terminal students as is indicated by the respective mean scores of 2.90 and 2.58. However, it is far less important than "learning to enjoy life," and "securing vocational or professional training," but more important than "to become a cultured person" to both groups of students. The t value of -3.04 with 331 degrees of freedom was significant at the .05 level.

The goal "to make a desirable marriage," received mean scores (2.67 and 2.70) indicating that it was not of major importance to either group of students. There was no significant difference in the mean scores for this goal since the t value of -0.19 with 314 degrees of freedom was not significant at the .05 level.

The selected goals of college attendance which were of greatest importance to terminal and transfer students as indicated by their mean scores were determined as "learning to enjoy life," "developing my mind

and intellectual abilities," "securing vocational and professional training," and "to be able to earn a higher income." The goal receiving the highest mean score by the terminal students was "securing vocational or professional training," while the goal receiving the highest mean score from transfer students was "to be able to earn a higher income." Becoming cultured individuals, developing satisfying philosophies and making a desirable marriage are apparently of lesser importance to the terminal and transfer students.

The goals for which the null hypotheses of no significant difference between terminal and transfer students were accepted included "learning to enjoy life," "developing my mind and intellectual abilities," "securing vocational or professional training," and "to make a desirable marriage." The null hypotheses of no significant differences were rejected for the goals "to be able to earn a higher income," "to become a cultured person," and "to develop a satisfying philosophy."

Importance of Selected Activities According to Expected Satisfaction

In attempting to determine if students enrolled in terminal and transfer curricula in agriculture differed in the type of activities from which they obtain satisfaction, seven activities were selected and incorporated into the questionnaire used in this study. (Appendix A). These selected activities clearly depict different areas of interest.

Students enrolled in the terminal and transfer curricula in agriculture were instructed to rank the activities from one through seven according to the amount of satisfaction they anticipated receiving in life from each. The numbers and percentages of terminal and transfer students placing each activity in a particular rank are presented in Table XXX.

TABLE XXX

RANKINGS OF SELECTED ACTIVITIES FOR ANTICIPATED SATISFACTION BY STUDENTS
ENROLLED IN TERMINAL AND TRANSFER CURRICULA

| TYPE OF CURRICULUM | ACTIVITIES | RANKING OF ACTIVITIES | | | | | | | | | | | | | | TOTAL RESPONSES PER ACTIVITY |
|--------------------|----------------------------------|-----------------------|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|------------------------------|
| | | 1st | | 2nd | | 3rd | | 4th | | 5th | | 6th | | 7th | | |
| | | N | % | N | % | N | % | N | % | N | % | N | % | N | % | |
| | Working at my job or profession | 49 | 37.4 | 46 | 35.1 | 23 | 17.6 | 9 | 6.9 | 3 | 2.3 | 1 | 0.8 | 0 | 0.0 | 131 |
| | Making money | 15 | 11.5 | 30 | 23.8 | 45 | 34.6 | 24 | 18.5 | 12 | 9.2 | 4 | 3.1 | 0 | 0.0 | 130 |
| | Marriage and family life | 50 | 38.5 | 31 | 23.9 | 22 | 16.9 | 11 | 8.5 | 4 | 3.1 | 4 | 3.1 | 8 | 6.2 | 130 |
| TERMINAL | Leisure activities | 5 | 3.9 | 6 | 4.6 | 15 | 11.5 | 36 | 27.7 | 33 | 25.4 | 30 | 23.1 | 5 | 3.9 | 130 |
| | Religious activities | 13 | 10.0 | 15 | 11.5 | 20 | 15.4 | 28 | 21.5 | 32 | 24.6 | 14 | 10.8 | 8 | 6.2 | 130 |
| | Taking part in community affairs | 0 | 0.0 | 0 | 0.0 | 5 | 3.9 | 17 | 13.1 | 39 | 30.0 | 58 | 44.6 | 11 | 8.5 | 130 |
| | Literature, art, music | 0 | 0.0 | 0 | 0.0 | 1 | 0.8 | 4 | 3.1 | 7 | 5.4 | 18 | 13.9 | 100 | 76.9 | 130 |

TABLE XXX Continued

| TYPE OF CURRICULUM | ACTIVITIES | RANKING OF ACTIVITIES | | | | | | | | | | | | | | TOTAL RESPONSES PER ACTIVITY |
|--------------------|----------------------------------|-----------------------|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|------------------------------|
| | | 1st | | 2nd | | 3rd | | 4th | | 5th | | 6th | | 7th | | |
| | | N | % | N | % | N | % | N | % | N | % | N | % | N | % | |
| | Working at my job or profession | 55 | 31.1 | 58 | 32.8 | 38 | 21.5 | 15 | 8.5 | 9 | 5.1 | 1 | 0.6 | 1 | 0.6 | 177 |
| | Making money | 20 | 11.3 | 39 | 22.0 | 48 | 27.1 | 29 | 16.4 | 25 | 14.1 | 9 | 5.1 | 7 | 4.0 | 177 |
| | Marriage and family life | 76 | 42.9 | 41 | 23.2 | 26 | 14.7 | 17 | 9.6 | 5 | 2.8 | 7 | 4.0 | 5 | 2.8 | 177 |
| TRANSFER | Leisure activities | 6 | 3.4 | 16 | 9.0 | 29 | 16.4 | 53 | 29.9 | 41 | 23.2 | 29 | 16.4 | 3 | 1.7 | 177 |
| | Religious activities | 21 | 11.9 | 21 | 11.9 | 25 | 14.1 | 38 | 21.5 | 41 | 23.2 | 27 | 15.3 | 4 | 2.3 | 177 |
| | Taking part in community affairs | 0 | 0.0 | 2 | 1.1 | 8 | 4.5 | 23 | 13.0 | 49 | 27.7 | 80 | 45.2 | 15 | 8.5 | 177 |
| | Literature, art, music | 2 | 1.1 | 0 | 0.0 | 0 | 0.0 | 3 | 1.7 | 7 | 4.0 | 22 | 12.5 | 142 | 80.7 | 177 |

To enable the differences in the ranking of the activities by the two groups to be tested for significance, values from one through seven were assigned to the rankings in reverse order. An activity which was ranked first received a score of seven, while an activity ranked seventh received a score of one. Mean ranking scores were obtained for both terminal and transfer students and were tested for significant differences by the t Test. The means and t values for the selected activities are shown in Table XXXI.

The activity which both groups of students ranked highest for anticipated satisfaction was "working at my job or profession." Table XXXI reveals that 90.1 percent of the terminal students and 85.4 percent of the transfer students ranked this activity either first, second or third for anticipated satisfaction. The mean scores of 5.96 for transfer students compared to 5.72 (shown in Table XXXI) for the terminal students, indicated an overall higher ranking of "working at my job or profession" by the transfer students. The t value of -1.78 with 306 degrees of freedom was not significant at the .05 level.

"Making money" was ranked in the top three ranks by 69.9 percent of the terminal students and 65.4 percent of the transfer students as a source of satisfaction. Comparisons of the mean scores for the two groups reveal that the transfer students gave the activity an overall higher rating. The t value of 1.88 was not significant at the .05 level.

"Marriage and family life" was ranked second to "working at my job or profession" by both groups of students. The mean score of 5.71 by the terminal students compared to 5.52 from the transfer students indicated that the terminal group anticipated a slightly greater amount of satisfaction from this source. However, the t value of 0.97 with 305 degrees

TABLE XXXI

A COMPARISON OF THE RANKING SCORES OF SELECTED ACTIVITIES ACCORDING TO EXPECTED SATISFACTION BY TERMINAL AND TRANSFER STUDENTS

| Activity | Type of Student | Number | Standard Deviation | Mean Score | t |
|----------------------------------|-----------------|--------|--------------------|------------|-------|
| Working at my job or profession | Terminal | 131 | 1.2188 | 5.72 | |
| | Transfer | 177 | 1.0771 | 5.96 | -1.78 |
| Making money | Terminal | 130 | 1.5520 | 4.69 | |
| | Transfer | 177 | 1.2389 | 5.00 | -1.88 |
| Marriage and family life | Terminal | 130 | 1.5752 | 5.71 | |
| | Transfer | 177 | 1.7308 | 5.52 | 0.97 |
| Leisure activities | Terminal | 130 | 1.3615 | 3.84 | |
| | Transfer | 177 | 1.3879 | 3.49 | 2.17* |
| Religious activities | Terminal | 130 | 1.6515 | 4.13 | |
| | Transfer | 177 | 1.6631 | 4.04 | 0.48 |
| Taking part in community affairs | Terminal | 130 | 1.0366 | 2.63 | |
| | Transfer | 177 | 0.9539 | 2.59 | 0.35 |
| Literature, art and music | Terminal | 130 | 0.8637 | 1.32 | |
| | Transfer | 176 | 0.7889 | 1.37 | -0.47 |

P .05 \geq 1.960 (with 00 degrees of freedom)

*Significant at the .05 level

of freedom was not significant by terminal students than transfer students. The mean score of 3.84 for terminal students compared to 3.49 for transfer students yielded a t value of 2.17, which with 305 degrees of freedom, was significant at the .05 level.

