A COMPARATIVE STUDY OF FRESHMEN ENTERING THE PUBLIC JUNIOR COLLEGES AND THE STATE-SUPPORTED COEDUCATIONAL SENIOR COLLEGES OF MISSISSIPPI

> Thesis for the Degree of Ed. D. MICHIGAN STATE UNIVERSITY Derothy Alyne Rice 1958

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presented by

LOROTHY ALMIE RICE

has been accepted towards fulfillment of the requirements for

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Вy

DOROTHY ALYNE RICE

AN ABSTRACT

Submitted to the School for Advanced Graduate Studies of Michigan State University of Agriculture and Applied Science in partial fulfillment of the requirements for the Degree of

DOCTOR OF EDUCATION

Department of Administrative and Educational Services

ABSTRACT

The purpose of this study was to determine what differences, if any, exist between freshmen entering Mississippi white county-district type public junior colleges and Mississippi white state-supported coeducational senior colleges in the following areas: (a) social status, (b) economic status, (c) academic aptitude, (d) education of parents, (e) place of residence, and (f) educational and vocational plans. Three major questions developed from an analysis of the problem:

1. What is the present status of junior and senior college freshmen in each of the selected factors?

2. Are there significant sex differences within both the junior and the senior colleges?

3. Are there significant differences among both the junior and the senior colleges as well as between the two groups?

The investigation was limited to freshmen who entered the thirteen white county-district type public junior colleges and the four white state-supported senior colleges of Mississippi in the fall of 1956. A questionnaire was constructed and mailed to these schools for administration

to all entering freshmen. The schools returned 4,563 completed questionnaires: 1,875 by the senior colleges; 2,688 by the junior colleges. The schools also provided the test score made by each freshman on a standardized test of academic aptitude. All senior colleges and ten junior colleges provided usable test scores.

The data were categorized and tabulated for each factor by sex, by school, and by type of school. Rational analysis was used to appraise the nature and extent of the observed differences. The statistical tool used to determine the significance of the differences was the chi-square test of independence. The z statistic was used to test the hypothesis of no difference between the means of the distributions of academic aptitude test scores.

The results of the study justified the acceptance of the main hypothesis that significant differences do exist between freshmen who enter junior colleges and freshmen who enter senior colleges in each of the factors studied. The results also supported the following statements:

1. Junior colleges tend to enroll significantly more students from the lower socio-economic levels than do senior colleges.

2. Junior college freshmen as a group make significantly lower scores on tests of academic aptitude than do senior college freshmen.

3. The educational level reached by the parents of junior college freshmen is significantly lower than the level reached by the parents of senior college freshmen.

4. No important differences exist between the sexes except in the area of educational and vocational plans.

5. Significant differences are found among both the junior and the senior colleges as well as between the two groups.

The results of this research tend to uphold the present policy of developing and maintaining a strong system of junior colleges as well as senior colleges in Mississippi. Other implications of the findings relate to the need for intensive self-study by each institution, the need for further study of curricular offerings, the need for reappraisal of the educational programs for women, and the need for improved guidance and counseling services at every level.

It was suggested that further research was needed (1) to study the effects of socio-economic status and educational background of parents on the motivation and aspiration level of students, (2) to determine factors responsible for the high attrition rate in junior colleges, (3) to ascertain what modifications in methods of instruction and in curricular offerings are made necessary by the characteristics and needs of junior college freshmen, and (4) to study the special problems of commuting students.

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A DISSERTATION

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CHAPTER I

INTRODUCTION AND STATEMENT OF THE PROBLEM

This investigation was primarily concerned with a comparative study of freshmen entering Mississippi public junior colleges and Mississippi state-supported senior colleges to determine what differences, if any, there are between these two groups in social status, economic status, academic aptitude, education of parents, place of residence, and educational and vocational plans.

Two major questions affecting desirable development in the public junior colleges of Mississippi influenced the conception and development of this study. The first question concerns the characteristics and needs of the students now entering these colleges. In Mississippi, as elsewhere, increasing enrollments in junior colleges represent not only an increase in the number of students, but an increase in the heterogeneity of the characteristics and needs of these students. A number of studies concerned with identifying the characteristics of students in the junior colleges of Mississippi have been made in the past, but there is a definite lack of recent information in this area. Effective attack on the problems posed by increasing enrollments has been hampered by lack of adequate information.

Curriculum development and guidance services have been especially affected by lack of adequate information about the character and needs of the students entering junior colleges.

The second question concerns the possibility of significant differences between junior and senior college freshmen in characteristics important to program planning. Those who hold the view that junior and senior colleges serve different functions, and, therefore, require different curricula have long justified their position by the generally accepted concept that significant differences exist between students who attend junior colleges and students who attend senior colleges. Among the differences frequently listed in the literature are differences in social status, economic status, academic aptitude, education of parents, place of residence, and educational and vocational plans. Establishment of the nature and extent of these differences, if they exist, should have important implications for state-wide curriculum development and for improvement of guidance services in the junior and senior colleges of Mississippi.

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

The Problem

Statement of the problem

The specific purpose of this study was to determine what differences, if any, exist between freshmen entering Mississippi white county-district type public junior colleges and Mississippi white state-supported coeducational colleges in the following areas: (a) social status, (b) economic status, (c) academic aptitude, (d) education of parents, (e) place of residence, and (f) educational and vocational plans.

Analysis of the problem revealed a number of questions relative to the determination of the significance of possible differences between the two groups. The study, therefore, was concerned with the following questions:

1. What is the present status of junior and senior college freshmen in each of the selected factors?

2. Are there significant sex differences within both the junior and the senior colleges?

3. Are there significant differences among both the junior and senior colleges as well as between the two groups?

Importance of the problem

The tremendous growth in college enrollments with its attendant problems is nation-wide. In reference to the rapid increase in the number of students entering junior

colleges in this period of expansion, McGrath, commenting on their miscellaneous educational and social background, contends that these students will require a different type of education from that offered in the colleges of today.¹ William N. Atkinson, in discussing current problems in the administration of junior colleges, poses two pertinent questions which he thinks should be asked in every state and community. The first of these questions is concerned with the probable character of these student bodies with reference to their background and abilities and their probable future upon leaving junior college. The second asks what obligations these students will impose upon the junior college in regard to guidance, curriculum and methods of teaching.² He tentatively answers his own questions in 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"

LEARL J. McGrath, "The Junior College of the Future," Junior College Journal, 15, No. 6 (February, 1945), p. 26.

²William N. Atkinson, "Current Problems in the Administration of the Junior College," <u>Junior College Journal</u>, 25, No. 2 (October, 1954), p. 6. and of individualists, brilliant or otherwise, who do not conform to customary academic patterns.³

In addition to recognition of the increasing heterogeneity of the junior college population, there is, in this statement, a strong implication that there will be increasing differentiation between the characteristics and needs of junior and senior college populations. Dressel is even more specific regarding the possible variation among students in general and between junior and senior college in particular. 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 or 70. With reference to intelligence, 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 enrol 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."

These examples from the literature dealing with the problems facing those responsible for educational programs in junior and senior colleges emphasize the need for specific information concerning (1) the characteristics and needs of the students now entering both junior and senior

³Ibid.

⁴Paul L. Dressel, "Educational Demands Arising from Individual Needs and Purposes," <u>The Public Junior College</u>, Fifty-fifth Yearbook for the Study of Education, pp. 41-63.

colleges, and (2) the extent and significance of the differences between junior-college and senior-college students in characteristics and needs. Although these questions have national interest, the relative importance of various facets of the problems will vary from state to state. It is desirable, therefore, that studies be made at the state as well as at the national level. It is hoped that the findings of the present study, although applying particularly to the situation in Mississippi, will contribute to a better understanding of the total situation.

Hypothesis and assumptions

As has been stated, this study proposed to describe the freshmen entering Mississippi public junior colleges and Mississippi state-supported senior colleges in terms of certain selected factors and to determine the extent and significance of the differences found between the two groups in each of these factors. The proposal to determine the extent and significance of the differences between these two freshman groups was based on the hypothesis that significant differences do exist between freshmen entering Mississippi white county-district type public junior colleges and freshmen entering Mississippi white statesupported coeducational senior colleges in social status, economic status, academic aptitude, education of parents, place of residence, and educational and vocational plans.

The methods of investigation selected as appropriate for the purposes of this study involved the following assumptions:

1. It was assumed that a questionnaire would provide valid data for assessing social and economic status, education of parents, place of residence, and educational and vocational plans.

2. It was assumed that differences between junior and senior college students in a cademic aptitude could be determined by the use of scores from standardized tests of academic aptitude administered by each school participating in the study.

3. It was assumed that the occupation of the father was a reliable index of the social status of the family.

4. It was assumed that knowledge of the differences between junior and senior college freshmen, their character and extent, would have definite value for curriculum planning in the junior colleges and for guidance and counseling of junior-college students.

Limitations of the study

Certain limitations were recognized in the design of the study and in the methods employed for obtaining and classifying the desired data. The findings of the study should be evaluated with reference to the following limitations: 1. This investigation was confined to the thirteen white county-district type public junior colleges and to the four white state-supported coeducational senior colleges of Mississippi. The findings of the study, therefore, have limited applicability to situations in other types of colleges and in other geographical areas.

2. The data for the study were obtained from responses to a questionnaire administered to all freshmen entering the schools participating in the study in the fall of 1956, and are subject to the usual limitations of accuracy and objectivity characteristic of data secured by this method.

3. The classification of the occupation of the father into selected categories is subject to the possibility of error inherent in dependence upon the subjective judgment of the rater.

4. The appraisal and comparison of students in academic aptitude were based on scores obtained from tests administered at each of the schools included in the study. The accuracy of the findings should be evaluated with reference to the varied sources of the data.

Definition of Terms

<u>Public junior college</u>. -- Throughout this report, the term public junior college refers to a two-year institution offering, at the post high school level, courses in general

education, courses correlated with those of senior colleges or professional schools, and terminal courses which prepare students for direct entrance to some occupation. This institution is under the direct control of a local board of trustees and is financed jointly by the supporting county or counties and the state.

<u>Supporting county.--Any county in Mississippi within a</u> junior college district which levies a tax for the support of the junior college in its district is called a supporting county.

Junior college district.--Mississippi is divided into geographical zones or districts within which junior colleges may be located and established. Provision is made for the creation of new districts or the revision of the boundaries of old districts if necessary or desirable.

<u>Social status</u>.--The occupation of the father is used in this study as the index of social status.

<u>Academic aptitude</u>.--Academic aptitude as predicted by certain test results is synonymous with mental ability and intelligence when these terms are defined as the ability to succeed in school or college.

<u>Economic status</u>.--In this study the total family income is used as the measure of economic status.

<u>Place of residence</u>.--This term is used as a heading under which students are classified as living on the campus, living in the local area, or commuting while attending college.

<u>Vocational courses</u>.--There is lack of agreement on the meaning and proper use of this term. For the purposes of this study it is used to refer to courses 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.

<u>American Council of Education Psychological</u> <u>Examination</u>.--This examination is one of the better known instruments for measuring academic aptitudes of college freshmen. It consists of six short tests yielding three scores (including a total score). The linguistic or L score is a measure of ability to do verbal type thinking while the quantitative or Q score is a measure of ability to deal with quantitative relationships. The third or total score is the arithmetical sum of these two. The abbreviation ACE will be used to refer to this test.

Otis Self-Administering Tests of Mental Ability.--These tests are group tests of mental ability published in both an Intermediate and a Higher Form. The Higher Form is designed for use with senior high school and college students and with adults. In this study, the abbreviated

term, Otis S-A, will refer to the Higher Form of these tests.

Otis Quick-Scoring Mental Ability Tests.--The three tests in this series are revised and extended versions of the Otis S-A tests. The Gamma Form which was used in this study consists largely of items adapted from the Higher Form of the Otis S-A. The abbreviation Otis Gamma will refer to this test.

School and College Ability Tests.--The tests in this series are achievement type tests useful for predicting the relative academic success the student is likely to achieve in his next step up the academic ladder. The series consists of two forms, one for use with high school students and one for use with college freshmen. Each form yields a verbal and a quantitative as well as a total score. The college form is usually referred to as the CAT.

<u>College Qualification Test</u>.--This test consists of a battery of three tests yielding six scores (including a total score), designed to measure abilities needed for success at the college level. The battery measures present level of achievement for prediction of probable success or failure at the college level.

Background and Setting of the Problem

The importance of this investigation rests to a considerable extent upon the history and unique character and

organization of Mississippi junior colleges. These institutions trace their origin to the county agricultural high schools which developed following the enactment of the County Agricultural High School Law in 1908. The agricultural high schools with their boarding facilities filled a need in Mississippi at that time. Poor roads and inadequate transportation facilities prevented many Mississippi youth from attending regular day high schools. By 1920, the improvement of these conditions and the trend toward consolidation of rural high schools had resulted in decreased demand for boarding schools. Some of these schools soon began to offer work beyond the high school level.⁵

Educational leaders of those years were quick to recognize the significance of this movement and took immediate steps to insure the development of the kind of junior college that would meet the particular needs of the state. One result of this early work was the enactment of the Public Junior College Law of 1928.⁶ This act set up a Commission of Junior Colleges and invested this Commission with legal control of junior colleges at the state level. One of the first acts of this Commission was to zone the state

⁵Knox H. Broom, Compiler, <u>History of Mississippi</u> <u>Junior Colleges: A State System of Junior Colleges</u>, 1928-1953 (Jackson, Mississippi: State Department of Education, 1954), p. 7.

⁶General Acts of the Legislature of the State of Mississippi, 1928, Chap. 303.

into districts for the purpose of determining the future location of junior colleges. Concentration of population and distance from existing senior colleges were two important criteria used for determining these zones. Although this action of the Commission was never legalized, it has always been honored by general agreement.

The validity of the criteria for the "birth control" of these institutions is emphasized by the fact that in 1946, the location of a public junior college in the last zone provided for was approved and is further emphasized by the fact that each institution located and developed has conformed to the extra-legal zones with only, minor deviations from the original proposal.

As a consequence of the foresight of the members of this first Junior College Commission, almost every area of Mississippi is served by a public junior college or a statesupported senior college.

The initial act and the revised Public Junior College Law of 1950⁸ provided for the method of control and means of support. Each of these schools is under the direct control of its own board of trustees. Financial support is provided by taxes levied by the supporting counties and by direct state appropriation. All of the public junior colleges share equally in this appropriation on the basis of enrollment. The Office of State Supervisor of Junior

7Broom, op. cit., p. 11.

⁸Legislature of the State of Mississippi, <u>House Bill</u> <u>No. 541</u>, 1950.

Colleges within the State Department of Education serves as a unifying and co-ordinating agency and is the central office for clearance of inter-institutional matters.

Certain common features characterize the Mississippi public junior colleges. They were all established with the major objective of placing educational opportunities within reach of all students in the state. To that end, there are no tuition fees for students from supporting counties, and charges for room and board are kept to a minimum. Every effort is made to see that any boy or girl interested in continuing his education is given an opportunity to do so regardless of financial status. Emphasis is placed upon maintaining a high quality of work, developing a varied curriculum, and providing adequate counseling and guidance services. A key factor in the growth of these schools is the Mississippi Junior College Association. This Association, composed of the presidents of each of the junior colleges, works constantly to promote the development of these schools to meet the changing needs of the state.

The special functions of the junior college have been a matter of discussion and debate for many years. A survey of the opinions of leaders in this field, as they have been expressed over the years in the <u>Junior College Journal</u>, indicates almost universal agreement on at least three functions. These are: (1) adequate preparation of the student

for further professional work--generally called the college preparatory function, (2) the provision of training in vocational and technical areas, and (3) the provision of terminal courses in "general education." These three functions of the junior college were recognized in the first Mississippi junior college law and were stated explicitly in the Public Junior College Law of 1950.⁹

Section 1. The creation, establishment, maintenance and operation of junior colleges are hereby authorized. They shall offer to students, who have completed not less than 15 high school units, courses correlated to those of senior colleges or professional schools; and education and training preparatory for such occupations as agriculture, industry, business, homemaking, and other occupations on the semiprofessional and vocational-technical level. They may offer courses and services to students regardless of their previous academic attainment or further academic plans.

In addition to the foregoing, the junior colleges shall provide, through courses or other acceptable educational measures, the general education necessary to individuals and groups which will tend to make them capable of living satisfactory lives consistent with the ideals of a democratic society.

Mississippi junior colleges were established to meet educational needs that the people of the state thought were not being met by existing educational facilities. Time, effort, and money have been expended on a variety of studies to determine the nature and extent of these needs and to develop curricula to meet them. The Mississippi

^{9&}lt;u>Ibid</u>., Sec. 1.

Association of Junior Colleges has assumed active leadership in the development of vocational and technical training curricula. By common agreement of the members of the Association, certain vocational and technical curricula were allocated to one or more junior colleges after careful appraisal of need and existing facilities. Preprofessional and general education curricula have received the consistent attention of the Association from the beginning. If Mississippi junior colleges are to continue to meet the needs of their students, additional studies are desirable and necessary.

CHAPTER II

REVIEW OF THE LITERATURE

Although the literature pertaining to the history, purposes, functions, and development of the junior college is voluminous, careful search yielded few reports of studies dealing specifically with differences between students attending junior colleges and students attending senior colleges in the characteristics constituting the basis of this investigation. The reviews of studies and comments presented are representative of the evidence found in the literature.

Socio-economic Status

Occupation of the father is the generally accepted index to social status, and, therefore, the majority of the studies concerned with the social status of students are based on data related to the father's occupation. Since parental occupation also largely determines family income, this section will consider evidence pertaining to both the social and the economic status of college students. Studies of parental occupation will be supported by studies providing information specific to economic status when these are available. Koos,¹ in 1921-1922, working under subventions from the Commonwealth Fund of New York City and from the University of Minnesota, made an extensive study of the juniorcollege movement. His study included an investigation of the occupational distribution of the fathers of students attending both secondary and higher institutions. Of the 2,744 students constituting the sample he surveyed, 1,062 were public junior college freshmen; 705 were private junior college freshmen and sophomores; 346 were college and state university sophomores; and 631 were Harvard freshmen. Koos used the methods of inquiry and the system for classification of occupations devised by Counts.

Counts' system of classification is based on the census classification, but breaks up the more complex groups and recognizes certain other groups. According to Counts, his aim was to classify occupations in such a way that the hierarchy would bear a close relationship to social status, position in the economic order, and intellectual outlook.²

The findings from this survey led Koos to say that none of the types of institutions included in the comparative study had achieved an extent of economic and social

¹Leonard V. Koos, <u>The Junior-College Movement</u> (Boston: Ginn and Company, 1925), pp. 156-157.

