A STUDY OF SOCIAL STATUS AND SELECTED FACTORS REPRESENTED BY ENTERING FRESHMEN AND STUDENTS COMPLETING TWO YEARS OF COLLEGE WORK AT FLINT COMMUNITY JUNIOR COLLEGE

> Thesis for the Degree of Ed. D. MICHIGAN STATE UNIVERSITY Kenneth Harvey Summerer 1965





This is to certify that the

thesis entitled

A STUDY OF SOCIAL STATUS AND SELECTED FACTORS REPRESENTED BY ENTERING FRESHMEN AND STUDENTS COMPLETING TWO YEARS OF COLLEGE WORK AT FLINT COMMUNITY JUNIOR COLLEGE

presented by

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has been accepted towards fulfillment of the requirements for

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ABSTRACT

A STUDY OF SOCIAL STATUS AND SELECTED FACTORS REPRESENTED BY ENTERING FRESHMEN AND STUDENTS COMPLETING TWO YEARS OF COLLEGE WORK AT FLINT COMMUNITY JUNIOR COLLEGE

by Kenneth Harvey Summerer

Community college students come from all social status levels with the main enrollment coming from the middle and lower levels. This pattern of social status representation indicates the opportunity of the community college in equalizing educational opportunity.

The responsibility and opportunity of the community college to equalize educational opportunity influenced the development of this study. Two questions were posed: (1) What affect does the equalizing function have on the different levels of social status, and (2) Are the levels of social status represented by students completing two years of college work in the same proportion as for entering students?

The general hypothesis was that significant differences do exist between entering freshmen and completing sophomores at Flint Community Junior College in social status, academic aptitude, education of parents, attitude of parents towards a college education, and educational and vocational plans.

Entering freshmen were fall 1963 matriculants and completing sophomores were potential graduates in 1964. Data were secured through a questionnaire sent to a randomly selected sample of 200 in each group and from student personnel records. To establish a basis for comparison of these two groups, 10 per cent samples relative to social status and academic aptitude were taken of the entering classes of 1960, 1961, and 1962.

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The occupation of the student's father was used to determine social status level according to the occupational scale developed by Hollingshead¹. The significance of differences were determined by the use of the chi square test of independence and the contingency coefficient was used to determine the degree of relationship between factors.

The major findings were:

1. There was a significant difference in the social status representation between entering freshmen and completing sophomores. All social status levels were represented by freshmen with a predominance from the lower levels. Lower social status levels were not heavily represented by sophomore students.

2. There was a significant difference in academic aptitude between the two groups of students. Academic aptitude of entering freshmen ranged through all percentiles whereas the completing sophomores were concentrated in the middle of the percentile range.

3. Social status level and academic aptitude were not found to be highly correlated.

4. On an overall basis, academic aptitude was the predominate factor influencing student completion of two years of college work.

5. A significant difference was not found to exist in the educational background of fathers and mothers between freshmen and sophomores at the .01 level. Approximately 90 per cent of the parents in both groups indicated a college education was important for their son or daughter.

6. There was a significant difference between student selection of transfer and non-transfer curriculums. Approximately 75 per cent

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of both male and female students selected a transfer curriculum and one of the professions as their occupational goal.

7. There was a significant difference between the occupational levels held by fathers as a group and those selected by students. In the freshmen class, approximately 21 per cent of the fathers held occupations classed as professional by Hollingshead whereas approximately 73 per cent of the freshmen indicated professional occupational goals. These figures for the sophomores were approximately 34 per cent and 77 per cent respectively.

August B. Hollingshead, <u>Two Factor Index of Social Position</u> (New Haven, Conn.: August B. Hollingshead, 1957).

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By

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CHAPTER I

INTRODUCTION AND STATEMENT OF THE PROBLEM

The tremendous growth of college enrollments and its attendant problems is nation-wide. Increasing enrollments in community colleges represent not only an increase in the number of students, but also a greater heterogeneity of characteristics, needs, and desires of college students. According to Havighurst and Neugarten,¹ the increasing numbers of Americans who are entering colleges are doing so because they have come to look upon a college education as a necessity. The vast majority of upper-middle-class vocational positions are now occupied by men and women with college educations and hence, the result is for young adults born in lower-class and lower-middle-class families as well as for young adults born in middle-class families to attempt to secure a college education. A college education is seen as the avenue for upward mobility in the social structure.

Hengst,² in writing of education, states that the community-junior college is the most rapidly growing segment of higher education in Michigan. He notes that the enrollment in these institutions had

¹Robert J. Havighurst and Bernice L. Neugarten, <u>Society</u> and <u>Education</u>, (Boston, Mass.: Allyn and Bacon, 1957), p. 242.

²Herbert Hengst, "The Quiet Revolution," <u>Michigan Educational</u> Journal, XL (February, 1963), p. 414.

increased eight-fold from 1951 to 1961 when the total enrollment in all of Michigan's colleges doubled.

One of the basic causes of the tremendous growth of community colleges is given by a review of census reports. These reports indicate that the elementary and secondary schools have experienced enrollment explosions resulting from the high birth rate since World War II. The tide is now seeking post-high school training. Another factor influencing the growth of community colleges is the larger percentages of college age men and women who have been enrolling in higher education institutions.

Although many factors contribute to the increasing percentage of college-age individuals who have been enrolling in college, the aspiration of parents for their children is of particular significance. Hengst says:

Numerous studies reveal that the most important determinants of parents' aspirations for the education of their children are their own educational attainment and their current economic status. As both go up, so does the aspiration level for their children's education, and Americans have enjoyed both an increasing standard of living and higher educational attainment since 1946. The increasing proportion of the college age population seeking post-high school educational opportunities, then, can be understood in part as a result of these forces at work in society.

The nature of the American economy also is a significant contributory factor. As the impact of technology on life in the United States has produced a shift from an agrarian society to one focused on the factory system, so now the age of technology is producing a shift from a production-worker majority in the labor force to a service type of employment. This development produces a requirement for employees of greater educational attainment. Production jobs themselves

demand higher levels of skill, as most serviceemployment traditionally has. The net result is, of course, an increasing demand for education beyond the high school.1

Atkinson,² in discussing current problems relative to the administration of community colleges, suggests two questions which he thinks should be asked in every state and in every community. One of the suggested questions was concerned with the probable character of these students with reference to their background and abilities and their probable future upon leaving community college. The second question was related to the obligations these students will place on community colleges in regard to guidance, curriculum, and methods of teaching. He makes the

following statement:

As increasing percentages seek college, we must expect that more will lack some of the mental alertness and others some of the intellectual adaptability desired by many colleges. There will be a tendency for more selective four-year colleges and universities to admit by traditional standards, perhaps with cutting scores even higher than at present. That will bring to the junior colleges a larger share of the slow learners, of those whose abilities are "non-academic" and of individualists, brilliant or otherwise who do not conform to customary academic patterns.

The possible variation among students enrolling in all types of colleges has been discussed by Dressel. He says: No matter what human characteristics one selects, wide variation is the rule among prospective college students. In contrast to the customary 18 to 24 age interval for college, the upper limit must now be regarded as 60 to 70. With reference to intelligence,

²William N. Atkinson, "Current Problems in the Administration of the Junior College, " Junior College Journal, XXV (October, 1954), p. 69.

3_{Ibid}.

an I.Q. of 110 has traditionally been regarded as the minimum for a college degree. On the other hand, a junior college which undertakes to provide education for all youth over 18 (as many of those in California now do) will enroll students with I.Q.'s well under 110. Thus, education is faced with the task of catering increasingly to individuals of more diverse abilities and interests.¹

These examples from the literature indicate the problems that must be faced by those responsible for educational programs in planning for a heterogeneous population coming from a society which has increasingly looked upon a college education as one of the clear symbols of prestige and status. The community college as an institution of higher education has contributed to movement in social status. Medsker² has referred to this type of institution as one which equalizes educational opportunity. Havighurst and Neugarten,³ Clark,⁴ and Medsker⁵ have all referred to the community college as a type of educational institution which is characterized by low costs, easy admission standards, and a predominance of students from working-class families. Specifically, Havighurst and Neugarten sav:

Opportunity college....is always characterized by low costs, easy admission standards, and predominance of students from working class families....Opportunity

²Leland L. Medsker, <u>The Junior College: Progress</u> and <u>Prospect</u>, (New York: McGraw Hill Book Company, 1960), p. 18.

³<u>Op. cit.</u>, p. 255.

⁴Burton R. Clark, <u>The Open Door College</u>, (New York: McGraw Hill Book Company, 1960), p. 56.

⁵Medsker, <u>op. cit.</u>, p. 18.

¹Paul L. Dressel, "Educational Demands Arising from Individual Needs and Purposes," <u>The Public Junior College</u>, Fifty-fifth Yearbook for the Study of Education, Part I (Chicago: University of Chicago Press, 1956), p. 56.

college is primarily a place for youths who desire social mobility....Students tend to think of attaining mobility more by learning middle class vocational skills than by learning middle class social skills.¹

The purposes of a community college are generally considered to include (a) preparation for advanced study, (b) vocational education, (c) general education, and (d) community service.² Institutions embracing these functions and thereby offering a comprehensive program have the opportunity to help each student select a curriculum and a goal appropriate for his background and abilities. However, Medsker³ and others have reported that approximately two-thirds of the students who enter community colleges, select a transfer curriculum and that only one-third of them actually transfer to a four-year institution at the conclusion of their community college experience. The difference between the number of students who select a transfer curriculum upon entrance and the number who transfer to a senior level institution after the completion of two years of college work is a problem for the staff and governing board of community colleges who seek to develop and administer guidance programs and curriculums.

The Problem

Community college students come from all social status levels although the major enrollment comes from the middle and lower levels. The fact that

lHavighurst and Neugarten, op. cit., p. 255.

³Medsker, <u>op. cit.</u>, p. 97.

²The Yearbook Committee, "The Role of the Public Junior College," <u>The</u> <u>Public Junior College</u>, Fifty-fifth Yearbook of the National Society for the Study of Education, Part I (Chicago: University of Chicago Press, 1956), p. 69.

all social status levels are represented indicates the opportunity of the community college to serve as a democratizing agent in higher education. The predominance of students from the middle and lower levels indicates that they cannot or do not attend other types of higher education institutions. The community college in attracting students from the lower levels therefore has an opportunity to develop talents for society that would otherwise be lost. The pattern of social status representation also places a responsibility on community colleges to motivate capable students from lower social levels to perform at an academic level appropriate to their aptitude and interests.

The responsibility and opportunity of the community college in its role as a democratizing agent influenced the development of this study. What effect does the democratizing function have on the different levels of social status? Are the levels of social class represented by students completing two years of college work in the same proportion as for entering students?

Consideration was given to these two questions in planning this investigation.

General Hypothesis

The proposal to determine the extent and significance of the difference between entering freshmen and students completing two years of college at Flint Community Junior College was based on the hypothesis that significant differences do exist between these two groups in social status, academic aptitude, education of parents, attitude of parents towards a college education, and educational and vocational plans.

Operational Hypotheses

The following operational hypotheses were formulated.

1. There will be a significant difference in the levels of social status represented between entering freshmen and students completing two years of college work.

2. There will be a significant difference in academic aptitude based on <u>Multiple Aptitude Test</u> scores between entering freshmen and students completing two years of college work.

3. There will be a significant difference in the educational background of fathers and mothers between entering freshmen and students completing two years of college work.

4. There will be a significant difference between students who select a transfer curriculum and those who select a non-transfer curriculum within social status level.

5. There will be more men than women selecting one of the professions as their occupational choice.

6. The occupational choice of both entering freshmen and students completing two years of college work will be equal to or greater in prestige value than that of the father's present occupation.

7. There will be a significant difference between men and women in the number of years they plan to attend college.

8. There will be a significant relationship between the number of years of intended college attendance and social status level.

9. There will be a significant relationship between social status level and the importance of a college education expressed by parental opinion.

Assumptions

The methods of investigation for the purpose of this study involved the following assumptions.

1. It was assumed a questionnaire would provide data for assessing social status, education of parents, attitude of parents toward a college education, and educational and vocational plans.

2. It was assumed that the academic aptitude of each student could be measured by standardized tests administered at Flint Community Junior College as part of the admissions process.

3. It was assumed that the occupation of the father would be a reliable index of the social status of the family and that students would report it accurately.

4. It was assumed that knowledge of significant differences between entering freshmen and students who complete two years of college work in the factors selected would be of value for curriculum development and for guidance and counseling of students in the two different classes and the overall administration of community colleges.

Limitations of the Study

Certain limitations were recognized in the design of this study and in the methods employed for obtaining and classifying the data obtained. The results of this study should be evaluated with reference to the following limitations:

1. This investigation was confined to a community college operated by a local school district located in an industrial setting. The findings of this study, therefore, would have limited application to community colleges in other types of situations.

2. The data for students in attendance at Flint Community Junior College in 1963-64 were obtained from questionnaires and are subject to the usual limitations of objectivity and accuracy characteristic of data secured by this method.

3. The classification of the occupation of the father into a social status category is subject to the possibility of error dependent on the subjective judgment of the rater.

Definition of Terms

<u>Community college</u>.--In this report, the term community college refers to a two-year institution offering, at the post high school level, courses designed for transfer to senior level institutions, general education courses, and vocational courses which prepare students for entrance into some occupation at the conclusion of their community college experience. In the literature, especially in the past, this is also called a junior college.

<u>Social status</u>.--The occupation of the father is used in this study to determine the level of social status.

<u>Academic aptitude</u>.--Academic aptitude as predicted by test results is indicative of intelligence, mental ability, and achievement when these terms are defined as the ability to succeed in college.

<u>Vocational courses</u>.--Courses of study that are designed to prepare the student for immediate employment upon completion of the course. It includes courses that may be completed in less than two years as well as two-year courses which prepare for entrance into technical and semiprofessional occupations, requiring less than professional skills.

<u>Multiple Aptitude Tests.</u>--These tests are designed primarily to provide comprehensive differential aptitude data for individuals. They were devised by David Segel and Evelyn Raskin of the California Test Bureau. The <u>Multiple Aptitude Test</u> profile results are developed from tests for word meaning and paragraph meaning used to develop a score for verbal comprehension, and tests of arithmetic reasoning and arithmetic computation which are used to develop a numerical reasoning score. The verbal comprehension score and the numerical reasoning score are combined to develop a total score. The norms used are those developed for freshmen on a national basis. These tests are called MAT tests.

CHAPTER II

REVIEW OF THE LITERATURE

The literature devoted to the history, development, functions, and purposes of the community college is voluminous. However, no studies were found dealing specifically with differences between entering freshmen and students completing two years of college work in a community college in factors upon which this investigation is based. Presented are reviews of comments and studies representative of the information found in the literature related to the factors of this study.

Social Status

Occupation of the father is a generally accepted index to social status. This has led to the father's occupation being used in the majority of studies as the criterion upon which social status is based.

Koos,¹ reported in 1925 of an extensive study made during 1921-22 under subventions from the Commonwealth Fund of New York City and from the University of Minnesota of the junior college movement. The study included an investigation of the occupational distribution of fathers of 2,744 students in both secondary and higher level institutions. Of the 2,744 surveyed, 1,062 were public junior college freshmen and sophomores, 705 were private junior college freshmen and sophomores, 346 were college and state university sophomores, and 631 were Harvard freshmen. The form and methods of inquiry adhered as closely as possible to the method used

¹Leonard V. Koos, <u>The Junior College Movement</u> (Boston: Ginn and Company, 1925), pp. 156-57.

by Counts¹ in his investigation of the social composition of the student body in secondary schools.

Counts' system of classification makes use of the census classification. His system lists 17 occupations by breaking up the more complex groups and recognizing certain other groups. Counts' purpose was to classify occupations in such a way that the hierarchy would be representative of social status, position in the economic order, and intellectual outlook.

The significant fact reported by Koos was that the several groups of occupations were far from equally represented. He stated that none of the types of institutions included in the comparison had achieved an extent of economic and social democratization in which its authorities are warranted in taking pride. Nevertheless, the public junior college as shown by the smaller percentages in the upper levels of occupations, is farther along the way than any of the remaining types of institutions.²

Reynolds³ made a study of social and economic status in 1924 of students in 55 colleges and universities. The sample of schools used represented 10 per cent of the colleges and universities in each of five geographical regions of the United States. Using Counts' system of classification to study parental occupation, Reynolds reported that 76 per cent of the fathers of the students represented in his study could be

lGeorge S. Counts, <u>The Selective Character of American Secondary</u> <u>Education</u>, Supplementary Educational Monographs, No. 19 (Chicago: University of Chicago Press, 1922), pp. 22-23.

²Koos, op. <u>cit.</u>, p. 162.

³O. Edgar Reynolds, <u>The Social and Economic Status of College Students</u>, Contributions to Education, No. 272 (New York: Teachers College Columbia University, 1927), pp. 13-16.

classified in four occupational groups. These groups were proprietary services, agricultural service, professional service, and managerial service. He compared his results with those reported by Koos and stated that the most noticeable factors were the presence of a larger percentage from proprietary and professional service groups in all of the private institutions and the prevailing percentage of the last seven groups as listed by Counts' in the public institutions.

As part of a mental education survey made in California junior colleges in 1930, students completed cards on which the occupation of their father was given. There were 9,990 completed cards and Anderson¹ has reported on an evaluation of 8,330 or 83.4 per cent of these relative to the father's occupation on which there was little probability of error. Using Counts' system with proprietors, professional, managerial and commercial occupations as upper level, Anderson found that in all the junior colleges involved 47 per cent and 23.9 per cent of the occupations of the fathers were in the upper level and lower levels respectively. When the occupations listed as farming which involved proprietors of large farms, ranches, and large farm lessees were added to the upper level as proprietors and managers, these figures became 67.5 per cent and 24 per cent respectively.²

Through legislative action, a commission on higher education representing all phases of higher education in Minnesota was appointed in 1947 to study higher education and related factors in that state. The findings

¹H. Dewey Anderson, "Whose Children Attend Junior College?" <u>The</u> Junior <u>College</u> Journal, IV (January, 1934), p. 165.

²Ibid., p. 166.

of this commission support the idea that junior colleges draw a sizable proportion of their students from families in which the father is engaged in work that is classified at the lower levels. The social and economic status of college students in Minnesota is described in the following statements.

> A high school graduate's chances of going to college depend a great deal on what his father does for a living. Even among those superior youngsters who rank in the highest tenth of their graduating classes, the father's occupation influences college opportunity to the extent that the children of professional men have several times more chance of going to college than the children of slightly skilled workers. These hard facts obviously are reflected in the social and economic composition of college student populations.

> Although there are students representing every kind of economic background enrolled at our colleges and universities, large proportions of them are children of parents in comparatively small occupational groups. At the University and the liberal arts colleges the largest number are children of professional people, executives, businessmen, or skilled workers, with the children of semi-skilled workers and small business owners constituting the next largest group. At the teachers colleges, on the other hand, the largest proportion of students come from farm homes. Only the public junior colleges draw any sizable proportions of their students from families in which the father is engaged in slightly skilled or day labor.¹

A study dealing with the differences between students attending junior colleges and students attending four year colleges was made by Hagie² in 1955. He used a 5 per cent random sample of the junior colleges and four year colleges in the United States. Twenty-six junior

lMinnesota Commission on Higher Education, <u>Higher</u> Education in <u>Minnesota</u> (Minneapolis: University of Minnesota Press, 1950), p. 69.

²Daryl Hagie, "A Comparative Study of Junior College Students with Students in Lower Divisions of Colleges Having Only Under-Graduate Programs" (Unpublished Doctoral Dissertation, State College of Washington, 1955), pp. 26-30. colleges participated by returning 9,296 completed questionnaires. The data reported came from a 25 per cent random sample of the 9,296 questionnaires. Hagie's investigation included a comparative study of the occupations of the fathers of students attending the two types of institutions. He used Edward's¹ system for classification of the occupations followed by the fathers of the students included in the sample.

Occupations were classified into six major groups by Edwards: (1) professional persons, (2) proprietors, managers, and officials, (3) clerks and kindred workers, (4) skilled workers, (5) semi-skilled workers, and (6) unskilled workers. The category of proprietors, managers and officials included farmers, wholesale, and retail dealers, and other proprietors, managers and officials.

Hagie reported that approximately 40 per cent of the fathers of junior college students were employed in the two highest ranked occupational groups compared with 53 per cent of the fathers of four-year college students. At the lower end of the scale, there were 51 per cent of the fathers of junior college students compared with 42 per cent of the fathers of four-year college students.²

Rice³ has reported a study made in 1958 which included an analysis of occupations of fathers of freshmen entering Mississippi public junior colleges and Mississippi state supported senior colleges. There were thirteen junior colleges and four senior colleges involved in the study.