The overall ranking of "religious activities" for anticipated satisfaction by terminal and transfer students did not differ greatly, since the mean scores for the two groups were 4.13 and 4.04, respectively. The t value of 0.48 with 305 degrees of freedom was not significant at the .05 level.

Neither terminal or transfer students anticipated extensive satisfaction from "taking part in community affairs." The mean scores of 2.63 and 2.59 respectively, for terminal and transfer students indicate overall low rankings. The t value of 0.35 with 305 degrees of freedom was not significant at the .05 level.

The activity area receiving the lowest overall ranking by both terminal and transfer students was "literature, art, and music." Table XXXI reveals that 76.9 percent of the terminal students and 80.7 percent of the transfer students ranked this area of activity seventh. The mean scores of 1.32 and 1.37 yield a t value of -0.47 which, with 304 degrees of freedom, was not significant at the .05 level.

The order of placing for the selected activities according to anticipated satisfaction were the same for both terminal and transfer students. Based upon mean scores, the activities ranked from one to seven were "working at my job or profession," "marriage and family life," "making money," "religious activities," and "literature, art, and music." The only activity area in which the mean scores of terminal and transfer students differed significantly were "leisure activities."

Alternative Plans of Students If Back in School

An attempt was made in this study to determine if students enrolled in terminal and transfer curricula in agriculture would change areas in their high school educational pursuits if given the opportunity. An item in the questionnaire (See Appendix A) stated, "If you were back in high school and know what you now know, please check any of the following which you think you would do." The choices included seven alternatives. Students could make multiple responses if they desired. Shown in Table XXXII are the responses of terminal and transfer students to those alternative plans. Percentage-wise, almost twice as many transfer students (25.9 percent) as terminal students (14.5 percent) indicated that they would take a college preparatory program of study, while 18.2 percent of the terminal students indicated that they would take a vocational preparatory program of study compared to 9.6 percent of the transfer students. A greater percentage of transfer students (49.2 percent) than terminal students (35.8 percent) indicated that they would ask for more help from their teachers and counselors. Approximately equal percentages of the two groups indicated they would learn more about job qualifications, take a more active role in out-of-class school activities, or take a less active role in out-of-class school activities. Those indicating that they would not do anything differently represented 4.4 percent of the terminal students and 15.7 percent of the transfer students.

The null hypothesis that there is no relationship between the alternative plans of students if they were back in high school and the type of curriculum in agriculture which the students are enrolled was accepted since the percentage differences between the two groups were less than the level established for this study.

TABLE XXXII
 RESPONSES TO ALTERNATIVE PLANS IF BACK IN HIGH SCHOOL
 BY TYPE OF CURRICULUM

| Alternative Plans | N | % of total N(159) | N | % of total N(197) | Percentage Difference |
|--|----|----------------------|----|----------------------|--------------------------|
| Take a college preparatory program of study | 23 | 14.5 | 51 | 25.9 | -11.4 |
| Take a vocational preparatory program of study | 29 | 18.2 | 19 | 9.6 | + 8.6 |
| Ask for more help from my teachers and counselors | 57 | 35.8 | 97 | 49.2 | -13.4 |
| Learn more about the qualification requirements for certain jobs | 32 | 20.1 | 44 | 22.3 | - 2.2 |
| Take a more active role in out-of-class activities | 38 | 24.9 | 53 | 26.9 | - 2.0 |
| Take a less active role in out-of-class activities | 5 | 3.1 | 4 | 2.0 | + 1.1 |
| Would do nothing different | 7 | 4.4 | 31 | 15.7 | -11.3 |

Alternative Plans of Students If the Junior College They Attend Were Not Present

The student enrolled in the terminal and transfer curricula in agriculture responded to an item on the questionnaire which was designed to determine what the students felt they would do with regard to their college education if the junior colleges they were attending were not located in the four respective cities. Collation of these data in Table XXXVIII reveal that alternative plans of terminal and transfer students differed noticeably. Of the responding terminal students, 10.9 percent

indicated that they would not attend college at all compared to 1.6 percent of the transfer students; 61.2 percent indicated they would attend some other junior college compared to 51.4 percent of the transfer students; 18.4 percent responded that they would attend a four-year college or university compared to 44.3 percent of the transfer students; and 9.5 percent indicated that they would attend a technical school compared to 2.7 percent of the transfer students.

TABLE XXXIII

ALTERNATIVE PLANS IF JUNIOR COLLEGE NOT LOCATED IN THIS CITY
BY TYPE OF CURRICULUM IN WHICH ENROLLED

| Alternative Plans | Type of Curriculum | | | | Totals | |
|---|--------------------|-------|---------------|-------|--------|-------|
| | Terminal N | % | Transfer N | % | N | % |
| Not attend college at all | 16 | 10.9 | 3 | 1.6 | 19 | 5.7 |
| Attend some other junior college | 90 | 61.2 | 95 | 51.4 | 185 | 55.7 |
| Attend some four-year college or university | 27 | 18.4 | 82 | 44.3 | 109 | 32.8 |
| Attend a technical school | 14 | 9.5 | 5 | 2.7 | 19 | 5.7 |
| Total | 147 | 100.0 | 185 | 100.0 | 332 | 100.0 |

Chi-square = 37.18

χ^2 at .05 level = 7.82

Contingency coefficient = 0.32

The chi-square value of 37.18 with three degrees of freedom was significant at the .05 level. The contingency coefficient of 0.32 in-

licated a significant relationship. The null hypothesis that there is no relationship between alternative plans of students if the junior college in which they are enrolled were not present and the type of curriculum in agriculture in which the students are enrolled was rejected.

Work Experiences of Students Enrolled in Terminal and Transfer Curricula

Selected areas of work experiences including military service, experience at various jobs, work training in high school, occupation during the year prior to present college enrollment and employment status were compared for students enrolled in terminal and transfer curricula. The chi-square test was used to test each of the formulated null hypotheses.

Military Status

A comparison of the military status of students enrolled in terminal and transfer curricula in agriculture, shown in Table XXXIV, reveals that the military status of the two groups do not differ greatly. Students who have not served in any branch of the military comprised 91.1 percent of the 157 responding terminal students and 94.3 percent of the 192 responding transfer students. Of the two groups, seven percent of the terminal students and 5.2 percent of the transfer students had completed their military obligation. Only 1.9 percent of the terminal students and 0.5 percent of the transfer students were serving in a National Guard unit.

The chi-square value of 1.32 with one degree of freedom was not significant at the .05 level. Therefore, the null hypothesis that there is no relationship between the military status of the students and the type of curriculum in agriculture in which the students are enrolled

was accepted.

TABLE XXXIV
MILITARY STATUS BY TYPE OF CURRICULUM
IN WHICH ENROLLED

| Military Status | Type of Curriculum | | | | | |
|--|--------------------|-------|----------|-------|--------|-------|
| | Terminal | | Transfer | | Totals | |
| | N | % | N | % | N | % |
| Have not served in any branch of the military | 143 | 91.1 | 181 | 94.3 | 324 | 92.8 |
| Have already completed military obligation | 11 | 7.0 | 10 | 5.2 | 21 | 6.0 |
| Am presently serving in a National Guard or Reserve Unit | 3 | 1.9 | 1 | 0.5 | 4 | 1.2 |
| Total | 157 | 100.0 | 192 | 100.0 | 349 | 100.0 |

Chi-square = 1.32

χ^2 at .05 level = 3.84

Job Experiences of Students

Shown in Table XXXV is an analysis of selected job areas in which students enrolled in terminal and transfer curricula in agriculture indicated they had worked for three months or more from the time they entered high school until the present. More than 50 percent of both groups of students indicated that they had worked on their parents' farms or ranches or the farms or ranches of others. The job of truck driving had been engaged in by 24.5 percent of the terminal enrollees and 27.4 percent of the transfer group. Other job areas in which substantial