²George S. Counts, <u>The Selective Character of American</u> <u>Secondary Education</u>, Supplementary Educational Monographs, <u>No. 19 (Chicago: University of Chicago Press, 1922)</u>, pp. 22-23.
democratization in which its authorities were warranted in taking great pride, but that the junior college was farther along the way than any of the other types of institutions.³ The actual differences found between the occupations of fathers of students attending public junior colleges and fathers of students attending other institutions were small. Appreciable differences were found between the occupations of the fathers of Harvard freshmen and the fathers of students attending other institutions of higher education.⁴

Reynolds, in 1924, made a study of the social and economic status of students in fifty-five colleges and universities. His sample of schools represented 10 per cent of the colleges and universities in each of five geographical divisions of the United States. Students attending these schools were sampled by various means. His study included an investigation of parental occupation. Using Counts' system of classification, Reynolds found that 76 per cent of the fathers of the students represented in his study could be classified in four occupational groups. These were proprietary services, agricultural service, professional service, and managerial service. Reynolds

³Koos, <u>op</u>. <u>cit</u>., p. 162. ⁴<u>Tbid</u>., p. 158. compared his results with those obtained by Koos and commented that the most noticeable tendencies were the presence of a larger percentage from proprietary and professional service groups in all private institutions, and the prevailing percentages of the last seven groups in public institutions.⁵

Two studies which have special relevance for this investigation have been made of students attending public junior colleges in Mississippi. The first one was made by Walker in 1934. Walker proposed to determine the educational, economic, and social status of the student personnel of the public junior colleges of Mississippi as well as the educational and vocational plans of these students.⁶ Walker obtained data relative to the occupation followed by the fathers of these students for assessing social status. Using Counts' system of classification, Walker compared his findings with the findings of Koos⁷ and Anderson.⁸ From

^{50.} Edgar Reynolds, <u>The Social and Economic Status of</u> <u>College Students</u>, Contributions to Education, No. 272 (New York: Teachers College, Columbia University, 1927), pp. 5-16.

⁶Kirby Pipkin Walker, "The Student Personnel in the Public Junior Colleges of Mississippi" (unpublished Master's Thesis, University of Chicago, 1934), p. 1.

⁷Koos, <u>op</u>. <u>cit</u>., p. 158.

⁸Dewey H. Anderson, "Whose Children Attend Junior College?" <u>The Junior College Journal</u>, IV (January, 1934), pp. 165-172.

his analysis, Walker reported that in Koos' study in 1921, the first five groups composed 62.5 per cent of the total; in Anderson's study made in 1930, these upper levels constituted 49.5 per cent of the fathers of the students reporting; while in his study, these five occupational classifications represented 38.1 per cent of the total. He also noted that three-fifths of the fathers of students in the public junior colleges of Mississippi represent the lower occupational levels and that all but one-fourth of this lower level was engaged in agricultural services.⁹

A general inference regarding the economic status of junior and senior college students in Mississippi may be made from the responses to two questions asked junior college students by Walker. In answer to the question concerning their reasons for attending junior college in preference to the institution of their choice, 78.9 per cent of those responding replied that the institutions of their choice were too expensive. In reply to the question asking their reason for attending a junior college, 49.6 per cent said that it was more economical.¹⁰ These replies appear to support the claim that the more economically fortunate student is likely to be found in senior colleges.

⁹Walker, <u>op</u>. <u>cit</u>., p. 40. ¹⁰Ibid., pp. 27-28.

The second investigation of students attending Mississippi public junior colleges was made by Todd in 1940-1941 and reported in 1943.¹¹ Todd used an extensive questionnaire to obtain information about the needs of these students. He included questions designed to elicit information related to the occupations followed by the fathers of these students. Todd also used Counts' system for classifying the occupations reported. He then compared his data with the data reported by Walker and by Reynolds. The respective percentages of the fathers engaged in occupations classified in the five upper levels reported by Reynolds, Walker, and Todd were 61.0, 38.1. and 29.0.¹² Todd concluded that the Mississippi public junior college population was less highly selected than other college groups, and also less selected in 1940-1941 than in 1933-1934 when the father's occupation is used as the basis of comparison.13

The only study found by this researcher which deals specifically with the question of differences between students attending junior colleges and students attending

llLindsey O. Todd, "Meeting the Needs of Junior College Students" (unpublished Doctor's Dissertation, George Peabody College for Teachers, June, 1943).

¹²<u>Ibid</u>., p. 90. 13<u>Ibid</u>., p. 110.

senior or four-year colleges was made by Daryl Hagie in 1955.¹⁴ Hagie used a 5 per cent random sample of the junior colleges and four-year colleges in the United States. This sample comprised twenty-six junior colleges and forty four-year schools. Hagie used a questionnaire to obtain the data for his study. The study is based on information provided by a 25 per cent random sample of the 9,296 completed questionnaires returned to him by the schools participating in the study. One facet of Hagie's investigation involved a comparative study of the occupations of the fathers of students attending the two types of institutions. Hagie used Edwards' system for classification of the occupations followed by the fathers of the students in his sample.

Edwards classified occupations into six major groups: (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 second category includes farmers, wholesale

¹⁴Daryl Hagie, "A Comparative Study of Junior College Students with Students in Lower Divisions of Colleges Having only Undergraduate Programs" (unpublished Doctor's Dissertation, State College of Washington, 1955).

and retail dealers, and other proprietors, managers, and officials.¹⁵

Hagie found that approximately 40 per cent of the fathers of junior college students as compared with 53 per cent of the fathers of four-year college students were employed in the two highest ranked occupational groups. At the lower end of the scale the corresponding percentages were 51 and 42.¹⁶ These findings support the claim that differences exist between junior and senior college students in social and economic status.

A number of states have instituted surveys and investigations concerned with the status of junior colleges and with certain characteristics of the students attending them. The findings of a survey in Minnesota support the idea that junior colleges draw more of their students from families in which the father is engaged in work that is classified at the lower levels than do four-year colleges. The situation in Minnesota is described in the following statements.

Although there are students representing every kind of economic background enrolled at

16_{Hagie, op. cit., p. 55.}

¹⁵Alba M. Edwards, <u>Population: Comparative Occupa-</u> <u>tional Statistics for the United States</u>, 1870-1940 (Washington: Bureau of the Census, United States Department of Commerce, 1943), pp. 175-182.

our colleges and universities, large proportions of them are children of parents in comparatively small occupational groups. At the University and 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 come from farm homes. Only the public junior colleges draw any sizable proportion of their students from families in which the father is engaged in slightly skilled or day labor.

Griffith, reporting on the junior college in Illinois, states that it has been shown that the junior colleges serve a larger proportion of youth of the lower social and economic levels than other institutions.¹⁸

Without exception all of the studies reviewed indicated that a larger proportion of fathers of students attending junior colleges than of fathers of students attending four-year colleges and universities are to be found in the lower ranking occupations. Comparison among the studies, however, should be made with caution. Many changes have occurred in the occupational and economic structure of this nation in the more than thirty years elapsing between the time of the study made by Koos and

^{17&}lt;sub>Minnesota</sub> Commission on Higher Education, <u>Higher</u> <u>Education in Minnesota</u> (Minneapolis: University of Minnesota Press, 1950), p. 69.

¹⁸Coleman R. Griffith, <u>The Public Junior College in</u> <u>Illinois</u> (Urbana: University of Illinois Press, 1945) pp. 6-7.

that made by Hagie. Interpretation and comparison of the findings should be done with consideration for this time lapse as well as for differences in methods used for securing data, differences in types of institutions sampled and differences in systems used for classifying parental occupations.

Academic Aptitude

The following review attempts to summarize representative evidence now available regarding the relative status in academic aptitude of students attending junior colleges and students attending senior colleges. Recent literature concerned with the characteristics and needs of the students now crowding our educational institutions contains many comments and assertions based on the assumption that junior college students rank lower in academic aptitude than do students attending other institutions. Few of these statements, however, are accompanied by objective evidence.

The earliest study found which pertains to this problem was made by Koos¹⁹ in 1921. One part of his investigation of the junior college movement was concerned with a comparative study by means of mental tests of students in

¹⁹Leonard V. Koos, <u>The Junior College</u> (Minneapolis: Research Publication of the University of Minnesota, 1924).

junior colleges and students in the same years in higher institutions. Koos used both the Army Alpha Test and the Thurstone Test for College freshmen for testing the students comprising his samples which included freshmen from public junior colleges, private junior colleges, four-year colleges, and universities. He concluded from the data he obtained that freshmen attending public junior colleges were in no essential respect different from those attending four-year institutions. In commenting on the significance of his findings, Koos said,

Those who espouse the junior college from the standpoint of hope 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.²⁰

Eells reported in 1930 the results of a mental survey of some 11,000 freshmen attending forty-seven junior colleges in California. Eells used the 1928 edition of the Thurstone Test and compared the mean scores obtained for the California junior college students with mean scores reported for national colleges and universities by the American Council of Education. In regard to his findings,

²⁰<u>Ibid</u>., p. 104.

Eells stated that in general ability, as measured by the Thurstone Test, the California junior college freshmen were distinctly superior to freshmen in public four-year colleges and universities in the country, but inferior to those in private institutions. He thought the inferiority to those in private institutions was probably due to selective factors in the private institutions.²¹

Traxler, ten years later, reported somewhat different results. He used Otis equated I.Q.'s corresponding to medians and quartiles of total scores made on the 1937 edition of the ACE by students in four-year colleges, junior colleges, and teachers colleges. The median for four-year colleges was 109; for junior colleges, 105; and for teachers colleges, 105.²²

In recent years the Educational Testing Service has published yearly norms computed from the nation-wide administration of the ACE Psychological Examination for College Freshmen. These norms are enlightening, but must be interpreted with regard for probable factors of selection since participation by colleges in the norms program is a

²¹Walter Crosby Eells, <u>California Junior College</u> <u>Mental Education Survey</u>, State Department of Education, Division of Research and Statistics, Bulletin No. J-3 (Sacramento: California State Printing Office, 1930).

²²A. E. Traxler, "What Is a Satisfactory I.Q. for Admission to College?" <u>School and Society</u>, Vol.15, No. 1319 (April 6, 1940), pp. 462-464.

voluntary one. The median scores published for the 1952 edition of the ACE for freshmen in the various types of educational institutions were: junior colleges, 95; teachers colleges, 98; four-year colleges, 106; and all colleges, 104. Both public and private junior colleges were included in the sample from which these norms were derived.²³

A question that has not been sufficiently investigated is the amount of variation existing among junior colleges themselves. A statement bearing on this appears in a report based on the state-wide testing program in Minnesota. This report states that not only was the typical junior college entrant found to be somewhat lower in measured academic aptitude than the typical university or liberal arts college freshman, but that there were also differences among the junior colleges themselves as evidenced by a range in a recent year of median scores from the 36th percentile to the 66th percentile on Minnesota college norms.²⁴

Although these studies and reports do not permit direct comparison because of differences in the instruments used and differences in the samples tested, certain trends

²³American Council on Education Psychological Examination for College Freshmen, <u>Norms Bulletin</u> (Los Angeles: Cooperative Test Division, Educational Testing Service, 1953).

²⁴Minnesota Commission on Higher Education, <u>op</u>. <u>cit</u>., p. 127.

appear obvious. The conclusion that the junior colleges are attracting more and more students from the lower levels of academic aptitude appears justified when we contrast the results of the studies made by Koos and Eells with the studies and surveys made and reported since 1940. Traxler's study, the Minnesota report, and evidence from norms on the 1952 edition of the ACE all support the statement that students entering junior colleges are somewhat lower in academic aptitude than students entering four-year colleges and universities. The distribution of scores found in a number of the studies, however, attest to the claim that junior colleges do enroll some very able students. Englehart emphasizes this in the following statement:

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 junior-college entrants exceed the 25 percentile of four-year college and university entrants.²⁵

The wide range of mental ability in the junior colleges pointed to by Englehart has important implications for curriculum planning and guidance needs.

²⁵Max D. Englehart, "Testing for Guidance and Placement in the Junior College," Junior College Journal, Vol. XVIII, No. 1 (September, 1947), pp. 3-11.

Education of Parents

Very little information was found in the literature relative to the educational background of the parents of students entering junior colleges and four-year institutions. Reynolds, in his study of the socio-economic status of college students carried out in 1927, investigated the educational background of the parents of a sample of stuents from 55 four-year colleges and universities. He found that 41 per cent of the fathers and 48 per cent of the mothers had had no 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 graduated from high school, but a smaller percentage attended college or did graduate work. He also pointed out that when the education of the fathers and mothers of both men and women students were compared that the fathers of women students were superior in education, and that both the fathers and mothers of women students had attained a higher educational level than the fathers and mothers of men students.²⁶

In his investigation of junior college students in Mississippi in 1940, Todd found that 39 per cent of the

²⁶Reynolds, <u>op</u>. <u>cit</u>., pp. 41-44.

fathers and 37 per cent of the mothers of these students had not attended high school, and that only 38 per cent of the fathers and 46 per cent of the mothers had completed high school.²⁷

Hagie investigated the educational level reached by the parents of students attending both junior colleges and four-year institutions. An analysis of his data led him to conclude that no significant differences in educational background existed between the parents of the two student groups. He used the chi square test of independence and found that the differences were not significant at the .01 level of probability.²⁸

The evidence located in the literature regarding differences in the educational background of the parents of students attending junior colleges and the parents of students attending four-year institutions is inconclusive.

Residence

From its inception, the public junior college has been considered a local instituion. In many of the early studies the principal reason given by parents for sending their sons and daughters to junior colleges was the reduced cost. Lowered tuition partly accounted for the lowered

²⁷Todd, <u>op</u>. <u>cit</u>., p. 104. ²⁸Hagie, <u>op</u>. <u>cit</u>., p. 56. cost, but the greatest reduction came from the elimination of the need to provide the cost of lodging and meals away from home.

Even a casual inspection of recent writing on the problems of the junior college reveals the general acceptance of the concept that the junior college is a local institution, existing to serve local needs. A report on a study of junior college students made by Koos in Illinois illustrates the effect of a junior college in the community on college attendance of high school graduates. Koos found that 53.5 per cent of high school graduates attended college when there was a free junior college in the community, but that only 19.7 per cent went on to college when there was no free junior college.²⁹ The local nature of the junior-college enrollment is emphasized in the 1950 report on higher education in Minnesota.³⁰ The situation in Minnesota supports the general conclusion that junior colleges tend to be local institutions drawing the majority of their students from the local county.

Walker's findings regarding the numbers and percentages of students residing in college dormitories and at home while attending public junior colleges in Mississippi have

²⁹Griffith, op. cit., p. 7.

³⁰Minnesota Commission on Higher Education, <u>op</u>. <u>cit</u>., p. 126.

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particular relevance for this study. He found that 73.2 per cent of the men students lived in the dormitories as contrasted with 58.4 per cent of the women.³¹ In a later study of students attending Mississippi public junior colleges, Todd found that 38 per cent of the junior-college enrollees came from the eleven counties in which the colleges were located.³² If the assumption is justified that those who came from outside the county lived in dormitories, there is close correspondence between the 66.3 per cent of the total enrollment living in dormitories found by Walker and the 62 per cent found by Todd in 1940.

No studies providing comparable data for students attending four-year colleges were found. However, there appeared to be general acceptance of the idea that the majority of the students attending four-year institutions come from within the state and that a majority of these come from within a limited radius. The two reasons given by junior college students--reduced costs and proximity of the junior college to their homes--for attending junior colleges lend support to the assumption that more students attending four-year institutions live on the campus than do students attending junior colleges. It would appear, however, from the findings reported by Walker and Todd that

³¹Walker, <u>op</u>. <u>cit</u>., p. 34. ³²Todd, <u>op</u>. <u>cit</u>., p. 225. the situation in Mississippi public junior colleges is not consonant with the general picture.

Educational Plans

Acceptance by junior colleges of the responsibility for providing both "preparatory" and "terminal" curricula has resulted in much attention being given to the educational plans of students entering these institutions. Of special concern has been the generally observed discrepancy between the stated educational plans of students enrolling in junior colleges and the degree of realization of these plans.

In 1934, Walker questioned freshmen and sophomores enrolled in the public junior colleges of Mississippi about their plans for completing junior college and for continuing their education. Among the freshmen, 80.1 per cent of the men and 82.7 per cent of the women planned to complete the junior college course. The corresponding percentages of those who planned to continue their education beyond junior college were 59.3 and 48.4. The percentages for the sophomore group were even higher. The respective percentages for men and women who planned to complete junior college were 92.6 and 96.7. For those who planned to continue their education the percentages were 69.1 and 49.3.³³

³³Walker, <u>op</u>. <u>cit</u>., pp. 45-47.

Hieronymous, in the same year, interested in the curriculum implications of the expressed educational and vocational plans of college students, surveyed the students in twenty-seven public, thirty-seven private, and four state junior colleges in the United States. Hieronymous summarized his findings in the following statements:

Of the 4,550 students, 53.74 per cent intend to enter the junior year of other institutions of higher learning. There are, however, freshmen-representing 17.25 per cent of the total--who intend to transfer to standard colleges or universities in the sophomore year. By adding the two percentages (53.74 and 17.25) we get a total of 70.99 per cent of the students whom the junior college is serving in the preparatory capacity, broadly interpreted. Not more than 50 per cent of the junior college graduates actually continue in other institutions of higher learning. Since the sophomore class represents about one-third of the student body, 50 per cent of the graduates constituted approximately one-sixth, or 16 per cent of the total enrollment. However, 70.99 per cent of all the students aspire to continue their studies elsewhere. In view of these data we cannot escape the conclusion not only that the preparatory function as reflected by the student's plans is being realized, but that it is also extremely overemphasized.³⁴

Todd's study of junior college students in Mississippi in 1940 showed that 72 per cent of the freshmen and 96.1 per cent of the sophomores planned to complete the junior college course, and that 65 per cent of the men and 49 per cent of the women planned to enter a senior college.³⁵

35Todd, op. cit., p. 118.

³⁴William Peter Hieronymous, "The Educational and Vocational Plans of Junior College Students with Special Reference to the Curriculum" (abstract of Doctoral Dissertation, University of Nebraska, 1941), p. 5.

These results appear to be consistent with those obtained by Walker in 1934.

Todd also made a detailed investigation of the mortality rates in the freshman and sophomore years. He concluded from his data that one-third of the students who enroll as freshmen get one year or less of college work and that one-third of those who return to the junior college as sophomores do not graduate. He also stated that the junior college was the last agency for formal education for as many as 78 per cent of its students.³⁶

A study reported from Minnesota in 1950 demonstrates a comparable situation. This report states that rarely have more than 30 to 40 per cent of entering students in Minnesota taken work beyond the junior college.³⁷ From a survey made in Illinois, Griffith reported in 1945 that academic mortality in the junior colleges between the first and second years was on the average about 40 per cent. He concluded from the results of the survey that the junior college is a terminal institution for 75 to 80 per cent of the entrants.³⁸

Hagie secured data from both the junior and senior colleges included in his study. Approximately 69 per cent of

³⁶<u>Ibid</u>., pp. 155-156.