¹Alba M. Edwards, <u>Population</u>: <u>Comparative</u> <u>Occupational Statistics for</u> <u>the United</u> <u>States</u> <u>1870-1940</u> (Washington: Bureau of the Census, United States Department of Commerce, 1943), pp. 175-182.

²Hagie, op. cit., p. 55.

³Dorothy Alyne Rice, "A Comparative Study of Freshmen Entering the Public Junior Colleges and the State Supported Coeducational Senior Colleges of Mississippi" (Unpublished Doctoral Dissertation, Michigan State University, 1958), p. 49. Evaluated were 1,875 questionnaires from students entering senior colleges and 2,688 from those entering junior colleges. The occupational level of the father was determined according to the system of classification proposed by Roe.¹

In Roe's system, each occupation is classified according to two criteria. These are called groups and levels. There are eight group subdivisions which recognize the primary focus of activity while the level depends on personal autonomy, skill, and training of each occupation. Roe lists six levels: (1) professional and managerial (research scientist, doctor, judge, college professor), (2) professional and managerial (personnel manager, banker, chemist, teacher), (3) semi-professional and managerial, (4) skilled, (5) semi-skilled, and (6) unskilled.

Rice in discussing social status based on father's occupation classified according to level only, stated that the direction of differences favor the senior colleges. The ratio of the occupations of the fathers of senior college freshmen classified in the two upper levels to the occupations of the fathers of junior college freshmen classified in these levels is almost 3 to $1.^2$

Medsker³ has reported a study made in 1959 of students entering Minnesota junior colleges classified by fathers' occupations ("high" and "low" status) in which only 29 per cent came from a high (professional

¹Anne Roe, <u>The Psychology of Occupations</u> (New York: John Wiley and Sons, 1956), p. 151.

³Leland L. Medsker, <u>The Junior College: Progress and Prospect</u> (New York: McGraw Hill Book Company, Inc., 1960), p. 41 (citing) John G. Darley, "Factors Associated With College Careers in Minnesota," Unpublished Manuscript, Center for the Study of Higher Education, Berkeley, California, 1959, Table 4.

²Rice, <u>op. cit.</u>, p. 95.

and semi-professional) occupational level. In contrast, about 56 per cent of the students who entered the private colleges of Minnesota were from the high level. Also, 42 per cent of the men and 51 per cent of the women entering the University of Minnesota were from the high group. In state colleges, 27 per cent of the men and 21 per cent of the women were from the high group.

In a case study of San Jose City College, Clark¹ compared the social backgrounds of students from the San Jose community who enrolled in the local junior college with those who enrolled in (1) Stanford University (a high cost selective private university), (2) the University of California at Berkeley (publicly controlled), (3) a local state four-year college, and (4) with the general San Jose population. Students were classified by the father's occupation into blue and white collar social levels. Clark found that more than three-fourths of the junior college students came from lower white and blue collar homes. The local state college also drew heavily from this group. The junior college drew an almost exact representative sample of the city wide occupational structure.

In discussing the social classes represented in various types of institutions of higher education, Havighurst and Neugarten² estimated that no more than 5 per cent of the upper and upper-middle classes would be represented in the "opportunity college."

With the exception of the study by Anderson all of the studies reviewed indicated the fathers of students attending community colleges

¹Burton R. Clark, <u>The Open Door College: A Case Study</u> (New York: McGraw Hill Book Company, Inc., 1960), p. 52-55.

²Robert J. Havighurst and Berniece L. Neugarten, <u>Society and</u> <u>Education</u> (Englewood Cliffs, New Jersey: Allyn and Bacon, Inc., 1957), p. 257.

predominately come from the lower ranking occupations. Caution, should be used, however, in comparing the studies reported. Almost forty years have elapsed since the time Koos made his study and that reported by Clark during which time many changes have occurred in the nation's economic and occupational structure. There must be recognition of this time lapse as well as differences in methods used in securing data, differences in types of institutions sampled and differences in the systems used in classifying the occupations of fathers when interpretations and comparisons are made.

Academic Aptitude

The following review summarizes discussions in the literature regarding the academic aptitude of students attending community colleges. Literature concerned with the characteristics and needs of students now attending community colleges, contains many comments asserting that the less able students enroll in community colleges and that such students cannot be admitted in four-year colleges and universities. The corollary that four-year college students are intellectually superior to community college students has also been stated.

An early study which included factors related to this problem was made by Koos¹ in 1921. A part of his investigation of the junior college movement was concerned with a comparative study of students in junior colleges and freshmen and sophomore students in four-year institutions by means of mental tests. Koos used both the Army Alpha Test and the Thurstone Test for College Freshmen in testing the students included in his sample.

¹Leonard V. Koos, <u>The Junior College</u> (Minneapolis Research Publication of the University of Minnesota, 1924).

His samples included freshmen from public junior colleges, private junior colleges, four-year colleges, and universities. Koos concluded from the data he collected that freshmen attending public junior colleges were essentially no different from those attending four-year institutions. In summarizing his findings, Koos said:

> Those who espouse the junior college from the standpoint of its performance of those special purposes having most intimate relationship to the popularization and democratization of higher education,...will be inclined to deplore the fact that, even in the early stages of its development, this new unit should not be enrolling a larger proportion of students in the lower ranges represented. They will not deplore the presence of a larger number of superior minds among the student body, their regret being associated with the attenuation of the lower end of the distribution.¹

In 1930, Eells² reported the results of a mental education survey of 11,000 freshmen attending forty-seven junior colleges in California. He used the 1928 edition of the Thurstone Test and compared the mean scores obtained for junior college students in California with the mean scores reported by the American Council on Education for national colleges and universities. Eells reported that in general ability, as measured by the Thurstone Test, the California junior college freshmen were significantly superior to freshmen in public four-year colleges and universities, but inferior to those in private institutions. He thought the inferiority of California junior college freshmen compared to freshmen in private institutions was probably due to selective admission factors in the private institutions.

¹<u>Ibid.</u>, p. 104.

²Walter C. Eells, <u>California Junior College Mental Education Survey</u>, State Department of Education, Division of Research and Statistics, Bulletin No. J-3 (Sacramento: California State Printing Office, 1930).
Traxler¹ reported somewhat different results ten years later. In his study, he used Otis tests of mental ability equated to I. Q.'s corresponding to medians and quartiles of total scores made on the 1937 edition of the American Council on Education test by students in four-year colleges, junior colleges, and teachers colleges. The median for junior colleges was 105; for teachers colleges 105; and for four-year colleges, 109.

More recent reports by the Educational Testing Service indicate that community college freshmen do not rank as high as freshmen in four-year institutions in academic ability. The Educational Testing Service has in recent years published annual norms derived from administration of the American Council on Education Psychological Examination for College Freshmen on a nation-wide basis. Participation of colleges and universities in the development of these norms is voluntary. The median scores published in the 1952 edition of the American Council on Education <u>Norms Bulletin²</u> for freshmen in various types of educational institutions showed the scores for junior colleges to be the lowest when compared with teachers colleges and four-year colleges. The median score for junior colleges was 95; for teachers colleges 98; for four-year colleges 106; and all colleges 104. The sample from which these norms were derived included both public and private junior colleges.

As the various reports on academic aptitude are analyzed there is an implication that a variation exists among community colleges themselves.

¹A. E. Traxler, "What Is a Satisfactory I. Q. for Admission to College?", <u>School and Society</u>, Vol. 51 (April 6, 1940), pp. 462-464.

²American Council on Education Psychological Examination for College Freshmen, <u>Norms Bulletin</u> (Los Angeles: Cooperative Test Division, Educational Testing Service, 1953).

The existance of this situation is illustrated in a report based on a state-wide testing program in Minnesota. Using norms based on the performance of students entering all types of institutions, the typical junior college entrant ranked somewhat below the typical university or liberal arts college freshmen. Further, there were differences among the junior colleges themselves in terms of the quality of students they attract in that the range of median scores for the junior college populations extended from the 36th percentile to the 66th percentile on Minnesota college norms.¹

Differences in the instruments used and the samples tested make it difficult to make direct comparisons of the studies and reports reviewed. However, certain trends appear obvious. The conclusion that community colleges are attracting greater numbers of students from the lower levels of academic aptitude appears justified when the studies made by Koos and Eells are contrasted with the studies made and reported since 1940. The study by Traxler, the Minnesota Commission report, and the evidence given on the norms from the 1952 edition of the American Council on Education Psychological Examination, all support the statement that students entering community colleges are somewhat lower in academic aptitude than students entering four-year colleges and universities. However, the distribution of scores as reported in a number of studies indicate that community colleges enroll some students with high ability. Englehart, in discussing this fact, makes the following statement:

¹Minnesota Commission on Higher Education, <u>op. cit.</u>, pp. 127-128.

In most comparisons of psychological-test data pertaining to entrants of junior colleges and entrants of four-year institutions, the significant characteristic of the data is the overlapping of the distributions. In general 60 per cent of the junior college entrants exceed the 25 percentile of fouryear college and university entrants.¹

More recently, Medsker has discussed the aptitude of community college freshmen with data assembled from several sources. Two of these were published norms on college aptitude tests, one of which was the American Council on Education Psychological Examination (ACE) and the other the College Qualification Test (CQT) published by The Psychological Corporation. In 1957, The Psychological Corporation published norms for four-year college freshmen and in 1958 published norms for community college freshmen. Comparison of groups taking either test was made possible in that scores on the CQT were expressed in equivalent ACE scores. Another source was a study completed by the Center for the Study of Higher Education at Berkeley on the ability levels of students entering all types of institutions. In this study, the ACE or equivalent scores were obtained on entering freshmen in 1952 in 200 American colleges drawn from a stratified random sample of 1,800 institutions of higher education including community colleges. Normative data from these three sources were supplemented by two additional studies: (1) an analysis of the ACE scores of entering students in 31 of the two-year colleges which cooperated in the study of the 1952 class, and (2) a study of ACE scores on five thousand

¹Max D. Englehart, "Testing for Guidance and Placement in the Junior College," <u>Junior College Journal</u>, Vol. XVIII (September, 1947), pp. 3-11.

students who entered 13 California junior colleges in the fall of 1952, spring of 1953, and fall of 1953.

The information reported from the different sources agreed remarkably. Three of the studies showed the mean score of junior college entering freshmen to be 94 and the other two showed 93. The Berkeley study discovered the mean score of freshmen entering four-year colleges was 107 or 13 points higher than for students entering two-year colleges.

Medsker also discussed the overlap in aptitude among students in twoand four-year colleges and the difference among individual two-year colleges in terms of the students who enroll in them. In the study involving 200 colleges done by the Center for the Study of Higher Education at Berkeley, roughly 6 per cent of the freshmen entering two-year colleges had a score of 134 or more which was one standard deviation above the mean of students who entered four-year colleges. On the low end of the scale, 16 per cent of the students entering two-year colleges had a score of 68 or less which was one standard deviation below the mean of the total group of two-year college entrants.¹

The overlap among students in two-year and four-year institutions in terms of ability indicates the incorrectness of the generalization that only students of lower ability enroll in community colleges. The wide range of mental ability as pointed out by the Minnesota Commission on Higher Education, Englehart, and Medsker has important implications for curriculum planning and the development of guidance procedures.

¹Medsker, <u>op. cit.</u>, pp. 30-38.

Education of Parents

There were no studies found in the literature which provided information relative to the educational attainment of parents of students entering community colleges and those completing two years of college work. The information found was devoted to the educational background of the parents of students entering community colleges and four-year institutions.

Reynolds, in 1927, as part of his study of socio-economic status of college students, investigated the educational background of parents of the students involved. His sample came from 55 four-year colleges and universities. He found that 41 per cent of the fathers and 48 per cent of the mothers did not have any high school training and that only 27 per cent of the fathers and 32 per cent of the mothers had finished high school. He pointed out that in comparison with the fathers, a larger percentage of the mothers completed high school, but a smaller percentage of the mothers of both men and women students were compared, it was found that the fathers of women students had attained a higher educational level than the fathers and mothers of men students.¹

In a study involving a 5 per cent random sample of community colleges and four-year colleges, Hagie investigated the educational level reached by parents of students included in the sample. The analysis of the data led Hagie to conclude that no significant differences existed between the

Reynolds, op. cit., pp. 41-44.

parents of the student groups in educational background. This was based on the chi square test of independence in which the differences were not significant at the .01 level of probability.¹

Rice analyzed the educational attainment of parents of freshmen students in colleges in Mississippi in 1958. She reported that the percentage of the fathers of junior college freshmen who terminated their formal education at the eighth grade or below was over twice that of fathers of senior college freshmen. At the upper level of educational attainment, the fathers of senior college freshmen who attended college from one to four years was approximately three times the percentage of the fathers of junior college freshmen reaching the same level of education. For mothers of junior college and senior college freshmen, the corresponding percentages at each educational level were: eighth grade and below, approximately two and one-half to one; high school, almost the same; and junior college and college, one to two.²

An indication of the educational level attained by Americans in the last three generations is given by Brazer and David.

> The formal education of the majority of Americans who were born before 1905 ended before they reached high school. Only one-sixth of the people now 55 or more years of age attended college, and less than half of those hold a college degree. In striking contrast, only a small fraction (14 percent) of those born between 1926 and 1942 have failed to go on to high school or beyond. Indeed, of that generation which, for the most part, has concluded its schooling, almost

¹Hagie, <u>op. cit.</u>, p. 56. ²Rice, op. <u>cit.</u>, p. 143-149.

one-third have gone to college. Thus in the course of two or three generations the proportion going to college has doubled.¹

Parental Attitude

No specific studies or reports were found in the literature dealing with the influence of parents in encouraging students to secure a college education. However, two studies reported on this variable in a peripheral way.

The Minnesota Commission on Higher Education² reported that parental interest in higher education was a by-product of their own educational attainments. Medsker discussed parental interests in higher education as a result of obtaining responses from almost three thousand students in four colleges to questions on their primary reason for attending college. He said:

> Two-thirds of these students listed either (1) persuasion by parents, counselors, and friends, (2) location of college (proximity), or (3) lower cost. These same reasons have been reported in numerous unpublished studies. The percentage of students who choose the junior college-particularly the public junior college-because of its program or its prestige is small in comparison to those who choose it because of parental influence or expediency.³

Educational Plans

The identified general purposes of a community college include the responsibility of providing curricula for students planning to transfer to senior level institutions as well as providing vocational programs for

²Minnesota Commission on Higher Education, <u>op. cit.</u>, p. 89. ³Medsker, <u>op. cit.</u>, p. 47.

¹Harvey E. Brazer and Martin David, "Social and Economic Determinants of the Demand for Education," in <u>Economics</u> of <u>Higher</u> <u>Education</u>, U.S. Department of Health, Education, and Welfare (Washington: U.S. Government Printing Office, 1962), p. 21.

students planning to enter the work force upon completion of their community college experience. The availability of these curricula to entering students has resulted in considerable attention being given to the educational plans of students as they enter community colleges. There has been special concern because of the generally observed discrepancy between the stated educational plans of students entering community colleges and the degree that these educational plans are achieved.

Bird¹ has reported a survey made in 1954 involving eighty-four representative junior colleges in twenty-one states in which students were asked to indicate their reason for attending the public junior college. In each of the twenty-one states surveyed, at least 50 per cent of the students declared that their purpose in attending the junior college was to prepare for advanced standing in four-year colleges or universities. In most states the percentage ran higher: about 66 per cent in Arizona, California, and Illinois; and about 77 per cent in Colorado, Michigan, Mississippi, and Texas. She reported that in some individual junior colleges, as high as 90 per cent of the students indicated they planned to transfer to a four-year institution. Bird further stated that in most states only about half of those who originally declare they plan to transfer actually do so. The percentage is somewhat higher in Florida, and Texas, in others it is lower, such as California, where it is as low as 30 per cent.

¹Grace V. Bird, "Preparation for Advanced Study" in <u>The Public</u> Junior <u>College</u>, Fifty-fifth Yearbook of the National Society for the Study of Education, Part I (Chicago: University of Chicago Press, 1956), pp. 77-79.

A similar situation was reported by the Minnesota Commission on Higher Education¹ in 1950 in that seldom have more than 30 to 40 per cent of the students entering Minnesota's public junior colleges taken work beyond their initial two-year college experience.

Hagie investigated the educational aspirations of students in both junior colleges and senior colleges. He found that 69 per cent of the junior college students and 89 per cent of the senior college students planned to secure four or more years of formal education.²

Another approach was taken by Eells,³ in 1956 as reported in an article devoted to student mortality in junior colleges. His comments were based on information in the fourth edition of <u>American Junior</u> <u>Colleges</u>. He said that for every 100 freshmen enrolled in junior colleges, only 45 sophomores were enrolled. Further, less than one-fourth of the students who enroll in junior colleges graduate from them.

Rice, in her study of students entering junior colleges and senior colleges in Mississippi, reported on the educational plans for both men and women. For the junior college, she reported that 18.4 per cent of the men and 42.8 per cent of the women planned to attend college for two years or less which compared with 1.5 per cent of the men and 23.7 per cent for the women in senior colleges. For those planning to earn four or more years of college credit, she reported 82.6 per cent of the men and 55.7

¹Minnesota Commission on Higher Education, <u>op. cit.</u>, p. 129. ²Hagie, <u>op. cit.</u>, p. 68.

³Walter C. Eells, "Student Mortality in Junior Colleges," <u>Junior</u> <u>College</u> <u>Journal</u>, Vol. XXVII (November, 1956), pp. 132-137.

per cent of the women in junior colleges and 97.4 per cent of the men and 74.1 per cent of the women in the senior colleges had this as their goal.¹

In a study of the retention and withdrawal of college students, Iffert² reported on the percentage of students in four-year institutions who remain in college to complete a four-year degree. He stated that 46.6 per cent of the students in public institutions and 36.6 per cent in private institutions did not continue in college beyond two years.

The data outlined above regarding the percentage of students who plan to transfer at the time they enter junior colleges was supported by Medsker who reported the percentage to be from two-thirds to three-fourths of those entering. This seemed to be true regardless of the number and type of terminal offerings in the institutions.³

This review has included studies which have examined the educational plans of students entering post high school institutions. The data reported in these studies demonstrate the generally observed discrepancy between the stated educational plans and the actual realization of these plans by students entering community colleges.

Vocational Plans

The development of educational programs which would meet the needs of students in the area served by each community college has been of vital concern since the beginning of the community college movement. The interest in appropriate educational programs has included the development of

³Medsker, <u>op. cit.</u>, p. 97.

¹Rice, op. cit., p. 125.

²Robert E. Iffert, <u>Retention and Withdrawal of College Students</u>, U.S. Department of Health, Education, and Welfare, Bulletin No. 1, (Washington: Government Printing Office, 1958), p. 16.

vocational and general education courses designed for the student who will terminate his formal education at the community college. Actual development of comprehensive programs, however, has been retarded in many community colleges because of the failure of students to make realistic appraisals of their educational and vocational objectives. The preceding review of the literature has demonstrated the general discrepancy between the educational plans of students upon entrance to the community college and the extent of realization of these plans. This section is devoted to stated vocational plans of students when entering community colleges.

The Minnesota Commission on Higher Education studied the preparatory sequences and the terminal programs available in Minnesota junior colleges in 1947-48. The results of their survey were compared with the national survey of junior college terminal education made by Eells¹ in 1938. According to Eells, most Minnesota junior colleges were offering at least five liberal arts and pre-professional sequences with some institutions offering ten or more. The Minnesota Commission revealed that in 1947-48 there were thirty-one pre-professional sequences being offered in fifteen different sequences with three institutions offering more than twenty. The most striking feature of the junior college programs, as identified by the Minnesota Commission, was the marked increase in the number of preprofessional curriculums offered and the relatively few students enrolled in them. In 1947-48 there were 2,760 students enrolled in preparatory curriculums in the fifteen different institutions. This was an increase

¹Walter C. Eells, <u>Present Status of Junior College Terminal Education</u> (Washington: American Association of Junior Colleges, 1941).

of 18 per cent from 1940-41. Two-thirds of these students were enrolled in three sequences--liberal arts, engineering, and business. Seven other pre-professional sequences--teaching, medicine, law, dentistry, forestry, journalism, and physical education--accounted for most of the remaining students.