TABLE XXXV

JOB EXPERIENCE AREAS BY TYPE OF CURRICULUM IN WHICH ENROLLED

| Job Experience Areas | Type of Curriculum | | | | Percentage Difference |
|---|--------------------|----------------------|----------|----------------------|--------------------------|
| | Terminal | | Transfer | | |
| | N | % of Total N(159) | N | % of Total N(197) | |
| Farm or ranch work on parent's farm or ranch | 84 | 52.8 | 116 | 58.9 | -6.1 |
| Farm or ranch work other than on farm of parents | 90 | 56.6 | 120 | 60.9 | -4.3 |
| Auto mechanic of farm machinery repairman | 14 | 8.8 | 22 | 11.2 | -2.4 |
| Welder | 18 | 11.3 | 27 | 13.7 | -2.4 |
| Assembly-line or other type production worker in a factory or plant | 11 | 6.9 | 18 | 9.1 | -2.2 |
| Sales work | 14 | 8.8 | 20 | 10.2 | -1.4 |
| Truck driver | 39 | 24.5 | 54 | 27.4 | -2.9 |
| Heavy equipment operator | 11 | 6.9 | 30 | 15.2 | -8.3 |
| Farm machinery operator | 63 | 39.6 | 74 | 37.6 | +2.0 |
| Machine operator in a factory or plant | 7 | 4.4 | 9 | 4.6 | -0.2 |
| Construction work | 41 | 25.8 | 51 | 25.9 | -0.1 |
| Butchering or meat processing | 7 | 4.4 | 8 | 4.1 | +0.3 |
| Nursery or greenhouse work | 7 | 4.4 | 6 | 3.0 | +1.4 |
| Refrigeration and/or air conditioning | 1 | 0.6 | 4 | 2.0 | -1.4 |
| Plumbing | 4 | 2.5 | 5 | 2.5 | 0.0 |
| Veterinarian's assistant | 3 | 1.9 | 12 | 6.1 | -4.2 |
| Hatchery employee | 1 | 0.6 | 0 | 0.0 | +0.6 |

TABLE XXXV (Continued)

| Job Experience Areas | Type of Curriculum | | | | Percentage Difference |
|---|--------------------|----------------------|----------|----------------------|--------------------------|
| | Terminal | | Transfer | | |
| | N | % of Total N(159) | N | % of Total N(197) | |
| Feedstore, grain elevator, or gin employee | 27 | 17.0 | 37 | 18.8 | -1.8 |
| Service station attendant | 33 | 20.8 | 35 | 17.8 | +3.0 |
| Forestry or timber work | 3 | 1.9 | 3 | 1.5 | +0.4 |
| Clerical or similar office work | 3 | 1.9 | 12 | 6.1 | -4.2 |
| Livestock auction or stock- yards employee | 31 | 19.5 | 47 | 23.9 | -4.4 |

percentages of students had worked included construction work, indicated by 25.8 percent of the terminal group and 25.9 percent of the transfer group; farm machinery operator, indicated by 39.6 percent of the terminal students and 37.6 percent of the transfer students; and livestock auctions or stockyards, responded to by 19.5 percent of the terminal students and 23.9 percent of the transfer students.

The percentage differences between terminal and transfer students for the extent of participation in selected job areas did not equal or exceed the level established for significance in this study. The null hypothesis that there is no relationship between the types of jobs at which students have worked and the type of curriculum in agriculture in which the students are enrolled was, therefore, accepted.

High School Cooperative Work Training

The extent of participation in various high school cooperative work training programs by students enrolled in terminal and transfer curricula in agriculture is shown in Table XXXVI. The vast majority of terminal students (74.3 percent) and transfer students (80 percent) did not participate in cooperative work training programs. There were no major differences in the percentage of students in both groups who had participated in the programs. Cooperative training programs in vocational agriculture was verified as the program having the greatest participation, since 16.7 percent of the terminal students and 16.8 percent of the transfer students had engaged in this type of program. A higher percentage of terminal students than transfer students participated in work training programs in Distributive Education and Industrial Cooperative Training.

TABLE XXXVI

PARTICIPATION IN HIGH SCHOOL COOPERATIVE WORK TRAINING
BY TYPE OF CURRICULUM IN WHICH ENROLLED

| Participation in Coop. Work Training | Type of Curriculum | | | | | |
|---|--------------------|-------|----------|-------|-------|-------|
| | Terminal | | Transfer | | Total | |
| | N | % | N | % | N | % |
| Did not participate | 107 | 74.3 | 148 | 80.0 | 255 | 77.5 |
| Distributive Education | 6 | 4.2 | 2 | 2.2 | 10 | 3.0 |
| Industrial Cooperative Training | 7 | 4.9 | 2 | 1.1 | 9 | 2.7 |
| Vocational Agriculture | 24 | 16.7 | 31 | 16.8 | 55 | 16.7 |
| Total | 144 | 100.0 | 185 | 100.0 | 329 | 100.0 |

Chi-square = 5.03

χ^2 at .05 = 5.99

The chi-square test yielded a value of 5.03 which with two degrees of freedom was not significant at the .05 level. The null hypothesis that there is no relationship between the extent of participation in high school cooperative work training programs and the type of curriculum in agriculture in which the students are enrolled was accepted.

Students' Occupations During the Year Prior to Present Enrollment in College

An analysis of occupational engagement of the terminal and transfer students during the year prior to their enrollment in junior colleges now attending is presented in Table XXXVII. Comparisons of the percentages of students in each of the two groups who responded to each of the occupational categories reveal that they were quite similar. That the majority of both groups of students were attending high school during the year prior to their enrollment in the junior college now attending is indicated by responses from 75.3 percent of the terminal students and 76.3 percent of the transfer students. Those students who were working full-time represented 9.5 percent of the terminal students and 10.8 percent of the transfer students. Approximately equal percentages of both groups were serving in the armed forces or attending a four-year college or university.

A chi-square value of 1.06 with three degrees of freedom was found not significant at the .05 level. The null hypothesis that there is no relationship between the occupation of students in the year prior to present college enrollment and the type of curriculum in agriculture in which the students are enrolled was accepted.

TABLE XXXVII
 OCCUPATION DURING THE YEAR PRIOR TO PRESENT COLLEGE ENROLLMENT
 BY TYPE OF CURRICULUM IN WHICH ENROLLED

| Occupation | Type of Curriculum | | | | | |
|---|--------------------|-------|----------|-------|--------|-------|
| | Terminal | | Transfer | | Totals | |
| | N | % | N | % | N | % |
| Attending high school | 119 | 75.3 | 148 | 76.3 | 267 | 75.8 |
| Working full-time | 15 | 9.5 | 21 | 10.8 | 36 | 10.2 |
| Looking for a job | 3 | 1.9 | 0 | 0.0 | 3 | 0.9 |
| Serving in the Armed Forces | 9 | 5.7 | 10 | 5.2 | 19 | 5.4 |
| Attending another junior college | 2 | 1.3 | 2 | 1.0 | 4 | 1.1 |
| Attending a trade school | 1 | 0.6 | 2 | 1.0 | 3 | 0.9 |
| Attending a four-year college or university | 8 | 5.1 | 11 | 5.7 | 19 | 5.4 |
| Other | 1 | 0.6 | 0 | 0.0 | 1 | 0.3 |
| Total | 158 | 100.0 | 194 | 100.0 | 352 | 100.0 |

Chi-square = 1.06

χ^2 at .05 level = 7.82

Employment Status of Students

The employment status of students enrolled in terminal and transfer curricula in agriculture is shown in Table XXXVII. Of the terminal students, 12.7 percent indicated that they were not working because they did not wish to work, compared to 20.1 percent of the transfer students. Similar percentages of both groups of students indicated the desire to work but were unable to obtain a job. A greater percentage of the terminal students (51.9 percent) worked part-time than did the transfer

students (42.8 percent). The percentage of students in each of the two groups who worked more than 40 hours per week differed by less than one percent.

TABLE XXXVIII .