38Griffith, op. cit., p. 13.

^{37&}lt;sub>Minnesota</sub> Commission on Higher Education, <u>op</u>. <u>cit</u>., p. 129.

the junior college students in his sample planned to get four or more years of schooling as compared with approximately 89 per cent of the students in the four-year institutions.³⁹

In an article published in 1956, Eells presented several summaries relating to student mortality in junior colleges. His conclusions, based on data obtained from the fourth edition of <u>American Junior Colleges</u>, agree essentially with the findings of Walker, Todd, and Hagie. He found that for every one hundred freshmen enrolled in accredited junior colleges in the United States, only forty-five sophomores were enrolled. Less than one-half of these sophomores graduated. Eells concluded that less than one-fourth of the students entering American junior colleges graduate from them.⁴⁰

This discussion has considered representative studies concerned with the educational plans of junior and senior college entrants. The findings of these studies in general demonstrate the discrepancy between the stated educational plans of junior college entrants and the actual realization of these plans as indicated by the mortality rates in both the freshman and sophomore years.

³⁹Hagie, <u>op</u>. <u>cit</u>., p. 68.

⁴⁰ Walter Crosby Eells, "Student Mortality in Junior Colleges," Junior College Journal, Vol. XXVII, No. 3 (November, 1956), pp. 132-137.

Vocational Plans

From the beginning of the junior college movement, junior colleges have been vitally concerned with the development of educational programs which would meet the needs of the students served by these institutions. This concern has stimulated special interest in the development of vocational and general education courses designed for the student who will terminate his formal education with the completion of junior college. Actual development of such courses, however, has been retarded in many junior colleges by the failure of students to make realistic appraisals of their vocational objectives. The preceding section has called attention to the general discrepancy between the stated educational plans of junior college entrants and the extent to which these plans are realized. This section is concerned with the vocational objectives declared by students entering junior colleges.

Hieronymous, in 1934, questioned over four thousand students about their vocational plans. These students represented a random sample of students in public, private, and state junior colleges in the United States. The tabulation of the responses given by these students indicated that 70 per cent of them were planning to enter vocations classed as major professions, and that 29.86 per cent were planning to enter vocations on a minor professional level.

A breakdown of the choices made by men students showed that the four leading choices were: engineering, 26.14 per cent; teaching, 16.59 per cent; law, 11.61 per cent; and medicine, 11.26 per cent. Teaching was the choice of 73.05 per cent of the women students while 8.09 per cent chose some type of clerical work at the executive level. One student out of twelve was undecided about his vocational objective.⁴¹

Walker, in the same year, questioned students attending public junior colleges in Mississippi regarding their vocational goals. His findings showed that 34.4 per cent of the men and 72.5 per cent of the women planned to enter teaching. The second choice for both men and women was some form of business activity. This was the choice of 29.7 per cent of the men and 22.5 per cent of the women students.⁴²

Todd, surveying students in Mississippi public junior colleges in 1940, found that 63 per cent of the men and 65 per cent of the women were planning to enter one of the professions. Teaching, chosen by 20.6 per cent of these students, represented the occupational interest of the largest group. Other choices covered a wide range of activities at the professional and semi-professional level. The leading occupational choices of women were:

⁴¹Hieronymous, <u>op</u>. <u>cit</u>., p. 6. ⁴²Walker, <u>op</u>. <u>cit</u>., p. 53. teaching, 32.0 per cent; clerical, 25.0 per cent; and professional home economics, 16.0 per cent. The leading occupational choices of men were: professional agriculture, 15.0 per cent; teaching, 9.0 per cent; and engineering, 8.0 per cent. Of all the students questioned by Todd, 81.0 per cent said they had decided on the occupation they would enter; 40 per cent said they did not think they could carry through their occupational plans; and 38 per cent indicated that, if circumstances had permitted, they would have chosen to follow a different occupation.⁴³

Hagie compared the occupational choices of students attending junior colleges with those of students attending the first two years of four-year institutions. He found that 48 per cent of junior college students as compared with 65 per cent of students in the four-year institutions were planning to enter occupations classified by Edwards as professional and proprietors, managers, and officials. Lower ranking occupations were chosen by 26 per cent of the junior college students and by 9 per cent of students attending four-year institutions. The percentage of students who were undecided about their future plans was 26 for both groups.⁴⁴

⁴³Todd, <u>op</u>. <u>cit</u>., pp. 166-173. ⁴⁴Hagie, <u>op</u>. <u>cit</u>., p. 68.

The results of an investigation of the vocational objectives of students entering Long Beach City College were reported by Lubick in 1955. His data showed that 51 per cent of the boys and 36 per cent of the girls entering Long Beach City College planned to enter one of the professions. Listed in order of choice, the principal occupations chosen by girls were in the field of teaching, clerical work, and medical work. The leading choices of boys were engineering, teaching, and medicine. Of the 1,226 students questioned, 44 per cent listed occupations in four fields--teaching, clerical, engineering, and medical. Approximately one-third of these students reported that they were undecided about their vocational objective.⁴⁵

The conclusion that a large proportion of students entering junior colleges are making unrealistic occupational choices appears justified by the findings summarized in the foregoing review of studies appearing in the literature. Although over one-half of the students entering junior colleges declare one of the professions as a vocational objective, it has been shown that less than onefourth of these students ever attend an institution of higher learning.

⁴⁵Emil E. Lubick, "Vocational Objectives of Entering College Students," <u>Junior College Journal</u>, Vol. XXV, No. 6 (February, 1955), pp. 219-226.

Summary

Although the studies, reports of surveys, and general comments taken from the literature concerning the characteristics of junior college students which have been reviewed in this chapter have introduced some conflicting findings, the weight of the evidence appears to support the following statements:

1. Over the past thirty or more years, the junior colleges have tended to attract increasing numbers of students from the lower levels of social and economic status and of academic aptitude.

2. Students entering junior colleges represent more adequately the lower levels of socio-economic status and academic aptitude than do students entering senior colleges.

3. There are marked discrepancies between the stated educational and vocational plans of students entering junior colleges and the actual realization of these plans.

4. Significant differences in stated educational and vocational plans are to be found between men and women students entering junior colleges.

5. There is considerable variation among the junior colleges themselves in the characteristics of the students they enroll.

CHAPTER III METHODS AND PROCEDURES

The review of the literature presented in Chapter II has shown that authorities in the junior college field generally agree that differences do exist between junior college and senior college students. However, the nature and extent of these differences are poorly defined. Some of the evidence from earlier research studies is conflicting, but the evidence and the conflicts must be evaluated with consideration for the time lapses between the studies, for differences in prevailing conditions, and for differences in the samples investigated.

This study, as previously stated, was concerned with the determination of what differences, if any, exist between freshmen entering Mississippi white county-district public junior colleges and Mississippi white state-supported coeducational senior colleges. To determine the significance of such differences, if found, it was proposed to test the hypothesis that definite differences do exist between these two groups in social status, economic status, academic aptitude, education of parents, place of residence, and educational and vocational plans.

Consideration of the general objectives of the study and analysis of the problem resulted in the following breakdown of the study:

1. Determination of the present status of junior and senior college freshmen in each of the selected factors involving separate tabulations for men and for women in each school.

2. Determination of the nature and extent of differences, if any, between men and women in each of the factors.

3. Determination of the significance of differences among the schools in each of the two groups.

4. Determination of the nature and extent of differences, if any, between freshmen entering Mississippi junior colleges and freshmen entering Mississippi senior colleges.

Methods

Description of the sample

In order to avoid the effect of as many extraneous variables as possible, the investigation was limited to the thirteen white county-district type public junior colleges and to the four white state-supported senior colleges of Mississippi. The one municipal public junior college was eliminated because of the probability of factors in the background, in interests, and in the experiences of its students that might differentiate them from students in county-district type public junior colleges.

Because of their relevance to the study and their implications for possible conclusions, certain factors common to both the junior and senior colleges selected for study should be noted. All of the schools are coeducational although the proportion of men and women students is not the same in each school. Both the junior and senior colleges draw a majority of their students from small towns and rural areas. This is to be expected since 68.5 per cent of the white population of the state live in rural areas.¹ A factor of perhaps more importance than these is the common admission policy found in both types of schools. Graduation from an accredited high school is the basic requirement for admission to both the junior and the senior colleges of this study. Some limitations are inherent in the pattern of courses required for admission to certain curricula, but general course requirements for admission are very liberal in all of these colleges.

Sources of the data

The major part of the study is based upon data from two sources. Information relative to social and economic status, education of parents, place of residence, and educational and vocational plans was secured from freshmen

¹United States Department of Commerce, Bureau of the Census, <u>General Characteristics</u>, <u>Mississippi</u>, <u>1950</u> <u>United</u> <u>States Census of Population</u> (Washington: United States Government Printing Office, 1952), p. 22.

entering the selected institutions in the fall of 1956 in the form of responses to questions presented to them in a one-page questionnaire. Data relative to academic aptitude were provided by the participating institutions. These data consisted of a score for each student on the test of academic aptitude regularly administered by each institution at the beginning of the fall semester. Supporting data and information were gathered from records in the Mississippi State Department of Education, from the statutes of the Mississippi Legislature, from census reports, from key officials in the participating institutions, and from the literature in the field.

Development of the study

Implementation of plans for the investigation involved a number of steps. It was, first of all, necessary to obtain the co-operation of all the schools included in the proposed study. Letters explaining the purposes and general design of the investigation and requesting the co-operation of the school were sent to the president of each junior college. The appropriate dean in each senior college was contacted by letter or by personal visit. Specifically, each college was asked to administer a questionnaire to all freshmen entering that school for the first time in the fall semester of 1956 and to provide the test score for each of these students on the academic aptitude test

administered to all freshmen during the regular fall testing program. Full co-operation was secured from both the junior and senior colleges included in the plan.

The development of the questionnaire to be used in securing the desired information was the next step. This required consideration of the data needed and formulation of questions that could be easily understood and answered. It was also necessary that questions be stated to insure, insofar as possible, responses that would be complete and valid, and easily classified and tabulated. In the process of developing a satisfactory questionnaire, sample questionnaires which had been used in similar studies were examined, and previous experience with the development of questionnaires for student survey purposes was utilized. Interested personnel in the co-operating institutions were consulted for suggestions. A preliminary form of the questionnaire was submitted to an unselected group of students for a trial run. After several revisions, the final form was printed.

The third step involved mailing to each of the schools a short questionnaire asking for an estimate of their anticipated freshman enrollment and for the name and form of the aptitude test they planned to administer.

Just before the beginning of the fall term of 1956, the questionnaires were mailed to each school for

administration to freshmen students. Most of these schools presented these questionnaires to the student as a part of their regular orientation activities. A few schools presented them a few weeks later to students enrolled in regular freshman orientation classes. In each school, a counselor, a dean, or other qualified person assumed the responsibility for administering the questionnaire to the students. The careful attention given to this task by the individuals assuming such reponsibility resulted in very complete and usable returns. All of the schools returned the completed questionnaires and all of the schools with one exception reported the test results which had been requested.

A total of 4,563 questionnaires were returned: 1,875 were returned by the four senior colleges and 2,688 were returned by the thirteen junior colleges. These totals do not tally exactly with freshman enrollment totals reported by these schools. This is to be expected since freshman enrollment figures generally include students who entered in the summer, some irregular students, and some transfers; whereas, the questionnaires were given only to those students entering for the first time at the beginning of the fall term. Comparison with enrollment figures, however, substantiate the claim that the number of returned questionnaires from each school constitutes a valid representation of freshmen in that school. These discrepancies were

relatively small and there was no indication that any selective process was involved. Personal communications from a number of persons supplying these data supported the belief that the discrepancies were a result of chance factors.

Procedures: The Questionnaire

The questionnaire (See Appendix A), as finally developed, required the student to supply information concerning sex, age, occupation of father, occupation of mother, family income, education of father, education of mother, educational plans (plans for future college attendance in terms of years), vocational plans, and place of residence (whether the student lived in the dormitory, in the immediate area, or commuted by college bus or private transportation). Only those questions having to do with the occupation of the father, occupation of the mother, and the vocational plans of the student required a written response. The remainder of the questions could be answered by checking the appropriate response.

Classification systems

Before some of the answers could be tabulated, it was necessary to select systems or devise categories for classification of the data.

Parent's occupation: A major problem was the selection of a system for classification of the parent's occupation. Having accepted the general concensus that occupation of the father is a satisfactory index to the social status of the family, and hence, the student, it was necessary to select a system that classified occupations in such a way that there would be a high correlation between the rank of the occupation in the system and the rank of the occupation in social status and prestige. The review of the literature indicated that the system most frequently used by earlier investigators in the junior-college field was the system devised by Counts.² An examination of the Counts system and a number of other classification systems. namely. the system adapted by Edwards.³ the system developed by the United States Employment Service. 4 and the system devised by Roe⁵ resulted in the choice of the

²George S. Counts, <u>The Selective Character of American</u>. <u>Secondary Education</u> (Chicago: University of Chicago Press, 1922), pp. 21-25.

³Alva M. Edwards, <u>Population:</u> <u>Comparative Occupational</u> <u>Statistics for the United States</u>, 1870-1940 (Washington: <u>Bureau of the Census</u>, United States Department of Commerce, 1943), pp. 175-182.

⁴United States Employment Service, <u>Dictionary of</u> <u>Occupational Titles</u> (Washington: United States Government Printing Office, 1949).

⁵Anne Roe, <u>The Psychology of Occupations</u> (New York: John Wiley and Sons, 1956), pp. 144-152.

Roe Occupational Classification System for this investigation.

The Roe System was chosen because the rank order of an occupation classified by this system correlates highly with the rank order of the occupation in social status and prestige. An additional reason for the choice of this system was the ease with which occupations could be classified in the system. Of special importance for the purposes of this study was the flexibility it provided in the classification of farmers so that the range of social status within this group could be identified. Evidence that the Level of an occupation classified by this system correlates highly with prestige ratings is found in Roe's study of the correspondence between mean scores determined for each of ninety selected occupations of men by the National Research Center of Denver in 1947 and the Level of the occupation classified according to the Roe system.⁶

The Roe system uses a set of two categories, one called Groups and the other Levels. The criterion for Group classification is the primary focus of activity in the occupation. There are eight Groups. Occupations are classified into one of the six Levels according to the degree of responsibility, capacity, and skill represented by

6<u>Tbid</u>., p. 306.

the occupation. These Levels as described by Roe are (1) Professional and Managerial, 1, (2) Professional and Managerial, 2, (3) Semi-professional and Small Business, (4) Skilled, (5) Semi-skilled, (6) Unskilled.⁷ These Levels will subsequently be referred to by number.

Since, for the purposes of this study, only the relative position of an occupation on a scale from high to low was needed, occupations were classified as to Level only. The Group categories, however, were utilized to determine proper Level placement of the given occupations. The chart by Roe,⁸ giving Group and Level placement of many common occupations, provided invaluable assistance in classifying occupations correctly.

In the questionnaire used, the questions asking for the occupation of the father and the occupation of the mother gave a number of examples and asked for specific information about the occupation. Only the occupation of the father was classified except in the few cases where the mother was the wage earner for the family. Although all the replies were not completely satisfactory, only a few replies were too vague or incomplete to permit classification. The procedure for classification involved reading

7<u>Ibid</u>., pp. 149-152. 8<u>Ibid</u>., p. 151.
the description of the occupation supplied by the student, deciding what job, position, or profession was described, and locating this job, position or profession in the Roe Classification System. The occupation was then assigned the number of the Level in which it was represented. Most occupations reported were relatively easily classified.

Classification of farmers presented the biggest problem. Roe says that, "The farmer, who is, in fact, an individual entrepreneur, belongs in Level 3; other individual farmers belong in 4; farm tenants and sharecroppers belong in 5; farm hands go in $6.^{9}$ When there was doubt as to the appropriate Level, reported income, education of father, and information about the type of farming reported were all used in making the final decision. A few farmers, because of the size of their holdings or other factors, were classified in Level 2.

Another problem was presented by those students reporting more than one occupation for the father. When these various occupations were at the same Level, there was, of course, no problem. In the relatively few cases where two or more occupations of different Levels were reported, an attempt was made to decide which was the major occupation and which was ancillary. In most cases of this nature, assignment was made to the highest appropriate Level.

9Roe, op. cit., p. 150.

Following the assignment of a Level number to the occupation stated on the questionnaire, the Level number was noted on the questionnaire for later tabulation.

Family income: This item appeared on the questionnaire in the form of six income categories ranging from low to high. The student was asked to check the category that best represented his family's income. The number of the category was used as the index of economic status.

Vocational plans: Preliminary examination of student replies to the request on the questionnaire that they state their present actual vocational choice indicated that the vocational choices could be categorized into thirteen major areas. These thirteen areas included the "undecided" group and a miscellaneous group which contained those choices too few in number to justify separate categories. Any attempt to fit stated vocational choices into recognized occupational classification systems effectively obscured the information sought. No coding was necessary for tabulation.

Other items: All other items on the questionnaire could be tabulated directly under proper headings on the tabulation sheets.

<u>Treatment</u> of data

Wide ledger sheets with appropriate headings were set up for each school. The items that required classification and coding were tabulated by category or code number.

Provision was made for tabulating "no answers" or blanks. Data for each item were tabulated separately for men and for women. Distributions of the data tabulated by category or appropriate heading were made and presented in tabular form. Distributions were made by sex for each school and for each group. Numerical frequencies were converted to percentages to facilitate comparison of schools and of groups of unequal size.

Procedure: Test Scores

Tests used

Scores on academic aptitude tests obtained at the regular fall testing sessions of the various schools comprise the data for the description and comparison of junior and senior college freshmen on the basis of academic aptitude. Since all schools did not use the same test, analysis of the data to obtain valid descriptions and comparisons presented a problem. Six junior colleges and two senior colleges administered some form of the ACE. One senior college administered the CQT. Two junior colleges administered the PMA, one the CAT, and three administered some form of the Otis Mental Ability Tests. One junior college did not report its scores. The fourth senior college administered the Otis Gamma.

Treatment of test data

The nature of the data required a breakdown of the schools into two groups for analysis. The six junior colleges and the two senior colleges which had used the ACE were placed in one group. Since it was felt necessary to include data from the senior college which had administered the CQT, arrangements were made with the school to use scores on the ACE which had been reported for entering freshmen during the regular fall testing in 1955. The use of these scores for group comparisons can be justified by the fact that records at this school indicate that the range, mean, and standard deviation of the scores on the ACE reported for its students have been quite consistent over a period of years.¹⁰ It is not felt that the possibility of error introduced here appreciably affected the basic comparisons between the junior and senior college populations.