At the time of Eells study in 1938, almost all Minnesota junior colleges were attempting to provide vocational training of some sort. Only three junior colleges were offering two-year programs which could be described as "general culture" and these involved a total of thirty-eight students. Every public junior college offered a sequence in general business or secretarial training. By 1947-48 the number of vocational sequences available in Minnesota junior colleges had increased to twentynine, some of which were offered by only one institution. The highest number of sequences offered by any one institution was fourteen with most junior colleges offering five or more. However, almost two-thirds of the terminal students were enrolled in four curriculums--business, secretarial, business management, and general cultural.¹

In his study, Hagie compared the occupational choice of students entering junior colleges and students entering four-year colleges. Using the occupational classification devised by Edwards, he reported that 48 per cent of the junior college students and 65 per cent of the students in the four-year institutions were planning to enter the occupations classified as professional and proprietors, managers, and officials.

¹Minnesota Commission on Higher Education, <u>op. cit.</u>, pp. 131-136.

Twenty-six per cent of the junior college students and 9 per cent of the students attending senior colleges indicated they planned to enter one of the lower ranking occupations. For both groups, 26 per cent of the students were undecided about their future plans.¹

An investigation of the vocational plans of students entering Long Beach City College was made by Lubick² in 1955. The information he reported was based on the replies of 1,226 students. His data showed that 51 per cent of the boys and 36 per cent of the girls planned to enter one of the professions. The principal occupations, listed in the order of choice, or boys was engineering, teaching, and medicine. The leading choices for girls were in the field of teaching, clerical work, and medical work. Of the 1,226 students questioned, the four fields of teaching, clerical, engineering, and medical accounted for $\frac{1}{4}$ per cent of the replies. Approximately one-third of the students were undecided about their vocational objective.

Lubick also analyzed student replies in which they indicated the individuals who influenced their selection of occupational objectives and the reasons they attended college. For the total of 1,226 students, 26 per cent said that parents and 22 per cent said that counselors had been the most influential in helping them with occupational planning. When all school related individuals and groups were combined, ⁴1 per cent of

¹Hagie, op. cit., p. 68.

²Emil E. Lubick, "Vocational Objectives of Entering College Students," Junior College Journal, Vol. XXV (February, 1955), pp. 319-326.

the students said they received most help from school workers. The most important reason for attending college was given as personal satisfaction by approximately 42 per cent of both males and females. Job security was listed most important by 21 per cent of the total. However, for girls the opportunity to serve others was more important than job security. Financial reward was listed as first choice by 11 per cent of the males and 9 per cent of the females.

Rice, in her study of freshmen entering junior colleges and senior colleges in Mississippi, stated the pattern of vocational choices made by students entering both types of institutions were quite similar. Differences appeared, however, between the vocational choices of men and women in both groups. Three vocations, teaching, clerical work, and medical technician or nursing, represented 87 per cent of the occupational choices of junior college women. The three leading occupational choices for junior college men were engineering, private business and farming, and teaching for a total of 58.7 per cent. Sixty-two per cent of the senior college men indicated occupational choices in engineering, private business and farming, and medicine and pharmacy.¹

Venn,² in 1964, in discussing the role of the American comprehensive junior, or community college in providing post secondary vocational education said the community college has not given proper attention to the occupational phase of its stated purposes. Venn reported that less than a quarter of all junior college students are enrolled in organized occupational curricula.

¹Rice, <u>op. cit.</u>, p. 131-133.

²Grant Venn, <u>Man</u>, <u>Education</u>, <u>and Work</u> (Washington: American Council on Education, 1964), p. 88.

The foregoing review of studies found in the literature indicates that a large proportion of the students entering community colleges are making unrealistic occupational choices. Although more than half of the students entering community colleges indicate one of the professions as their vocational choice, it has been shown by Medsker¹ that four years after enrolling in a community college only one in every three had transferred to a four-year institution.

Summary

The studies, reports of surveys, and general comments reported from the literature concerning the characteristics of community college students have introduced some conflicting findings. However, the evidence appears to support the following statements:

1. Over the past forty years, community colleges have tended to attract increasing numbers of students from the lower levels of social status although all levels of social status are represented.

2. Public community colleges have tended to enroll increasing numbers of students with lower academic ability although the range of academic abilities of students in many four-year institutions.

3. The educational attainment of adults in the last two or three generations has increased and the educational level of parents of community college freshmen is below that of freshmen entering four-year institutions.

4. There are significant differences between the stated educational and vocational plans of students entering community colleges and the actual realization of these plans.

5. Significant differences are found in stated educational and vocational plans between men and women entering community colleges.

6. There is considerable variation among community colleges in the characteristics of the students who enroll in them.

CHAPTER III

METHODS AND PROCEDURES

The review of the literature providing information on two-year and four-year college students presented in Chapter II spanned approximately forty years. Some of the information reported was conflicting but the evidence and the conflicts must be evaluated in terms of the time span, changes in economic conditions, changes in the occupational structure, and differences in the samples investigated. No information was found dealing specifically with differences between entering students and students completing two years of college work in a community college.

This study, as stated in Chapter I, was designed to determine the extent and significance of differences between entering freshmen and students completing two years of college at Flint Community Junior College in social status, academic aptitude, education of parents, attitude of parents toward a college education, and educational and vocational plans.

The following operational hypotheses were formulated.

1. There will be a significant difference in the levels of social status represented between entering freshmen and students completing two years of college work.

2. There will be a significant difference in academic aptitude based on <u>Multiple Aptitude Test</u> scores between entering freshmen and students completing two years of college work.

3. There will be a significant difference in the educational background of fathers and mothers between entering freshmen and students completing two years of college work.

4. There will be a significant difference between students who select a transfer curriculum and those who select a non-transfer curriculum within social status levels.

5. There will be more men than women selecting one of the professions as their occupational choice.

6. The occupational choice of both entering freshmen and students completing two years of college work will be equal to or greater in prestige value than that of the father's present occupation.

7. There will be a significant difference between men and women in the number of years they plan to attend college.

8. There will be a significant relationship between the number of years of intended college attendance and social status level.

9. There will be a significant relationship between social status level and the importance of a college education expressed by parental opinion.

Methods

Description of the Sample

This investigation was limited to Flint Community Junior College which is a public community college operated by a city school system in an industrial community. The surrounding area consists of small towns, residential areas, and farms. The basic admission requirement to the community college is graduation from an accredited high school. The institution is coeducational in which the ratio of men to women during the period spanned by this study was approximately two to one. Resident students are classified as those who live within the city limits of the City of Flint with non-residents being those who live outside the city limits. During the period spanned by this study, the resident enrollment ranged from 53 per cent to 60^1 per cent of the total enrollment.

The major part of this investigation involved two different groups of students. One group involved students who entered the institution in September 1963 and the other involved students who completed two years of college work in 1964. The latter group was limited to students who had only attended Flint Community Junior College. Ninety-six per cent of these students entered the institution in 1960, 1961, and 1962. Since the 1963 and 1964 groups did not come from the same population, information was also secured on matriculants who entered in 1960, 1961, and 1962 and who were not included in the sample of students completing two years of college work in 1964.

Sources of Data

The data upon which this investigation was based came from two sources. Information for students who entered Flint Community Junior College in September 1963 and for those completing two years of college work in 1964 relative to sex, social status, education of parents, attitude of parents toward a college education, and educational and vocational

¹"Enrollment Statistics," Registrar - Flint Community Junior College (Unpublished), 1960-63.

plans was secured from each student through the use of a questionnaire. Data relative to academic aptitude for these students was secured from student personnel records maintained by the institution. Each entering student completes an aptitude test as part of the admissions process.

Data evaluated for students who entered the institution in 1960, 1961, or 1962 and who did not receive a questionnaire involved only sex, social status, and academic aptitude. This information came from student personnel records maintained by the institution.

Development of the Study

There were several steps taken to carry out the plans of the investigation. Written approval from the Dean of Flint Community Junior College was secured in the spring of 1964 to involve the institution in the study and to make use of the necessary student personnel records.

From the beginning, the formulation of the plans for this study included the use of a questionnaire to secure information relative to certain factors upon which the study was to be based. The questionnaire was developed through the examination of questionnaires used in other studies, through consulting with interested personnel in the cooperating institution, and through reactions of members of the graduate committee.

A major consideration in the development of the questionnaire and the study was the selection of an index upon which the social status level of the fathers, and hence, the student could be determined. It was necessary to select an index that would lend itself to questionnaire techniques through which the factors to determine social status level could be found.

Review of the literature in Chapter II demonstrated the father's occupation as a generally accepted index for the determination of social

status. The review of the literature indicated that the system most frequently used by earlier investigators was that devised by Counts.¹ His system lists 17 representative occupations classified in such a way that the hierarchy would be representative of social status, position in the economic order, and intellectual outlook.

Other systems used included one developed by Edwards² and one developed by Roe.³ Edwards' system classified occupations into six major groups: (1) professional persons, (2) proprietors, managers, and officials (including farmers, wholesale, and retail dealers), (3) clerks and kindred workers, (4) skilled workers, (5) semi-skilled workers, and (6) unskilled workers. Roe recognizes personal autonomy, skill, and training in her six level classification which is almost identical with that listed by Edwards. Roe also recognizes the primary focus of activity which develops subdivisions among levels.

Two other systems were examined as possible methods by which to determine social status. One of these was the National Opinion Research Center-North Hatt⁴ study reported in 1947, in which 90 occupations were ranked giving an indication of the prestige status of occupations. Investigators have used the North-Hatt ranking of occupations as a skeletal

¹George S. Counts, <u>The Selective Character</u> of <u>American Secondary</u> <u>Education</u>, Supplementary Educational Monographs, No. 19 (Chicago: University of Chicago Press, 1922), pp. 22-23.

²Alba M. Edwards, Population: Comparative Occupational Statistics for the United States 1870-1940 (Washington: Bureau of the Census, United States Department of Commerce, 1943), pp. 175-182.

³Anne Roe, <u>The Psychology of Occupations</u> (New York: John Wiley and Sons, 1956), p. 151.

⁴National Opinion Research Center, <u>National Opinion on Occupations</u>: <u>Final Report of a Special Opinion Survey Among Americans 14 and Over</u> (National Opinion Research Center, University of Denver, March, 1947). prestige structure, within which the standing of an unrated occupation may be estimated. The ranked occupations were not divided into subgroups or levels.

The other system examined and the one selected for use in this investigation was the occupational scale included in the <u>Two Factor Index of</u> <u>Social Position</u> developed by Hollingshead¹ in 1957. The index was developed through the use of multiple correlation and regression techniques involving judged class position, residence, occupations and educational attainment each divided into seven levels. Social class position is determined by multiplying the level number for each occupation and educational attainment by factor weights.

The occupational scale is a modification of the Edwards system of classifying occupations into socio-economic groups used by the United States Bureau of the Census. The essential differences between the Edwards system and the one used in the Hollingshead index is that Edwards does not differentiate among kinds of professionals or the sizes or economic strengths of businesses. The occupational scale used in the <u>Two Factor</u> <u>Index of Social Position</u> ranks professions into different groups and businesses by their size and value.

For this investigation, only the occupational scale of the Hollingshead index was used to determine the social status of the students being studied. The occupational scale lists over 400 occupations in which the level of proprietors, managers, and others is determined not only by the title of the position but also the value of the business involved.

¹August B. Hollingshead, <u>Two Factor Index of Social Position</u> (New Haven, Conn.: August B. Hollingshead, 1957).

The questionnaires which were developed consisted of eleven questions. The questions were of a short answer type that could be answered with a check, or a circle, or one or two words. One question required a short statement relating to the activities performed by the father in his occupation. This was intended to secure additional information so as to accurately determine the occupational level of the father.

The questionnaire developed for entering freshmen was identical with the one developed for students completing two years of college work except for a question relative to curriculum choice and occupation or professional career choice. Entering freshmen were asked the curriculum in which they enrolled. Students completing two years of college work were asked what occupation or step toward a professional career the two years of college work had trained them and whether this goal was the same as that for which they had originally enrolled. Appendix A is the questionnaire designed for students who entered Flint Community Junior College in the fall of 1963 and Appendix B is the questionnaire designed for students who completed two years of college work in 1964.

Procedures

The Questionnaire

Questionnaires to the two groups of students at Flint Community Junior College being studied were sent in June 1964. The students to whom these questionnaires were sent were randomly selected according to the technique described by Edwards.¹ The procedure first involves the

¹Allen L. Edwards, <u>Statistical Methods</u> for the <u>Behaviorial Sciences</u> (New York: Rinehart and Company, 1957), pp. 250-251, Table pp. 472-476.

numbering of the total population from which the sample is to be drawn. A table of random numbers is then used which consists of 5 blocks of 1,000 numbers each arranged at random in columns and rows. These blocks can be entered at any point and read in any direction by using several columns or several rows. The number of rows or columns used corresponds to the maximum number of digits in the number indicating the size of the population. After entering the block of numbers and the direction of reading determined, numbers are read and those which are equal to or less than the maximum number in the population are recorded. Numbers which are larger than the population size and those that have already been recorded are ignored. The process is continued until sufficient random numbers have been selected for the sample. These random numbers are used to designate the subjects in the population that are to be used in the sample.

There were 200 questionnaires sent to freshmen who entered the institution in 1963 and 200 questionnaires sent to students completing two years of college work in 1964. The total population from whom the 200 freshmen were selected consisted of 1,422 names. The total population completing two years of college work consisted of 614 names and was developed by the registrar of the cooperating institution in February 1964. The latter group of students were potential graduates in 1964.

A follow-up letter and a follow-up postal card requesting the return of the questionnaire were mailed during a six-week period following the original mailing of the questionnaires. A total of 143 or 71.5 per cent of the questionnaires were returned by the freshmen group. One hundred fifty-two or 76 per cent of the students completing two years of college work returned questionnaires.

Academic aptitude information for each student who returned a questionnaire was secured from student personnel records maintained by the institution.

The random selection technique described by Edwards was also used to determine a ten per cent sample of matriculants for each of the years 1960, 1961, and 1962. For each of these groups, information relative to sex, father's occupation, and academic aptitude was secured from student personnel records. The number of matriculants in 1960 was 1,840; in 1961, 2,047; and in 1962, 1,595. A ten per cent random sample of the matriculants gave samples of 184, 205, and 160 for each of these years respectively.

Methods of Analysis

This investigation proposed to test the hypothesis that significant differences exist between entering freshmen and students completing two years of college work. It was therefore necessary to use methods of analysis which would indicate the presence or absence of such differences when the data were in the form of frequencies in discrete catagories. The chi square test of independence was used to determine the significance of differences between the two groups.

The chi square statistic is essentially a measure of the discrepancy between observed and expected frequencies. When observed and expected frequencies agree completely, the chi square is zero. As the differences between the observed and expected frequencies become larger chi square increases in size. The chi square test of independence is used to test whether the distribution of a particular characteristic is independent of the other characteristic. In this investigation the use of chi square

told whether the distribution of frequencies for any factor were found in the proportion expected.

The computed chi square value may be translated into a probability value for the purpose of determining whether differences between observed and expected frequencies may be attributed to chance variation. The probability value chosen for this study was .01. A probability value of .01 means that there is only one chance in one hundred that a chi square value would be as large as that found by chance.

The computed chi square value for each set of characteristics indicated whether a difference existed but did not reveal the nature or direction of the difference. Rational analysis was necessary to determine the direction and nature of the differences found.

The contingency coefficient statistic was used to determine whether the relationship between several pairs of factors in the study were significant. The development of the contingency coefficient first involves the computation of chi square from which the contingency coefficient is computed. The determination of the significance of the contingency coefficient is dependent on whether the chi square value for the data is significant.

The computation of chi square makes use of a contingency table developed from the frequency distribution of the data. According to Siegel,¹ when the contingency table is greater than a two by two, up to ²⁰ per cent of the cells may have an expected frequency of less than 5

¹Sidney Siegel, <u>Nonparametric Statistics for the Behavioral Sciences</u> (New York: McGraw Hill Book Company, Inc., 1956), p. 110.

provided no cell has an expected frequency of less than 1. In this study, adjacent columns or rows in the basic contingency table were combined whenever necessary to meet theoretical frequency requirements.

Summary

This chapter has discussed the methods and procedures used in the investigation. It has described the sample, the sources of data, the development of the study including the method selected to determine social status, and the procedures used in collecting and analyzing the data.

Chapters IV, V, and VI are devoted to an analysis of the data collected. Chapter VII includes a discussion of the conclusions resulting from the investigation.

CHAPTER IV

ANALYSIS OF DATA : SOCIAL STATUS

This chapter is an analysis of the data relative to the social status of entering freshmen students and students completing two years of college work at Flint Community Junior College. Entering students were those who entered the institution in September 1963. Students completing two years of college work were those who completed the earning of 58 or more semester hours in 1964.

Data for the entering groups for the years 1960 through 1963 were analyzed in total relative to social status and then the 1960, 1961, and 1962 groups were compared individually with the group that entered the institution in 1963. The 1963 entering freshmen group was then compared with the 1964 completing sophomore group. The data were analyzed with reference to operational hypothesis number 1 stated as:

> There will be a significant difference in the levels of social status represented between entering freshmen and students completing two years of college work.

The occupation of the father was used in this investigation as the index of social status. The parental occupation reported for each student was assigned a level according to the classification system proposed by Hollingshead.¹ The Hollingshead index lists over 400 occupations divided into seven occupational scales. The value of businesses is included to

LAugust B. Hollingshead, <u>Two Factor Index of Social Position</u> (New Haven, Conn.: August B. Hollingshead, 1957).

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assist in the determination of the level of various occupations. The following description is given of each of the seven scales to provide a meaningful interpretation of the data presented. Each level title is followed by several examples of occupations included in that category.

- 1. <u>Higher Executives, Proprietors of Large Concerns, and Major</u> <u>Professionals.</u>
 - a. Higher Executives

Bank Presidents, Vice Presidents Judges Large Business - Directors, President, Treasurer Military - Commissioned Officers (Major and above) Executive Branch of Government

b. Large Proprietors (Value over \$100,000)

Brokers, Contractors, Dairy Owners, Lumber Dealers

c. <u>Major</u> Professionals

Accountants (C.P.A.)LawyersEngineers (College Graduate)DentistsClergymanPhysiciansCollege and University TeachersMetallurgists

- 2. <u>Business</u> <u>Managers</u>, <u>Proprietors</u> of <u>Medium</u> <u>Sized</u> <u>Businesses</u>; and <u>Lesser</u> <u>Professionals</u>
 - a. Business Managers in Large Concerns

Advertising Directors	Production Managers Police Chief, Sheriff Sales Engineers Sales Managers (over \$100,000)
Branch Managers	
Farm Managers	
Postmaster	

b. Proprietors of Medium Businesses (Value \$35,000 - \$100,000)

Advertising Owners Contractors Furniture Business Jewelers Manufacturers Representative Purchasing Managers Real Estate Brokers Labor Relations Consultants -4

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c. Lesser Professionals

Accountants (not C.P.A.) Chiropractors - Opticians Engineers (non-college Grad) Social Workers Military, Commissioned Pharmacists Teachers - Elementary and High School

- 3. <u>Administrative</u> <u>Personnel</u>, <u>Small</u> <u>Independent</u> <u>Businesses</u>, <u>and</u> <u>Minor</u> <u>Professionals</u>
 - a. Administrative Personnel

Adjusters, InsuranceSection Heads, Federal,Advertising AgentsState, and Local Gov.Managers, Department StoresService ManagersSales RepresentativesStore Managers (Chain)

b. Small Business Owners (\$6,000 - \$35,000)

Auto Accessories Brokerage, Insurance Car Dealers Funeral Directors Cleaning Shops Dry Goods Electrical Contractors Plumbing

c. Semi-Professionals

Artists, Commercial Deputy Sheriffs Morticians Tool Designers Surveyors Oral Hygienists

d. Farmers

Farm Owners (\$25,000 - \$35,000)

- 4. <u>Clerical and Sales Workers, Technicians, and Owners of Little</u> Businesses (Value under \$6,000)
 - a. Clerical and Sales Workers

Bank Clerks and TellersFactory SupervisorBusiness Machine OperatorsPost Office Clerks

b. Technicians

Dental TechniciansInspectors; Weights, SanitaryDraftsmenLocomotive EngineersExpeditor, FactoryLaboratory Technicians

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- c. Owners of Little Businesses

Flower Shop (\$3,000 - \$6,000) Newsstand (\$3,000 - \$6,000) Tailor Shop (\$3,000 - \$6,000)

d. Farmers

Owners (\$10,000 - \$20,000)

5. Skilled Manual Employees

Auto Body Repairers Bull Dozer Operators Carpenters Diemakers Linotype Operators Machinists (Trained) Pattern and Model Makers Postman

Small Farmers

Owners (under \$10,000) Tenants who own farm equipment

6. <u>Machine Operators and Semi-skilled Employees</u>

Apprentices, ElectriciansSet-up Men, FactoriesDrill Press OperatorsPractical NursesFoundry WorkersRoofersOperators, Factory MachinesWelders, Spot

Farmers

Smaller tenants who own little equipment

7. Unskilled Employees

Attendants, Parking Lots	Stock Handlers
Cafeteria Workers	Unskilled Factory Workers
Hospital Workers, Unspecified	Laundry Workers
Laborers, Construction	Laborers, Unspecified

Farmers

Share Croppers

The assignment of social status level according to the occupation given for each student's father and the tabulation of these data developed frequencies for each sex in each category of student being studied. Total frequencies at each level of social status for men and women in each group were also obtained. Table 1 shows the frequency and percentage distribution of the father's occupational level for freshmen entering Flint Community Junior College in the fall of 1960, 1961, 1962, and 1963.