EMPLOYMENT STATUS BY TYPE OF CURRICULUM IN WHICH ENROLLED

| Employment Status | Type of Curriculum | | | | | |
|---|--------------------|-------|----------|-------|--------|-------|
| | Terminal | | Transfer | | Totals | |
| | N | % | N | % | N | % |
| Not working because of not wishing to work | 20 | 12.7 | 39 | 20.1 | 59 | 16.8 |
| Desire to work but unable to obtain a job | 46 | 29.1 | 58 | 29.9 | 104 | 29.5 |
| Working part-time (Less than 40 hours per week) | 82 | 51.9 | 83 | 42.8 | 165 | 46.9 |
| Working full-time (More than 40 hours per week) | 10 | 6.3 | 14 | 7.2 | 24 | 6.8 |
| Total | 158 | 100.0 | 194 | 100.0 | 352 | 100.0 |

Chi-square = 4.54

 X^2 at .05 level = 7.82

Table XXXIX presents an analysis of the number of hours worked per week by employed students enrolled in terminal and transfer curricula in agriculture. This table reveals that the majority of both groups of employed students work from 10 to 29 hours per week as was indicated by responses from 71 percent and 61.2 percent, respectively, for terminal and transfer students.

TABLE XXXIX

NUMBER OF HOURS WORKED PER WEEK BY TYPE OF CURRICULUM IN WHICH ENROLLED

| Number of Hours Worked per Week | Type of Curriculum | | | | | |
|------------------------------------|--------------------|-------|----------|-------|--------|-------|
| | Terminal | | Transfer | | Totals | |
| | N | % | N | % | N | % |
| Less than 10 | 10 | 10.7 | 13 | 13.3 | 23 | 12.0 |
| 10 - 19 | 33 | 35.5 | 30 | 30.6 | 63 | 33.0 |
| 20 - 29 | 33 | 35.5 | 30 | 30.6 | 63 | 33.0 |
| 30 - 39 | 11 | 11.8 | 12 | 12.2 | 23 | 12.0 |
| 40 or more | 6 | 6.5 | 13 | 13.3 | 19 | 10.0 |
| Total | 93 | 100.0 | 98 | 100.0 | 191 | 100.0 |

Chi-square = 3.17

 X^2 at .05 level = 9.49

The chi-square values of 4.54 with three degrees of freedom for the employment status and 3.17 with four degrees of freedom for the number of hours worked per week by employed students were not significant at the .05 level. The null hypothesis that there is no relationship between the employment status of the students and the type of curriculum in agriculture in which the students are enrolled was accepted.

Selected Indicators of Scholastic
Ability of Students Enrolled in
Terminal and Transfer Curricula

To facilitate the comparison of the scholastic abilities of students enrolled in terminal and transfer curricula, three selected indicators of scholastic ability were obtained for terminal and transfer students.

These indicators are the quartile rank of the student in his high school

graduating class, the composite score on the ACT, and the cumulative college grade point average. This information was made available by the admissions offices of the junior colleges involved in this study. Scores on all three measures were not available for all of the students in both groups.

Quartile Rank of Students in High School Graduating Classes

The quartile ranks in high school graduating classes of terminal and transfer curricula in agriculture were available for 97 terminal and 133 transfer students. The standard deviation and mean quartile rank for both groups of students were computed and presented in Table XL. The mean quartile rank of the terminal students, which was 2.92, was slightly higher than the mean of 2.75 for the transfer students on the same measure. This indicated that the transfer students tended to rank slightly higher in their high school graduating classes than did the terminal students. However, the t value of 1.33 (Table XL) with 228 degrees of freedom was not sufficient to reject the null hypothesis.

Composite Scores on the ACT

Composite scores on the ACT were available for 85 terminal students and 112 transfer students. The mean composite scores standard deviation and t values are presented in Table XL. A mean composite score of 16.02 for the transfer students was found only slightly higher than the mean of 15.40 for the terminal students.

The t value of -0.93 with 196 degrees of freedom was not significant at the .05 level. Therefore, the null hypothesis that there is no significant difference in the mean composite score on the ACT between those

students enrolled in terminal curricula in agriculture and those students enrolled in transfer curricula in agriculture was accepted.

Cumulative College Grade Point Average

College grade point averages were available for 52 terminal students and 143 transfer students. The mean grade point average and standard deviations for the two groups of students are shown in Table XL. The terminal students mean grade point average of 2.06 was only slightly higher than the mean grade point average of 1.88 for the transfer students.

The t value of 1.57 with 195 degrees of freedom was not significant at the .05 level. Therefore, the null hypothesis that there is no significant difference in the mean cumulative college grade point average of those students enrolled in terminal curricula in agriculture and those students enrolled in transfer curricula in agriculture was accepted.

TABLE XL

A COMPARISON OF SELECTED INDICATORS OF SCHOLASTIC ABILITY
FOR TERMINAL AND TRANSFER STUDENTS

| Measure of Scholastic Ability | Type of Student | Number | Standard Deviation | Mean | t |
|---|-----------------|--------|--------------------|-------|--------------------|
| Quartile rank in high school graduating class | Terminal | 97 | 0.90 | 2.92 | |
| | Transfer | 133 | 0.88 | 2.76 | 1.33 ^a |
| Composite score on the ACT | Terminal | 86 | 4.37 | 15.40 | |
| | Transfer | 112 | 4.84 | 16.02 | -0.93 ^b |
| Cumulative college grade point average | Terminal | 53 | 0.75 | 2.06 | |
| | Transfer | 144 | 0.73 | 1.88 | 1.57 ^c |

^ap .05 \geq 1.96 (With 228 degrees of freedom)

^bp .05 \geq 1.96 (With 196 degrees of freedom)

^cp .05 \geq 1.96 (With 195 degrees of freedom)

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Presented in this chapter are a summary review of the study problem and its setting, the design and conduct of the study, and the major findings. Also presented are conclusions and recommendations based upon the analyses and summarization of the collected data.

Summary

Purpose of the Study

The purpose of this study was to determine if there are differences in selected characteristics of students enrolled in terminal curricula in agriculture and those students enrolled in transfer curricula in four Texas junior colleges. Specifically, the characteristics considered were drawn from the four areas of socio-economic characteristics, educational backgrounds and goals, work backgrounds and experiences, and scholastic ability.

Specific Objectives of the Study

The following objectives were formulated to accomplish the major purpose of this study:

1. To compare selected socio-economic characteristics of students enrolled in terminal curricula to those of students enrolled in transfer curricula in agriculture.

2. To compare selected areas of the educational backgrounds and goals of students enrolled in the terminal curricula in agriculture to those of students enrolled in transfer curricula in agriculture.

3. To compare the work experiences of the students enrolled in terminal curricula in agriculture to those of students enrolled in transfer curricula in agriculture.

4. To compare the scholastic abilities of the students enrolled in terminal curricula in agriculture to those of students enrolled in transfer curricula in agriculture.

Need for the Study

While junior colleges are extensively involved in occupational training programs for students who do not desire a baccalaureate degree, the bulk of past educational research involving junior college students have compared junior college students as a group to four-year college and university students. Little research has been directed toward the many subgroups which compose junior college student bodies, one of which is students enrolled in terminal programs of study. To be able to satisfactorily evaluate the success of such programs, to implement meaningful changes for improvement or to design effective new programs on a local, regional, or state basis, demands a rather in depth knowledge of the characteristics of students who have been or will be engaged in the terminal programs.

Design and Conduct of the Study

Following a review of the literature related to the problem, the selection of study population, developing an instrument for collection

of the data, and collection and an analysis were the major tasks involved in the design and conduct of the study.

The study sample consisted of a total 356 students enrolled in terminal and transfer curricula in agriculture in four Texas junior colleges selected for the study offered terminal curricula in agriculture which differed distinctly from the transfer curricula and consisted of a number of courses in agriculture which were not designed for transfer credit to a senior college or university. The study sample was composed of 159 students enrolled in terminal curricula in agriculture and 197 students enrolled in transfer curricula in agriculture. The instrument used to collect the data was a structured questionnaire which was administered to and collected from students by instructors in agriculture in the four junior colleges.

Summary of Findings

The findings of this study have been reported in terms of the four objectives which were formulated to provide direction to the attainment of its stated purpose. Hypotheses, in the null form, were submitted in relationship to the formulated objectives of the study:

Objective I. To compare selected socio-economic characteristics of students enrolled in terminal curricula in agriculture to those of students enrolled in transfer curricula in agriculture.

Comparisons of terminal and transfer students were made for the following socio-economic characteristics: (1) sex, race, marital status, and family size, (2) level of educational attainment of fathers; (3) occupational classification of fathers; (4) population of the area

where reared; (5) size of farms and ranches operated by parents; (6) types of farming operations; (7) income level of parents; and (8) source of family income.

1. The analyzed data revealed that the difference between the sex, race, marital status, and family size were not significant as measured by the Chi-square test, t test, or established level of significance by percentage difference. Typically, terminal and transfer students were male, white, and single. More than 90 percent of both groups were between the ages of 17 and 22 years, and over 70 percent have one to three siblings. The null hypotheses that there is no relationship between the sex, age, race, marital status, and family size, and the type of curriculum in agriculture which the students are enrolled were accepted.