The table supplied by the Educational Testing Service for conversion of CAT scores to equivalent 1952 ACE scores was used to convert the CAT scores reported by one of the junior colleges to equivalent ACE scores. Recognizing the possibility of distortion inherent in this conversion of scores, frequency distributions were made and means and

¹⁰A personal interview between the writer and the Dean of Student Affairs at the school in question.

standard deviations computed for the junior colleges with and without these data. The absolute difference between the two means thus computed was .15. The absolute difference between the two standard deviations was .45. The decision was made to include these scores. Seven junior colleges and three senior colleges composed the group compared in terms of scores on the ACE.

Variation in the forms of the ACE used by the various schools made it necessary to transform these scores to a common base. All scores were converted to the ACE 1952 base according to the tables of equivalences published in the ACE Manuals. This procedure is discussed by Angoff.

In discussing the implications of developing tables of comparable scores, it will be profitable to draw the distinction between parallel and nonparallel tests. In the conversion of scores from one form to a parallel form of a test, such as from one form of the ACE to another, or one form of the SAT to another, there is simply the problem of transforming the system of units. In such a case, the problem is directly analogous to the problem of conversion from centimeters to inches, from Centigrade to Fahrenheit, from pounds to grams, etc. Since the two kinds of measures involved are identical functions, the system of conversion is unique; there is one and only one conversion equation.

Of the three junior colleges supplying scores on the Otis Test, two had used the Otis S-A Higher Form and one had used the Otis Gamma. The senior college supplying Otis

11 William H. Angoff, <u>The "Equating" of Non-Parallel</u> <u>Tests</u> (Princeton: Educational Testing Service, 1954). scores had also used the Otis Gamma. The three junior colleges and the senior college using a form of the Otis constituted the second group. The three junior colleges were compared with the one senior college. The two junior colleges supplying scores on the PMA were not included in the comparison of the two freshman populations in academic aptitude.

Frequency distributions of the test scores were made by sex and by school. Data for the junior colleges and the senior colleges in each group were combined and frequency distributions made. This procedure was followed for the schools using the ACE and for the schools using a form of the Otis. The mean, median, Q_1 , Q_3 , and standard deviation were computed for each of the distributions. Frequency polygons were constructed for each test group for better visualization of the distributions.

Methods of Analysis

Since the study proposed to test the hypothesis that definite differences exist between the junior and the senior college freshmen comprising the sample included in the plan of the investigation, it was necessary to use methods of analysis which would indicate the presence or absence of such differences. For the data abstracted from the questionnaire, the statistic used was chi square, and the test for differences was the chi square test of independence. Chi square is essentially a measure of the discrepancy between observed and expected frequencies. If the observed and expected frequencies agree completely, 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 or not the distribution of a particular characteristic is the same regardless of the other characteristic. In this study its use told whether or not the distribution of frequencies for any factor were found in the proportion expected regardless of the type of college.

A computed chi square value may be translated into a probability value for ascertaining the extent to which the differences between observed and expected frequencies may be attributed to chance variation. The probability value considered significant for this study was .Ol. This means that there is only one chance in one hundred that a chi square value would be that large by chance.

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

The frequency distributions of test scores were analyzed by comparing the absolute values obtained for the mean, median, Q_1 , Q_3 , and standard deviation of the various

distributions. The significance of the differences between the means was determined by testing the hypothesis of no difference between the samples being considered. The statistic z was used since the samples were large and the assumption that they came from a normal population appeared justified by the design of the study.

Summary

This chapter has discussed the methods and procedures used in implementing the plans for the investigation. It has described the sample studied, the sources of the data, the development of the study, and the procedures followed in collecting, classifying, tabulating, and analyzing the data.

CHAPTER IV

ANALYSIS OF DATA: SOCIO-ECONOMIC STATUS

This chapter presents an analysis of the data relative to the socio-economic status of students entering the public junior colleges and the state-supported coeducational senior colleges of Mississippi. The data were analyzed with reference to the questions stated as major concerns of the study.

The general procedure required that the data be tabulated by categories and presented in tabular form. The various tables were examined and rational methods used to describe the direction and extent of the differences found. The chi square test of independence was used to determine whether or not the differences found were greater than could have been expected by chance. For the purposes of this study, differences were not considered significant unless the computed chi-square value was significant at the .Ol level of confidence.

Social Status

The occupation of the father was used in this study as the index of social status. Some methods of assessing social status are involved and tedious and require more

information than could be obtained from a short question-There is, however, rather general agreement that naire. social status can be approximated within relatively narrow limits of error by using the occupation of the father as the index of the family's social status. In a recent article. Hyman said, "A review of literature on the measurement of social status indicated that of the many techniques for assessment of social status, the most widely accepted single criterion is occupation.^{nl} Anne Roe says, "Occupation of father is widely accepted as the most usable single index of the social and economic status of all the members of a family."² Warner, Havighurst, and Loeb identified social class with occupation and analyzed the relation of the two quite thoroughly in their discussion of American Status Systems.³

The Data

Parental occupations as described on the completed questionnaires were assigned a Level or index number according to the system of classification proposed by Roe.⁴

⁴Roe, <u>op</u>. <u>cit</u>., p. 151

¹Bernard Hyman, "The Relationship of Social Status and Vocational Interests," <u>Journal of Counseling Psychology</u>, 3:12 (Spring, 1956), pp. 12-16.

²Anne Roe, <u>The Psychology of Occupations</u> (New York: John Wiley and Sons, 1956), p. 9.

³W. Lloyd Warner, Robert J. Havighurst, and Martin J. Loeb, <u>Who Shall Be Educated?</u> (New York: Harper and Brothers, 1944), pp. 20-27.

further elaboration of this system is desirable for meaningful interpretation of the data presented. These Levels are therefore listed below. Each Level title is followed by examples of occupations classified at that level.

- Level 1. Professional and Managerial 1.--research scientist, president of a large corporation, doctor, judge, college professor.
- Level 2. Profession and Managerial 2.--personnel manager, banker, chemist, clergyman, architect, teacher.
- Level 3. Semi-professional and Managerial.--nurse, postmaster, small business owner, athletic coach, salesman.
- Level 4. Skilled.--barber, house to house salesman, plasterer, medical technician, miner.
- Level 5. Semi-skilled.--chauffeur, sales clerk, mail carrier, farm tenant, truck driver, gardener, library attendant.
- Level 6. Unskilled.--bell hop, janitor, night watchman, farm laborer, stage hand.

Analysis of Data

Following the classification of the occupation, the assignment of the Level numbers, and the tabulation of these data, the total frequencies at each Level were obtained by sex for each junior college and each senior college. Total frequencies at each Level were also obtained for the junior and senior colleges and for men and women in the two groups. Table 1, page 66, shows the distribution of the father's occupation by Level for freshmen entering each junior and each senior college in the fall of 1956. Table 2, page 67, reports these totals as percentages of the total number of occupations classified for each school. Schools listed in Table 1 and in Table 2 are indicated by letter only. This notation is followed throughout the study.

It is apparent from an examination of Table 2 that there is some variation among the junior colleges, although, in general, they present the same pattern of distribution of occupations by Level. The modal Level for each junior college is Level 4. To test the significance of the differences among the junior colleges, the two Levels at each extreme were combined and a thirteen by four contingency table set up. The chi square value computed from this table is 104.46. This value with 36 degrees of freedom is significant beyond the .01 level indicating that greater differences exist among the junior colleges than could be expected by chance one out of a hundred times.

The senior colleges also demonstrate intragroup variability. Chi square computed from the contingency table constructed for this group is 191.25. This value with 9 degrees of freedom is significant beyond the .Ol level. Although there are significant differences among the senior colleges, they, too, present a relatively consistent

FREQUENCY DISTRIBUTION ACCORDING TO LEVEL OF THE OCCUPATION OF THE FATHERS OF JUNIOR AND SENIOR COLLEGE FRESHMEN Fall, 1956

Colleges			Le	vels			Blank*	Total
_	T	2	3	4	5	6		
Junior								
A B C D E F G H I J K L M	1002002000400	985 3526 1207 15484	50 89 56 81 56 81 78 88 47 88 48	94 121 61 111 83 95 160 139 98 79 111 72 75	48 20 18 30 29 416 20 59 19	1202221102401	10 10 5 7 9 5 20 5 10 4 11 4 3	213 245 108 282 191 198 324 242 183 164 242 146 150
Total	9	145	733	1,299	381	18	103	2,688
Senior								
SA SB SC SD	2 5 7 36	10 53 64 127	62 275 206 244	60 228 210 109	12 59 34 12	0 1 5 1	4 28 17 4	150 649 543 533
Total	50	254	787	607	117	7	53	1,875

*This column indicates the number of students who failed to answer the question regarding the father's occupation.

PERCENTAGE DISTRIBUTION ACCORDING TO LEVEL OF THE OCCUPATION OF THE FATHERS OF JUNIOR AND SENIOR COLLEGE FRESHMEN Fall, 1956

Colleges			Lev	vels			Blank*	Total
	T	2	3	4	5	6		
Junior								
A B C D E F G H I J K L M	.5 .0 .7 .0 .0 .0 .0 .0 1.6 .0	4.2 3.6 12.4 3.0 3.7 4.8 3.7 3.8 3.5 5.6	23.5 34.3 17.6 30.8 28.8 30.8 27.2 16.9 27.7 23.2 28.1 32.2 32.0	44.1 49.5 39.4 49.5 49.4 57.5 45.2 45.3 45.3 50.0	22.5 8.2 16.7 13.5 15.7 14.7 12.6 19.0 11.5 15.8 12.4 10.3 12.7	.5 .8 .0 .7 1.1 1.0 .3 .4 .0 1.2 1.6 .0 .7	4.7 4.6 2.5 4.7 2.5 2.1 5.4 2.0	100.0
Total	•3	5.4	27.3	48.3	14.2	•7	3.8	100.0
<u>Senior</u>								4
SA SB SC SD	1.3 .8 1.3 6.7	6.7 8.1 11.8 23.8	41.3 42.4 37.9 45.8	40.0 35.1 38.7 20.5	8.0 9.1 6.3 2.2	.0 .2 .9 .2	2.7 4.3 3.1 .8	
Total	2.7	13.5	42.0	32.4	6.2	•4	2.8	100.0
*This colu	umn in	dicate	s the	percen	tage o	fstu	lents who	

failed to answer the question regarding the father's occupation.

pattern. Three of the four senior colleges show the highest frequency at Level 3. The fourth senior college, senior college SC, has the highest frequency at Level 4, but the difference between the percentage at Level 3 and at Level 4 is very small. The most marked variation is noted for senior college SD. Especially notable for this school is the high percentage of frequencies at Level 2.

In spite of the intragroup variation, there are marked and consistent differences between the distributions for the two groups. Without exception, the occupational Level with the highest frequency for the junior colleges is Level 4. A distinct reversal of this pattern is evident in the senior college group. For this group, with the exception of senior college SC, frequencies at Level 3 are appreciably larger than at Level 4. The significance of this reversal assumes greater importance if it is remembered that Level 4 denotes the skilled worker, the mechanic, the carpenter, the small farmer, and similar occupational groups, whereas Level 3 represents among others the small business owner, the successful, independent farmer, and the semi-professional. When the data are totaled for each group, the percentages for the junior and senior colleges at Level 3 are 28.4 and 43.2 respectively as compared with 50.3 and 33.3 at Level 4. The chi square value computed from a contingency table based on the totals for each of the two groups was 324.7. This value with 3 degrees of

freedom is highly significant beyond the .Ol level. This justifies the contention that significant differences exist between the junior and senior colleges when they are compared on the basis of paternal occupation.

The application of the chi square test of independence established that significant differences exist among the schools in each of the two groups and between the two groups. A different approach is necessary, however, to ascertain the extent and direction of the differences found. If the six Levels are combined into three categories to form a low, a middle, and a high group, the extent and direction of the differences are more easily examined. These new groupings yield the following totals:

Low	Junior colleges	15.4 per cent
	Senior colleges	6.8 per cent
Middle	Junior colleges	78.7 per cent
	Senior colleges	76.5 per cent
ni -h	Junior colleges	5.9 per cent
nign	Senior colleges	16.7 per cent

Interpretation of the apparent equality of the two groups in the middle category should not fail to consider the reversal of the frequencies for the two groups at Levels 3 and 4. Inspection indicates that the proportion of junior college students in the low group is over twice that of senior college students. The converse of this relationship

is seen in the high group. Here the ratio of senior college students to junior college students in terms of percentages is almost 3 to 1. Additional perspective is provided by further grouping of the six Levels into two groups of three Levels each. For the upper three Levels, the respective percentages for the junior and senior colleges are 34.3 and 59.9. On the other hand, the respective percentages for the lower three Levels are 65.5 and 40.1. Graphic representation of these data is provided by Figure I, page 71.

Since there is significant intragroup variability among both the junior and the senior colleges, a comparison of the junior college which has the highest representation in the upper Levels with the senior college which has the lowest is revealing. This results in a comparison of junior college D with senior college SA. Here the respective percentages are 43.9 and 49.3. It can be seen from this that in no junior college are the occupations of the fathers of the students as well represented in the three upper Levels as are the occupations of the fathers of students attending any one of the senior colleges.

Tables 3 and 4, pages 72 and 73, give the distribution of paternal occupation by Level for men students in each of the junior and senior colleges in numbers and in percentages. Tables 5 and 6, pages 74 and 75, give the same information for women students. Totals, by sex, for the two



Figure I. Frequency Polygons of Distribution of the Occupations of Fathers of Junior and Senior College Freshmen.

DISTRIBUTION ACCORDING TO LEVEL OF THE OCCUPATION OF THE FATHERS OF JUNIOR AND SENIOR COLLEGE FRESHMAN MEN Fall, 1956

Colleges		2	Lev 3	els h	5	6	Blank*	Total
Junior								
A B C D E F G H I J K L M	000200200300	5354126650864	26848659537376	60 75 76 591 86 66 85 50	31 12 11 19 245 26 120 29 11 9	0102220102301	10 7 27 7 4 4 5 9 3 9 4 3	132 141 67 202 139 136 177 144 124 128 179 113 93
Total	7	95	457	855	263	14	84	1,775
SA SB SC SD	2 2 7 24	7 22 61 71	26 137 194 145	30 132 199 83	6 42 34 10	0 1 5 1	2 19 15 4	 73 355 515 338
Total	35	161	502	444	92	7	40	1,281

*This column indicates the number of freshman men who failed to answer the question regarding the father's occupation.

PERCENTAGE DISTRIBUTION ACCORDING TO LEVEL OF THE OCCUPATION OF THE FATHERS OF JUNIOR AND SENIOR COLLEGE FRESHMAN MEN Fall, 1956

Colleges			Lev	els			Blank*	Total
	-1	2	3	4	5	6		
Junior								
A B C D E F G H I J K L M	.0 .0 1.0 .0 1.1 .0 .0 1.7 .0 .0	$\begin{array}{c} 3.8\\ 2.1\\ 7.5\\ 11.9\\ 7.9\\ 1.5\\ 4.0\\ 7.5\\ 4.5\\ 5.3\\ 4.3\end{array}$	19.7 34.0 20.9 28.7 25.9 33.1 22.1 17.3 26.6 21.1 24.0 32.8 28.0	45.4 49.2 38.1 43.4 50.6 51.6 51.6 51.6 51.6 53.8 54.8 54.8 54.8 54.8 54.8 54.8 54.8 54.8 54.8 54.8 54.8 54.8 54.8 54.8 54.8 54.8 54.8 54.8 54.8 55.8 54.8 5	23.5 8.5 16.4 15.3 13.7 17.6 14.1 18.1 12.1 15.6 16.2 9.7 9.6	.0 .7 .0 1.0 1.4 1.5 .0 .7 .0 1.6 1.7 .0 1.1	7.6 5.0 3.5 5.9 7.9 3.3 7.3 5.5 3.2 3.2	100.0
Total	•4	5•4	25.7	48.2	14.8	.8	4.7	100.0
Senior								
SA SB SC SD	2.7 .6 1.4 7.1	9.6 6.2 11.8 21.0	35.6 38.6 37.7 42.9	41.1 37.2 38.6 24.5	8.2 11.8 6.6 3.0	.0 .3 1.0 .3	2.8 5.3 2.9 1.2	100.0
Total	2.7	12.6	39.2	34.7	7.2	•5	3.1	100.0

*This column indicates the percentage of freshman men who failed to answer the question regarding the father's occupation.

DISTRIBUTION ACCORDING TO LEVEL OF THE OCCUPATION OF THE FATHERS OF JUNIOR AND SENIOR COLLEGE FRESHMAN WOMEN Fall, 1956

Colleges			Leve	els			Blank*	Total
	1	2	3	4	5	6		
Junior								. ,
A B C D E F G H I J K L M	1000000000100	4501146425620	24 36 29 19 16 49 16 14 11 25 22	34 526 3196 586 313 277 25	17 8 7 11 56 20 6 6 1 4 10	1100001000100	0 3 3 0 2 1 6 0 1 1 2 0 0	81 104 41 80 52 62 147 98 59 36 63 33 57
Total	2	50	276	444	118	4	19	913
Senior								
SA SB SC SD	0 3 0 12	3 31 36	36 138 12 99	30 96 11 26	6 17 0 2	0 0 0	2 9 2 0	77 294 28 195
Total	15	93	285	163	25	0	13	594

*This column indicates the number of freshman women who failed to answer the question regarding the father's occupation.

PERCENTAGE DISTRIBUTION ACCORDING TO LEVEL OF THE OCCUPATION OF THE FATHERS OF JUNIOR AND SENIOR COLLEGE FRESHMAN WOMEN Fall, 1956

Colleges	-1	2	Lev 3	rels 4	5		Blank*	Total
Junior								
A B C D E F G H I J K L M	1.2 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0	5.0 4.8 0 13.8 1.9 6.4 4.1 4.1 3.4 13.9 9.5 6.1 .0	29.6 34.7 12.2 36.2 36.5 33.3 16.3 23.7 30.5 39.7 30.3 38.6	42.0 49.1 63.4 36.5 58.9 59.0 36.9 51.0 36.1 51.5 43.9	21.0 7.7 17.1 8.8 21.2 8.1 10.9 20.4 10.2 16.7 1.6 12.1 17.5	1.2 1.0 .0 .0 .0 .0 .0 .0 .0 1.6 .0	.0 2.7 7.3 3.9 1.6 4.1 1.7 2.8 3.1 .0 .0	100.0
Total	.2	5.5	30.2	48.6	12.9	•5	2.1	100.0
Senior								
SA SB SC SD	.0 1.0 .0 6.2	3.9 10.6 10.7 28.7	46.7 46.9 42.9 50.8	39.0 32.6 39.3 13.3	7.8 5.8 .0 1.0	•0 •0 •0	2.6 3.1 7.1 .0	
Total	2.5	15.7	48.0	27.4	4.2	.0	2.2	100.0

*This column indicates the percentage of freshman women who failed to answer the question regarding the father's occupation. groups are found in Tables 7 and 8. The chi square test of independence was applied to determine the significance of the observed differences between the totals for men and women in both the junior and the senior colleges. This test applied to the data for men and women in junior colleges yielded a chi square value of 6.03 which, with 3 degrees of freedom, is not significant at the .05 level.