An examination of Table 1 indicates that, in general, the pattern of distribution of occupations according to level was similar in each of the entering freshmen groups. The occupational level most heavily represented in every year was level 7 except in 1961 when level 6 had .97 per cent more than level 7. The percentage of occupations based on marginal totals increased consistently from level 1 to level 7 except for level 5 which had a figure less than that for level 4. The percentage of occupations represented by levels 4, 5, and 6 were relatively consistent in that the percentages represented by these three levels did not differ by more than 3.49 per cent in any of the four years. In terms of marginal totals, levels 4, 5, and 6 differed by only 3.62 per cent and represented 54.33 per cent of all the occupations reported. This figure became 76.88 per cent when level 7 was included.

To determine whether the entering freshmen classes for the years 1960, 1961, 1962, and 1963 were similar relative to the levels of social status represented a contingency table was developed form Table 1 and a chi square value computed. There were 18 degrees of freedom and the computed chi square value was 5.82. This value was less than the X^2 table value of 34.80 at the .01 level. The computed chi square value being less than the X^2 table value indicates that on an overall basis the social status levels represented by entering freshmen in 1960, 1961, 1962, and 1963 were not significantly different.

TABLE 1

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FREQUENCY AND PERCENTAGE DISTRIBUTION ACCORDING TO LEVEL OF OCCUPATION OF THE FATHERS OF ENTERING FRESHMEN STUDENTS FALL 1960, 1961, 1962, AND 1963

The frequency and percentage distribution of the male and female students included in Table 1 are shown separately in Tables 2 and 3 respectively. Comparison of the four years in Tables 2 and 3 shows that the general increase in representation from level 1 to level 7 evident in Table 1 was more consistent for male students than it was for female students. In terms of marginal totals, the increase in representation for males was consistent whereas for females level 4 had a greater representation than either levels 5 or 6. For males in the individual years, level 7 had the greatest representation each year except in 1960 when level 6 had the highest percentage. For females, the greatest representation was in level 7 in 1962 and 1963 but was in level 4 in 1960 and in level 6 in 1961.

To further determine whether the entering freshmen classes for the years 1960, 1961, 1962, and 1963 were similar relative to the levels of social status represented, contingency tables were developed from Tables 2 and 3. The seven by four contingency table developed from Table 2 involving males gave a chi square value of 7.06. This value with 18 degrees of freedom was less than the X^2 table value of 34.80 at the .01 level. The same procedure for Table 3 involving females resulted in a six by four contingency table and a chi square value of 6.94. This value with 15 degrees of freedom was less than the X^2 table value of 30.58 at the .01 level.

The computed chi square value being less than the X^2 table value from the data in Tables 1, 2, and Table 3 indicates there was no significant difference relative to social status levels among the freshmen students

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FREQUENCY AND PERCENTAGE DISTRIBUTION ACCORDING TO LEVEL OF OCCUPATION OF THE FATHERS OF ENTERING FRESHMEN MALE STUDENTS FALL 1960, 1961, 1962, AND 1963

					Year					
Tevel	19	60	19	61	1 1	962	16	63	È	
TOACT	No.	6	No.	PS	No.	29	No.	89	.oN	rer A
Ч	ξ	2.54	9	4.69	ю	2.75	m	3.16	15	3.33
N	9	5.09	8	6.25	6	8.26	9	6.32	29	6.44
ŝ	19	16.10	16	12.50	8	7.34	13	13.68	56	12.44
4	18	15.25	23	17.98	18	16.51	16	16.84	75	16.67
5	19	16.10	20	15.63	21	19.27	15	15.79	75	16.67
9	26	22.04	26	20.31	22	20.18	19	20.00	93	20.67
7	25	21.19	26	20.31	26	23.85	22	23.16	66	22.00
Blank*	Q	1.69	m	2.33	N	1.84	Ч	1.05	Ø	1.78
Total	118	100.00	128	100.00	109	100.00	95	100.00	450	100.00
*This rov available	indicat *.	es the numbe	r of stud	lents for who	om informa	tion relative	to the f	ather's occ	upation	Was not

FREQUENCY AND PERCENTAGE DISTRIBUTION ACCORDING TO LEVEL OF OCCUPATION OF THE FATHERS OF ENTERING FRESHMEN FEMALE STUDENTS FALL 1960, 1961, 1962, AND 1963

					Year					
I,evel	15	160	19	191	1	962	T	963	E	-
	No.	ه	No.)a	No.	4 19	No.	69	No.	otal %
Л	0	0	0	0	ы	1.96	0	0	н	14.0
2	4	6.06	Ś	6.49	м	5.88	ю	6.25	15	6.20
б	6	13.64	9	11.69	6	17.65	5	10.42	32	13.22
4	17	25.75	77	18.18	ω	15.69	6	18.75	48	19.84
5	6	13.64	13	16.88	10	19.61	7	14.58	39	16.12
9	ΤT	16.67	18	23.38	9	11.76	11	22.92	146	10.01
7	16	24.24	16	20.78	13	25.49	12	25.00	57	23.55
Blank*	0	0	N	2.60	Ч	1.96	Ч	2.08	4	1.65
Total	66	100.00	17	100.00	51	100.00	148	100.00	242	100.00
#This row gvailable	indicat	es the numbe	r of stud	lents for who	om informa	tion relative	to the f	ather's occ	upation	Was not

that entered Flint Community Junior College from 1960 through 1963 when males and females were combined and when they were compared singly. Table 4 gives a summary of the chi square values computed from Tables 1, 2, and 3.

TABLE 4

CHI SQUARE VALUES OBTAINED BY APPLICATION OF THE CHI SQUARE TEST OF INDEPENDENCE TO THE DISTRIBUTION OF PATERNAL OCCUPATIONS OF ENTERING STUDENTS FALL 1960, 1961, 1962, 1963

Relationships	df	Computed X ²	X ² Table Value at .01 Level	
Table 1 - Social Status Levels Repre- sented by Male and Female Students Combined	18	5.82	34.80	
Table 2 - Social Status Levels Repre- sented by Male Students	18	7.06	34.80	
Table 3 - Social Status Levels Repre- sented by Female Students	15	6.94	30.58	

To further determine the consistency of the social status levels represented a chi square computation was completed to compare the 1960 freshmen group with the 1963 group, the 1961 group with the 1963 group, and the 1962 group with the 1963 group. This was done with males and females combined and with males and females treated separately. Table 5 gives the chi square values developed.

In every case the computed chi square was less than the X^2 table value with its appropriate degree of freedom at the .01 level. It is

interesting to note, however, that the computed value was somewhat higher for the comparisons between 1962 and 1963 than for the other combinations. Also, the highest computed value was that based on female students.

The consistency in the type of students entering Flint Community Junior College during the years 1960 through 1963 provided a basis to test the hypothesis that there would be a significant difference in the levels of social status represented between entering freshmen students in 1963 and students completing two years of college work in 1964. Table 6 gives the frequency and percentage distribution of the occupational levels represented by students in these two groups. The totals given for 1963 are identical with those given for the same year in Table 1.

The percentages shown in Table 6 for 1963 indicate a general increase in the levels of occupations represented from levels 1 at 2.10 per cent through level 7 at 23.78 per cent except for level 4 which was 2.11 per cent higher than level 5. A different pattern was present in the 1964 figures in that there was an increase in representation from level 1 to a peak in level 4 and then a decrease through level 7. Level 4 had a percentage of 26.32 per cent and levels 1 and 7 were almost identical with 5.26 per cent and 5.92 per cent respectively.

Comparison of the figures for 1963 and those for 1964 show a considerable reduction in the percentage of students in level 7 in the completing group in contrast to the entering group. The 1964 level 7 percentage of 5.92 was 17.86 per cent less than the 1963 level 7 with 23.78 per cent. The 1964 percentage for level 1 was approximately two and one-half times that for 1963, and for levels 2, 3, and 4 the 1964 percentage was

CHI SQUARE VALUES OBTAINED BY APPLICATION OF THE CHI SQUARE TEST OF INDEPENDENCE TO THE DISTRIBUTION OF PATERNAL OCCUPATIONS OF ENTERING STUDENTS FALL 1960 AND 1963, FALL 1961 AND 1963, AND FALL 1962 AND 1963

Relationship	df	Computed X2	X ² Table Value at .01 Level
Table 1 Males and Females Combined -Fall 1960 and Fall 1963 -Fall 1961 and Fall 1963 -Fall 1962 and Fall 1963	6 6 6	.81 .69 1.71	16.81 16.81 16.81
Table 2 Males Only -Fall 1960 and Fall 1963 -Fall 1961 and Fall 1963 -Fall 1962 and Fall 1963	6 6 6	.70 .61 2.63	16.81 16.81 16.81
Table 3 Females Only -Fall 1960 and Fall 1963 -Fall 1961 and Fall 1963 -Fall 1962 and Fall 1963	5 5 5	1.42 •39 3•30	15.09 15.09 15.09

approximately one and one-half times the 1963 amount. The 1964 level 5 percentage was 1.71 per cent higher than that for 1963 while level 6 was 5.85 per cent less.

To test the validity of the hypothesis that there was a significant difference between entering students and students completing two years of college work as stated in hypothesis number 1, a contingency table was

FREQUENCY AND PERCENTAGE DISTRIBUTION ACCORDING TO LEVEL OF OCCUPATION OF FATHERS OF ENTERING FRESHMEN FALL 1963 AND STUDENTS COMPLETING TWO YEARS OF COLLEGE WORK IN 1964

Level	Entering Fall No.	Freshmen 1963 %	Completing Soy 1964 No.	phomores %
1	3	2.10	8	5.26
2	9	6.29	15	9.87
3	18	12.58	28	18.42
4	25	17.49	40	26.32
5	22	15.38	26	17.11
6	30	20.98	23	15.13
7	34	23.78	9	5.92
Blank*	2	1.40	3	1.97
Total	143	100.00	152	100.00

developed from the data in Table 6 and a chi square value computed. The resultant chi square value was 25.00 which compares with a table value of 16.81 at the .01 level and six degrees of freedom. The computed chi square value being greater than the table value indicates that the social status levels represented by entering students and students completing two years of college work were significantly different. Rational analysis of the data in Table 6 indicates that students who enter community colleges come from all social status levels with an emphasis in the lower levels; whereas, students who complete two years of college work tend to come from the middle and upper social status levels.

Table 7 gives the frequency and percentage distribution of the social class levels represented by the two groups of students included in Table 6 according to sex. The 1963 male and female data in Table 7 is identical with that given in Tables 2 and 3 respectively. Comparison of the social status representations by completing sophomore males with completing sophomore females shows a consistent increase from level 1 through level 4 for both sexes and a consistent decline from level 5 to 7 for males but for females the decline was not consistent in that level 6 had a greater representation than level 5.

To determine whether there was a significant difference in the levels of social status represented between freshmen males and male students completing two years of college work, a contingency table from Table 7 was developed. The computed chi square value was 16.02. This value with six degrees of freedom compares with an X^2 table value of 16.81 at the .01 level and 12.59 at the .05 level. This comparison indicates that there was no significant difference between males in the two groups being studied at the .01 level but there was a significant difference at .05 level.

The data for females in Table 7 was used to develop a six by two contingency table to determine if there was a difference in the levels of

FREQUENCY AND PERCENTAGE DISTRIBUTION ACCORDING TO LEVEL OF OCCUPATION OF THE FATHERS OF FRESHMEN MALE AND FEMALE STUDENTS FALL 1963 AND MALE AND FEMALE STUDENTS COMPLETING TWO YEARS OF COLLEGE WORK IN 1964

			MALES			FEMALES		
[ouo]	Fre	shmen of a	Completing 196	Sophomores 4	Fres	hmen Coi 963	mpleting { 196 ¹	Sophomores 4
	No.	29	No.	<i>4</i>	No.	PC	No.	BE
г	m	3.16	9	6.25	0	0	N	3.57
2	9	6.32	6	9.37	т	6.25	9	10.71
	13	13.68	16	16.67	5	10.42	12	21.43
)	٩٢	16.84	26	27.09	6	18.75	14	25.00
t (ט (ד ד	15.79	18	18.75	7	14.58	8	14.29
Ś			74	14.58	11	22.92	6	16.07
9	19	91 CO	ŝ	5.21	12	25.00	4	7.14
7	52	1.05	N N	2.08	Ч	2.08	Ч	1.79
Blank*	4	х Э 4						
	95	100.00	96	100.00	48	100.00	56	100.00
Totar		c the numbe	r of student	s for whom information relativ	ve to t	he father's o	ccupation	was not
#This row	indica ^{te}							

available.

social status represented between entering freshmen females and females completing two years of college work. The computed chi square value was 9.94 which compares with an X^2 table value of 15.09 based on five degrees of freedom at the .01 level and a value of 11.07 at the .05 level. The computed value of 8.50 therefore indicates that there was no significant difference in the social status levels represented by entering freshmen females and females completing two years of college.

Table 8, gives a summary of the chi square values computed from Tables 6 and 7.

TABLE 8

CHI SQUARE VALUES OBTAINED BY APPLICATION OF THE CHI SQUARE TEST OF INDEPENDENCE TO THE DISTRIBUTION OF PATERNAL OCCUPATIONS OF ENTERING FRESHMEN FALL 1963 AND STUDENTS COMPLETING TWO YEARS OF COLLEGE WORK IN 1964

Relationship	df	Computed X ²	X ² Table Value at .01 Level
Table 6 - 1963 and 1964 Males and Females Combined	6	25.00	16.81
Table 7 - 1963 and 1964 Male Students	6	16.02	16.81*
Table 7 - 1963 and 1964 Female Students	5	9.94	15.09

*The X^2 value at the .05 level of significance is 12.59.

Summary

This chapter has analyzed the social status levels represented by the occupations of fathers of students who entered Flint Community Junior College in 1960, 1961, 1962, and 1963 and students who completed two years of college work in 1964. The Hollingshead index was used to determine the social status level of each occupation reported. The groups who entered the institution during the four years were analyzed to provide a basis to test the hypothesis that there would be a significant difference in the levels of social status represented between entering freshmen and students completing two years of college work.

The data suggest and appear to substantiate the following statements:

1. Community college freshmen were found at each social status level.

2. There was a general increase in the representation of social status levels from high level to low level by entering students. The increase was consistent for male students. The representation of the lowest social status level was approximately 10 times the representation of the highest level.

3. There was no significant difference in the pattern of social status representation between entering freshmen classes. This was true for the sexes combined and for males and females separately.

4. All social status levels were represented by students completing two years of college work.

5. The social status level most heavily represented by students completing two years of college work was level 4 which is the middle level of the Hollingshead index.

6. The pattern of social status representation from middle to high level was similar to that from low to middle level for students completing two years of college work.

7. A significant difference in the levels of social status represented was found to exist between entering freshmen and students completing two years of college work when the sexes were combined. Students completing two years of college work were found to come primarily from the middle and upper levels of social status; whereas, freshmen students were found to have come from all social status levels with an emphasis in the lower levels.

8. A significant difference was not found to exist at the .01 level between entering freshmen males and males completing two years of college work in the levels of social status represented. There was a significant difference, however, between these two groups at the .05 level.

9. No significant difference was found to exist between entering freshmen females and females completing two years of college work in the levels of social status represented.

CHAPTER V

ANALYSIS OF DATA : ACADEMIC APTITUDE

The review of the literature included comments asserting that less able students enroll in community colleges. Reference was also made of reports indicating that there was an overlap among students in two-year and four-year institutions in terms of academic aptitude. One of the objectives of this study was to determine the extent and the significance of differences found between entering freshmen and students completing two years of college work in levels of academic aptitude. Hypothesis number 2 was related to this objective and was stated as follows:

> There will be a significant difference in academic aptitude based on <u>Multiple Aptitude Test</u> scores between entering freshmen and students completing two years of college work.

<u>Multiple Aptitude Tests</u> are tests given to all entering students at Flint Community Junior College as part of the admissions process. These tests, published by the California Test Bureau, are an integrated battery in primary aptitude areas. Each freshman is tested to determine his aptitude in word meaning, paragraph meaning, arithmetic reasoning, and arithmetic computation. Through normative data, raw scores are converted to standard scores. The mean standard score is then converted to its percentile equivalent.

The <u>Multiple Aptitude Test</u> scores used to test the hypothesis that there would be a significant difference in academic aptitude between entering freshmen and students completing two years of college work were

secured from student personnel records maintained by the cooperating institution. Scores for entering freshmen in 1963 and for completing sophomores in 1964 were secured only for those students who returned a questionnaire. Since these two groups of students did not come from the same population, it was necessary to determine whether the freshmen classes, which included the students completing two years of college work in 1964, were similar in academic aptitude to the class that entered in 1963. Since 96 per cent of the sample of students completing two years of work in 1964 entered the institution during the years 1960, 1961, and 1962, 10 per cent of the matriculants in each of these years were randomly selected and their MAT scores secured. Data for these entering groups were analyzed in total and then were compared individually with the group that entered in 1963.

For convenience in the handling of the data, the percentile equivalents were separated into decile groups. The lowest of these was made up of percentiles from 1 through 9, the second was 10 through 19, and similarly through the last group which was 90 through 99. The general procedure involved making frequency distributions of percentile groupings for each group being studied and for each sex within each group.

Table 9, gives the frequency and percentage distribution of MAT scores in percentile equivalents in deciles for the freshmen included in the study who entered Flint Community Junior College in 1960, 1961, 1962, and 1963.

Examination of marginal totals in Table 9 shows that all levels of academic aptitude were represented and that the greatest representation of percentile equivalents was in the 30-39 decile with 16.05 per cent.

FREQUENCY AND PERCENTAGE DISTRIBUTION OF SCORES MADE ON THE MULTIPLE APTITUDE TEST BY ENTERING FRESHMEN FALL 1960, 1961, 1962, AND 1963

Percentile				Үеа	ม					
Scores	196	20	1	961	196	22	196	53	Tot	L B
	No.	PC	No.	62	No.	Ř	No.	96	No.	<i>86</i>
1-9	14	7.62	28	13.36	14	8.75	13	60.6	69	10.00
10-19	16	8.70	29	14.15	21	13.13	15	01.49	81	07.11
20-29	15	8.16	23	11.22	23	14.38	18	12.59	79	14.11
30-39	34	18.46	33	16.10	23	14.38	21	14.69	III	16.05
40-49	25	13.58	21	10.24	18	11.25	22	15.38	86	12.42
50-59	32	17.39	19	9.27	17	10.62	26	18.18	46	13.58
60-69	25	13.58	21	10.24	16	10.00	15	10.49	77	11.12
70-79	14	7.62	19	9.27	17	10.62	8	5.59	58	8.38
80-89	9	3.26	8	3.90	8	5.00	N	1.40	54	3.46
66-06	m	1.63	4	1.95	ω	1.87	ε	2.10	13	1.88
Total	184	100.00	205	100.001	160	100.00	143	100.001	692	100.00

The percentage in each of the deciles from 1-9 through 20-29 and from 40-49 through 60-69 was not more than 6.05 per cent below the maximum representation. The representation in decile 70-79 was approximately half, decile 80-89 was approximately one-fifth, and decile 90-99 approximately one-eighth the maximum. The percentages in these three deciles were 8.38, 3.46, and 1.88 respectively.

Analysis of Table 9 shows that the greatest percentages in each of the four years occurred between the 20-29 and 50-59 decile groups and that the lowest representations occurred in the highest two decile ranges. The greatest representation in 1960 and 1961 was in the 30-39 decile, in 1962 it was in deciles 20-29 and 30-39 which were equally represented, and in 1963 it was in the 50-59 decile. The percentages for these years and deciles were 18.46, 16.10, 14.38, and 18.18 respectively. Deciles 80-89 and 90-99 were individually represented by less than 5 per cent of the total in each of the four years and the sum of the representations in these two deciles was never more than seven per cent.