2. Comparisons of the fathers of terminal and transfer students for level of educational attainment revealed no significant difference since the Chi-square value of 8.06 was not significant at the .05 level. More than 50 percent of the fathers of both groups had completed a high school education. The null hypothesis that there is no relationship between the level of educational attainment of the fathers and the type of curriculum in agriculture in which the students are enrolled was accepted.

3. Comparisons were made of the occupational classifications of the fathers of terminal and transfer students. The majority of the fathers of students in both groups were either a farmer or rancher or a skilled worker or foreman. The Chi-square value of 3.49 was not significant at the .05 level. Therefore, the null hypothesis of no relationship between the occupational classification and the type of curriculum in agriculture in which the students are enrolled was accepted.

4. Analysis of data comparing the population of the community

where the students were reared revealed that more than 65 percent of the transfer group and 70 percent of the terminal group grew up in a rural area. The overall differences between the two groups were not significant since the Chi-square value of 8.12 was not significant at the .05 level. The null hypothesis that there is no relationship between the population of the area where the students were reared and the type of curriculum in agriculture in which the students are enrolled was accepted.

5. The analyzed data indicated that the percentage of terminal and transfer students whose parents operated farms or ranches and the extent of engagement in these operations did not differ significantly. Between 60 and 70 percent of the parents of both groups operated farms or ranches. The majority of the farms are operated on a full-time basis. Comparisons of the size of the farms or ranches operated by parents of terminal and transfer students reveal that 67 percent and 57.2 percent of the two respective groups operate farms or ranches consisting of 50-1000 acres. The Chi-square value of 8.75 was not sufficient to reject the null hypothesis that there is no relationship between the size of the farms or ranches operated by the parents and the type of curriculum in agriculture in which the students are enrolled.

6. The type of farming operations engaged in by the parents of terminal and transfer students was found to be very similar. The types of operations most commonly reported by both groups were cow-calf production, cotton production, and commercial feed grain production. Since the percentage differences in type of operations were not significant, the null hypothesis that there is no relationship between the type farming operation carried on by the parents and the type of curriculum in agriculture in which the students are enrolled was accepted.

7. The income levels of the parents of terminal and transfer students were not considered different since a Chi-square value of 4.30 was not significant at the .05 level. More than 60 percent of both groups of students reported parental income between 6000 and 19,999 dollars. The null hypothesis that there is no relationship between the income level of the parents of students and the type of curriculum in agriculture in which the students are enrolled was accepted.

8. The sources of family income reported by terminal and transfer students did not differ significantly in percentage. More than 60 percent of both groups reported that a part of their family income was earned by the fathers from a farm source. Approximately one third of the two groups reported that their mothers worked full time. The null hypothesis that there is no relationship between the source of family income and the type of curriculum in agriculture in which the students are enrolled was accepted.

Objective II. To compare selected areas of educational backgrounds and goals of the students enrolled in terminal curricula in agriculture to those of students enrolled in transfer curricula in agriculture. The characteristics upon which the terminal and transfer students were compared were: (1) size of high school from which the students were graduated; (2) extent of enrollment in vocational agriculture in high school, participation, and level of achievement in high school FFA; (3) participation in out-of-class activities, high school clubs or organizations, and varsity sports in high school; (4) awards or special

recognition received in high school; (5) participation in junior college student organizations; (6) sources of encouragement for students to enroll in college; (7) the major purpose in college attendance, highest level of education expected to complete, and the plans of students upon completing their junior college studies; (8) anticipated satisfaction from selected activities; (9) alternative plans if back in high school.

1. Comparison of the size of high schools of which terminal and transfer students were graduates revealed only slight differences. Approximately two-thirds of the two groups of students were graduates of high schools having 200 to 2,000 students. The Chi-square value of 1.91 was not significant at the .05 level. Consequently, the null hypothesis that there is no relationship between the size of the high school from which students were graduated and the type of curriculum in agriculture in which the students are enrolled was accepted.

2. Extent of enrollment in high school vocational agriculture did differ greatly between terminal and transfer students. More than 60 percent of the terminal students and approximately three-fourths of the transfer students had enrolled in vocational agriculture for three years or more. A Chi-square value of 6.40 was not significant at the .05 level which resulted in the acceptance of the null hypothesis that there is no relationship between the extent of enrollment in high school vocational agriculture and the type of curriculum in agriculture in which the students are enrolled.

3. The extent of participation and achievement in high school FFA

for terminal and transfer students did not differ significantly. The percent of transfer students having the higher achievements in FFA (Star Farmer and American Farmer degree) was slightly higher than that of the terminal students. However, the null hypothesis that there is no relationship between extent of participation in high school and the type of curriculum in agriculture in which the students are enrolled was accepted.

4. Comparisons of the extent of participation of terminal and transfer students in out-of-class activities and high school clubs and organizations revealed that transfer students had participated to a greater extent in all activities and organizations, with the exception of band or music, than had terminal students. However, the percentage differences did not equal or exceed the level set for the rejection of the null hypothesis. The null hypothesis of no relationship between the extent of participation in out-of-class activities and high school clubs or organizations and the type of curriculum in agriculture in which the students are enrolled was accepted.

5. The extent of participation in varsity sports in high school by terminal and transfer students was found to be remarkably similar. The percentage differences for any level of participation did not exceed 1.6 percent. The Chi-square value of .05 was not significant at the .05 level. Therefore, the null hypothesis that there is no relationship between the extent of participation in high school varsity sports and the type of curriculum in agriculture in which the students are enrolled was accepted.

6. Comparisons of awards of recognition which students enrolled in terminal and transfer curricula in high school received during high school indicate that the awards which both groups of students received

were for exhibiting livestock or poultry. Less than 20 percent of both groups indicated having been elected class favorite or to Who's Who in High School. The percentage differences in the two groups were not significant. Consequently, the null hypothesis that there is no relationship between awards and recognition received in high school and the type of curriculum in agriculture in which the students are enrolled was accepted.

7. Findings indicate that students enrolled in terminal and curricula in agriculture participate in few junior college student organizations. Participation in "aggie" or rodeo clubs was reported by more than 50 percent of terminal and transfer students. A greater percentage of transfer students than terminal students participated in intramural athletics. The extent of participation in other junior college organizations was extremely low. Since percentage differences between the terminal and transfer students were not significant, the null hypothesis that there is no relationship between the extent of participation in junior college student organizations and the type of curriculum in which the students are enrolled was accepted.

8. Findings with regard to the extent terminal and transfer students perceived that they were encouraged to enroll in college from six selected sources revealed that there was significant Chi-square value for the degree of encouragement from high school teachers, excluding vocational agriculture teachers, friends enrolling in college and college agriculture instructors. A greater percentage of transfer students indicated having been encouraged "quite a lot" by these sources, while a greater percentage of terminal students indicated that they were encouraged "some." The sources for which the Chi-square values were not sig-

nificant were parents, vocational agriculture teachers, and high school counselor. Both groups overwhelmingly indicated that their parents encouraged them to enroll in college more than any other source. The null hypothesis that there is no relationship between the sources of encouragement to enroll in college and the type of curriculum in agriculture in which the students are enrolled was rejected.

9. Comparisons of terminal and transfer students for the major purpose in junior college attendance revealed a distinct difference between the two groups. More than 60 percent of the terminal students indicated that preparation for employment was their major purpose in junior college attendance, while more than 75 percent of the transfer students indicated that preparation for transfer to a four-year college or university was their major purpose in attending college. The Chi-square value of 151.17 was significant at the .05 level. The contingency coefficient of 0.56 indicated a significant relationship between the major purpose in college attendance and the type of curriculum in agriculture in which the students are enrolled. This null hypothesis was therefore rejected.

10. That terminal and transfer students expect to complete different levels of education was clearly indicated by the findings pertaining to this portion of the study. More than 75 percent of the terminal students indicated that they expected to complete the junior college degree, while more than 80 percent of the transfer students indicated the expectation of completing either a bachelor's or master's degree. The Chi-square value of 151.17 and the contingency coefficient of 0.56 indicated a significant relationship between the major purpose in college attendance and type of curriculum in agriculture in which the students are

enrolled. Consequently, this null hypothesis was rejected.