TABLE 7

DISTRIBUTION ACCORDING TO LEVEL OF THE OCCUPATION OF THE FATHERS OF JUNIOR AND SENIOR COLLEGE FRESHMEN Fall, 1956

Level	Juni	ior Colle	ege	Seni	Senior College			
	Men	Women	Total	Men	Women	Total		
1 2 3 4 5 6 Blank*	7 95 457 855 263 14 84	2 50 276 444 118 4 19	9 145 733 1,299 381 18 103	35 161 502 444 92 7 40	15 93 285 163 25 0 13	50 254 787 607 117 7 53		
Total	1,775	913	2,688	1,281	594	1,875		

*This line indicates the number of students who failed to answer the question regarding the father's occupation. For men and women in senior colleges, the obtained chi square value of 23.5 is significant beyond the .Ol level. The extent and direction of the differences may be seen by a comparison of the percentages of parental occupations found in the three upper Levels. These percentages are as follows: for men in junior colleges, 31.5; for women in junior colleges, 35.9; for men in senior colleges, 54.5; and for women in senior colleges, 66.2. It is evident that more fathers of women students tend to engage in occupations classified in the three upper Levels than do the fathers of men students. It is also evident that the paternal group best represented at the three upper Levels are the fathers of women students entering senior colleges.

TABLE 8

PERCENTAGE DISTRIBUTION ACCORDING TO LEVEL OF THE OCCUPATION OF THE FATHERS OF JUNIOR AND SENIOR COLLEGE FRESHMEN Fall, 1956

Level	Jun: Men	ior Colle Women	ege Total	Seni Men	Vomen	ege Total
1 2 3 4 5 6 Blank*	.4 5.4 25.7 48.2 14.8 .8 4.7	.2 5.5 30.2 48.6 12.9 .5 2.1	•3 5•4 27•3 48•4 14•2 •6 3•8	2.7 12.6 39.2 34.7 7.2 .5 3.1	2.5 15.7 48.0 27.4 4.2 .0 2.2	2.7 13.5 42.0 32.4 6.2 .4 2.8
Total	100.0	100.0	100.0	100.0	100.0	100.0

*This line indicates the percentage of students who failed to answer the question regarding the father's occupation.

Table 9, page 78, contains a summary of the chi square values obtained by applying the chi square test of independence to the data found in Tables 1 and 7, pages 66 and 76. Comparisons with other studies may be quite misleading because of differences in methods of classification, differences in the occupational structure of the communities in which the junior colleges are located, and differences in the types of junior colleges comprising the samples

TABLE 9

CHI SQUARE VALUES OBTAINED BY APPLICATION OF THE CHI SQUARE TEST OF INDEPENDENCE TO DISTRIBUTIONS OF PATERNAL OCCUPATIONS Fall, 1956

Relationships	df	X ² values
Among junior colleges	36	104.46*
Among senior colleges	9	191.25*
Between junior and senior colleges	3	324 .70*
Between men and women in junior colleges	3	6.03**
Between men and women in senior colleges	3	23.51*
Between men in junior and senior colleges	3	180.25*
Between women in junior and senior colleges	3	154.37*

*Significant beyond .Ol level. **Not significant at .O5 level.

investigated. Of particular interest and pertinence to this study are the results of the study made by Todd⁵ in Mississippi in 1940-1941 (See Chapter II). Todd studied

⁵Lindsey O. Todd, "Meeting the Needs of Junior College Students" (unpublished Doctor's dissertation, George Peabody College for Teachers, 1943), pp. 85-93.

the paternal occupation of students enrolled in the eleven public county-district type junior colleges which were in Mississippi at that time. He classified the occupations of the fathers of these students into seventeen categories according to Counts' system of classification. The differences between Counts' system and Roe's system used in this study tend to prohibit comparison. However, inspection of the findings of the two studies suggest certain conclusions. It would appear, if we consider Levels 1 and 2 roughly equivalent to the Proprietor, Professional Services, and Managerial classifications, that a greater per cent of junior college students came from families where the father followed an occupation classified in one of these categories in 1940-1941 than in 1956. A comparison of the findings of the two studies can be made from Table 10, page 80.

With few exceptions, farmers were classified in this study at either Level 3 or Level 4. With that in mind, the data also suggest that the semi-skilled and unskilled occupational groups were better represented in Mississippi junior colleges in 1956 than in 1940-1941. Todd's conclusion, from a comparison of his data with those obtained by Walker in 1934, that the junior college population in 1940-1941 was less selected on the basis of the father's occupation than it was in 1934 was referred to in Chapter II. From the comparison of the data obtained by this investigation with those reported by Walker and Todd, the inference that Mississippi public junior colleges are drawing their students from an increasingly broadening occupational base appears justified.

TABLE 10

DISTRIBUTION OF THE OCCUPATIONS OF THE FATHERS OF JUNIOR COLLEGE STUDENTS IN TODD'S STUDY AND IN THIS STUDY Fall, 1956

Todd Study*		This Study				
Classification	Number in Per Cent	Classification	Number in Per Cent			
Proprietor	9.0	Level l	•3			
Professional Services Managerial Services	6.0 8.0	Level 2	5.6			
Commercial Services Clerical Services	2.0	Level 3	28.4			
Artisan-Proprietor Building Trades	2.0	Level 4	50.3			
Machine Trades Printing Trades	2.0	Level 5	14.7			
Miscellaneous Trades Transportation	1.0 4.0	Level 6	•7			
Public Services Personal Service	6.0 1.0					
Lumbering and Fishing	1.0					
Other or Unknown	ĩ.0					

*Lindsey O. Todd, "Meeting the Needs of Junior College Students" (unpublished Doctor's dissertation, George Peabody College for Teachers, 1943), p. 88.

Economic Status

That economic status of the family is closely related to the occupation engaged in by the father has been well established. This section presents an analysis of the data relating to the family income of students attending junior and senior colleges in Mississippi. The analysis follows the pattern established earlier in this chapter.

The data necessary for determining the economic status of the families of students attending these colleges were obtained from responses to a check list provided on the questionnaire. A reproduction of the check list submitted to the students is given below:

Approximate family income (Income from all sources) Check appropriate space	1. 2. 3. 4. 5. 6.	<pre>\$ 1,000 - \$ 1,999 2,000 - 3,999 4,000 - 5,999 6,000 - 9,999 10,000 - 14,999 15,000 or above</pre>
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The consistency of the returns and the correspondence of checked income with what one would expect when income is related to the occupation of the father support the general validity of the returns.

Reported income is tabulated by category for each junior college and each senior college in Table 11, page 82. Table 12, page 83, presents these data as percentages of the total number of students in each school. The number not reporting is indicated in Table 11. Many who failed to report family income indicated that their failure to do so was a result of ignorance. A graphic representation of the data totaled for each group is supplied by Figure II, page 84.

DISTRIBUTION OF FAMILY INCOME REPORTED BY JUNIOR AND SENIOR COLLEGE FRESHMEN Fall, 1956

Colleges	Income Categories						Blank*	Total
	Ι	2	3	4	5	6		
Junior								
A B C D E F G H I J K L M	27 42 29 25 14 17 42 28 16 10 17	78 83 31 93 93 102 82 61 53 74 50 44 50	66 65 372 53 81 82 52 862 51	20 19 37 19 31 28 27 18 22 46 15	5017556251142	2216220244625	15 34 1 34 7 62 16 9 14 17 8 4	213 245 108 282 191 198 324 242 183 164 242 146 150
Total	30 7	921	840	304	54	38	224	2,688
Senior								
SA SB SC SD	2 27 22 8	43 148 100 58	34 207 192 115	31 138 123 161	11 35 25 66	3 22 15 77	26 72 66 48	150 649 543 533
Total	59	349	548	453	137	117	212	1,875

*This column indicates the number of students who failed to answer the question regarding the family income.

TABLE	12
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Colleges	-1	<u>In</u> 2	<u>icome</u> 3	Lategor 4	ries 5	6	Blank*	Total
Junior								
A B C D E F G H I J K L M	12.6 17.1 26.9 8.9 7.3 8.6 13.0 13.2 15.3 11.0 2.5 6.9 11.4	36.6 33.9 28.7 28.7 43.9 31.5 33.9 33.3 32.3 28.9 30.1 37.3	31.0 26.5 34.3 32.6 26.7 26.8 25.9 33.6 31.7 36.4 34.0	9.4 7.8 7.4 13.1 9.9 15.7 8.6 11.1 9.9 13.4 18.2 11.0 10.0	2.4 0.9 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5	.9 .9 2.1 1.0 0.8 2.5 2.5 1.4 3.3	7.1 13.9 .9 12.1 3.7 1.5 19.1 6.6 4.9 8.5 7.0 5.5 2.7	100.0
Total	11.4	34•3	31.3	11.3	2.0	1.4	8.3	100.0
Senior								
SA SB SC SD	1.3 4.2 4.0 1.5	28.7 22.8 18.4 10.9	22.7 31.9 35.4 21.6	20.7 21.2 22.6 30.2	7.3 5.4 4.6 12.4	2.0 3.4 2.8 14.4	17.3 11.1 12.2 9.0	
Total	3.2	18.6	29.2	24.2	7.3	6.2	11.3	100.0

PERCENTAGE DISTRIBUTION OF FAMILY INCOME REPORTED BY JUNIOR AND SENIOR COLLEGE FRESHMEN Fall, 1956

*This column indicates the percentage of students who failed to answer the question regarding the family income.



Figure II. Frequency Polygon of Distribution of Income Reported by Junior and Senior College Students.

It is evident from inspection of Table 12, page 83, that there are intragroup differences in the distribution of family income as well as differences between the two groups. This variability is most pronounced at the two extremes of the distributions. There is, however, one common difference to be observed between all junior colleges and all senior colleges. Compared with the junior colleges,

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each senior college has a larger per cent of its students represented in the upper half of the income distribution than has any junior college.

Significance of the observed differences was determined by using the chi square test of independence. The same general procedure used here was followed in succeeding applications of this test. The two income categories at each end were combined and contingency tables set up for each set of data being analyzed. The chi square value computed from the contingency table constructed for junior colleges was 81.97. This value with 36 degrees of freedom is significant beyond the .01 level. For the senior colleges, the chi square value is 162.1. This value with 9 degrees of freedom is also significant beyond the .01 level. Analysis of the differences between the junior and senior colleges by application of the chi square test of independence yielded a chi square value of 487.13. This value with 3 degrees of freedom is very significant beyond the .01 level. These chi square values substantiate the observation that significant differences exist among the junior and senior colleges as well as between the two groups.

The extent and nature of these differences are emphasized by observing the results of grouping income categories 1 and 2, 3 and 4, and 5 and 6.

\$1 000 to \$3 000	Junior colleges 45.7 per cer	nt
Ψ1,000 00 Ψ),999	Senior colleges 21.8 per cer	nt
\$1,000 to \$9,999	Junior colleges 42.6 per cer	ıt
¥+,000 00 ¥/,///	Senior colleges 53.4 per cer	nt
\$10.000 and above	Junior colleges 3.4 per cer	ıt
*	Senior colleges 13.5 per cer	nt
Not reporting	Junior colleges 8.3 per cer	ıt
	Senior colleges 11.3 per cer	ıt

Grouping the three lower categories and the three upper categories to form two new categories permits other comparisons. This grouping shows that 77 per cent of the families of junior college students have incomes below \$6,000 as compared with 51 per cent of the families of senior college students. In the income range of \$6,000 and above, the respective percentages are 14.7 and 37.7.

It is interesting to observe how the distribution of income as reported by the junior and senior college students compares with the distribution of income in the total white population of Mississippi.⁶ These data are given in Table 13, page 87.

⁶United States Department of Commerce, Bureau of Census, <u>General Characteristics: Mississippi, 1950, United States</u> <u>Census of Population</u> (Washington: United States Government Printing Office, 1952), p. 88.

Table 13 provides substantial evidence for the claim that economic status of families is an important factor in predicting college attendance of offspring. Although only 14.5 per cent of the white families in Mississippi reported an income of over \$4,000 in 1950, 46 per cent of junior

TABLE 13

DISTRIBUTION OF INCOME IN THE TOTAL WHITE POPULATION OF MISSISSIPPI AND DISTRIBUTION OF INCOME OF FAMILIES OF JUNIOR AND SENIOR COLLEGE STUDENTS IN MISSISSIPPI Fall, 1956

Income	White	Junior	Senio r
	<u>Population*</u>	<u>College</u>	<u>College</u>
	Per Cent	Per Cent	Per Cent
\$ 000-\$ 999 1,000- 1,999 2,000- 3,999 4,000- 5,999 6,000- 9,999 10,000- above	37.7 23.4 27.3 9.3 3.7 1.5	11.4 34.3 31.3 11.3 3.4	3.2 18.6 29.2 24.2 13.5

*United States Department of Commerce, Bureau of Census, General Characteristics: Mississippi, 1950, United States Census of Population (Washington: United States Government Printing Office, 1952), p. 88.

college students and 66.9 per cent of senior college students come from this income group. This is even more impressive if the assumption that other white junior and senior colleges in the state draw most of their students from the same income group is justified. At the lower end of the income scale, 61.1 per cent of the white families of Mississippi provide 11.4 per cent of the freshmen entering junior college, and only 3.2 per cent of the freshmen entering senior college. These statements and comparisons are valid only for those junior and senior colleges included in this study.

Data regarding the distribution of family income by sex in the junior and senior colleges are given in Tables 14, 15, 16 and 17, pages 89 through 92. These data, totaled by sex for each group, are summarized in Tables 18 and 19, page 93. Examination of these tables reveals differences between the sexes in both the junior and senior colleges. Application of the chi square test of independence to determine the significance of the differences between men and women in the junior colleges yielded a chi square of 13.40. This value with 3 degrees of freedom is significant at the .Ol level. A similar test of the differences between men and women in senior colleges yielded a chi square value of 10.79 which is significant at the .05 level. Chi square values similarly obtained for men in junior and senior colleges and for women in junior and senior colleges were 235.63 and 221.55. Both of these values are significant beyond the .01 level. These chi square values are reported in Table 20, page 94.
DISTRIBUTION OF FAMILY INCOME REPORTED BY JUNIOR AND SENIOR COLLEGE FRESHMAN MEN Fall, 1956

Colleges		Inc	ome Ca	tegori	es		Blank*	Total
	1	2	3	4	5	6		
Junior								
A B C D E F G H I J K L M	21 18 12 14 9 10 20 16 19 14 6 9 9	5476 5673 5534260 3425334	37 40 71 37 40 452 42 66 8 33	9 15 26 14 19 12 15 18 26 12 9	2014445150842	2215210234624	7 19 0 24 6 1 30 8 7 8 11 8 2	132 141 67 202 139 136 177 144 124 128 179 113 93
Total	177	613	581	19 9	40	34	131	1,775
<u>Senior</u>								
SA SB SC SD	1 24 22 7	21 91 95 44	18 109 186 76	16 71 114 112	4 23 22 37	2 11 15 46	11 26 61 16	73 355 515 338
Total	54	251	389	313	86	74	114	1,281

*This column indicates the number of freshman men who failed to answer the question regarding the family income.

PERCENTAGE	DISTRIBUT	ION OF	FAMIL	Y INCOME
REPORTED	BY JUNIOR	AND SE	ENIOR (COLLEGE
	FRESHMA	AN MEN		
	Fal l,	1956		

Colleges		Inc	ome Ca	itegori	.es		Blank*	Total	
	1	2	3	4	5	6	-		
Junior									
A B C D E F G H I J K L M	15.9 12.8 17.9 6.9 6.5 7.4 11.3 11.1 15.3 10.9 3.3 7.9 9.7	40.9 33.9 28.7 46.3 36.8 336.8 327.4 32.8 31.3 31.6 36.6	28.1 28.4 35.2 29.4 32 29.4 33.1 32.8 32.5 35.5	$\begin{array}{c} 6.8\\ 10.6\\ 10.4\\ 12.9\\ 10.1\\ 12.5\\ 10.7\\ 8.3\\ 12.1\\ 14.1\\ 14.5\\ 10.6\\ 9.7 \end{array}$	1.5 .0 1.5 1.9 2.9 3.0 2.8 7 4.0 4.5 3.5 2.1	1.5 1.4 2.5 1.5 1.4 .0 1.4 2.1 3.8 3.8 3 4.3	5.3 13.5 .0 11.9 4.3 .7 17.0 5.6 5.7 6.3 6.2 7.1 2.1	100.0	
Total	10.0	34.5	32.7	11.2	2.3	1.9	7.4	100.0	
Senior									
SA SB SC SD	1.4 6.8 4.3 2.1	28.8 25.6 18.5 13.0	24.7 30.7 36.1 22.5	21.9 20.0 22.1 33.1	5.5 6.5 4.3 11.0	2.7 3.1 2.9 13.6	15.0 7.3 11.8 4.7		
Total	4.2	19.6	30.4	24.4	6.7	5.8	8.9	100.0	

*This column indicates the percentage of freshman men who failed to answer the question regarding the family income.

DISTRIBUTION OF FAMILY I	NCOME REPORTED BY
JUNIOR AND SENIOR COLLEG	E FRESHMAN WOMEN
Fall, 1950	6

Colleges		Inco	me Cat	egorie	s		Blank*	Total
	1	2	3	4	5	6		
Junior								
A B C D E F G H I J K L M	6 24 17 11 5 72 16 9 4 0 18	24 36 23 26 43 27 14 14 22	29 25 7 21 13 40 29 10 22 14 18	$11 \\ 4 \\ 1 \\ 11 \\ 5 \\ 14 \\ 9 \\ 15 \\ 3 \\ 4 \\ 18 \\ 4 \\ 6 \\$	3003111101300	0001010010001	8 15 10 12 32 8 26 6 0 2	81 104 41 80 52 62 147 98 59 36 63 33
Total	130	308	259	105	14	4	93	913
<u>Senior</u>								
SA SB SC SD	1 3 0 1	22 57 5 14	16 98 6 39	15 67 9 49	7 12 3 29	1 11 0 31	15 46 5 32	77 294 28 195
Total	5	98	159	140	51	43	98	594

*This column indicates the number of freshman women who failed to answer the question regarding the family income.