To determine whether the entering freshmen classes for the years 1960, 1961, 1962, and 1963 were similar in academic ability a ten by four contingency table was developed from Table 9. The chi square value computed from this table was 28.62. This value with 27 degrees of freedom was less than the X^2 table value of 46.96 at the .01 level. The computed chi square value being less than the X^2 table value indicates that on an overall basis the academic aptitude of freshmen students who entered in 1960, 1961, 1962, and 1963 were not significantly different.

The frequency and percentage distribution of the male and female students included in Table 9 are shown separately in Tables 10 and 11 respectively. Comparison of the marginal totals in these two tables shows the distribution of percentile equivalents for males and females to be quite similar. However, there was some variation in the pattern of maximum representations between males and females in the different years. The maximum male representation was in the 30-39 decile in 1960, 1961, and 1962 and in the 50-59 decile in 1963. These percentages were 19.49, 16.41, 16.51, and 17.89 respectively. In contrast, the maximum female representation in 1960 was in decile 30-39, in 1961 it was in deciles 10-19 and 30-39 which were equally represented, in 1962 it was in the 70-79 decile, and in 1963 the maximum was in the 50-59 decile. The percentages in these deciles were 16.67, 15.58, 15.69, and 18.75 respectively.

To further test whether the entering freshmen classes for the years 1960, 1961, 1962, and 1963 were similar in academic ability, contingency tables were developed from Tables 10 and 11. The nine by four contingency developed from Table 10 for males gave a chi square value of 18.96. This value with 24 degrees of freedom was less than the X^2 table value of 42.98 at the .01 level.

The same procedure was followed for the females in Table 11 to form a nine by four contingency table. The chi square value computed from this table was 16.70. This value with 24 degrees of freedom was less than the X^2 table value of 42.98 at the .01 level.

The computed chi square values from the data in Tables 9, 10, and 11 each being less than its appropriate X^2 table value indicates there was no

FREQUENCY AND PERCENTAGE DISTRIBUTION OF SCORES MADE ON THE MULTIPLE APTITUDE TEST BY ENTERING FRESHMEN MALES FALL 1960, 1961, 1962, AND 1963

:				Ye	ar					
Percentile Scores	196	00	h	961	1	962	'n	963	То	tal
	No.	75 2	No.	62	No.	52	No.	52	No.	BE
1-9	1	9.32	18	14 . 06	10	71.6	6	9.4T	48	10.66
10-19	11	9.32	17	13.28	15	13.76	10	10.53	53	87.LL
20-29	10	8,48	15	11.72	16	14.68	12	12.63	53	11.78
30-39	23	19.49	21	16.41	18	16.51	15	15.79	77	11.71
40-49	16	13.56	12	9.38	13	11.93	1t	14.74	55	12.22
50-59	22	18.64	ΓT	8.59	11	10.09	17	17.89	61	13.56
60-69	15	12.71	15	11.72	11	10.09	10	10.53	51	11.33
70-79	7	5.93	14	10.94	6	8.26	5	5.26	35	7.78
80-89	2	1.70	ſ	2.34	5	4.59	Ч	1.05	11	2.44
66-06	Г	.85	5	1.56	г	.92	N	2.11	9	1.34
Total	118	100.00	128	100.00	109	100.001	95	100.00	450	100.001

FREQUENCY AND PERCENTAGE DISTRIBUTION OF SCORES MADE ON THE MULTIPLE APTITUDE TEST BY ENTERING FRESHMEN FEMALES FALL 1960, 1961, 1962, AND 1963

Percentile		1960		Y 1961	ear	суоц				
ocores	No.	6 2	No.	52	No.	2000	No.	1 903	L .oN	otal %
1-9	~	ע בוי	, c							
	ר			66°2T	4	7.84	7	8.33	21	R 68
10-19	Ś	7.58	12	15.58	9	77.LL	ŝ	כקטנ		
20-29	5	7.58	8	10.40	7	13.73				
30–39	11	16.67	12	15.58	. r			00.91		10.74
40-49	o	וא בו	C		`	00.0	٥	12.50	34	14.05
	•		ע	11.69	5	9.80	8	16.67	31	12.82
65-05	IO	15.15	8	10.39	9	77.LL	6	18.75	33	13.64
60-69	10	15.15	9	7.79	Ś	9.80	ഹ	כק טו		
70-79	7	10.60	ß	6.49	ω	15.69	v (r	т К ол		+)
80-89	4	6.06	Ŋ	6.49	m	5.88) -			04.4
66-06	N	3.03	S	2.60	N	3.92	-	2.08	13	2.89
Total	<u>66</u>	100.00	77	100.00	51	100.00	48	100.00	242	100.00

significant difference relative to academic aptitude among the freshmen students that entered Flint Community Junior College from 1960 through 1963 when males and females were combined and when they were compared singly.

Table 12 gives a summary of the chi square values computed from Tables 9, 10, and 11.

TABLE 12

SUMMARY OF CHI SQUARE VALUES OBTAINED BY APPLICATION OF THE CHI SQUARE TEST OF INDEPENDENCE TO THE DISTRIBUTION OF SCORES MADE ON THE MULTIPLE APTITUDE TEST BY ENTERING FRESHMEN FALL 1960, 1961, 1962, AND 1963

6
8
3

The previous analysis showed that on an overall basis there was no significant difference in academic aptitude among freshmen students that entered Flint Community Junior College from 1960 through 1963 when males and females were combined and when they were compared individually. To further determine the consistency of the academic aptitude represented by these students a chi square computation was completed to compare the 1960 freshmen group with the 1963 group, the 1961 group with the 1963 group, and the 1962 group with the 1963 group. This was done with males and females combined and with males and females treated separately. Table 13 gives the chi square values developed.

TABLE 13

CHI SQUARE VALUES OBTAINED BY APPLICATION OF THE CHI SQUARE TEST OF INDEPENDENCE TO THE DISTRIBUTION OF SCORES MADE ON THE MULTIPLE APTITUDE TEST BY ENTERING FRESHMEN STUDENTS FALL 1960, 1961, 1962, AND 1963

Relationships	dſ	Computed X ²	X ² Table Value at .01 Level
Table 9 - Males and Females Combined - Fall 1960 and Fall 1963 - Fall 1961 and Fall 1963 - Fall 1962 and Fall 1963	9 9 9	5.31 12.92 9.97	21.67 21.67 21.67
Table 10 - Males Only - Fall 1960 and Fall 1963 - Fall 1961 and Fall 1963 - Fall 1962 and Fall 1963	8 8 8	1.75 8.66 4.47	20.09 20.09 20.09
Table 11 - Females Only - Fall 1960 and Fall 1963 - Fall 1961 and Fall 1963 - Fall 1962 and Fall 1963	8 8 8	4.35 4.76 5.02	20.09 20.09 20.09

In every case the computed chi square value was less than the X^2 table value with its appropriate degree of freedom at the .01 level. The highest computed chi square value occurred between 1961 and 1963 when males and females were combined. The most consistent chi square values developed over the three comparisons occurred when females were treated separately.

The consistency in the academic aptitude of students who entered Flint Community Junior College from 1960 through 1963 provided a basis to test the hypothesis that there would be a significant difference in academic aptitude between entering freshmen and students completing two years of college work. Table 14 gives the frequency and percentage distribution of MAT scores in percentile equivalents in deciles for freshmen who entered the institution in 1963 and students who completed two years of college work in 1964. The totals given for 1963 in Table 14 are identical with those given for the same year in Table 9.

The percentages in Table 14 show that all levels of academic aptitude were represented in 1963 whereas in 1964 the three lowest deciles had no representation. In both 1963 and 1964 the 50-59 decile had the greatest representation but in 1964 it was approximately two and one-half times the 1963 amount. These percentages were 47.37 and 18.18 respectively. In 1963, the percentages increased consistently from decile 1-9 with 9.09 per cent through decile 50-59 and then decreased consistently through decile 80-89 which had 1.40 per cent. In 1964 decile 50-59 with the maximum of 47.37 per cent, was more than twice the nearest representation of 22.37 per cent in decile 40-49 and approximately three times the representation in decile 60-69 with 16.45 per cent. In 1963, the seven deciles from 1-9 through 60-69 contained 90.91 per cent of the total whereas in 1964 only four deciles, 30-39 through 60-69, contained 93.43 per cent of the total.

FREQUENCY AND PERCENTAGE DISTRIBUTION OF SCORES MADE ON THE MULTIPLE APTITUDE TEST BY ENTERING FRESHMEN, FALL 1963, AND STUDENTS COMPLETING TWO YEARS OF COLLEGE WORK IN 1964

Percentile	Entering	Freshmen	Completing	Sophomores
	No.	490 5 %	No•	%
1-9	13	9.09	0	0
10-19	15	10.49	0	0
20-29	18	12.59	0	0
3 0-39	21	14.69	11	7.24
40-49	22	15.38	34	22.37
50-59	26	18.18	72	47.37
60-69	15	10.49	25	16.45
70-79	8	5.59	3	1.97
80-89	2	1.40	4	2.63
90-99	3	2.10	3	1.97
	. <u></u>			
Total	143	100.00	152	100.00

To test hypothesis number 2, a chi square value was computed from a nine by two contingency table based on Table 14. The computed chi square value of 78.19 was greater than the X^2 table value of 20.09 at the .01 level and eight degrees of freedom. The computed chi square value being

greater than the X^2 table value indicates that there was a significant difference in the academic aptitude between entering freshmen and students completing two years of college work at Flint Community Junior College. Analysis of the data in Table 14 shows entering freshmen students were found throughout the lower and middle third of the academic aptitude range whereas students completing two years of college work were found concentrated in the middle third of the range.

Table 15 gives the frequency and percentage distribution of MAT scores in percentile equivalents in decile groupings for the students included in Table 14 according to sex. Analysis of the percentages in the sophomore male and female columns does not show any major differences in the academic aptitude representations between the two groups.

To further test hypothesis number 2 a contingency table involving male students was developed from Table 15 and a chi square value computed. The computed chi square value for this table was 50.33 which was greater than the X^2 table value of 16.81 at the .01 level and six degrees of freedom. The computed chi square value being greater than the X^2 table value indicates that there was a significant difference in the academic aptitude between entering freshmen males and male students completing two years of college work.

The same pattern was used in developing a contingency table and computing a chi square value from Table 15 involving female students. The computed chi square value for the resultant table was 24.51 which was greater than the X^2 table value of 15.09 at the .01 level with five degrees of freedom. The computed chi square value being greater than the X^2 table

CON OF SCORES MADE ON THE MULTIPLE APTITUDE TEST FEMALE STUDENTS, FALL 1963, AND MALE AND IG TWO YEARS OF COLLEGE WORK IN 1964	sophomores Freshmen Completing Sophomores % No. 1963 No. % No. %	0 4 8.33 0 0	0 5 10.42 0 0	0 6 12 .5 0 0 0	8.33 6 12.50 3 5.36	22.92 8 16.67 12 21.43	48.96 9 18.75 25 44.64	14.58 5 10.42 11 19.64	1.04 3 6.25 2 3.57	3.13 1 2.08 1 1.79	1.0 ⁴ 1 2.08 2 3.57	00.00 48 100.00 56 100.00
REQUENCY AND PERCENTAGE DI BY ENTERING FRESHMEN M FEMALE STUDENTS C	Freshmen Comp. 1963 No. %	74.6 6	10 10.53	12 12.63	15 15.79	14 14.74 J	17 17.89	10 10.53	5 5.26	1 1.05	2 2.11	95 100.00
ц	Percentile Scores	1-9	10-19	20-29	30–39	40-49	50-59	60-69	70-79	80-89	66-06	Total

value indicates that there was a significant difference in academic aptitude between entering freshmen female students and female students completing two years of college work.

Table 16 gives a summary of the chi square values computed from Tables 14 and 15.

TABLE 16

SUMMARY OF CHI SQUARE VALUES OBTAINED BY APPLICATION OF THE CHI SQUARE TEST OF INDEPENDENCE TO THE DISTRIBUTION OF MULTIPLE APTITUDE TEST SCORES MADE BY ENTERING FRESHMEN STUDENTS FALL 1963 AND STUDENTS COMPLETING TWO YEARS OF COLLEGE WORK IN 1964

df	Computed X ²	X ² Table Value at .01 Level
8	78.19	20.09
6	50.33	16.81
5	24.51	15.09
	df 8 6 5	df X ² 8 78.19 6 50.33 5 24.51

Summary

This chapter has analyzed the academic aptitude of students who entered Flint Community Junior College in 1960, 1961, 1962, and 1963 and students who completed two years of college work in 1964. The academic aptitude for each student was based on the score made by the student on the Multiple Aptitude Test. The groups that entered the institution from 1960 through 1963 were analyzed to provide a basis to test the hypothesis that there would be a significant difference in academic aptitude between entering freshmen and students completing two years of college work.

The data suggest and appear to substantiate the following statements:

1. The aptitude scores of community college freshmen range through each level of academic aptitude.

2. In general, the greatest representations in academic aptitude by entering freshmen was found in the seven deciles ranging from 1-9 through 60-69 when the sexes were combined and when males were treated separately. For females, the range extended through the 70-79 decile.

3. The sum of the representations of academic aptitude by entering freshmen in the two highest deciles, 80-89 and 90-99, was never more than 6 per cent of the total for male students nor more than 10 per cent for female students.

4. There was no significant difference in the pattern of academic aptitude representation between the entering freshmen classes. This was true for the sexes combined and for males and females separately.

5. Students completing two years of college work, did not rank in the lowest three deciles of academic aptitude.

6. The levels of academic aptitude most heavily represented by students completing two years of college were in the three deciles, 40-49, 50-59, and 60-69.

7. Decile 50-59 had the greatest representation for students completing two years of college work. The range of representation was from 44 to 49 per cent of the total when the sexes were combined and when males and females were treated separately. 8. The highest three deciles, 70-79 through 90-99, were individually represented by less than 4 per cent and the sum of these three deciles was never more than 9 per cent of the total for students completing two years of college work.

9. Significant differences in levels of academic aptitude were found to exist between entering freshmen and students completing two years of college work. This was true when the sexes were combined and when males and females were treated separately. Analysis of the academic aptitude representations of these two groups showed that entering freshmen were found in both the lower and middle third of the academic aptitude range whereas the completing sophomores representation was concentrated in the middle third of the range.

CHAPTER VI

ANALYSIS OF DATA : EDUCATIONAL AND VOCATIONAL PLANS

The educational and vocational plans for freshmen who entered Flint Community Junior College in 1963 and students who completed two years of college work in 1964 are analyzed in this chapter. It includes an analysis of the educational backgrounds of fathers and mothers, curriculum choice, choice of profession, intended years of college attendance, parental attitude toward a college education, and reasons for attending college for each of the two groups. The operational hypotheses, 3 through 9, as stated in Chapter I are tested in this chapter.

Education of Parents

Data relative to the education of parents were secured from the questionnaire completed by the fall 1963 freshmen and students who completed two years of work in 1964. The students were asked to indicate the highest level of formal education completed by each parent. The question appeared on the questionnaire as follows:

3. Circle the number which indicates the highest level of formal education completed by each of your parents.

		Father	Mother		
a.	Elementary School	123456	123456		
ъ.	Junior High School	789	789		
c.	High School	10 11 12	10 11 12		
d.	College Training	1234	1234		
e.	Graduate or Professional	123	123		
	Training				

Table 17 gives the frequency and percentage distribution, respectively, of the highest level of formal education attained by fathers of both male and female students in the 1963 entering group and the 1964 completing group. The same pattern was followed in Table 18 for the mothers of the students in the two groups.

Analysis of the percentages given in Table 17 in the total column for 1963 shows that the maximum was 56.64 per cent for the fathers of freshmen students who had completed 10-12 years of education. This percentage was more than twice as large as the 24.48 per cent with 7-9 years of education and approximately five times as great as the 11.19 per cent with 1-4 years of college training. Graduate training was held by 4.19 per cent and 3.50 per cent had 6 years or less of formal education.

The total column in Table 17 for the 1964 group shows a maximum representation of 45.39 per cent held by fathers who had 10-12 years of education. This maximum for the 1964 group is 11.25 per cent less than the maximum representation for the same level of training in the 1963 group. The 7-9 year level of training was represented by 25.00 per cent of the fathers of the 1964 group which is almost the same as the 24.48 per cent of the fathers of the 1963 group in the same level. However, 23.68 per cent of the fathers of the 1964 group had 1-4 years of college training whereas approximately half as many or 11.19 per cent of the fathers of the 1963 group had this level of training. Graduate training was held by 2.63 per cent of the 1964 group which compares with 4.19 per cent with the same training in 1963.

FREQUENCY AND PERCENTAGE DISTRIBUTION OF THE FATHERS OF ENTERING FRESHMEN FALL 1963 AND STUDENTS COMPLETING TWO YEARS OF COLLEGE WORK IN 1964 ACCORDING TO THE HIGHEST LEVEL OF EDUCATION COMPLETED

Fdugetion		Year 1963									
		Male	Female	Total	Male	e Female	Total				
Grade											
1-6	No.	2	3	3	3	2	5				
	%	2.10	6.25	3.50	3.2	12 3.57	3.30				
7–9	NO.	25	10	35	26	12	38				
	%	26.32	20.83	24.48	27.0	08 21.43	25.00				
10-12	No.	52	29	81	42	27	69				
	%	54.74	60.42	56.64	43.1	76 48.21	45.39				
College	No.	11	5	16	22	14	36				
1-4	%	11.58	10.42	11.19	22.9	92 25.00	23.68				
Graduate	No.	5	1	6	3	1	4				
1-3	%	5.26	2.08	4.19	3.1	12 1.79	2.63				
Total	No.	95	48	143	96	56	152				
	%	100.00	100.00	100.00	100.0	00 100.00	100.00				

Table 18, which gives the educational background of the mothers of the students included in the two groups, shows that the greatest representation for both male and female students in both years was in the 10-12 level of formal education. The 65.03 per cent of the total at this level in 1963

FREQUENCY AND PERCENTAGE DISTRIBUTION OF THE MOTHERS OF ENTERING FRESHMEN FALL 1963 AND STUDENTS COMPLETING TWO YEARS OF COLLEGE WORK IN 1964 ACCORDING TO THE HIGHEST LEVEL OF EDUCATION COMPLETED

					Year		,	
Education	L	1963 Male Female Tot				Male	1964 Female	Total
Grade								
1-6	No. %	1 1.05	0 0	1 .70		1 1.04	1 1.79	2 1.32
7–9	No. %	21 22.10	5 10.42	26 18.18		15 15.63	7 12.50	22 14.47
10-12	No. %	57 60.00	36 75.00	93 65.03		62 64.59	32 57.14	94 61.84
College 1-4	No. %	14 14.74	7 14.58	21 14.69		17 17.70	14 25.00	31 20.40
Graduate 1-3	No. %	2 2.11	0 0	2 1.40		1 1.04	2 3.57	3 1.97
Total	No.	95 100.00	48 100.00	143 100.00	1	96 00.00	56 100.00	152 100.00

was approximately three and one-half times the representation in educational level 7-9 and approximately four and one-half times that in the college level. These percentages were 18.18 and 14.69 respectively. The 1964 maximum representation of 61.84 per cent in the 10-12 level was more

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than four times the representation in the 7-9 level and approximately three times the college training representation. The percentages in these levels were 14.47 and 20.40 respectively.

Tables 17 and 18 were used to test hypothesis number 3. This hypothesis was stated as:

> There will be a significant difference in the educational background of fathers and mothers between entering freshmen and students completing two years of college work.

Totals representing the educational level of the fathers of students who entered Flint Community Junior College in 1963 and students completing two years of college work in 1964 were used to complete chi square computations. The same procedure was used for the educational level of mothers of the two groups of students in the two years. A further refinement was completed by comparing the totals for fathers of male students in 1963 with those for 1964 and for females in these two years and then repeating the procedure for the mothers of male and female students in the two groups. Table 19 gives a summary of the chi square values computed.

In every case the computed chi square value was less than the X^2 table value at the .01 level with its appropriate degree of freedom. Since the significance level chosen for this study was .01, the hypothesis that there would be a significant difference in the educational background of fathers and mothers between entering freshmen and students completing two years of college work was not valid. However, it should be recognized that the comparison of the educational level of the fathers of both male and female students combined in Table 17 produced a chi square value of 8.96 which was significant at the .05 level.

SUMMARY OF CHI SQUARE VALUES OBTAINED BY APPLICATION OF THE CHI SQUARE TEST OF INDEPENDENCE TO THE HIGHEST LEVEL OF EDUCATION ATTAINED BY FATHERS AND MOTHERS OF ENTERING STUDENTS FALL 1963 AND STUDENTS COMPLETING TWO YEARS OF COLLEGE WORK IN 1964

Relationships	df	Computed X ²	X ² Table Value at .01 Level
Table 17 - Educational Level of Fathers, Male and Female Students Combined	3	8.96	11.34*
- Educational Level of Fathers, Male Students	3	5.30	11.34
- Educational Level of Fathers, Female Students	2	3.38	9.21
Table 18 - Educational Level of Mothers, Male and Female Students Combined	3	2.03	11.34
- Educational Level of Mothers, Male Students	3	1.78	11.34
- Educational Level of Mothers, Female Students	2	3.85	9.21

*The X^2 value at the .05 level of significance is 7.81.