11. Comparisons of the plans of terminal and transfer students upon completion of their junior college studies clearly revealed a major difference. More than 60 percent of the terminal students indicated plans for obtaining or trying to obtain a full-time job, whereas, more than 80 percent of the transfer group indicated plans for transferring to a four-year college or university. The Chi-square value of 155.84 was significant at the .05 level and the contingency coefficient of 0.56 indicated a significant relationship between the plans of students and upon completion of their junior college studies and the type of curriculum in agriculture in which they are enrolled. Hence, the null hypothesis was rejected.

12. Scores obtained from the numerical ranking of seven selected activities according to anticipated satisfaction revealed that terminal and transfer students expected to obtain satisfaction from the same types of activities. The only activity area in which the ranking scores for the two groups were significantly different was leisure activities. Terminal students ranked this area slightly higher than transfer students. The order of rank of the activities for both groups based upon mean scores was: (1) working at my job or profession; (2) marriage and family life; (3) making money; (4) religious activities; (5) leisure activities; (6) taking part in community affairs; and (7) literature, art, and music. Since the mean scores for only one activity were significantly different, and because the overall ranking of the activities were the same for both groups, the null hypothesis was accepted.

13. Mean scores for the rating of seven selected goals of college attendance revealed that both terminal and transfer students in agricul-

ture were going to college to obtain vocational or professional training, to be able to earn a higher income and to develop their mental and intellectual abilities. Goals which were not as important to both groups include becoming a cultured person, to develop a satisfying philosophy or to make a desirable marriage. The null hypothesis that there are no significant differences between terminal and transfer students for the goals of learning to enjoy life, developing their minds and intellectual abilities, securing vocational or professional training, and to make a desirable marriage, was accepted. The null hypothesis that there is no significant difference between terminal and transfer students for the goals of being able to earn a higher income, becoming a cultured person, and to develop a satisfying philosophy, was rejected.

14. Comparisons of the reactions of students enrolled in terminal and transfer curricula to the statement, "If you were back in high school and know what you now know, please check any of the following which you think you would do," revealed that a greater percentage of transfer students indicated that they would take a college preparatory program of study and ask for more help from their teachers and counselors, while a greater percentage of terminal students indicated that they would take a vocational preparatory program of study. The percentage differences were not equal to or greater than the level set for significance. Therefore, the null hypothesis that there is no relationship between alternative plans of students if they were back in high school, and the type of curriculum in agriculture in which they were enrolled was accepted.

15. Although a formulated null hypothesis was not submitted concerning the alternative plans of terminal and transfer students if the junior college in which they were enrolled were not present, comparisons

of responses of the two groups revealed contrasting differences. Approximately 50 percent of the terminal students and 60 percent of the transfer students indicated that they would attend some other junior college, while only 18 percent of the terminal group as compared to 44 percent of the transfer group indicated that they would attend a four-year college or university. The Chi-square test indicated a significant difference between the alternative plans reported by the two groups.

Objective III. To compare the work experience of the students enrolled in terminal curricula in agriculture to those of students enrolled in transfer curricula in agriculture. The various areas of work experiences compared were: (1) military status; (2) selected types of jobs at which students had worked; (3) enrollment in high school cooperative work training programs; (4) occupation of the students in the year prior to present enrollment in college; and (5) present employment status of the students.

1. Findings regarding the military status of students enrolled in terminal and transfer curricula in agriculture revealed that the two groups were more alike than different. More than 90 percent of both groups had not completed their military obligation. Only seven percent of the terminal group and slightly over five percent of the transfer group had completed their military obligation. The Chi-square value of 1.32 was not significant at the .05 level, which resulted in acceptance of the null hypothesis that there is no relationship between the military status of the students and the type of curriculum in agriculture in which they were enrolled.

2. Comparisons of job areas in which students enrolled in terminal and transfer curricula indicated that they had worked for a minimum of three months since high school indicated that farm and ranch work was the largest single job area in which both groups had worked. Other job areas in which substantial percentages of both groups had worked included truck driving, farm machinery operation, construction work, feedstore, grain elevator or gin employment, service station attendant, and live-stock auction or stockyards work. The percentage differences between the two groups for the various job areas were not significant since they were below the established level for significance.

3. Findings concerning the participation of transfer and terminal students in high school cooperative work training programs revealed that almost 75 percent of the terminal group and 80 percent of the transfer group had not participated in any such program. Of the students in both groups who had participated in these programs, the majority had engaged in cooperative work training programs in agriculture. The Chi-square test indicated no significant difference between the two groups. Consequently, the null hypothesis of no relationship between enrollment in high school cooperative work training programs and the type of curriculum in agriculture in which the students are enrolled was accepted.

4. Findings related to the occupation of terminal and transfer students during the year prior to present enrollment in college revealed that slightly more than 75 percent of both terminal and transfer students was enrolled in high school during this time. Approximately equal percentages of the remainder of the two groups were working full time, serving in the armed forces or enrolled in a four-year college or university. The Chi-square test indicated no significant difference which

resulted in the acceptance of the null hypothesis that there is no relationship between the occupation of students during the year prior to present college enrollment and the type of curriculum in agriculture in which they are enrolled.

5. The findings with regard to the present employment status of the students enrolled in terminal and transfer curricula revealed that slightly more than 50 percent of the terminal students and 40 percent of the transfer students were employed part time. Less than 10 percent of both groups were employed full time and 12.7 percent of the terminal students and 20.1 percent of the transfer students indicated that they were not working because they did not wish to work. More than 70 percent of the terminal students and 60 percent of the transfer students who were employed worked from 10-29 hours per week. The Chi-square test did not yield a significant value at the .05 level. Therefore, the null hypothesis that there is no relationship between student employment status and the type of curriculum in agriculture in which the students are enrolled was accepted.

Objective IV. To compare scholastic abilities of the students enrolled in terminal curricula to those of students enrolled in transfer curricula in agriculture, as measured by quartile rank in high school graduating class, composite ACT score, and cumulative college grade point average.

1. Comparisons of the quartile ranks in their high school graduating classes of students enrolled in terminal and transfer curricula revealed a mean quartile rank of 2.96 for terminal students and 2.75 for the transfer students. While the transfer students ranked slightly

higher in their classes, the t test yielded a value which indicated that the means were not significantly different at the .05 level. Therefore, the null hypothesis that there is no significant difference in the quartile ranks in high school graduating classes between students enrolled in terminal curricula and students enrolled in transfer curricula in agriculture was accepted.

2. Comparisons of the ACT composite scores of students enrolled in terminal and transfer curricula in agriculture revealed that mean scores for the two groups were very similar. The mean score for terminal students was 15.4 compared to 16.02 for the transfer students. The t test revealed that at the .05 level, the two means were not significantly different. Consequently, the null hypothesis that there is no significant difference in the mean composite scores on the ACT between students enrolled in terminal curricula in agriculture and students enrolled in transfer curricula in agriculture was accepted.

3. The results of comparisons of students enrolled in terminal and transfer curricula in agriculture revealed that the mean cumulative grade point average for terminal students (2.06) was slightly higher than the mean for transfer students (1.88). However, the t test indicated that the differences in the means were not significant at the .05 level. The null hypothesis that there is no significant difference in the mean cumulative grade point average of students enrolled in terminal curricula in agriculture and those students enrolled in transfer curricula in agriculture was, therefore, accepted.

Conclusions

Based upon the findings of this study, the following conclusions were drawn:

1. Students enrolled in terminal and transfer curricula in agriculture in the four junior colleges do not differ in socio-economic background. Evidence from this study produced no basis for supposition that students enrolled in either type of curriculum are different in personal attributes such as age, sex, race and marital status, or that they can be categorized by type according to the size of their families, educational level and occupational classification of their fathers, and source and level of family income.

2. The educational backgrounds and experiences of the students enrolled in terminal and transfer curricula in agriculture were more alike than different as evidenced by their being graduates of the same size of high school, similar enrollment in high school vocational agriculture, participation and achievement in FFA, as well as other activities and organizations.

3. The students enrolled in terminal and transfer curricula in agriculture were alike in terms of the types of activities from which they anticipate receiving satisfaction in life. Both types of students expect satisfaction from engagement in personal activities such as working and making money or marriage and family life rather than toward activities of a social or aesthetic nature.

4. The immediate purpose for which terminal students in agriculture were enrolled in a junior college were different from those of students enrolled in transfer curricula in agriculture as indicated by the intentions of the majority of the terminal students to go to work when they

complete their junior college studies, while the majority of the transfer students expect to attend a four-year college or university.

5. Students enrolled in terminal and transfer curricula in agriculture were more alike than different in occupational training, job experience, and employment status.