PERCENTAGE DISTRIBUTION OF FAMILY INCOME REPORTED BY JUNIOR AND SENIOR COLLEGE FRESHMAN WOMEN Fall, 1956

Colleges		Inc	ome Ca	tegori	.es		Blank*	Total
	1	2	3	4	5	6		
Junior								
A B C D E F G H I J K L M	7.4 23.1 41.5 13.8 9.7 11.3 14.9 16.3 15.2 11.1 .0 3.1 14.0	29.6 34.6 36.8 50.7 29.6 39.6 329.6 329.6 322.4 32.4 38.6	35.8 24.0 17.1 26.2 26.9 21.0 27.2 29.6 28.8 27.8 34.9 42.4 31.6	13.6 3.9 2.4 13.7 9.6 22.6 6.1 15.3 5.1 11.1 28.6 12.1 10.5	3.7 .0 3.7 1.9 1.6 .7 1.0 2.8 4.8 .0 .0	.0 .0 1.3 .0 1.6 .0 1.7 .0 .0 1.8	9.9 14.4 2.4 12.5 1.9 3.2 21.8 8.2 3.4 16.7 9.5 .0 3.5	100.0
Total	14.2	33.7	28.4	11.5	1.5	•5	10.2	100.0
<u>Senior</u>								
SA SB SC SD	1.3 1.0 .0 .5	28.5 19.4 17.9 7.2	20.8 33.3 21.4 20.0	19.5 22.8 32.1 25.1	9.1 4.1 10.7 14.9	1.3 3.7 .0 15.9	19.5 15.7 17.9 16.4	
Total	.8	16.5	26.8	23.6	8.6	7.2	16.5	100.0
*This col	umn in	dicate	s the	percen	tage o	f fres	hman wom	en who

failed to answer the question regarding the family income.

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Income	Jun	ior Coll	ege	Sent	ior Colle	ege
Categories	Men	Women	Total	Men	Women	Total
1 2 3 4 5 6 Blank*	177 613 581 199 40 34 131	130 308 259 105 14 4 93	307 921 840 304 54 38 224	54 251 389 313 86 74 114	5 98 159 140 51 43 98	59 349 548 453 137 117 212
Total	1,775	913	2,688	1,281	594	1,875

DISTRIBUTION OF FAMILY INCOME REPORTED BY JUNIOR AND SENIOR COLLEGE FRESHMEN Fall, 1956

*This line indicates the number of students who failed to answer the question regarding the family income.

TABLE 19

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PERCENTAGE DISTRIBUTION OF FAMILY INCOME REPORTED BY JUNIOR AND SENIOR COLLEGE FRESHMEN Fall, 1956

Income	Jun:	ior Colle	ege	Sen:	ior Colle	ege
Categories	Men	Women	Total	Men	Women	Total
1	10.0	14.3	11.4	4.2	38	3.2
2	34.5	33.7	34.3	19.6	16.5	18.6
3	32.7	28.4	31.2	30.4	26.8	29.2
4	11.2	11.5	11.3	24.4	23.6	24.2
5	2.3	1.5	2.0	6.7	8.6	7.3
6	1.9	.4	1.4	5.8	7.2	6.2
Blank*	7.4	10.2	8.4	8.9	16.5	11.3
Total	100.0	100.0	100.0	100.0	100.0	100.0

*This line indicates the percentage of students who failed to answer the question regarding the family income. Further examination of Table 19, page 93, indicates the direction and extent of the differences found. In the junior colleges, 77.2 per cent of the men and 76.4 per cent of the women come from families with incomes below \$6,000.

TABLE 20

CHI SQUARE VALUES OBTAINED BY APPLICATION OF THE CHI SQUARE TEST OF INDEPENDENCE TO DISTRIBUTIONS OF FAMILY INCOME Fall, 1956

Relationships	df	X ² values
Among junior colleges	36	81.97*
Among senior colleges	9	162.11*
Between junior and senior colleges	3	487.13*
Between men and women in junior colleges	3	13.40*
Between men and women in senior colleges	3	10.78**
Between men in junior and senior colleges	3	235.63*
Between women in junior and senior colleges	3	221.55*

*Significant beyond .Ol level. **Significant beyond .O5 level.

In the senior colleges, 54.2 per cent of the men and 44.1 per cent of the women come from families in this income group. These data show that of the students comprising the sample investigated for this study the women students attending senior colleges have the highest family income. This is emphasized by comparisons based on percentage of representation in the two upper categories. For these two categories the respective percentages are: men in junior colleges, 4.2; women in junior colleges, 1.9; men in senior colleges, 12.5; and women in senior colleges, 15.8.

Summary

The data suggest and appear to substantiate the following summary statements:

1. Junior college freshmen and senior college freshmen are found at each occupational Level and in each income category.

2. Significant differences exist among both the junior colleges and among the senior colleges.

3. Evidence for the significance of differences between the sexes in socio-economic status in the junior and senior colleges was somewhat conflicting.

4. Significant differences in socio-economic status were found to exist between men in junior colleges and men in senior colleges. This was true also for women in these two groups.

5. Significant differences in socio-economic status do exist between freshmen who enter junior colleges and freshmen who enter senior colleges.

6. The direction of the differences in social status 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.

7. Differences in the economic status of freshmen in the two groups is pronounced. In the two lower income categories which represent incomes below \$4,000, the respective percentages for junior and senior colleges are 45.7 and 21.8. Representation of the two groups is reversed in the two upper income categories. Here the respective percentages for junior and senior colleges are 3.4 and 13.5.

CHAPTER V

ANALYSIS OF DATA: ACADEMIC APTITUDE

Reference was made to the claims that freshmen who enter junior colleges tend to possess less academic ability than do freshmen who enter senior colleges. With reference to these claims, one of the objectives of this investigation was to determine what differences, if any, in academic aptitude exist between freshmen who enter the public junior colleges and the state-supported senior colleges of Mississippi. The comparative analysis that follows is based on test data provided by the schools which participated in this study.

The techniques used to collect the data and the methods proposed for making the analysis were described in Chapter III. Since all of the schools did not use the same test, it was necessary to group the schools on the basis of the test used. One group is composed of the seven junior colleges and the three senior colleges which administered some form of the ACE. The other group includes the three junior colleges and the one senior college which reported scores on a form of the Otis tests.

The general procedure involved making frequency distributions of the test scores for each of the schools by sex and by totals and then computing the mean, median, Q_1 , Q_3 , and standard deviation for each of these distributions. Data were then combined and frequency distributions were made for the junior and the senior colleges in each group by sex and by totals. The significance of the differences between the means computed for these distributions was determined by the use of the z statistic. This statistic was considered appropriate because the populations have a normal distribution and the number included in each sample is well over 100. Differences were not considered significant for the purposes of this investigation unless z was significant beyond the .Ol level.

Table 21, page 99, gives the distribution of test scores on the ACE for the seven junior colleges and the three senior colleges. By inspection it is readily seen that the senior college scores extend one interval higher than do the junior college scores while the junior college scores extend two intervals below the senior college scores. More important, however, is the considerable overlapping that may be observed. The standard deviations are approximately equal, but marked differences are observable between both the means and the medians computed for the two distributions. The differences between 103.9, the mean for

SCORES MADE	BY COLLEGE	FRESHMEN	ON THE	ACE	PSYCHOLOGICAL
	EXAMINATIO	N FOR COLL	EGE FRE	SHME	N
		Fall, 195	56		

		tencres	Per Cent of Total		
	*S Colleges	**J Colleges	S Colleges	J Colleges	
170-179 160-169 150-159 140-149 130-139 120-129 110-119 100-109 90-99 80-89 70-79 60-69 50-59 40-49 30-39 20-29 10-19	3 12 38 54 103 190 237 227 222 181 123 67 45 15 8	3 2 10 33 70 125 158 208 235 205 167 119 51 47 11 3	.20 .80 2.49 3.54 6.76 12.46 15.54 14.88 14.55 11.87 8.06 4.39 2.95 .98 .53	$\begin{array}{r} .20\\ .14\\ .70\\ 2.35\\ 4.84\\ 8.65\\ 10.92\\ 14.37\\ 16.24\\ 14.17\\ 11.54\\ 8.22\\ 3.52\\ 3.24\\ .70\\ .20\end{array}$	
N	1,525	1,447	100.00	100.00	
Median	103.53	84.62			
Ql	86.31	66.80			
Q3	120.49	101.98			
Mean	103.90	85.14			
S.D.	24.93	24.98			

*Includes three senior colleges. **Includes seven junior colleges.

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the senior colleges, and 85.14, the mean for the junior colleges is equivalent to a difference between the 49th percentile and the 26th percentile based on All College Norms published for the 1952 edition of the ACE.¹ Expressed in another way, approximately one-half of the junior college freshmen made scores that fall below the 25th percentile of the senior college freshmen. Computation of z to test the hypothesis that the means of the two populations from which these samples were drawn are equal resulted in a value of 20.48. Since this value for z is significant far beyond the .01 level, the hypothesis that the two population means are equal is rejected, and the conclusion that real differences between the two populations do exist is accepted. Graphic representation of these two distributions is found in Figure III, page 101.

A breakdown of the test score data by sex is presented in Tables 22 and 23, pages 102 and 103. When these tables are examined for differences between the distributions of scores for men and women in both the junior and the senior colleges, only minor differences are observed. That these differences are not significant is indicated by a z value

¹<u>Norms</u> <u>Bulletin</u>, American Council on Education Psychological Examination for College Freshmen (Los Angeles: Cooperative Test Division, Educational Testing Service, 1953), pp. 16-20.



TABLE 22

SCORES MADE BY COLLEGE FRESHMAN MEN ON THE ACE PSYCHOLOGICAL EXAMINATION FOR COLLEGE FRESHMEN Fall, 1956

Scores	Frequ S Colleges	lencies J Colleges	Per Cent S Colleges	of Total J Colleges
170-179 $160-169$ $150-159$ $140-149$ $130-139$ $120-129$ $110-119$ $100-109$ $90-99$ $80-89$ $70-79$ $60-69$ $50-59$ $40-49$ $30-39$ $20-29$ $10-19$	3 12 34 47 84 152 198 178 184 143 96 54 38 15 8	2 1 4 20 46 89 100 135 159 124 111 82 40 25 8 3	$\begin{array}{r} .24 \\ .96 \\ 2.73 \\ 3.77 \\ 6.74 \\ 12.20 \\ 15.89 \\ 14.29 \\ 14.29 \\ 14.77 \\ 11.48 \\ 7.70 \\ 4.33 \\ 3.05 \\ 1.21 \\ .64 \end{array}$.21 .11 .42 2.11 4.85 9.38 10.54 14.22 16.75 13.07 11.70 8.64 4.21 2.63 .84 .32
N	1,246	949		
Median	104.28	84.63		
Ql	86.50	66.64		
Q ₃	120.84	101.98		
Mean	104.16	84.26		
S.D.	25.48	24.93		

TABLE 23

SCORES MADE BY COLLEGE FRESHMAN WOMEN ON THE ACE PSYCHOLOGICAL EXAMINATION FOR COLLEGE FRESHMEN Fall, 1956

Scores	Frequ	encies	Per Cent	of Total
	S Colleges	J Colleges	S Colleges	J Colleges
170-179 160-169 150-159 140-149 130-139 120-129 110-119 100-109 90-99 80-89 70-79 60-69 50-59 40-49 30-39 20-29 10-19	4 7 19 38 39 49 38 38 27 13 7	1 6 13 24 36 58 73 76 81 56 37 11 22 3	1.43 2.51 6.81 13.62 13.98 17.56 13.62 13.62 13.62 9.68 4.66 2.51	$\begin{array}{r} .20\\ .20\\ 1.21\\ 2.61\\ 4.82\\ 7.23\\ 11.65\\ 14.66\\ 15.26\\ 16.26\\ 11.24\\ 7.43\\ 2.21\\ 4.42\\ .60\end{array}$
N	279	498		
Medi an	102.86	84.63		
Q ₁	85.48	68.69		
Q3	119.05	102.00		
Mean	102.78	85.66		
S.D.	22.21	25.09		

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of .82 for men and women in the junior colleges and .91 for men and women in the senior colleges. Since neither of these two values are significant at the .05 level, it can be assumed that the means of the two populations are equal. Differences between men in the junior and senior colleges and between women in the junior and senior colleges, however, are quite pronounced. The respective z values of 18.36 and 5.51 are both significant beyond the .01 level. The z values resulting from testing the hypothesis of no difference between the means of the various distributions are listed in Table 24.

TABLE 24

RESULTS OF THE USE OF THE Z STATISTIC TO TEST THE HYPOTHESIS OF NO DIFFERENCE BETWEEN POPULATION MEANS FOR DISTRIBUTIONS OF SCORES ON THE ACE Fall, 1956

Samples	Differenc e Between Means	z Value
Junior and senior college freshmen	18.76	20.48*
Junior and senior college freshman men	19.90	18.36*
Junior and senior college freshman women	5.26	5.51*
Junior college men and women	1.40	•82 * *
Senior college men and women	1.38	•91**
*Simificant havand OI laval		

*Significant beyond .01 level. **Not significant at .05 level. The evidence just examined points conclusively to the existence of extensive differences in academic aptitude between freshmen entering the public junior colleges and the state-supported senior colleges of Mississippi. The question of differences or variability should, however, be extended to include an examination of the variability within the two groups. Table 25 reports the means and standard deviations for each of the schools included in the

TABLE 25

MEANS AND STANDARD DEVIATIONS COMPUTED FOR DISTRIBUTIONS OF SCORES ON THE ACE MADE BY FRESHMEN IN SEVEN JUNIOR COLLEGES AND THREE SENIOR COLLEGES Fall, 1956

Colleges	Mean	S.D.	• : ;
Junior B D E F I K M	83.92 90.51 88.16 87.16 81.41 79.07 83.74	25.18 25.26 21.36 21.46 24.49 28.13 23.95	
<u>Senior</u> SA SC SD	93.07 104.33 106.01	22.07 26.26 23.00	

above analysis. It should be remembered in examining this table that some minor distortion of original scores may

have occurred in the process of converting test scores on different forms of the ACE to a common base. Caution, therefore, should be used in pointing up slight differences among the means of the various schools. Since examination of Table 25, page 105, reveals differences among the means of the various junior colleges, a test of the hypothesis of no difference between the means was made for the school having the highest and the school having the lowest mean values. This test yielded a z value of 4.84 which is significant at the .01 level. A similar procedure for the senior colleges gave a z value of 6.14 which is also significant at the .01 level. Although both the junior colleges and the senior colleges show significant within-group differences, the distribution of no junior college has a mean as large as the mean of any senior college.

Analysis of the distribution of test scores on the Otis tests secured from three junior colleges and one senior college results in similar findings. Frequency distributions of these scores are found in Table 26, page 107. Tables 27 and 28, pages 108 and 109, give the frequency distributions of the scores tabulated by sex. In these tables, as in the tables showing the distribution of scores on the ACE, the extent of overlapping of the two distributions appears to be a more important characteristic than the differences observed in the ranges of the two. There are, however, marked differences between the means computed

SCORES MADE BY COLLEGE FRESHMEN ON THE OTIS TESTS OF MENTAL ABILITY Fall, 1956

Scores	Frequ	encies	Per Cent	of Total
	*S Colleges	**J Colleges	S Colleges	J Colleges
75-79 70-74 65-69 60-64 55-59 50-54 45-49 40-44 35-39 30-34 25-29 20-24 15-19 10-14 5-9	3 12 35 55 96 124 130 108 72 62 23 9 4	5 11 29 67 90 105 101 111 82 75 20 13 3 1	.40 1.64 4.77 7.50 13.10 16.92 17.75 14.74 9.82 8.46 3.14 1.22 .54	.70 1.54 4.06 9.40 12.62 14.73 14.16 15.57 11.50 10.52 2.81 1.83 .42 .14
N	733	713	100.00	100.00
Median	47.90	42.05		
Ql	40.11	33•53		
Q3	55•43	50.82		
Mean	47.68	42.12		
S.D.	11.15	11.70		

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*Includes one senior college. **Includes three junior colleges.

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TABLE 27

Scores	Frequ S Colleges	encies J Colleges	Per Cent S Colleges	of Total J Colleges
75-79 70-74 65-69 60-64 55-59 50-54 45-49 40-44 35-39 30-34 25-29 20-24 15-19 10-14 5-9	1 3 20 32 52 75 65 42 8 16 4 3	4 10 16 43 64 71 56 70 53 60 14 10 1	.24 .71 4.76 7.62 12.38 17.86 16.43 15.48 10.00 9.05 3.81 .95 .71	.85 2.12 3.38 9.09 13.53 15.01 11.84 14.80 11.20 12.68 2.96 2.12 .21 .21
N	420	473		
Median	47.54	41.95		
Ql	39.65 .	32.54		
Q ₃	54.79	50.96		
Mean	47.54	41.90		
S.D.	10.93	12.40		

SCORES MADE BY COLLEGE FRESHMAN MEN ON THE OTIS TESTS OF MENTAL ABILITY Fall, 1956

TABLE 28

SCORES MADE BY COLLEGE FRESHMAN WOMEN ON THE OTIS TESTS OF MENTAL ABILITY Fall, 1956

Scores	Freque S Colleges	encies J Colleges	Per Cent c S Colleges	of Total J Colleges
75-79 70-74 65-69 60-64 55-59 50-54	2 9 15 23 44 49	1 1 13 24 26	.64 2.88 4.79 7.35 14.06 15.65	.42 .42 5.42 10.00 10.83
45-49 40-44 35-39 30-34 25-29 20-24 15-19 10-14 5-9	61 43 30 24 7 5 1	34 45 41 29 15 6 3 2	19.49 13.74 9.58 7.67 2.23 1.60 .32	14.17 18.75 17.08 12.08 6.25 2.50 1.25 .83
N	313	240		
Median	48.13	42.16		
Ql	40.81	35.11		
Q3	56.18	50.50		
Mean	47.78	42.52		
S.D.	11.32	10.97		

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for the junior college distributions and the means computed for the senior college distributions. Figure IV, page 111, gives a graphic representation of the data reported in Table 26, page 107.

Significance of the observed differences between junior and senior colleges may be ascertained by inspection of the z values listed in Table 29. These values indicate

TABLE 29

RESULTS OF THE USE OF THE Z STATISTIC TO TEST THE HYPOTHESIS OF NO DIFFERENCE BETWEEN POPULATIONS MEANS FOR DISTRIBUTIONS OF TEST SCORES ON THE OTIS TEST Fall, 1956

Difference	::
Between Means	z Value
5.56	9.24*
5.64	7.23*
5.26	5.51*
.62	•83**
•28	•68**
	Difference Between Means 5.56 5.64 5.26 .62 .28

*Significant beyond .01 level. **Not significant at .05 level.

that significant differences in academic aptitude do exist between freshmen entering these three junior colleges and the one senior college, but that differences between the sexes in both junior and senior colleges are not significant.