Vocational Plans

The review of the literature relative to the educational and vocational plans of community college students included statements that the percentage of students who planned to transfer to a four-year institution after their community college experience ranged from two-thirds to threefourths of those entering. This seemed to be true regardless of the number and type of vocational courses offered by the institution.

The curriculum selections for the two groups of students in this study were analyzed through responses to the questionnaire. The questionnaire requested each student to indicate his occupational or professional career and the curriculum in which he had been enrolled. Each student completing two years of college work was also asked whether the indicated occupational or career choice was the same as that for which he had originally enrolled in college.

The final curriculum listed by completing sophomore students who had changed their curriculum during their two years of college was used in the listing of curriculums. Approximately 6 per cent of the female students, 3 out of 56, listed a change in curriculum and approximately 27 per cent of the male students, 26 out of 96, listed a change. The three curriculum changes made by females included one from a two-year to a fouryear curriculum and two changes within four-year programs. Of the 26 changes made by male students, two changes were from four-year to two-year programs and four changes from two-year to four-year programs. All other changes made by male students were within four-year programs.

An attempt was made to tabulate the occupational or professional career choices and the stated curriculums in terms of occupations listed

in the Hollingshead index. However, after tabulating the actual vocational and professional career choices and the curriculums followed from a large number of questionnaires, it was found that the two categories of choices of students were the same or basically the same. For example, a profession of medicine would be indicated and a pre-medical curriculum followed; teaching as a profession and a foreign language curriculum followed; or technician as an occupational choice and a specific technology curriculum followed.

It was soon evident, therefore, that a more meaningful listing could be made if the stated curriculums were used and grouped under related categories. Examination of the actual curriculums listed indicated that they could be grouped under ten categories. A miscellaneous category was developed which included curriculums such as fine arts, liberal arts, journalism, and ministry.

The ten related curriculum categories were grouped into transfer and non-transfer groups according to whether they required at least four years of college or could be completed in two years. The questionnaire requested each student to indicate the number of years he planned to attend college. Whenever necessary, this information was used to determine whether the curriculum to be followed required four years or two years of college training.

Table 20 gives the data tabulated according to transfer or nontransfer curriculum, sex, for freshmen and completing sophomores. Table 21 gives the same information in terms of percentages.

The totals in Table 21 show that for 1963 entering freshmen and 1964 completing sophomores the transfer curriculum selections were quite similar in law at 2.10 and 3.29 per cent; in medicine-dentistry-pharmacynursing at 6.99 and 7.89 per cent; in physical and natural science at 5.59 and 5.26 per cent; and in the miscellaneous group at 5.59 and 7.24 per cent respectively. The engineering curriculum in 1963 contained 15.39 per cent which compares with 9.21 per cent in 1964. The remaining two categories of the seven in the transfer curriculum group were almost equally represented in the 1963 group with 19.58 per cent in the business administration-accounting category and 18.18 per cent in the educationsocial work category. In contrast, the 1964 percentages for these categories were 14.47 and 29.61 per cent respectively making the educationsocial work category twice as large as the business administrationaccounting category.

In the non-transfer curriculums, there was a reduction in total percentages from 10.49 per cent in clerical-business retailing in 1963 to 7.24 per cent in 1964. The percentages in the mechanical-electricalautomotive technology group in 1963 and 1964 were almost the same with 8.40 and 8.55 per cent respectively while the medical services-nursing category increased slightly from 5.59 to 7.24 per cent.

Table 21 also shows that the transfer curriculums chosen by males and females in 1963 were quite similar in the medicine-dentistrypharmacy-nursing category with 6.32 and 8.33 per cent but in 1964 the male representation at 10.42 per cent was approximately three times the female representation at 3.57 per cent. In the physical and natural
CURRICULUM CHOICE OF ENTERING FRESHMEN FALL 1963 AND STUDENTS COMPLETING TWO YEARS OF COLLEGE WORK IN 1964

		*	Ye	ar		
Curriculum		1963			1964	
	Men	Women	Total	Men	Women	Total
Transfer					- <u> </u>	
Business Administration-						
Accounting	25	3	28	19	3	22
Education-Social Work	8	18	26	17	28	45
Engineering	21	1	22	14	0	14
Law	3	0	3	4	1	5
Medicine-Dentistry- Pharmacy-Nursing	6	ц	10	10	2	12
Physical and Natural Science	6	2	8	5	3	8
Miscellaneous (Fine Arts, Journalism, Ministry, etc.)	4	Ц	8	6	5	11
Non-Transfer						
Clerical-Business- Retailing	7	8	15	6	5	11
Mechanical-Electrical-Auto- motive Technology	12	0	12	13	0	13
Medical Services-Nursing	1	7	8	2	9	11
Undecided	2	l	3	0	0	0
Total	95	48	143	96	56	152

PERCENTAGE DISTRIBUTION OF CURRICULUM CHOICES OF ENTERING FRESHMEN FALL 1963 AND STUDENTS COMPLETING TWO YEARS OF COLLEGE WORK 1964

Curriculum	Ente	ring Fre	eshmen	Year Comple	eting Son	phomores
	Men	Women	Total	Men	Women	Total
Transfer				g - g _ g - g - g - g - g - d - − 1		
Business Adminis- tration-Accounting	g 26.32	6.25	19.58	19.79	5.36	14.47
Education-Social Work	8.42	37.50	18.18	17.71	50.00	29.61
Engineering	22.10	2.08	15.39	14.58	0	9.21
Law	3.16	0	2.10	4.17	1.78	3.29
Medicine-Dentistry Pharmacy, Nursing	, 6.32	8.33	6.99	10.42	3.57	7.89
Physical and Natural Science	6.32	4.17	5.59	5.21	5.36	5.26
Miscellaneous (Fir Arts, Journalism, Ministry, etc.)	he 4.21	8.33	5.59	6.25	8.93	7.24
Non-Transfer						
Clerical-Business- Retailing	7.37	16.67	10.49	6.25	8.93	7.24
Mechanical-Elec- trical-Automo- tive Technology	12.62	0	8.40	13.54	0	8.55
Medical Services- Nursing	1.05	14.59	5.59	2.08	16.07	7.24
Undecided	2.11	2.08	2.10	0	0	0
Total	100.00	100.00	100.00	100.00	100.00	100.00

science category, the 1963 male and female figures were 6.32 and 4.17 per cent which compare with 5.21 and 5.36 per cent in 1964 respectively. Approximately twice as many female students in 1963 were included in the miscellaneous category with 8.33 per cent compared with men at 4.21 per cent. In 1964 these figures were 8.93 and 6.25 per cent respectively.

In 1963, 26.32 per cent of the men were in the business administration-accounting category compared with 6.25 per cent of the women. A reversal was true in the education-social work category which included 8.42 per cent of the men and 37.50 per cent of the women. The same pattern held in 1964 with 19.79 per cent of the men and 5.36 per cent of the women in the business administration-accounting category and 17.71 per cent of the men and 50.00 per cent of the women in the education-social work category.

In the non-transfer curriculums in 1963, there were more than twice as many women as men in the clerical-business-retailing category with 16.67 and 7.37 per cent respectively. In 1964 in this category, the difference was small in that the female representation was 8.93 per cent and the male representation was 6.25 per cent. The female representation in 1963 in the medical service-nursing category was 14.59 per cent which was approximately fourteen times the male representation at 1.05 per cent. The same pattern held in 1964 with the females represented by 16.07 per cent which was approximately eight times the male representation of 2.08 per cent in this category.

The curriculum choices of the students included in Table 20 were also tabulated according to transfer and non-transfer curriculums and social

status level. Table 22 gives the frequency and percentage distribution of the 1963 entering freshmen and 1964 completing sophomores combined according to these factors.

Analysis of Table 22 shows that students in social status levels 1 and 2 selected transfer curriculums exclusively and a transfer curriculum being almost exclusively selected by students in status level 3. In level 4, the ratio of transfer and non-transfer selections was approximately five to one and in level 5 approximately two to one. These percentages were 84.38 and 15.62, and 68.02 and 31.98 respectively. The percentage of students selecting a transfer curriculum in both levels 6 and 7 was slightly more than those making non-transfer curriculum selections. The percentage selecting a transfer curriculum in each level was approximately 55 per cent with the remainder selecting a non-transfer curriculum.

Table 22 was used to evaluate hypothesis number 4 stated as:

There will be a significant difference between students who select a transfer curriculum and those who select a non-transfer curriculum within social status levels.

The computed chi square value from the seven by two contingency table was 46.86. This value compared with a X^2 table value of 16.81 at the .01 level with six degrees of freedom indicates there was a significant difference between students who select a transfer curriculum and those who select a non-transfer curriculum according to social status level.

Another aspect of the occupational plans of students was stated in hypothesis number 5. This was:

FREQUENCY AND PERCENTAGE DISTRIBUTION ACCORDING TO TRANSFER AND NON-TRANSFER CURRICULUM CHOICE AND SOCIAL STATUS LEVEL OF BOTH ENTERING FRESHMEN FALL 1963 AND STUDENTS COMPLETING TWO YEARS OF COLLEGE WORK IN 1964

Level		Transfer	Non-Transfer	Total
1	No.	11	0	11
	%	100.00	0	100.00
2	No.	24	0	24
	%	100.00	0	100.00
3	No.	44	1	45
	%	97 . 78	2.22	100.00
4	No.	54	10	64
	%	84.38	15.62	100.00
5	No.	32	15	47
	%	68.02	31.98	100.00
6	No.	29	24	53
	%	54.72	45.28	100.00
7	No.	24	19	43
	%	55.80	44.20	100.00
Total	No.	218	69	287
	%	75 . 96	24.04	100.00

There will be more men than women selecting one of the professions as their occupational choice.

In order to test this hypothesis it was necessary to determine which occupations could be classified as professional. The system used was based on the Hollingshead index through which the social status level of the fathers of students included in this study was determined. The description of typical occupations in each of the seven social status levels in the Hollingshead index was given in Chapter IV. Level 1 was described as including major professionals, level 2 included lesser professionals, and level 3 included minor professionals, levels 4, 5, and 6 were classed as technical and skilled occupations.

Using this system it was possible to determine the social status level of the occupations represented by the transfer and non-transfer curriculums included in Table 20. All seven of the transfer curriculum groupings represented occupations included in levels 1, 2, or 3 of the Hollingshead index. Occupations represented by the non-transfer curriculums were found in levels 4, 5, or 6. Table 23 contains totals from Table 20 according to the number of students in professional and non-professional curriculums and according to sex.

Table 23 shows that 77.49 per cent of the male students and 71.15 per cent of the female students chose one of the professions as their occupation. The difference of only 6.34 per cent between males and females selecting a professional or a non-professional occupation is not great. The chi square test of independence applied to the data in Table 23 produced a chi square value of .29. This value was not significant at the .01 level. Therefore, hypothesis number 5 which stated that there would be more men than women selecting one of the professions as their occupational choice was not valid.

It was stated in Chapter I that the main enrollment in community colleges comes from the middle and lower levels of social status which

DISTRIBUTION AND PER CENT OF STUDENTS ACCORDING TO SEX AND SELECTION OF PROFESSIONAL AND NON-PROFESSIONAL OCCUPATIONS

Category	Ma] Number	le Per Cent	Fena Number	le Per Cent
Professional Occupations	148	77.49	74	71.15
Non-Professional Occupations	41	21.47	29	27.88
Undecided	2	1.04	1	•97
Total	191	100.00	104	100.00

provides an opportunity for community colleges to serve as a democratizing agent in higher education. Consideration of this statement led to the hypothesis number 6 relating to the prestige value of the students occupational choice relative to the occupation of the father. Specifically, the hypothesis was:

> The occupational choice of both entering freshmen and students completing two years of college work will be equal to or greater in prestige value than that of the father's present occupation.

Table 6 included data which gives the social status level of the fathers of the entering freshmen and the completing sophomores. The Hollingshead index designation of levels 1, 2, and 3 as professional occupations with levels 4, 5, and 6 as technical and skilled occupations combined with the data in Tables 6 and 20 provided the information for Table 24. Table 24 shows the number and percentage of students in both groups who selected professional and non-professional occupations and the number and percentage of fathers in each of these categories. In 1963, 20.97 per cent of the fathers had occupations in levels 1, 2, or 3 whereas 73.42 per cent of the students had selected occupations in this category. Also in 1963, 53.85 per cent of the fathers had occupations in levels 4, 5, or 6 while 24.48 per cent of the students selected occupations in this category. There were no students who intended to have an unskilled occupation in level 7 whereas 23.78 per cent of the fathers held level 7 occupations.

TABLE 24

NUMBER AND PERCENTAGE OF OCCUPATIONS OF FATHERS AND INTENDED OCCUPATIONS OF ENTERING FRESHMEN FALL 1963 AND STUDENTS COMPLETING TWO YEARS OF COLLEGE WORK IN 1964 ACCORDING TO THE SOCIAL STATUS LEVEL OF THE OCCUPATION

Social Status Levels		נ	1963			19	64	
]	Fathers -	Stu	dents	F	athers	St	udents
	No.	%	No.	6	No.	70	No.	%
Levels, 1, 2, 3	30	20.97	105	73.42	51	33.55	117	76.97
Levels 4, 5, 6	77	5 3.85	35	24.48	89	58.56	35	23.03
Level 7	34	23.78	0	0	9	5.92	0	0
Unknown	2	1.40	3	2.10	3	1.97	0	0
Total	143	100.00	143	100.00	152	100.00	152	100.00

A similar pattern was true in the 1964 group in that 33.55 per cent of the fathers and 76.97 per cent of the students were in levels 1, 2, or 3 while 58.56 per cent of the fathers and 23.03 per cent of the students were in levels 4, 5, or 6. There were only 5.92 per cent of the fathers of the completing sophomore group in level 7 and there were no students who designated an occupation at this level.

The chi square test of independence was applied to the data in Table 24 to evaluate hypothesis number 6. Table 25 gives the chi square values obtained. In every case the computed chi square values were greater than

TABLE 25

CHI SQUARE VALUES OBTAINED BY APPLICATION OF THE CHI SQUARE TEST OF INDEPENDENCE TO THE OCCUPATIONS OF FATHERS AND THE INTENDED OCCUPATIONS OF ENTERING FRESHMEN FALL 1963 AND STUDENTS COMPLETING TWO YEARS OF COLLEGE WORK IN 1964

Relationships	df	Computed X ²	X ² Table Value At .01 Level
Occupational Level of Fathers and Students - 1963	2	91.41	9.21
Occupational Level of Fathers and Students - 1964	2	58.42	9.21
Occupational Level of Fathers and Students - 1963 and 1964 Combined	2	147.66	9.21

the X^2 table value with its appropriate degree of freedom at the .01 level. The computed chi square value being greater than the X^2 table value indicates there was a significant difference between the social status level of the occupations held by fathers and the social status level of the intended occupations of students. Hypothesis number 6 which stated that the occupational choice of both groups of students would be equal to or greater in prestige value than that of the fathers present occupation was therefore valid.

Educational Plans

The analysis of educational plans of the two groups of students in this study included an examination of the number of years they planned to attend college. Each student was requested to indicate this information on the questionnaire. Hypotheses 7 and 8 were related to intended years of college attendance.

Hypothesis number 7 was:

There will be a significant difference between men and women in the number of years they plan to attend college.

Hypothesis number 8 was:

There will be a significant relationship between years of intended college attendance and social status level.

Data relative to these two hypotheses are given in Tables 26 and 27 which give the frequency distribution for each group of students according to social status level, intended years of college attendance, and sex. Table 28 gives the totals included in Tables 26 and 27 in terms of

TO SOCIAL STATUS LEVEL, INTENDED YEARS OF COLLEGE ATTENDANCE AND SEX

						Int	ende	1 Ye	ars of	Colle	ge A	t tendan	ce							
Level	Ч			N		ю		₽			ŝ			9			7		0 H	tal
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N		0	m	Ч	t		Ч	ч	N	Ъ		Ч	ч	ч	N		0	9	m	6
m		0	7	Ч	8		m	4	7	Ч		Г	Ч		Ч	Ч	Ч	13	Ś	18
1		0	4	4	8	NONE	10	m	13	Ч	2	ε			0	Ч	Ч	16	6	25
ۍ		0		4	4		13	ε	16			0	Ч		Ч	Ч	Ч	15	7	22
9	Ч	г	N	m	5		13	9	19	Υ	г	4			0	Ч	Ч	19	11	30
7		0	ţ	Ч	ŝ		6	ß	14	9	4	IO	Ч	2	ŝ	N	Q	22	12	34
Unknown		0			0		Ч	Ч	N			0			0		0	Ч	Ч	CJ
Male Tot			20				51			13			5			9		95		
Female Tot	Ч			77				23			7			m			ο		48	
Total All					37				4L			20			ω		9			143

FREQUENCY DISTRIBUTION OF STUDENTS COMPLETING TWO YEARS OF COLLEGE WORK IN 1964 ACCORDING TO SOCIAL STATUS LEVEL, INTENDED YEARS OF COLLEGE EDUCATION AND SEX

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Unknown		н	г		ч		г			ч			0		0	0	N	ч	с
Male Tot	21				25			29			7			14			96		
Female Tot		14				28			12			2						9	
Total All			35				53			1 ⁴			6		17	+			152

Level	1	5		i lears ul uc 4 063 Entering	Treege Attendanc	e 6	7	Total
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v	D	tt • tt		77•77	77°77	22.22	D	100.00
ŝ	0	44.44		38.88	5.56	5.56	5.56	100.00
4	0	32.00	NON	52.00	12.00	0	4.00	100.00
5	0	18.18	E	72.72	0	4.55	4.55	
6	3.33	16.67		63 . 34	13.33	0	3.33	100.00
7	0	14.71		41.18	29.41	8.82	5.88	00.001
Unknown	0	0		100.001	0	o	0	100.00
Total	69.	23.78		51.75	13.99	5.59	4.20	100.00
			19(54 Completing	Sophomores			
-1 O		0 13 . 33		62 .5 0 26.67	0 46.67	12.50 13.33	25.00	100.00
1 1				- (þ	00.001
т. 4		32.14 27.50	N	22.00 42.50	21.43	14.29 D	7.14	100.00
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Б		19.24	Ξ	34.61 21, 78	34.61 26.08	000	11.54	100.00
D		t •+3			20.00	0).•0	8.70	100.00
7		22 . 22		22.22	33.33	0	22.22	00.001
UNKNOWN					33.33	0	0	100.00
Total		23.03		34.87	26.97	5.92	9.21	

PERCENTAGE DISTRIBUTION OF TOTALS OF 1963 ENTERING FRESHMEN AND STUDENT'S COMPLETING TWO YEARS

percentages. Only totals were used to determine the percentages because many of the cell entries were small relative to overall totals.

Analysis of the percentages for totals in Table 28 for entering freshmen shows that slightly more than half of the group, 51.75 per cent, intended to secure four years of college training which compares with approximately one-third of the 1964 group at 34.87 per cent. The percentage of both groups that planned two years of college was approximately the same with 23.78 per cent in 1963 and 23.03 per cent in 1964. In the 1964 group, 26.97 per cent planned five years of college which was approximately twice as many as the 13.99 per cent in the 1963 group. The percentage of students planning six years of college work was almost the same in the two groups at 5.59 per cent in 1963 and 5.92 per cent in 1964. Approximately twice as many students in the latter group planned seven years of college, 9.21 per cent, as did the former group with 4.20 per cent.

To determine the validity of hypothesis number 7, contingency tables were developed from Tables 26 and 27 and the chi square test of independence applied. Table 29 gives a summary of the chi square values found.

For the 1963 entering freshmen group, the computed chi square value of 4.67 compared with the X^2 table value of 13.28 indicates there was no significant difference in the number of years of intended college attendance between freshmen men and women. However, there was a significant difference in the 1964 group since the computed chi square value of 15.97 was greater than the X^2 table value of 13.28. When all the males and all the females in the two groups were combined, respectively, the computed chi square value was 14.10 which was significant at the .01 level. The hypothesis that there would be a significant difference between men and

women in the number of years they plan to attend college was therefore valid for 1964 completing sophomores and the two groups combined at the .01 level. It was not valid for 1963 entering freshmen.