6. Students enrolled in terminal and transfer curricula in agriculture do not differ in scholastic ability as was indicated by very minor differences in group means for quartile rank in high school graduating classes, ACT composite scores, and cumulative college grade point average.

Recommendations

The following general recommendations are made based upon the findings of this study and literature reviewed.

1. In counseling entering freshmen in both terminal and transfer curricula, agriculture instructors in junior colleges should attempt to determine the educational and occupational aspirations of the students and inform them completely of all of the differences in the two types of programs, as well as the career opportunities related to each, so that the student can make an enlightened choice.

2. Institutional and state-wide studies should be made of the student dropout rates and the extent to which students change from one curriculum to another. Efforts should be put forth to determine the reasons for dropout or change of curriculum.

3. Evaluation of both terminal and transfer programs in terms of how well the students feel that their educational goals are being met should be conducted on a regular basis in junior colleges having these

programs.

4. Agriculture instructors in both terminal and transfer curricula should make a concerted effort to dispel the idea, often held by junior college teachers, that any educational program which does not lead toward a baccalaureate degree is designed exclusively for the socio-economic deprived or the scholastically incompetent individual.

5. Further research should be done in all areas of terminal and transfer programs in agriculture in junior colleges. Whether differences exist between the two groups in various characteristics could be investigated through the use of appropriate attitudinal measures, personality assessment measures, and interest measures.

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APPENDIX A

QUESTIONNAIRE

Please answer all questions as honestly and accurately as possible. The information which you supply in this questionnaire will be kept strictly confidential.

1. Name _____
2. Name of the junior college in which you are presently enrolled:
 _____ Junior College
3. Please check the type of program in agriculture in which you are presently enrolled.
 - Transfer program (I plan to transfer to a four-year college or university)
 - Agri-Business Technology
 - Agri-Chemical Technology
 - Farm and Ranch Management
 - Irrigation Technology
 - Farm Mechanics and Machinery Maintenance
4. Please check the appropriate response:

I am presently classified as a Freshman, Sophomore in college.

I am presently enrolled in my first semester of college.
 second semester of college.
 third semester of college.
 fourth semester of college.
 fifth semester of college.
 other _____
 (please specify)

I am presently taking _____ semester hours of college work.
5. On January 1, 1971, I will be _____ years of age.
6. Indicate your marital status by checking the appropriate response.
 - Single
 - Married
 - Divorced or separated
 - Widower (or widow)
7. If you are married, please indicate the size of your family.
 - Husband and wife only
 - Husband, wife and one child
 - Husband, wife and two children
 - Husband, wife and three children
 - Husband, wife and more than three children

8. Indicate your sex: () Male () Female
- Indicate your race: () White () Negro () American Indian
() Mexican-American () Other _____
(please specify)
- Indicate your military status: () I have not served in any branch
of the military.
() I have already completed my
military obligation.
() I am presently serving in a
National Guard or Reserve unit
to fulfill my military obli-
gation.
9. My parents are () married.
() divorced or separated.
() widowed.
10. Indicate the total number of brothers and sisters that you have:
- () None () Two () Four () Six () Eight
() One () Three () Five () Seven () More than
eight
11. Indicate the educational level attained by each of your parents:
- | | <u>FATHER</u> | <u>MOTHER</u> |
|---|---------------|---------------|
| College graduate | () | () |
| Attended college two or more years | () | () |
| Attended college less than two years | () | () |
| High school graduate | () | () |
| Attended high school but did not graduate | () | () |
| Elementary school graduate (eighth grade) | () | () |
| Attended elementary school | () | () |
12. Indicate where you have lived most of your life.
- () Rural area on a farm or ranch
() Rural area, non-farm
() Town with a population of less than 1,000 people
() City with a population of 1,000 to 9,999 people
() City with a population of 10,000 to 24,999 people
() City with a population of 25,000 to 49,999 people
() City with a population of 50,000 to 249,999 people
() City with a population of 250,000 or more people
13. Do your parents operate a farm or ranch? () Yes () No
- If "Yes," please check whether they operate it on a full- or part-
time basis:
- () Full-time () Part-time; supplies over 50 percent of family
income
() Part-time; supplies less than 50 percent of family income

14. Does your father work at a full-time job in addition to operating the farm or ranch? () Yes () No

15. Does your mother work at a full-time job? () Yes () No

IF YOUR PARENTS OPERATE A FARM OR RANCH, PLEASE ANSWER QUESTIONS 16 AND 17.

16. Indicate the size of the farm or ranch which your parents operate.

- () Under 50 acres () 800 to 999 acres () 2,500 to 3,000
 () 50 to 249 acres () 1,000 to 1,499 acres acres
 () 250 to 499 acres () 1,500 to 1,999 acres () More than
 () 500 to 799 acres () 2,000 to 2,499 acres 3,000 acres

17. Indicate the type of farming operation that best describes that of your parents.

- () Cow-calf operation () Dairy operation
 () Beef feedlot operation () Sheep or goat production
 () Commercial feed grain production () Cotton production
 () Wheat production () Rice production
 () Swine operation () Other: _____
 (Please specify)

18. Indicate your father's occupational classification. Indicate the classification for the job or position from which he derives more than 50 percent of his income.

- () Professional position (Lawyer, doctor, veterinarian, teacher, etc.)
 () Farmer or rancher
 () Clerk or salesman
 () Skilled worker or foreman
 () Semi-skilled worker
 () Unskilled worker
 () Other: _____
 (Please specify)

19. Please indicate the approximate total annual income of your parents.

- () Under \$3,000 () \$15,000 to 19,999
 () \$3,000 to 5,999 () \$20,000 to 24,999
 () \$6,000 to 7,999 () \$25,000 to 29,999
 () \$8,000 to 9,999 () \$30,000 or more
 () \$10,000 to 14,999

20. Indicate the total number of students enrolled in the high school from which you were graduated.

- () Less than 100 () 500 to 999
 () 100 to 199 () 1,000 to 1,999
 () 200 to 499 () 2,000 or more

21. Indicate the total number of years of Vocational Agriculture in which you were enrolled in high school.

- I did not enroll in Vocational Agriculture in high school.
 one year
 two years
 three years
 four years

22. Indicate the extent of your participation in your high school FFA chapter. (Check only one space)

- Non-member
 President of the chapter
 Chapter officer other than president
 Member

23. Indicate whether you have ever held any of the following FFA offices beyond the local chapter.

- District officer
 Area officer
 State officer
 National officer
 I have not held an office beyond the local chapter level.

24. Indicate your highest achievement in FFA.

- I did not participate in FFA
 Greenhand
 Chapter Farmer
 Star Farmer
 American Farmer

25. Indicate any of the following high school organizations or clubs in which you participated or held membership. If you were an officer, please so indicate by checking.

- | | <u>OFFICER</u> |
|---|--------------------------|
| <input type="checkbox"/> School Band | <input type="checkbox"/> |
| <input type="checkbox"/> Political Science Club | <input type="checkbox"/> |
| <input type="checkbox"/> Language Club(s) | <input type="checkbox"/> |
| <input type="checkbox"/> Student Council | <input type="checkbox"/> |
| <input type="checkbox"/> School Newspaper | <input type="checkbox"/> |
| <input type="checkbox"/> School Yearbook | <input type="checkbox"/> |
| <input type="checkbox"/> Drama Club | <input type="checkbox"/> |
| <input type="checkbox"/> Science Club | <input type="checkbox"/> |
| <input type="checkbox"/> Scholastic Honor Society | <input type="checkbox"/> |
| <input type="checkbox"/> 4-H Club | <input type="checkbox"/> |
| <input type="checkbox"/> Others: _____ | <input type="checkbox"/> |
| | <input type="checkbox"/> |

(Please specify)

26. Indicate the extent of your participation in varsity sports in high school.
- I did not participate in varsity sports in high school.
 - I participated in varsity sports for one year.
 - I participated in varsity sports for two years.
 - I participated in varsity sports for three years.
 - I participated in varsity sports for four years.
- Did you earn one or more letters? Yes No
27. Indicate which of the following out-of-class activities in which you participated during your high school years.
- Leadership contests
 - Public speaking contests
 - A part in a school play
 - FFA or 4-H judging contests
 - Performed in a school talent show
 - Exhibited livestock or poultry at fairs or livestock show
 - Entered science fairs
 - Others: _____
(Please specify)
28. Indicate any special awards or recognition that you received in high school.
- Elected to Who's Who or Class Favorite
 - Winner or high placing in a state or regional speech contest(s)
 - National Merit recognition
 - Had original writing published
 - Winner or high placing in a state or regional science fair
 - Prizes, trophies, or banners for exhibition of livestock or poultry
 - Others: _____
(Please specify)
29. Indicate whether you participate or hold membership in any of the following student organizations in the junior college in which you are enrolled.
- Aggie or Rodeo Club
 - Science Club
 - Language Club
 - College Band
 - College varsity squad
 - Intramural sports
 - Drama Club
 - Phi Theta Kappa
 - Young Democrats or Young Republicans
 - Service Club (Such as Circle K)
 - Social fraternity or sorority
 - Debate Club
 - Other: _____ (Please specify)

30. Please check the types of jobs at which you have worked for three months or more, either full- or part-time, from the time you entered high school until the present time.