Summary

The analysis of the data regarding the academic aptitude of junior and senior college freshmen is summarized in the following statements:

1. Statistically significant differences do exist between freshmen entering the public county-district type junior colleges and the state-supported coeducational senior colleges of Mississippi.

2. Approximately 75 per cent of junior college freshmen fall below the mean for the senior college freshmen.

3. Between 8 per cent (as measured by the ACE) and 15 per cent (as measured by the Otis) of junior college freshmen may be found in the top quarter of senior college freshmen.

4. Differences between men and women within the junior and senior colleges are not significant.

CHAPTER VI

ANALYSIS OF DATA: EDUCATIONAL AND VOCATIONAL PLANS

Educational Plans

This chapter is concerned with an analysis of the data regarding the educational and vocational plans of freshmen entering the public junior colleges and the state-supported coeducational senior colleges of Mississippi. It includes an examination of data related to the attendance records of former junior college entrants, to the place of residence of junior and senior college freshmen while attending college, and to the educational background of the parents of those freshmen. The method of analysis follows the procedures established in earlier chapters.

Educational plans are identified here in terms of the number of years that freshmen plan to continue their education. Since different vocations vary in their requirements for advanced training, a positive relationship would be expected between educational and vocational plans.

The distribution of students for each school according to planned years of college attendance may be seen by numbers in Table 30, page 114, and by percentages in

DISTRIBUTION OF JUNIOR AND SENIOR COLLEGE FRESHMEN ACCORDING TO THE NUMBER OF YEARS THEY PLAN TO ATTEND COLLEGE Fall, 1956

Colleges	<u> </u>	lears 2	of 0 3	ollege 4	Atte 5	endan 6	ice 7	Blank*	Total
Junior			<u></u>						
A B C D E F G H I J K L M	6 22 8 12 3 56 8 13 2 10 34	63 317 63 317 63 317 317 326 32 32 32 32 32	2000217202010	124 165 79 181 132 136 197 166 120 117 168 110 74	8917037844646	4427559768541	6712650243573	0503101222000	213 245 108 282 191 198 324 242 183 164 242 146 150
Total	186	495	17	1,769	67	67	71	16	2,688
Senior SA SB SC SD	23 34 2 5	15 55 9 17	1 11 1 5	93 453 469 359	6 32 37 6	5 23 10 56	7 35 13 84	0 6 2 1	150 649 543 533
Total	64	96	18	1,374	81	94	139	9	1,875

*This column indicates the number of students who failed to answer the question regarding the number of years they plan to attend college.

Table 31, page 116. Marked variability among both the junior colleges and the senior colleges is apparent from an inspection of Table 31. Among the junior colleges this variability is especially pronounced for students planning only one year of college attendance. In junior college L, no student declared an intention of attending college for one year only, while 22.7 per cent of the students entering junior college M made such a claim. However, with the exception of junior colleges G and M, fewer than 10 per cent of the freshmen entering junior colleges expressed the intention of remaining only one year. With the exception of junior college M, more than 65 per cent of the freshmen entering each junior college stated that they planned to attend college four or more years. The range among the junior colleges in the percentage of students planning four or more years of college work is from 56.0 per cent for junior college M to 85.6 per cent for junior college L. The significance of the observed differences is indicated by the chi square value of 188.26, which with 36 degrees of freedom is significant beyond the .01 level.

The senior colleges also exhibit intragroup variability. In senior college SA, 15.3 per cent of the total number of freshmen signified that they planned to terminate their education at the end of one year, whereas only .4 per cent of the number of freshmen in senior college SC indicated similar plans. The range among the senior colleges

PERCENTAGE DISTRIBUTION OF JUNIOR AND SENIOR COLLEGE FRESHMEN ACCORDING TO THE NUMBER OF YEARS THEY PLAN TO ATTEND COLLEGE Fall, 1956

Colleges		Years	of Co	llege	Atten	Idance		Blank*	Total
J	1	2	3	4	5	6	7		
Junior									
A B C D E F G H I J K L M	2.8 9.0 7.4 4.2 6.3 1.5 17.3 7.1 1.2 4.1 22.7	29.6 13.5 15.8 21.3 17.3 22.8 11.4 19.5 18.6 15.9 19.8 13.7 21.3	.9 .0 .0 1.1 .5 2.2 .8 .0 1.2 .7 .0	58.2 67.3 73.1 64.1 69.1 68.7 68.7 68.6 5.5 71.3 69.4 75.3 49.3	3.8 3.7 2.5 1.5 2.3 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5	1.9 1.6 2.6 2.5 2.9 3.4 9 2.7 .7	2.89 4.31 3.15 2.82 2.81 2.81 2.81 2.80 2.81 2.80 2.81 2.80	.0 2.0 1.1 .5 .0 .3 .8 1.1 1.2 .0 .0	100.0
Total	6.9	18.4	•6	65.8	2.5	2.5	2.7	•6	100.0
Senior		~			•				••• ••• •• •
SA SB SC SD	15.3 5.3 .4 1.0	10.0 8.5 1.7 3.2	•7 1•7 •2 1•0	61.9 69.8 86.3 67.2	4.0 4.9 6.8 1.2	3.4 3.5 1.8 10.5	4•7 5•4 2•4 15•7	•0 •9 •4 •2	
Total	3.4	5.1	1.0	73.3	4.3	5.0	7.4	•5	100.0

years they plan to attend college.

for the per cent of freshmen planning four or more years of college work is from 74 per cent for senior college SA to 97.3 per cent for senior college SC. A chi square value of 266.26, significant beyond the .01 level, supports the observation of real differences among the senior colleges.

The data found in Tables 30 and 31, pages 114 and 116. broken down into separate distributions for men and women, appear in Tables 32, 33, 34 and 35, pages 118 through 121. In comparing, by inspection of Table 33, the percentage distributions of men in junior and in senior colleges, the largest differences are seen at the second year of college. Only 1.2 per cent of the men in senior colleges indicated an intention of terminating their college experience at this point as compared with 15.7 per cent of the men in junior colleges. Although the 97.4 per cent of the men in senior college who plan to attend college four or more years is higher than the 82.6 per cent of men with similar intentions found in the junior colleges, it is important to note that approximately five-sixths of junior college men plan to transfer to senior colleges or other institutions of higher learning. A chi square value of 229.7 was obtained when the distributions for men in junior and senior colleges were tested for independence. This value is significant beyond the .01 level. This value and other chi

DISTRIBUTION OF JUNIOR AND SENIOR COLLEGE FRESHMAN MEN ACCORDING TO THE NUMBER OF YEARS THEY PLAN TO ATTEND COLLEGE Fall, 1956

Colleges	<u> </u>	ears 2	of 3	College 4	Att 5	enda 6	ance 7	Blank*	Total
Junior									
A B C D E F G H I J K L M	1012001101203	34 12 7 30 24 17 18 19 314 25	0000203101000	84 108 56 143 108 104 134 109 94 92 125 85 55	6805025624546	3325236768431	4619630242573	0 4 0 3 1 0 1 0 2 1 0 0 0	132 141 67 202 139 136 177 144 124 128 179 113 93
Total	12	279	7	1,297	53	53	62	12	1,775
Senior									•
SA SB SC SD	3 0 1 0	1 8 4 2	1 6 1 1	54 274 451 206	5 18 35 5	2 22 8 49	6 24 13 75	0 3 2 0	73 355 515 3 38
Total	4	15	9	985	63	82	118	5	1,281

*This column indicates the number of freshman men who failed to answer the question regarding the number of years they plan to attend college.

PERCENTAGE DISTRIBUTION OF JUNIOR AND SENIOR COLLEGE FRESHMAN MEN ACCORDING TO THE NUMBER OF YEARS THEY PLAN TO ATTEND COLLEGE Fall, 1956

College	S	Years	of (College	Atte	ndance	•	Blank*	Total
	T	2	3	4	5	6	7		
Junior									
A B C D E F G H I J K L M	.8 .0 1.5 1.0 .0 .6 .7 .0 .8 1.1 .0 3.2	25.7 8.5 10.4 17.3 14.4 17.6 9.6 12.5 12.9 14.8 21.2 12.4 26.9	.0 .0 .0 .0 1.5 .0 1.7 .7 .8 .0 0 .0	63.6 76.6 83.6 70.8 77.7 75.7 75.7 75.7 75.7 75.8 71.9 69.9 75.2 59.1	4.6 5.7 2.5 2.5 2.8 2.2 1.5 2.8 2.6 3.5 5 5 5	2.3 2.0 3.5 1.2 3.4 4.9 2.2 1.1	3.0 4.3 1.5 4.4 2.6 1.2 5.4 3.6 2.6 2.6 3.2 3.2	0 2.8 0 1.5 .7 0 6 0 1.6 .8 0 0 0	100.0
Total	•7	15.7	•4	73.0	3.0	3.0	3.5	•7	100.0
Senior									
SA SB SC SD	4.1 .0 .2 .0	1.4 2.2 .8 .6	1.4 1.7 .2 .3	74.0 77.2 87.6 60.9	6.8 5.1 6.8 1.5	4.1 6.2 1.5 14.5	8.2 6.8 2.5 22.2	•0 •8 •4	
Total	•3	1.2	•7	76 .9	4.9	6.4	9.2	•4	100.0
*This c	olumn	indica	tes	the per	centa	ige of	fresh	nan men	who

failed to answer the question regarding the number of years they plan to attend college.

DISTRIBUTION OF JUNIOR AND SENIOR COLLEGE FRESHMAN WOMEN ACCORDING TO THE NUMBER OF YEARS THEY PLAN TO ATTEND COLLEGE Fall, 1956

Colleges		fears (of Co	llege	Atten	dance	1	Blank*	Total
	1	2	3	4	5	6	7		
Junior									-
A B C D E F G H I J K L M	5 22 7 10 12 35 7 13 1 8 0 31	29 21 10 25 13 21 20 29 18 7 10 6 7	2000014101010	40 57 23 23 23 23 23 57 25 25 25 25 25 25 25 25	2112012220100	1102323000110	21030200 001000	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	81 104 41 80 52 62 147 98 59 36 63 33 57
Total	174	216	10	472	14	14	9	4	913
Senior									
SA SB SC SD	20 34 1 5	14 47 5 15	0 5 0 4	39 179 18 153	1 14 2 1	2 1 2 7	1 11 0 9	0 3 0 1	77 294 28 195
Total	60	81	9	389	18	12	21	4	594

failed to answer the question regarding the number of years they plan to attend college.

PERCENTAGE DISTRIBUTION OF JUNIOR AND SENIOR COLLEGE FRESHMAN WOMEN ACCORDING TO THE NUMBER OF YEARS THEY PLAN TO ATTEND COLLEGE Fall, 1956

Colleges	Years of College Attendance						•	Blank*	Total
	<u> </u>	2	3	4	5	6	-7		
Junior									
A B C D E F G H I J K L M	$\begin{array}{c} 6.1 \\ 21.1 \\ 17.1 \\ 12.5 \\ 23.1 \\ 4.9 \\ 37.4 \\ 7.2 \\ 22.0 \\ 2.8 \\ 12.7 \\ .0 \\ 54.4 \end{array}$	35.8 20.1 24.4 31.2 25.0 33.9 13.6 29.6 30.5 19.4 15.9 18.2 12.3	2.5 0 0 0 1.6 2.7 1.0 2.8 0 3.0 0	49.4 56.1 47.5 46.1 51.6 42.9 58.2 44.1 68.2 75.8 33.3	2.5 1.0 2.4 2.5 0 1.6 1.4 2.0 3.4 0 1.6 0 0	$ \begin{array}{c} 1.2\\ 1.0\\ 2.5\\ 5.8\\ 3.2\\ 2.0\\ 0\\ 0\\ 1.6\\ 3.0\\ 0\\ 0 \end{array} $	2.5 1.0 3.8 0 3.2 0 0 0 2.8 0 0 0	0 10 0 0 0 0 20 0 2.0 0 2.8 0 0 0	100.0
Total	19 .1	23.7	1.1	51.7	1.5	1.5	1.0	•4	100.0
Senior									
SA SB SC SD	26.0 11.6 3.6 2.6	18.2 16.0 17.9 7.7	.0 1.7 .0 2.0	50.6 60.9 64.3 78.5	1.3 4.8 7.1 .5	2.6 .3 7.1 3.6	1.3 3.7 .0 4.6	.0 1.0 .0 .5	
Total	10.1	13.7	1.5	65.5	3.0	2.0	3.5	•7	100.0
*This col	umn in	dicate	s the	perce	ntage	of f	reshn	nan wome	en who

failed to answer the question regarding the number of years they plan to attend college.

square values are listed with the corresponding degrees of freedom in Table 36.

TABLE 36

CHI SQUARE VALUES OBTAINED BY APPLICATION OF THE CHI SQUARE TEST OF INDEPENDENCE TO DISTRIBUTIONS OF JUNIOR AND SENIOR COLLEGE FRESHMEN ACCORDING TO PLANNED YEARS OF COLLEGE ATTENDANCE Fall, 1956

Relationship	df	Chi Square Value
Among the junior colleges	36*	188.26**
Among the senior colleges	18	266 .26**
Between junior and senior college freshmen	6	270.82**
Between junior college freshman men and women	6	385 .7 6**
Between senior college freshman men and women	6	283.90**
Between junior and senior college freshman men	6	229 .7 1**
Between junior and senior college freshman women	6	65.47**

*Because of the small frequencies expected in some cells, years 3 and 4, and years 5, 6 and 7 were combined in setting up the contingency table for the computation of chi square. **Significant to the .Ol level.

The percentage distribution according to planned years of college attendance for women is found in Table 35, page 121. Examination of this table reveals extensive variability among both the junior and the senior colleges.
Among the junior colleges, the two extremes of the range of the distributions are illustrated by junior college L in which no woman student indicated that she planned to attend college for one year only and junior college M in which over one-half stated that they planned to leave school at the end of the first year. Similar differences, but not so large, may be observed between senior college SA and senior college SD. The corresponding percentages in these two schools are 26.0 and 2.6. Comparisons between the junior and the senior colleges based on the percentage distribution of freshman women also show striking differences. Approximately 42 per cent of freshman women entering the junior colleges plan to terminate their college training by the end of two years, while only 23.8 per cent of freshman women entering the senior colleges indicate similar plans. The respective percentages for freshman women in the junior and senior colleges who plan to attend college for four or more years are 55.7 and 74.0. The chi square value obtained from testing the independence of the relationship between the educational plans of women entering the junior colleges and those entering the senior colleges is 65.47. This value with 6 degrees of freedom is significant beyond the .01 level.

The distribution of percentages based on the total number of freshman men and freshman women in the junior and in the senior colleges is shown in Table 37. This distribution facilitates the observation of the relationships between men and women in both types of institutions. The

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PERCENTAGE DISTRIBUTIONS OF JUNIOR AND SENIOR COLLEGE FRESHMEN BY SEX ACCORDING TO THE NUMBER OF YEARS THEY PLAN TO ATTEND COLLEGE Fall, 1956

Years of	Jun	ior Coll	eges	Sen	nior Colleges			
Attendance	Men	Women	Total	Men	Women	Total		
1	•7	19.1	6.9	•3	10.1	3.4		
2	17.7	23.7	18.4	1.2	13.6	5.1		
3	•4	1.1	•6	•7	1.5	1.0		
4	73.1	51.7	65.8	76.9	65.5	73•3		
5	3.0	1.5	2.5	4.9	3.1	4•3		
6	3.0	1.5	2.5	6.4	2.0	5.0		
7	3.5	1.0	2.7	9.2	3.5	7.4		
Blank*	•6	•4	•6	•4	•7	•5		
Total	100.0	100.0	100.0	100.0	100.0	100.0		

*This line indicates the percentage of students who failed to answer the question regarding the number of years they plan to attend college.

differences found between the plans of men and the plans of women in both the junior and the senior colleges for the first two years of college attendance are particularly noteworthy. In the junior colleges, the proportion of

women who plan to attend college for two years or less is over twice that of the men. In the senior colleges the corresponding ratio is almost 16 to 1. The percentages of men and women planning to attend college for four or more years are: men in junior colleges, 82.6 per cent; women in junior colleges, 55.7 per cent; men in senior colleges, 97.4 per cent; and women in senior colleges, 74.1 per cent. Chi square values obtained from the application of the chi square test of independence to the relationships between men and women in both the junior and the senior colleges are 385.76 and 283.90. Both values are significant far beyond the .01 level.

The findings regarding the educational plans of freshmen entering the junior and senior colleges included in this investigation support the following statements:

1. In the junior colleges, 18.4 per cent of the men and 42.8 per cent of the women plan to attend college for two years or less.

2. In the senior colleges, 1.5 per cent of the men and 23.7 per cent of the women plan to attend college for two years or less.

3. In the junior colleges, 82.6 per cent of the men and 55.7 per cent of the women plan to attend college for four or more years.

4. In the senior colleges, 97.4 per cent of the men and 74.1 per cent of the women plan to attend college for four or more years. The foregoing summarizing statements regarding the educational plans of freshmen entering the public junior colleges of Mississippi assume greater significance when compared with the actual attendance records of freshmen entering these colleges in previous years. Table 38 gives the number of freshmen enrolled in the public junior colleges of Mississippi in the school years of 1954-1955 and

TABLE 38

NUMBER OF FRESHMEN ENROLLED IN MISSISSIPPI PUBLIC JUNIOR COLLEGES, NUMBER OF STUDENTS GRADUATING, AND NUMBER ATTENDING COLLEGE IN THE SCHOOL YEARS 1954-1955 and 1955-1956*

Junior College	Number H Enrol 1954- 1955	Freshmen Lled 1955- 1956	Numbe Gradu 1954- 1955	er of lates 1955- 1956	Number <u>Col</u> 1954- 1955	Attended lege 1955- 1956
A B C D E F G H I J K L M	245 259 141 364 179 394 505 254 214 235 142 153	224 277 118 400 159 396 551 477 244 227 287 136 194	113 72 51 124 59 114 94 78 55 73 88 54 60	89 79 39 128 46 132 126 82 67 70 78 43 46	73 48 26 81 50 78 53 43 53 43 53 49 38 34	52 36 21 85 34 56 101 47 43 48 328 39 28 39
Total	3,419	3,690	1,035	1,015	701	626

*Data secured from State Supervisor of Junior Colleges and Agricultural High Schools, State Department of Education, Jackson, Mississippi.

1955-1956, the number graduating in each of these years, and the number transferring upon graduation to a senior college. From these data it can be seen that the number graduating in 1955-1956 is approximately one-third of the number which entered in 1954. Assuming that the freshman enrollments for 1953 were in line with the enrollments reported in 1954 and 1955, it is apparent that less than onefifth or approximately 18 per cent of the students who enter junior colleges as freshmen actually enter senior colleges following graduation from junior college. These data are consistent with the findings reported by Heironymous in 1934.¹ by Todd in 1943.² and by Griffith in 1945.³ This suggests that the per cent of junior college entrants which actually enters an institution of higher education following graduation from junior college has remained practically constant during the last twenty or more years.