TABLE 29

SUMMARY OF CHI SQUARE VALUES OBTAINED BY APPLICATION OF THE CHI SQUARE TEST OF INDEPENDENCE TO THE DISTRIBUTION OF INTENDED YEARS OF COLLEGE ATTENDANCE

Relationships	df	Computed X ²	X ² Table Value at .01 Level
Table 26 - 1963 Males Compared with Females	4	4.67	13.28
Table 27 - 1964 Males Compared with Females	24	15.97	13.28
Tables 26 and 27 - 1963 and 1964 Total Males Compared with Total Females	ц	14.10	13.28

The data in Tables 26 and 27 were also used to determine the validity of hypothesis number 8 which was related to the degree of relationship of social status level and intended years of college attendance. Contingency tables were developed involving these two factors and the degree of relationship measured by the computation of a contingency coefficient. The contingency coefficients obtained are given in Table 30.

Examination of Table 30 shows that the chi square value was significant only at the .05 level when all 1963 students were combined and when all students in the 1963 and 1964 groups were combined. The attendant significant contingency coefficients of .35 and .30 for these two cases, respectively, indicates the degree to which there was a relationship between social status level and intended years of college attendance.

The hypothesis that there would be a significant relationship between social status level and intended years of college attendance was therefore not valid at the .01 level for males or females in either group in any combination. It was valid at the .05 level when all 1963 students were combined and when all students in the 1963 and 1964 groups were combined.

One of the purposes of this study was to determine the relationship between social status and parental feelings about the importance of a college education. There were two questions on the questionnaire through which each student was requested to indicate for each parent their feeling about the importance of a college education by checking one of the following items.

> Very Important Opposed To It Important Don't Know Don't Care

Hypothesis number 9 was related to this relationship and was stated as:

There will be a significant relationship between social status and the importance of a college education based on parental opinion.

SUMMARY OF CONTINGENCY COEFFICIENTS OBTAINED WHEN APPLIED TO THE DISTRIBUTION OF SOCIAL STATUS LEVEL AND INTENDED YEARS OF COLLEGE ATTENDANCE

						Ì
Relationships	df	Computed X ²	X ² Table Value At .01	Computed Contingency Coefficient	Significance of Contingency Coefficient	-
Table 26						•
1963 - Males Only	3	5.99	11.34	.25	No	
1963 - Females Only	2	3.24	9.21	.25	No	
1963 - All Males and All Females	8	19.94	20.09	•35	No*	
Table 27						
1964 - Males Only	6	4.03	16.81	.20	No	
1964 - Females Only	2	3.38	9.21	.24	No	
1964 - All Males and All Females	12	9.97	26.22	.25	No	
1963 and 1964 - Males and Females Combined	18	29.20	34.80	.30	No**	

*The X^2 value at the .05 level of significance is 15.51. **The X^2 value at the .05 level of significance is 28.87.

Table 31 gives the frequency distribution for 1963 entering freshmen males according to social status and father's and mother's opinion of a

college education in terms of the above five categories. Tables 32, 33, and 34 follow the same pattern for 1964 freshmen females, 1964 sophomore males and 1964 females respectively.

Examination of the cell entries in Tables 31 through 34 shows that the major portion of the entries in each table for both mothers and fathers occur in the category labelled Very Important. There were very limited entries in the Don't Care, Opposed To It, Don't Know, and No Answer categories. Further, many of the entries indicating father's opinion and those for mother's at a particular social status level were the same or almost the same. This was especially true for the Very Important category. Therefore, the father and mother entries under each category were combined as were the Don't Care, Opposed To It, Don't Know, and No Answer categories to develop percentage representations for 1963 freshmen and 1964 completing sophomores which are given in Table 35.

Evaluation of the percentages representing vertical totals in Table 35 shows that 83.69 per cent of the parents of the 1963 freshmen males considered a college education Very Important which was greater than for females in the same group at 66.67 per cent. In this same category in 1964, the percentages were almost the same at 73.96 per cent and 71.43 per cent respectively. In the category labelled Important, the percentages for 1963 males and females were somewhat different at 13.68 per cent and 21.87 per cent respectively while in 1964 they were almost the same at 18.23 per cent and 17.86 per cent respectively. These differences become much less pronounced, however, when the percentages for the males and females in each year and the Very Important and Important categories are

combined and an average developed. On this basis, 92.95 per cent of the parents of the 1963 entering freshmen group and 90.74 per cent of the 1964 completing sophomore group considered a college education either Very Important or Important.

TABLE 31

FREQUENCY DISTRIBUTION ACCORDING TO SOCIAL STATUS LEVEL AND PARENTAL OPINION ON THE IMPORTANCE OF A COLLEGE EDUCATION FOR ENTERING MALE STUDENTS FALL, 1963

				0	pinion					<u></u>			
Level	Ve Impoi Fa	ery rtant Mo	Impor Fa	tant_ Mo	Don't Care Fa M	Oppos To I o Fa	sed [t Mo	Don Kno Fa	't w Mo	N Ans Fa	o wer Mo	<u>Tot</u> Fa	al Mo
1	3	3										3	3
2	4	5	2	1								6	6
3	2	8	8	5		3						13	13
4	13	15	3	1								16	16
5	12	14	2	l				1				15	15
6	16	19	3									19	19
7	22	22										22	22
Unknown		1								1		1	1
Father Total	72		18			3		1		1		95	
Mother Total		87		8									95

FREQUENCY DISTRIBUTION ACCORDING TO SOCIAL STATUS LEVEL AND PARENTAL OPINION ON THE IMPORTANCE OF A COLLEGE EDUCATION FOR ENTERING FEMALE STUDENTS FALL, 1963

	Ve	777			Opin	ion								
Level	Tmpo	mtont	Tmme		Don	't	Oppo	sed	Don	't	N	0		
20101	Fo	Mo	Tubo	rtant	<u> </u>	e	To	It	_Knc	W	Ans	wer	Tot	tal
	1.9		ra.	MO		Mo	Fa.	Mo	Fa	Мо	Fa	Mo	Fa	Мо
l													0	0
2		1	3	l								1	3	3
3	3	3	2	1		l							5	5
4	4	8	2	1	l				2				9	9
5	5	5	2	2									7	7
6	7	9	l	1	2	1					1		11	11
7	9	10	3	1		1							12	12
Unknown			1							1			1	1
Father Total	28		14		 7				2), 8	
<i>f</i> other						.							40	
lotal		36		7		3				1		1		48

Further analysis of the percentages in each of the social status levels and the Very Important category for both sexes in both the 1963 and 1964 groups does not show any difference in the pattern of parental opinion on the importance of a college education relative to social status level.

FREQUENCY DISTRIBUTION ACCORDING TO SOCIAL STATUS LEVEL AND PARENTAL OPINION ON THE IMPORTANCE OF A COLLEGE EDUCATION FOR MALE STUDENTS COMPLETING TWO YEARS OF COLLEGE WORK IN 1964

Level					Opin	ion	0		Der	1+				
rever	ve Impo	ry rtant	Ιπρο	rtant	Don Car	't e	Uppo: To	sea Tt	Don Kno	.'t w	Ans	wer	Tot	al
	Fa	Mo	Fa	Мо	Fa	Мо	Fa	Mo	Fa	Mo	Fa	Мо	Fa	Мо
1	6	6											6	6
2	8	9	1										9	9
3	12	10		5	4	1							16	16
4	20	20	4	5	2	1							26	26
5	12	16	3	l	3	l							18	18
6	7	6	4	8	l		l				1		14	14
7	3	5	2										5	5
Jnknown		2	2										2	2
Father Fotal	68		16		10		1				1		96	
lother		 74		19		 2								

Tables 31 through 34 were used to test hypothesis number 9. Following the same pattern used to develop percentages in Table 35, father and mother totals were used to develop contingency tables. Table 36 gives the contingency coefficients which were then computed.

FREQUENCY DISTRIBUTION ACCORDING TO SOCIAL STATUS LEVEL AND PARENTAL OPINION ON THE IMPORTANCE OF A COLLEGE EDUCATION FOR FEMALE STUDENTS COMPLETING TWO YEARS OF COLLEGE WORK IN 1964

	Ve				Opin	ion	0000	sed	Don	't	N	0		
Level	Impo	rtant	Impo	rtant	Car	'e	To	It	Kno	W	Ans	wer	Tot	al
	Fa	Мо	Fa	Mo	Fa	Мо	Fa	Мо	Fa	Mo	Fa	Mo	Fa	Мо
1	2	2											2	2
2	5	5				1			1				6	6
3	10	7	1	4		1			1				12	12
4	9	11	2	3	3								14	14
5	3	4	2	4	3								8	8
6	6	7	2	2	l								9	9
7	4	4											4	4
Unknown	1									1			1	1
Father Total	40	<u></u>	7		7				2				56	
Mother Iotal		40		13		2				l				56

Hypothesis number 9 was that there would be a significant relationship between social status level and the importance of a college education expressed by parental opinion. Analysis of the column in Table 36, which indicates whether the value of the contingency coefficient is significant.

35	
TABLE	

PERCENTAGE DISTRIBUTION OF TOTALS ACCORDING TO SOCIAL STATUS LEVEL AND PARENTAL OPINION ON THE IMPORTANCE OF A COLLEGE EDUCATION FOR ENTERING FRESHMEN FALL 1963 AND STUDENTS COMPLETING TWO YEARS OF COLLEGE WORK IN 1964

		1963 Male	Par	ental Opin	ion	1963 Female	ស្ត	
Level	Very Important	Important	All Other Categories	Total	Very Important	Important	All Other Categories	Total
- 0	100.00 75.00	25.00		100.00 100.00	16.66	66.67	16.66	100.00
m-t	38.46 87.50	50.00 12.50	11.54	100.00 100.00	60.00 66.67	30.00 16.66	10.00 16.66	100.00 100.00
0 vu	86.67 92.11	10.00 7.69	3.33	100.00 100.00	71.43 72.73	28.57 9.09	18.18	100.00 100.00
7 Unknown	100.00 50.00		50.00	100.00 100.00	71.97	16.67	4.16 100.00	100.00 100.00
Total	83.69	13.68	2.63	100.00	66.67	21.87	11.46	100.00
		1964 Male	S			1964 Femal	es	
5 1	100.00 94.12	5.88		100.00 100.00	100.00 83.37		16.67	100.00
€ M	68.75 76.92	15.62 17.31	15.62 5.77	100.00 100.00	70.84 71.43	20.83 17.86	8.33 10.71	100.00 100.00
ю vi	77.78 46.43	11.11 142.86	11.11 17.01	100.00	43.75 72.23	37.50 22.22	18.75 5.55	100.00 100.00
7 Unknown	80.00 50.00	20.00 50.00		100.00 100.00	100.00		100.00	100.00 100.00
Total	73.96	18.23	7.81	100.00	71.43	17.86	10.71	100.00

shows that the hypothesis was valid at the .01 level for 1963 entering males, for 1964 sophomore males, when 1963 males and females were combined, when 1964 males and females were combined, and when all students in the two groups were combined. It was not valid when applied to 1963 and 1964 females treated separately.

TABLE 36

SUMMARY OF CONTINGENCY COEFFICIENTS OBTAINED WHEN APPLIED TO THE DISTRIBUTION OF SOCIAL STATUS LEVEL AND THE IMPORTANCE OF A COLLEGE EDUCATION BASED ON OPINIONS OF MOTHERS AND FATHERS COMBINED

Relationships	df	Computed \mathbf{X}^2	X ² Table Value At .01	Computed Contingency Coefficient	Significance of Contingency Coefficient	
Table 31-1963 Males Only	4	29.81	13.28	•37	Yes	
Table 32-1963 Females Only	2	2.80	9.21	.18	No	
Table 33-1964 Males Only	5	15.81	15.09	•29	Yes	
Table 34-1964 Females Only	3	4.51	11.34	.21	No	
Table 31 and 32- 1963 Males and Females Combined	6	41.17	16.81	•37	Yes	
Table 33 and 34- 1964 Males and Females Combined	6	18.73	16.81	•25	Yes	
Tables 31, 32, 33, and 34 All Students Combined	6	23.18	16.81	.20	Yes	
	_					

References from the literature in earlier chapters included statements indicating that a vast majority of upper-middle class vocational positions are occupied by men and women with a college education and that a college education is seen as an avenue for upward social mobility in the social structure. Included were statements relating to the reasons given by students for attending college and individuals who influenced their educational and occupational objectives. References were also made to the obligation placed on community colleges in providing adequate guidance for students as they develop their educational plans. There were two questions on the questionnaire related to this area. One of these questions asked the student to indicate the degree of importance several factors had in his decision to attend college and the other was related to the degree of assistance received from teachers and counselors in developing his educational and vocational plans.

The question relating to the reasons for attending college listed the following five categories and requested that the degree of importance be indicated by high, medium, low, or none.

> Personal satisfaction To be able to provide service to others Financial reward To be able to secure job with high prestige Other (State reason)

Table 37 gives the frequency and percentage distribution of the replies given the first four of the categories by 1963 entering freshmen. Table 38 gives the same information for the 1964 completing sophomores.

From the total replies of 295 there were 34 students or approximately 12 per cent who gave an additional reason for attending college. Tables 37 and 38 show that all of these reasons were rated as having a high or medium degree of importance in the decision. These additional reasons are summarized as follows:

	1963_Fr	eshmen	1964_ S o	phomores
	<u><u>M</u></u>	F	M	F
Athletics	2			
Avoid selective service	4		3	
Influence of parents,				
relatives, friends	7	4	2	2
Physical reasons		l		
Pursue learning			3	1
Received scholarship	2	2	1	

Examination of Tables 37 and 38 shows that the major entries were in the high and medium degrees of importance for the different categories except for females in the two groups when the low degree of importance received a greater percentage than did the high degree in the Job Prestige category. The same pattern was true for 1964 sophomore males in the Service for Others category. Further, both 1963 and 1964 males indicated the most important reasons for attending college were personal satisfaction and financial reward. Females in the two groups considered personal satisfaction and services to others as the most important reasons.

The question relating to the guidance received by students contained the following four categories. Each student was asked to check one of them to indicate his opinion of the assistance he had received from teachers and counselors in determining his educational and vocational goals.

a. Very satisfiedb. Fairly satisfiedc. Somewhat dissatisfiedd. Very dissatisfied

FREQUENCY AND PERCENTAGE DISTRIBUTION OF 1963 ENTERING FRESHMEN ACCORDING TO REASONS FOR ATTENDING COLLEGE AND THEIR DEGREE OF IMPORTANCE

			Degree	of Impo	rtance	No	
Category		High	Medium	Low	None	NO Answer	Total
				Males			
Personal Satisfaction	No. %	45 47•37	44 46.32	6 6.31			95 100.00
Services for Others	No. %	27 28.42	33 34•74	9 9 . 47	12 12.63	14 14.74	95 100.00
Financial Reward	No. %	45 47•37	39 41.05	9 9.47	2 2.11		95 100.00
Job Prestige	No. %	24 25.26	45 47•37	18 18.95	8 8.42		95 100.00
Other	No. %	11 73.33	4 26.67				15 100.00
	_			Females			
Personal Satisfaction	No.	38 79 . 17	10 20.83				48 100.00
Services for Others	No. %	16 33•34	31 64.58	1 2.08			48 100.00
Financial Reward	No. %	8 16.67	31 64.58	7 14.58	2 4.17		48 100.00
Job Prestige	No. %	5 10.41	17 35.42	15 31.25	8 16.67	3 6.25	48 100.00
Other	No. %	4 57.14	3 42.86				7 100.00

FREQUENCY AND PERCENTAGE DISTRIBUTION OF STUDENTS COMPLETING TWO YEARS OF COLLEGE WORK IN 1964 ACCORDING TO REASONS FOR ATTENDING COLLEGE AND THEIR DEGREE OF IMPORTANCE

			Degree	of Impo	rtance	No	
Category		High	Medium	Low	None	Answer	Total
				Males			
Personal Satisfaction	No . %	65 67.71	26 27.08	5 5.21			96 100.00
Services for Others	No. %	20 20.83	48 50.00	22 22.92	6 6.25		96 100.00
Financial Reward	No• %	48 50.00	39 40.63	8 8.33	1 1.04		96 100.00
Job Prestige	No . %	35 36.46	38 39•58	14 14.58	9 9•38		96 100.00
Other	No.	5 55.56	4 44.44				9 100.00
				Females	5		
Personal Satisfaction	No.	48 85.71	8 14.29				56 100.00
Services for Others	No• %	28 50.00	24 42.86	3 5•36		1 1.78	56 10 0.00
Financial Reward	No. %	14 25.00	29 51•79	12 21.43		1 1.78	56 100.00
Job Prestige	No. %	11 19.64	21 37•50	20 35•72	2 3•57	2 3.57	56 100.00
Other	No. %	1 33.33	2 66.67				3 100.00

Table 39 gives the frequency and percentage distribution of replies to these four categories according to social status level and college class.

Examination of the frequencies in Table 39 shows that most of the entries occurred in the Very Satisfied, Fairly Satisfied, and in the Somewhat Dissatisfied categories and the total entries in each category were almost identical for both the 1963 entering freshmen and the 1964 completing sophomores. The total percentages show that approximately onefourth of both groups placed themselves in the Very Satisfied category, approximately one-fourth in the Somewhat Dissatisfied category, and approximately 40 per cent in the Fairly Satisfied category.

The chi square test of independence was applied to the data in Table 39 to determine whether a significant difference existed between 1963 entering freshmen and 1964 completing sophomores and social status level relative to the educational and vocational assistance received from teachers and counselors. Table 40 gives the combinations of categories used to develop contingency tables and the chi square values computed.

In every case the computed chi square value was less than the χ^2 table value at the .01 level and its appropriate degree of freedom. Therefore, there was no significant difference in student satisfaction or dissatisfaction with the educational and vocational assistance received from teachers and counselors according to social status level by either 1963 entering freshmen or 1964 completing sophomores or in combination.

FREQUENCY AND PERCENTAGE DISTRIBUTION OF 1963 ENTERING FRESHMEN AND 1964 COMPLETING SOPHOMORES ACCORDING TO SOCIAL STATUS LEVEL AND OPINION OF EDUCATIONAL AND VOCATIONAL ASSISTANCE RECEIVED

Level	V. Sati:	ery sfied	Fai Sati	rly sfied	Son Diss	www.at atisfied	Dis	Very satisfied	T	otal
1–1963 1964	No. 1 4	% 33.33 50.00	No. 1 3	% 33.33 37.50	No. 1 1	% 33.33 12.50	No. 0 0	% 0 0	No. 3 8	% 100.00 100.00
2 - 1963	3	33.33	3	33.33	3	33.33	0	0	9	100.00
1964	5	33.33	6	40.00	3	20.00	1	6.67	15	100.00
3-1963	5	27.78	6	33.33	6	33.33	1	5.56	18	100.00
1964	6	21.43	11	39.29	8	28.57	3	10.71	28	100.00
4-1963	7	28.00	10	40.00	6	24.00	2	8.00	25	100.00
1964	8	20.00	16	40.00	10	25.00	6	15.00	40	100.00
5-1963	7	31.82	8	36.36	7	31.82	0	0	22	100.00
1964	6	23.08	10	38.46	8	30.77	2	7.69	26	100.00
6-1963	7	23.33	16	53.34	6	20.00	1	3.33	30	100.00
1964	6	26.08	10	43.48	5	21.74	2	8.70	23	100.00
7-1963	12	35.29	15	44.12	6	17.65	1	2.94	34	100.00
1964	2	22.22	3	33.33	1	11.11	3	33.33	9	100.00
Unknown 1963 1964	0 0	0 0	0 1	0 33.33	1 0	50.00 0	1 2	50.00 66.67	2 3	100.00 100.00
1963 Ta	otal 42	29.37	59	41.26	36	25.17	6	4.20	143	100.00
1964 т	otal 37	24.34	60	39.48	36	23.68	19	12.50	152	100.00

CHI SQUARE VALUES OBTAINED BY APPLICATION OF THE CHI SQUARE TEST OF INDEPENDENCE TO THE DISTRIBUTION OF 1963 ENTERING FRESHMEN AND 1964 COMPLETING SOPHOMORES ACCORDING TO SOCIAL STATUS LEVEL AND OPINION OF EDUCATIONAL AND VOCATIONAL ASSISTANCE RECEIVED

Relationships	df	Computed X ²	X ² Table Value at .01 Level
Social Status Level and Satisfied Categories Combined and Dissatisfied Categories Combined - 1963	6	2.80	16.81
Social Status Level and Satisfied Categories Combined and Dissatisfied Categories Combined - 1964	6	3.56	16.81
Social Status Level and Satisfied Categories Combined and Dissatisfied Categories Combined - 1963 and 1964	6	4.68	16.81

Summary

The educational and vocational plans of the two groups of students included in this study have been analyzed in this chapter. Factors examined included the educational background of fathers and mothers, curriculum choice, choice of profession, intended years of college attendance, parental attitude toward a college education, reasons for attending college, and the value of educational and vocational assistance received.