- Farm or ranch work on my parents farm or ranch
- Farm or ranch work on farms or ranches other than that of my parents
- Auto mechanic or farm machinery repairman
- Welder
- Assembly-line or other type production worker in a factory or plant
- Sales worker
- Truck driver
- Heavy equipment operator
- Farm machinery operator
- Machine operator in a factory or plant (Lathe, drill press, etc.)
- Construction work
- Butchering, meat or poultry processing
- Nursery or greenhouse work
- Refrigeration and/or air conditioning work
- Plumbing
- Veterinarian's assistant
- Hatchery employee
- Feedstore, grain elevator, or gin employee
- Service station attendant
- Forestry or timber work
- Clerical or similar office work
- Livestock auction or stockyards employee
- Others: _____

31. Did you participate in a cooperative work training program while attending high school?

- Yes No

If your answer is yes, please indicate the area of work training in which you worked.

- Distributive education Vocational agriculture
- Industrial Cooperative Training Other: _____
(Please specify)

32. Indicate what you were doing in the year prior to the time you first enrolled in the college you are presently attending (Check only one)

- Attending high school
- Working on a job full-time Other: _____
(Please specify)
- Looking for a job
- Serving in the Armed Forces
- Attending another junior college
- Attending a trade school
- Attending a four-year college or university

33. Please indicate what you believe is your major purpose in attending junior college. (Check only one space)

- To prepare for a specific job in my local area
 To obtain general preparation for employment
 To prepare for transferring to a four-year college or university
 To increase my general knowledge and education
 To have something to do
 Other: _____
 (Please specify)

34. Please indicate the highest level of education you expect to complete.

- Junior college degree or equivalent
 Bachelor's degree or equivalent
 One or two years of graduate study (Master's degree or equiv.)
 Doctor of Philosophy or Doctor of Education
 Doctor of Veterinary Medicine
 Other: _____
 (Please specify)

35. Indicate what you plan to do upon completing your studies in junior college. (Check one space).

- I will continue with my present employment
 I definitely plan to obtain a full-time job
 I definitely plan to transfer to a four-year college or university
 I hope to transfer to a four-year college or university if my grades are good enough
 I hope to get a full-time job, but if I am unable to obtain one, I will probably transfer to a four-year college or university
 I plan to enter the Armed Services.
 I plan to return to work on my parents' farm or ranch.
 Other: _____
 (Please specify)

36. Please check the most appropriate response.

- I am not working because I do not wish to work while I am attending junior college
 I desire to work while I am attending junior college, but I have been unable to obtain a job.
 I am now working part-time (Less than 40 hours per week)
 I am now working full-time (40 hours or more per week)

37. If you are presently working, please indicate the number of hours per week that you work.

- Less than 10 hours 30-39 hours
 10-19 hours 40 or more hours
 20-29 hours

38. Indicate the degree that you were encouraged to enroll in college by each of the following sources by checking the appropriate column for each.

| | Quite a lot | Some | Little or none |
|---------------------------------------|-------------|------|----------------|
| PARENTS | | | |
| HIGH SCHOOL VO-AG TEACHER..... | | | |
| OTHER HIGH SCHOOL TEACHERS..... | | | |
| HIGH SCHOOL COUNSELOR..... | | | |
| FRIENDS WHO WERE ENROLLING IN COLLEGE | | | |
| COLLEGE AGRICULTURE INSTRUCTOR..... | | | |

39. Indicate the importance of each of the following to you as a goal that you hope to attain as a result of attending college.

| | Very Important | Important | Somewhat Unimportant | Not of any Importance |
|---|----------------|-----------|----------------------|-----------------------|
| LEARNING TO ENJOY LIFE | | | | |
| DEVELOPING MY MIND AND INTELLECTUAL ABILITIES | | | | |
| SECURING VOCATIONAL OR PROFESSIONAL TRAINING | | | | |
| TO BE ABLE TO EARN A HIGHER INCOME | | | | |
| TO BECOME A CULTURED PERSON | | | | |
| TO DEVELOP A SATISFYING PHILOSOPHY | | | | |
| TO MAKE A DESIRABLE MARRIAGE | | | | |

40. Rank the following activities numerically from one to seven (1,2,3, . . . 7) according to the amount of satisfaction in life you believe it will give you. The activity which you expect to give you the most satisfaction in life should have a "1" written in the space before it, while the activity which you expect to provide you with the least satisfaction in life should have a "7" written in the space before it.

- () Working at my job or profession
- () Making money
- () Marriage and family life
- () Leisure activities (Hobbies, sports, etc.)
- () Religious activities
- () Taking part in community affairs
- () Literature, art, and music

41. If you were back in high school and know what you now know, please check any of the following which you think you would do.

- Take a college preparatory program of study
- Take a vocational preparatory program of study
- Ask for more help and advice from my teachers and counselors
- Learn more about the qualification requirements for certain jobs
- Take a more active role in out-of-class activities
- Take a less active role in out-of-class activities
- I would not do anything differently,

42. If this junior college were not located in this city, I would probably: (Check one space)

- not attend college at all
- attend some other junior college
- attend some four-year college or university
- attend a technical school

APPENDIX B

STATISTICAL FORMULAE

The Chi-Square Test

The basic formula for the Chi-square test, as described by Guilford, Fundamental Statistics in Psychology and Education, on pages 227-250 is:

$$X^2 = \sum \frac{(f_o - f_e)^2}{f_e}$$

Where: f_o = frequency observed
 f_e = frequency expected

Contingency Coefficient

The formula for the contingency coefficient as described by Guilford in Fundamental Statistics in Psychology and Education, on pages 338-339

is:

$$C = \sqrt{\frac{X^2}{N + X^2}}$$

Where: X^2 = the Chi-square value
 N = the total of all contingency table values

The t Test

The t Test as described by Popham, Educational Statistics: Use and Interpretation, pages 129-158, was utilized to test for significant differences between the mean quartile ranks, ACT composite scores, college grade point averages, cumulative ranking scores for anticipated satisfaction from selected activities, and ranking scores for selected goals of college attendance. In order to test for the homogeneity of the variances of the two groups, on all measures, the F ratio test was computed by using the formula shown on page 145 by Popham. This formula is:

$$F = \frac{s_g^2}{s_l^2}$$

Where: F = value by which homogeneity of variance will be tested
 s_g^2 = the greater variance
 s_l^2 = the lesser variance

The model of the t Test which is employed is dependent upon whether the study groups are made up of equal number of subjects and the homogeneity of the population variances. The two models of t described by Popham are the separate variance formula and the pooled variance formula. The formulae for each of the two models are shown.

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{s_1^2}{N_1} + \frac{s_2^2}{N_2}}}$$

Separate Variance Model

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{(\sum X_1^2 + \sum X_2^2)}{N_1 + N_2 - 2} \left(\frac{1}{N_1} + \frac{1}{N_2} \right)}}$$

Pooled Variance Model

Where: \bar{X}_1 = mean of Group 1
 \bar{X}_2 = mean of Group 2
 s_1^2 = variance of Group 1
 s_2^2 = variance of Group 2
 X_1^2 = sum of squares for Group 1
 X_2^2 = sum of squares for Group 2
 N_1 = number of subjects in Group 1
 N_2 = number of subjects in Group 2

The separate variance formula was used when the variances of the two groups were not homogeneous, as indicated by the F ratio test. If the variances of the two groups on any measure were homogeneous, the pooled variance model was used.

The degrees of freedom for the separate variance model are found by averaging the values of t for degrees of freedom equal to $N_1 - 1$ and $N_2 - 1$. Degrees of freedom for the pooled variance model are equal to $N_1 + N_2 - 2$.

VITA³

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Doctor of Education

Thesis: A COMPARISON OF SELECTED CHARACTERISTICS OF STUDENTS ENROLLED
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