The data suggest and appear to substantiate the following statements.

1. A significant difference was not found to exist in the educational background of fathers and mothers between entering freshmen and students

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completing two years of college work at the .01 level. This was true when males and females were treated separately and when they were combined. A significant difference did exist in the educational background of fathers between the two groups of students at the .05 level.

2. A significant difference was found to exist between students who select a transfer curriculum and those who select a non-transfer curriculum according to social status level. High social status level students selected a transfer curriculum almost exclusively while approximately half of low status students selected a transfer curriculum.

3. The difference between men and women in selecting one of the professions as their occupational choice was not significant. The percentage difference between all males and females was only 6.3^4 per cent where approximately 75 per cent of both sexes selected one of the professions as their occupational choice.

4. A significant difference was found to exist between the occupational level of fathers and the intended occupations of students. This was true for the 1963 entering freshmen and 1964 completing sophomores when treated separately and when they were combined. Approximately threefourths of both the 1963 entering freshmen and the 1964 completing sophomores selected one of the professions as an occupation which was approximately two and one-half times as great as the percentage of fathers with professional occupations. The percentage of students in both groups who selected a technical or skilled occupation was approximately half as great as the percentage of fathers in this level of occupation.

5. There was a significant difference in the number of years of intended college attendance between men and women in the 1964 completing sophomore group and when all the males and all the females in 1963 and 1964 groups were combined. This comparison was not significant for the 1963 entering freshmen.

6. A significant relationship was not found to exist between social status level and intended years of college attendance for males or females in either the 1963 entering freshmen group or the 1964 completing sophomore group. There was a significant relationship between these two factors when all entering freshmen students were combined and when the 1963 and 1964 groups were combined.

7. Approximately 90 per cent of the parents of both the 1963 entering freshmen and 1964 completing sophomores considered a college education as Very Important or Important.

8. There was a significant relationship between social status level and parental opinion on the importance of a college education for 1963 and 1964 males, 1963 males and females combined, 1964 males and females combined, and for all students included in the two groups at the .01 level. No significant relationship between these two factors was found for 1963 freshmen and 1964 sophomore females.

9. The predominate reasons for attending college given by both 1963 entering freshmen males and 1964 sophomore males were personal satisfaction and financial reward. For females in the two groups, the most predominate reasons given were personal satisfaction and services to others.

10. The opinions of the two groups of students relative to the educational and vocational assistance received from teachers and counselors were very similar. Approximately 25 per cent of both groups ranked the assistance very satisfactory, approximately 40 per cent ranked it fairly satisfactory, and approximately 25 per cent were somewhat dissatisfied. No significant differences were found to exist between the two groups relative to student satisfaction or dissatisfaction and social status level on the value of educational and vocational assistance received.
CHAPTER VII

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This investigation was influenced by the belief that intelligent curriculum planning, development of guidance services, and the overall administration of community colleges requires knowledge of the characteristics of students who enter and those who complete two years of community college work. The specific purpose of the study was to determine the extent and significance of the difference between entering freshmen and students completing two years of college work at Flint Community Junior College. The general hypothesis was that significant differences do exist between these two groups in social status, academic aptitude, education of parents, attitude of parents toward a college education, and educational and vocational plans.

Nine operational hypotheses were formulated to test the various factors included in the general hypotheses. The operational hypotheses and the findings relative to them are as follows:

1. There will be a significant difference in the levels of social status represented between entering freshmen and students completing two years of college work.

Hypothesis number 1 was valid at the .01 level when all the males and females in their respective groups were combined and at the .05 level for males in their respective groups. It was not valid for females.

2. There will be a significant difference in academic aptitude based on <u>Multiple Aptitude Test</u> scores between entering freshmen and students completing two years of college work.

Hypothesis number 2 was valid at the .01 level when the sexes were combined and when they were treated separately.

The analysis of hypothesis number 1 relative to social status and hypothesis number 2 relative to academic aptitude in Chapters IV and V, respectively, were completed in each case without reference to the other one of the two factors. Since there was a significant difference between entering freshmen and completing sophomores in social status and academic aptitude, an analysis was made of these two factors in combination in an attempt to determine the influence of each on student completion of two years of community college work. Table 41 gives the frequency distribution of the 1963 entering freshmen and the 1964 completing sophomores according to social status levels separated into high and low groups and the academic aptitude deciles separated into high, medium, and low groups.

The chi square test of independence was applied to various combinations of cell entries of social status, academic aptitude, and college class in Table 41. Table 42 describes the combinations used and gives the chi square values developed.

The 8.73 computed chi square value shown in Table 42 resulting from a comparison of all the entering freshmen and completing sophomores combined according to academic aptitude, high social status, and low social status was not significant at the .01 level but was significant at the .05 level. The contingency coefficient developed from this data

m.	۸D	TE	1	1.7
17	чD	110		÷.,

FREQUENCY DISTRIBUTION ACCORDING TO SOCIAL STATUS AND ACADEMIC APTITUDE FOR 1963 ENTERING FRESHMEN AND 1964 COMPLETING SOPHOMORES

Academic Aptitude	Socia Levels Entering Freshmen	al Status s 1,2,3,4 Completing Sophomores	Total	Social Levels Entering Freshmen	Status 5,6,7 Completing Sophomores	Total
High Deciles 70-79, 80-89, 90-99	5	8	13	8	2	10
Medium Deciles 30-39, 40-49, 50-59, 60-69	36	83	119	47	56	103
Low Deciles 1-9, 10-19, 20-29	14	0	14	31	0	31
Total	55	91	146	86	58	144

was .17. The low significance of the chi square value and the low contingency coefficient indicates that among the students included in this investigation, social status and academic aptitude were not highly correlated.

The chi square values of 25.96 and 32.36 resulting from comparisons developed according to academic aptitude, freshmen, and sophomores among high social status and low social status groups, respectively, were both significant at the .01 level. The significance of the computed chi square value in each of these combinations indicates that on an overall basis, academic aptitude was related to the completion of two years of college work among both high social status and low social status students.

TABLE 42

CHI SQUARE VALUES OBTAINED BY APPLICATION OF THE CHI SQUARE TEST OF INDEPENDENCE TO THE DISTRIBUTION OF SOCIAL STATUS AND ACADEMIC APTITUDE FOR 1963 ENTERING FRESHMEN AND 1964 COMPLETING SOPHOMORES

	_			_
Relationships	df	Computed X ²	X ² Table Value at .01 Level	
High, Medium, Low Aptitude and High Social Status Freshmen and Sophomores Combined, Low Status Freshmen and				
Sophomores Combined	2	8.73	9.21*	
High Social Status Only- High, Medium, Low Aptitude and				
Freshmen, Sophomores	2	25.96	9.21	
Low Social Status Only- High, Medium, Low Aptitude and Freshmen, Sophomores	2	32.36	9.21	
Freshmen Only- High, Medium, Low Aptitude and High Social Status, Low Social Status	2	1.85	9.21	
Sophomores Only- High, Medium, Low Aptitude and High Social Status, Low Social Status	1	1.62	6.64	
Medium Aptitude Only- High Social Status, Low Social Status and Freshmen, Sophomores	1	5.58	6.64**	

*The X^2 Table value at the .05 level is 5.99 **The X^2 Table value at the .05 level is 3.84

The comparison of aptitude, high social status, and low social status for freshmen and similarly for sophomores, individually, did not produce significant chi square values. These results indicate that there was no significant difference in academic aptitude among high social status students and low social status students in either the freshmen or sophomore group.

Using only medium aptitude students, the comparison of high social status, low social status, freshmen, and sophomores produced a chi square value of 5.58 which was significant at the .05 level. The contingency coefficient for this data was .16. The low level of significance and the low contingency coefficient indicates that among medium aptitude students, social status level and college class were not highly correlated.

This analysis has shown that for the students included in this investigation, academic aptitude was the most predominate factor influencing the completion of two years of community college work among both high social status and low social status students. Social status as a factor was not pronounced in that there was a low correlation between social status and academic aptitude among all students and similarly, a low correlation between high and low status and freshmen and sophomores among students in the medium level academic aptitude group.

3. There will be a significant difference in the educational background of fathers and mothers between entering freshmen and students completing two years of college work.

Hypothesis number 3 was not valid at the .01 level for mothers or fathers of males or females alone or in combination. It was valid for fathers of male and female students combined at the .05 level of significance.

4. There will be a significant difference between students who select a transfer curriculum and those who select a non-transfer curriculum within social status levels.

Hypothesis number 4 was valid at the .01 level.

5. There will be more men than women selecting one of the professions as their occupational choice.

Hypothesis number 5 was not valid at the .01 level. In terms of percentages, 77.49 per cent of the men and 71.15 per cent of the women selected one of the professions as their occupational choice.

6. The occupational choice of both entering freshmen and students completing two years of college work will be equal to or greater in prestige value than that of the father's present occupation.

Hypothesis number 6 was valid for both groups of students.

7. There will be a significant difference between men and women in the number of years they plan to attend college.

Hypothesis number 7 was valid for the 1964 completing sophomore group and the two groups combined at the .01 level. It was not valid for the 1963 entering freshmen group.

8. There will be a significant relationship between the number of years of intended college attendance and social status level.

Hypothesis number 8 was not valid for either group included in the study when the sexes were treated separately or in combination in 1964. It was valid at the .05 level when all the students included in the freshmen group were combined and when both the freshmen and sophomores were combined. 9. There will be a significant relationship between social status level and the importance of a college education expressed by parental opinion.

Hypothesis number 9 was valid at the .01 level for male students in the two groups, for both the 1963 freshmen, and 1964 completing sophomores, and when all the students included in the study were combined. It was not valid when applied to 1963 or 1964 females analyzed separately.

The data analyzed in Chapters IV, V, and VI and the specific operational hypotheses indicate the differences that exist between the two groups relative to the factors stated in the general hypotheses. It was shown that significant differences exist at the .01 level between entering freshmen and completing sophomores in social status levels and academic aptitude with upper social status and upper academic aptitude favoring the sophomore group. The analysis of social status and academic aptitude together indicated that academic aptitude had a greater influence upon student completion of two years of college work than did social status. Differences in the educational background of parents were found only for fathers at the .05 level of significance. There was practically no difference between the two groups on the importance of a college education relative to parental opinion in that approximately 90 per cent of the parents in both groups indicated a college education was very important or important.

There was a significant difference between students who selected a transfer curriculum and those who selected a non-transfer curriculum with approximately 75 per cent of both men and women selecting one of

the professions as their occupational choice. The occupational choice of both groups of students was significantly higher than that held by their fathers.

Conclusions

The community college is an institution of higher education which is said to equalize educational opportunity through easy admission standards and low tuition. The educational opportunity it offers would appear to be especially applicable to individuals in the lower status levels since most of the enrollment comes from these levels. The community college is now enjoying a period of growth which is related to the deep and inherent desire of Americans to move upward in the social structure. Part of this movement involves the imitation of the higher classes by the lower classes in attending college along with the recognition that the majority of upper and middle-class vocational positions are occupied by men and women with college educations. The result is that community colleges are being established and existing institutions expanded to meet some of society's basic needs.

The summary of the results of this investigation indicate that students entering this institution in terms of social status representations, academic aptitude and career aspirations are typical for students entering community colleges as shown by the review of the literature. However, since there was a representation of all social levels by entering freshmen with a predominance from the lower levels and a reduction of lower level representation by completing sophomores an issue arises as to whether the community college in having the

opportunity to equalize educational opportunity does so beyond initial enrollments. Further, in terms of academic aptitude, all levels of ability were represented by the incoming group but there was no representation in the lower levels and practically none in the upper levels by students completing two years of college work. Another question then arises as to whether students with lesser academic aptitude received adequate guidance and counseling and whether they were challenged and motivated to perform at their highest level. Similarly, whether the students at the upper end of the range of academic ability, which also had a low representation, were challenged and motivated to complete two years of work in a community college.

The generally stated purposes of a community college include preparation for advanced study in four year institutions and vocational courses which can be completed in approximately two years. It was found in this study that approximately 75 per cent of the students in both the entering class and those completing two years of college work selected a transfer curriculum, planned to attend college for four or more years, and indicated an occupation classified as professional. It therefore appears that the institution is meeting its responsibilities in providing training for advanced study. However, the fact that only 25 per cent of the students were enrolled in non-transfer curriculums raises a question as to whether as a community college it is meeting its responsibilities in providing vocational programs.

The apparent discrepancies between intended purposes and actual conditions raises a question as to whether the democratizing function is being met by community colleges in general and poses a question on

the continued development and growth of this type of institution. In general terms, a community college reflects the educational needs of the community in which it is located. In addition, it must be sensitive to the general needs of the changing technical and scientific society which exists beyond its local community. Community colleges, through the natural evolution of being founded and undergoing growth processes as they attempt to operate as an institution of higher education, work toward academic respectability. At the present time this process is taking place as increasing percentages of college-age youth are seeking college, including those who lack some of the mental alertness and intellectual adaptability required by many four-year institutions. As a result of the increase in the percentage seeking college there will be a tendency for selective four-year institutions to use admission standards much higher than at present. This will bring to community colleges an increasing percentage of individuals from the middle and lower ranges of ability and social background.

These conditions must be recognized by individuals responsible for educational programs in community colleges. They must be cognizant of the capacities of physical plants, availability of professional staff, and sources of income as they plan for increased enrollments coming from a society which is increasingly looking upon a college education as a clear symbol of prestige and status and an avenue to upward mobility in the social structure. Pressures for enrollments beyond size of plant and sources of income could cause the elimination or a restriction on the open-door admission policy generally followed by community colleges and its replacement by selection processes and a

refinement of programs which would not allow for equal educational opportunity. The resultant effect would be that the democratizing function of community colleges would be even less true than it is today. The possibility of this situation should be recognized by community college boards of control, administrators, and government officials as they work to develop, operate, and expand community colleges.

Recommendations

As a result of this study it is the opinion of this researcher that the following investigations would do much to extend the knowledge of the characteristics and educational and vocational needs of students who enter and those who complete two years of work in a community college. Additional information would have important implications for educational planning in these institutions. These recommendations should not be considered exhaustive.

1. It would be desirable to ascertain the reasons why many students from the lower social status levels do not complete two years of community college work. A study should be made to determine whether withdrawal of this type of student is related to economic factors, lack of motivation, or lack of identity with the college program.

2. A study should be made to determine the reasons why students with lower academic ability do not complete two years of college work. Evaluation should be made of the educational and vocational goals of these students, the adequacy of the curriculum offerings available to them, and the use they make of the guidance and counseling program.

3. An evaluation should be made of the guidance and counseling program used by students in the various levels of social status and academic aptitude with a view to determining what is needed by all levels and specifically whether it should be more intensive and detailed for students in the lower levels.

4. A study should be made of students from the upper end of the academic ability scale who do not complete two years in a community college. A determination should be made as to whether this type of student leaves the institution before the end of two years not intending to continue in college or whether he transfers to a four-year institution. In either case, an evaluation should be made of his educational and vocational plans, the challenge of the college preparatory curriculum and the guidance and counseling offered this type of student.

5. Similar to other studies, it was found in this investigation that approximately 75 per cent of all the students enrolled in a transfer curriculum with the remainder in a vocational curriculum. In view of this ratio of curriculum emphasis and of the equalizing function a community college purportly occupies in higher education, an evaluation should be made of the characteristics and needs of students who follow a transfer curriculum and who do not transfer to determine whether a college parallel curriculum or a vocational curriculum is best for this type of student. A further evaluation should be made of the future of the community college itself relative to providing training for mid-level occupations. A determination should be made as to whether the community college is going to meet this responsibility or whether another type of post-high school institution will have to be established.

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QUESTIONNAIRE FOR STUDENTS WHO ENTERED FLINT COMMUNITY JUNIOR COLLEGE IN SEPTEMBER 1963

Please fill in or check the appropriate item in each question.

1.	Name
2.	Sex: Male Female
3.	Circle the number which indicates the highest level of formal education completed by each of your parents.
	a. Elementary Achool1 2 3 4 5 61 2 3 4 5 6b. Junior High School7 8 97 8 9c. High School10 11 1210 11 12d. College training1 2 3 41 2 3 4e. Graduate or professional training1 2 31 2 3
Note	2: In order to secure the most appropriate answer to question 4 it is suggested you discuss this question with your father before
¥.	Give the name which best describes the occupation of your father (or mother if father is no longer living)
	Write a short statement describing the duties performed by your father in his occupation.

If your father is the proprietor or holds a managerial type position in a business, including farming, check the item below which best indicates the gross value of the business.

 More than \$100,000
 Between \$10,000 and \$25,000

 Between \$35,000 and \$100,000
 Between \$6,000 and \$10,000
 Between \$25,000 and \$35,000 _____ Between \$20,000 and \$25,000 _____

Between \$10,000 and \$25,000 ____ Below \$6,000 ____

5. Check the item which best indicates your father's feelings about the importance of a college education.

8.	Very important	d. Opposed to it
ъ.	Important	e. Don't know

- e. Don't know ____
- c. Don't care

APPENDIX A (continued)

- 6. Check the item which best indicates your mother's feelings about the importance of a college education.
 - a. Very important _____
 d. Opposed to it _____

 b. Important _____
 e. Don't know _____

 c. Don't care

- 7. How do you feel about the assistance (or lack of it) in thinking through your educational and vocational plans which you have received at this college from teachers and counselors?
 - a. Very satisfied _____
 c. Somewhat dissatisfied _____

 b. Fairly satisfied _____
 d. Very dissatisfied _____
- 8. Listed below are some of the reasons which might have influenced your decision to attend college. Indicate the degree that these factors influenced your decision.

			Degree or	Impor va	
•	Democral acticfaction	High	Medium	Low	None
G •	rersonar satistaction				
b .	To be able to provide service	S			
	to others				
с.	Financial reward				
d.	To be able to secure job with				
	high prestige				
e.	Other (State reason)				

- 9. When you entered college what was your occupational choice?
- 10. When you entered college in what curriculum did you enroll?

12 3 4 5 6 7



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QUESTIONNAIRE FOR STUDENTS WHO ARE COMPLETING TWO YEARS OF COLLEGE WORK AT FLINT COMMUNITY JUNIOR COLLEGE IN 1964 Please fill in or check the appropriate item in each question. Name 1. Male Female 2. Sex: 3. Circle the number which indicates the highest level of formal education completed by each of your parents. Father Mother 123456 123456 a. Elementary School 789 101112 101112 b. Junior High School 10 11 12 c. High School d. College training 1234 e. Graduate or professional training 123 1234 123 Note: In order to secure the most appropriate answer to question 4 it is suggested you discuss this question with your father before answering. 4. Give the name which best describes the occupation of your father (or mother if father is no longer living). Write a short statement describing the duties performed by your father in his occupation. If your father is the proprietor or holds a managerial type position in a business, including farming, check the item below which best indicates the gross value of the business. Between \$10,000 and \$25,000 ____ More than \$100,000 Between \$6,000 and \$10,000 Between \$35,000 and \$100,000 Below \$6,000 Between \$25,000 and \$35,000 ____ Between \$20,000 and \$25,000 5. Check the item which best indicates your father's feelings about the importance of a college education. d. Opposed to it ____ a. Very important _____ e. Don't know ____ b. Important c. Don't care

142 APPENDIX B (continued)

- 6. Check the item which best indicates your mother's feelings about the importance of a college education.
 - a. Very important
 d. Opposed to it

 b. Important
 e. Don't know

 c. Don't care
 d. Opposed to it
- 7. How do you feel about the assistance (or lack of it) in thinking through your educational and vocational plans which you have received at this college from teachers and counselors?
 - a. Very satisfied _____
 c. Somewhat dissatisfied _____

 b. Fairly satisfied _____
 d. Very dissatisfied _____
- 8. Listed below are some of the reasons which might have influenced your decision to attend college. Indicate the degree that these factors influenced your decision.

			Degree of	Importance	9
		High	Medium	Low	None
a. h	Personal satisfaction				
0.	to others				
с.	Financial reward				
d.	To be able to secure job				
	with high prestige				
e.	Other (State reason)				
e.	with high prestige Other (State reason)				

9. What occupation or next step in your occupational or professional career has two years of college work trained you?

	Is this the same choice as that for which you originally enrolled in college ? Yes No
	If No, what was the original choice?
10.	In what curriculum have you been enrolled?
11.	Circle the number of years of college training you plan to earn.

2 3 4 5 6 7