Although no data regarding the attrition rate for students in the state-supported senior colleges of

¹William Peter Hieronymous, "The Educational and Vocational Plans of Junior College Students with Special Reference to the Curriculum" (Abstract of a Doctoral Dissertation, University of Nebraska, 1941), p. 5.

²Lindsey O. Todd, "Meeting the Needs of Junior College Students" (unpublished Doctor's Dissertation, George Peabody College for Teachers, June, 1943), pp. 155-156.

³Coleman R. Griffith, <u>The Public Junior College in</u> <u>Illinois</u> (Urbana: University of Illinois Press, 1945), p. 13.

Mississippi were easily available, the study of the retention and withdrawal of college students reported by Iffert shows that the national rate of withdrawals from public universities, technological institutions, liberal arts colleges, and teachers colleges is 30.9 per cent by the end of the first year, and 46.6 per cent of the total number entering by the end of the second year. Only 33 per cent of the freshmen entering these institutions graduated at the end of four years from the same institution. Iffert estimates that in both private and public institutions, nearly 60 per cent of the students in his study eventually graduated from some institution.⁴

Vocational Plans

The questionnaire which was submitted to all freshmen involved in this study contained a request that the student state the particular job or vocation that he expected to enter when he left school. The data on which the following analysis is based were obtained by tabulating the responses to this request. The categories used in tabulation represent the vocations actually named or a general area under which a number of related vocations could be tabulated. An attempt to tabulate the responses according to the system

⁴Robert E. Iffert, <u>Retention and Withdrawal of College</u> <u>Students</u>, Office of Education Bulletin, 1958, No. 1 (Washington: Government Printing Office, 1958), pp. 16-20.

of classification used for the occupation of the father was soon abandoned because this procedure obscured the information wanted, i.e., the actual vocational objective.

The categories used were selected by first listing the actual responses from a large sample of questionnaires. These were then examined for possible groupings or for possible adaptation to an arbitrary system of classification. This examination revealed that all but a few responses could be tabulated under eleven headings which were selfexplanatory. The responses which could not be tabulated under these eleven headings were placed in a category labeled miscellaneous. The vocations tabulated under this heading are of a professional or semi-professional nature and include such occupations as the ministry, journalism, and commercial art. A thirteenth category was added for tabulation of responses which indicated indecision regarding a vocational objective.

The data are presented here in two tables. Table 39, page 130, contains the total number of students in the junior and the senior colleges tabulated according to vocational choice. Actual numbers have also been converted to percentages to facilitate evaluation of the relative frequency of the various choices. Table 40, page 131, contains the same data tabulated by sex.

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Although there are some noteworthy exceptions, the general pattern of choices made by students in the junior and senior colleges is quite similar. Striking differences, however, appear between the vocational choices of

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VOCATIONAL PLANS OF JUNIOR AND SENIOR COLLEGE FRESHMEN Fall, 1956

Vocational Choice	Junior Number	College Per Cent	Senior Number	College Per Cent
Teaching-Social Work	595	22.26	285	15.27
Engineering	436	16.31	476	25.51
Clerical	420	15.71	149	7.99
Private Business and Farming	310	11.60	184	9.86
Business Administration, Accounting and Industry	176	6.59	145	1.77
Vocational-Technical	143	5.35	6	•32
Medical Services	123	4.60	57	3.05
Medicine and Pharmacy	92	3.44	160	8.57
Ph ysical and Natural Science	75	2.81	107	5•73
Agriculture and Forestry	58	2.17	33	1.77
Law	24	•89	30	1.61
Misc. (Fine Arts, Minis- try, Journalism, etc.)	94	3.52	104	5.58
Undecided	127	4.75	130	6.97

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men and the vocational choices of women in both groups. Three vocations, teaching, clerical work, and medical technician or nursing, represent the choices of 87.0 per cent

TABLE	40
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PERCENTAGE DISTRIBUTION OF VOCATIONAL PLANS OF JUNIOR AND SENIOR COLLEGE FRESHMEN Fall, 1956

Vocational Choice	Junior Men	College Women	Senior Men	College Women
Teaching-Social Work	16.6	33.2	5.8	35.5
Engineering	24.6	•3	37.0	•9
Clerical	1.8	42.8	.2	24.5
Private Business and Farming	17.5	•2	14.2	•7
Business Administration, Accounting, and Industry	8.6	2.6	8.9	5•4
Vocational-Technical	8.0	.1	•5	0.0
Medical Services	•6	12.4	•2	9.1
Medicine and Pharmacy	4.9	•5	11.0	3.4
Physical and Natural Science	3.9	8•	7.5	2.0
Agriculture and Forestry	3.3	0.0	2.5	•2
Law	1.3	.1	2.3	•2
Misc. (Fine Arts, Minis- try, Journalism, etc.)	3.2	4.1	4.5	7.9
Undecided	5.7	2.9	5.4	10.2
Total	100.0	100.0	100.0	100.0

of junior college women and of 69.1 per cent of senior college women. The choices of junior college women are distributed as follows: teaching, 32.2 per cent, clerical work, 42.8 per cent; and medical services, 12.4 per cent. Correspondingly, the distribution for senior college women is: teaching, 35.5 per cent; clerical work, 34.5 per cent; and medical services, 9.1 per cent.

A comparison of these data with the findings of earlier studies suggests that changing economic and social conditions have had an effect on the vocational choices of women. Todd, in his investigation of the occupational choices of students attending Mississippi public junior colleges in 1940, found the leading occupational choices of women to be: teaching, 32.0 per cent; clerical work, 25.0 per cent; and professional home economics, 16.0 per cent.⁵ In an earlier study of the same schools, Walker, in 1934, reported that the two leading choices for women were: teaching, 72.5 per cent; and some form of business activity, 22.5 per cent.⁶ His findings are supported by those Hieronymous obtained the same year from a much wider sampling of junior colleges. Hieronymous found that 73.05 per cent of the women he studied planned to enter the teaching

⁵Todd, <u>op</u>. <u>cit</u>., pp. 166-173.

⁶Kirby Pipkin Walker, "The Student Personnel in the Public Junior Colleges of Mississippi" (unpublished Master's Thesis, University of Chicago, 1934), p. 53. profession.⁷ This indicates a reduction of approximately 40.0 per cent in the number planning to enter the teaching field in the years from 1934 to 1940. Little first choice change is evident, however, from 1940 to 1956, although definite shifts are observed in the second and third choices.

Referring to Table 40, page 131, the three leading choices for men entering junior colleges are: engineering, 24.6 per cent; private business and farming, 17.5 per cent; and teaching, 16.6 per cent. The three leading choices of senior college men are: engineering, 37.0 per cent; private business and farming, 14.2 per cent; and medicine and pharmacy, 11.0 per cent.

In 1940, Todd reported the three leading choices of the men in his study to be: professional agriculture, 15.0 per cent; teaching, 9.0 per cent; and engineering, 8.0 per cent.⁸ Walker, in 1934, stated that the two leading choices of men were: teaching, 34.4 per cent; and some form of business activity, 29.7 per cent.⁹ When the findings of the present study are compared with the data reported by Walker and Todd, it is obvious that definite changes.in the occupational choices of men students entering Mississippi

⁷Hieronymous, <u>op</u>. <u>cit</u>., p. 6.
⁸Todd, <u>op</u>. <u>cit</u>., pp. 166-173.
⁹Walker, <u>op</u>. <u>cit</u>., p. 53.

junior colleges have occurred over the past twenty or more years.

Evaluation of the vocational choices appearing in Table 40, page 131, in terms of the number of years of college training required indicates that approximately 67 per cent of the junior college men and 80 per cent of the senior college men designated vocations that require four or more years of college training. The corresponding percentages for junior and senior college women are 54.0 and 64.6.

In the process of tabulation only those choices which were clearly vocational or technical in nature and for which preparation could be secured in one or two years were classified under the heading vocational-technical. Clerical work, almost entirely chosen by women students, was given a separate heading, although it properly may be classified as vocational. It is significant to note that only 8.0 per cent of the men entering junior college stated a vocational choice that could be classified in the vocational-technical category.

When the findings regarding the stated educational and vocational plans of freshmen entering the public junior colleges of Mississippi are considered with reference to actual attendance records of former students in these institutions, the discrepancy is obvious.

Place of Residence

Mississippi public junior colleges in general are not local institutions in the sense that the majority of students attending them are able to live at home while they go to school. Table 41, page 136, gives the number and percentages of students living on the campus, living in the immediate area, and commuting for both the junior and the senior colleges. By examination of this table it can be seen that only in junior colleges F, G, and H do less than half of the students live in dormitories. The range for the remaining ten is from 52.3 per cent to 86.9 per cent. The extent of variability for the group is demonstrated by the range from 14.1 per cent for junior college H to 86.9 per cent for junior college L. Statistical significance of the observed variability is shown by the chi square value of 600.4. This value with 24 degrees of freedom is significant far beyond the .01 level.

Some variability is also found among the senior colleges in the per cent of students who live on the campus and the per cent who commute. The number living on the campuses of the senior colleges ranges from 70.7 per cent for senior college SB to 95.1 per cent for senior college SD. The chi square value of 119.04 with 6 degrees of freedom is significant beyond the .01 level. Although there are extensive differences among both the junior and the

NUMBER AND PERCENTAGE OF JUNIOR AND SENIOR COLLEGE FRESHMEN LIVING ON THE CAMPUS, LIVING IN THE IMMEDIATE AREA, OR COMMUTING Fall, 1956

	Camp	us	Loc	al	Comm	ute	Blank*		
Colleges	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	
Junior									
A B C D E F G H I J K L M	179 197 70 189 161 67 136 34 130 109 187 127 80	84.0 80.4 64.8 67.0 84.2 33.8 41.9 14.1 71.0 66.4 77.3 86.9 52.3	13 18 6 8 10 19 13 12 9 17 8 2 9	6.1 7.4 5.6 2.9 5.3 9.6 4.9 4.9 10.4 3.1 4.0	20 26 32 83 19 112 173 196 43 36 46 17 61	9.4 10.6 29.6 29.4 9.9 55.6 53.4 81.0 23.5 21.9 19.0 11.7 41.7	1402102012100	5 1.6 .0 .7 .6 .0 .7 .0 .6 1.3 .4 .0	
Total	1,666	62.0	144	5•4	864	32.1	14	•5	
<u>Senior</u>									
SA SB SC SD	107 459 464 507	71.3 70.7 85.4 95.1	17 76 25 12	11.4 11.7 4.6 2.3	26 108 49 14	17.3 16.7 9.1 2.6	0 6 5 0	•0 •9 •9	
Total	1,537	82.0	130	6.9	197	10.5	11	.6	

*These columns indicate the number and percentage of students who failed to answer the question.

senior colleges, a comparison of the totals for the two groups indicates even larger differences between the two groups. The per cent of students in the junior and senior colleges who live on the campus is 62.0 and 82.0 respectively. The chi square value is 289.88. This value with 2 degrees of freedom is significant far beyond the .01 level.

Tables 42 and 43, pages 138 and 139, show a breakdown by sex of the data presented in Table 41, page 136. Within the junior colleges there is little difference between men and women in place of residence. The chi square value of 2.84 with 2 degrees of freedom is not significant at the .Ol level. The observed differences between men and women in the senior colleges are not extensive, but are statistically significant at the .Ol level. The chi square value is 15.72 with 2 degrees of freedom.

As might be expected, wide differences are found between men in the junior and senior colleges and between women in the junior and senior colleges. Table 44, page 140, reports all chi square values for the relationships examined in this section.

Education of Parents

Data for this section were obtained by asking students to circle on the questionnaire the figure representing the highest grade completed by both the mother and the father.

NUMBER AND PERCENTAGE OF JUNIOR AND SENIOR COLLEGE FRESHMAN MEN LIVING ON CAMPUS, LIVING IN THE IMMEDIATE AREA, OR COMMUTING Fall, 1956

	Camp	us	Loc	al	Comm	ute	Blank*		
Colleges	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	
Junior								· · · · · · ·	
A B C D E F G H I J K L M	109 110 44 118 118 51 85 28 91 85 137 96 43	82.6 78.0 67.7 58.9 37.5 48.9 37.5 48.0 19.4 73.4 76.4 76.5 85.0 46.2	5 11 4 6 5 11 5 7 5 14 6 2 6	3.8 7.0 3.6 3.6 3.6 2.9 4.0 9 4.0 9 3.4 5	18 17 19 76 16 74 86 109 27 28 35 15 44	13.6 12.1 28.3 37.6 10.5 54.4 48.6 75.7 21.8 21.9 19.5 13.2 47.3	0 30 20 0 10 11 0 0	0 2.1 0 1.0 .0 .0 .0 .0 .8 .8 .6 .0	
Total	1,115	62.8	87	4.9	564	31.8	9	•5	
<u>Senior</u>									
SA SB SC SD	45 229 451 319	61.6 64.5 87.6 94.4	10 38 19 8	13.7 10.7 3.7 2.4	18 85 40 11	24.7 23.9 7.7 3.2	0 3 5 0	•0 •9 1•0 •0	
Total	1,044	81.5	75	5.8	154	12.1	8	•6	

*These columns indicate the number and percentage of freshman men who failed to answer the question.

NUMBER AND PERCENTAGE OF JUNIOR AND SENIOR COLLEGE FRESHMAN WOMEN LIVING ON CAMPUS, LIVING IN THE IMMEDIATE AREA, OR COMMUTING Fall, 1956

	Camp	Campus		al	Comm	ute	Blank*			
Colleges	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent		
Junior										
A B C D E F G H I J K L M	70 87 26 71 43 16 51 6 39 24 50 31 37	86.4 83.6 63.4 88.7 25.8 34.7 66.1 66.7 79.4 93.9 64.9	8722588543203	9.9 6.7 4.9 2.5 9.6 12.9 5.4 5.1 6.8 8.3 2 5.3	2 9 13 7 38 87 87 16 87 16 81 12	2.5 8.7 31.7 5.8 5.8 61.3 59.2 88.8 27.1 22.2 17.4 6.1 29.8	1 0 0 1 0 1 0 0 0 0 0 0	1.2 1.0 0 9 0 7 0 2.8 0 0 0 0 0		
Total	551	60.4	57	6.2	300	32.9	5	•5		
Senior		_ ~ ~								
SA SB SC SD	62 230 13 188	80.5 78.3 46.4 96.4	7 38 6 4	9.1 12.9 21.4 2.1	8 23 9 3	10.4 7.8 32.2 1.5	0 3 0 0	•0 1•0 •0 •0		
Total	493	83.0	55	9.3	43	7.2	3	. • 5		
*These co	olumns i	ndicat	e the n	umber	and per	centa	e of			

*These columns indicate the number and percentage of freshman women who failed to answer the question.

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CHI SQUARE VALUES OBTAINED BY APPLICATION OF THE CHI SQUARE TEST OF INDEPENDENCE TO DISTRIBUTIONS OF JUNIOR AND SENIOR COLLEGE FRESHMEN ACCORDING TO PLACE OF RESIDENCE WHILE ATTENDING COLLEGE Fall, 1956

Relationship	dſ	Chi Square Value
Among the junior colleges	24	600.40*
Among the senior colleges	6	119.04*
Between junior and senior college freshmen	2	289.88*
Between junior college freshman men and women	2	2.84**
Between senior college freshman men and women	2	15.72*
Between junior and senior college freshman men	2	161.61*
Between junior and senior college freshman women	2	134.80*

*Significant at the .Ol level. **Not significant at the .Ol level. This request appeared on the questionnaire in the following form:

- 6. Education of parents. Circle highest grade or college year completed.
 - 368 Elementary 1234 High School 368 123 Elementary 234 High School 12 Junior College Junior College 12 1234 123 123 College College 4 123 Prof. or Grad. Prof. or Grad.

Mother

A few students wrote on the questionnaire that their mother or father had had no formal education so a category of O or no education was added to the tabulation sheet. Tables showing the distribution of parental education by category and by school may be found in Appendix B.

The significance of the differences among junior and senior colleges, between the junior and the senior colleges, and between the sexes was determined by application of the chi square test of independence. The small frequencies in many of the cells under certain categories necessitated a regrouping of the data in setting up the contingency tables for computation of chi square. Examination of the data indicated that the following grouping would be most satisfactory for determination of chi square:

1. Eighth grade and below

Father

- 2. High school grades--1, 2, and 3
- 3. High school graduation
- 4. College (junior and senior)--1, 2, and 3
- 5. College graduate and graduate study

Chi square values computed from the various contingency tables based on the categories on the preceding page are reported in Table 45.

TABLE 4	5)				
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CHI	SQUARE	VALUES	OBTAINED	BY AI	PPLIC	ATION	OF	THE
CHI	SQUARE	TEST O	F INDEPEN	DENCE	TO D	ISTRIE	BUTI	ONS
	-	OF	PARENTAL	EDUCA	TION			
			Fall, 1	956				
	•	OF	PARENTAL Fall, 1	EDUCA' 956	TION			

df Cl	Fathers ni Square Value	Mothers e Chi Square Value
48	97.2*	98.8*
12	143.00*	105.6*
4	412.67*	308.2*
4	11.20**	10.20**
4	24.40*	9.30**
4	222.20*	220 . 5 7*
4	204.80*	124.60*
	df Cr 48 12 4 4 4 4 4 4 4	Fathers df Chi Square Value 48 97.2* 12 143.00* 4 412.67* 4 11.20** 4 24.40* 4 222.20* 4 204.80*

**Not significant at the .01 level.

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Consistent with the results of the analyses of other factors, considerable variability in parental educational background is observed among both the junior colleges and the senior colleges. The chi square test of independence used to determine the significance of the observed differences among the junior colleges in the educational background of both fathers and mothers of entering freshmen yielded chi square values significant at the .Ol level. Statistically significant chi square values were also obtained for the senior colleges.

The distribution of the fathers and mothers of men and women in the junior and senior colleges according to highest level of education completed may be seen by numbers in Tables 46 and 47, pages 144 and 145, and by percentages in Tables 48 and 49, pages 146 and 147. In Table 48 the most noticeable differences between the fathers of junior and senior college freshmen are found at the two extremes. The percentage of the fathers of junior college freshmen who terminated their formal education at or below the eighth grade level is over twice that of the fathers of senior college freshmen. At the upper level the percentage of the fathers of senior college freshmen who attended college from one to four years is approximately three times the percentage of the fathers of junior college freshmen reaching the same educational level. The same ratio is maintained at the graduate level. The percentages of the two

DISTRIBUTION OF THE FATHERS OF JUNIOR AND SENIOR COLLEGE FRESHMEN ACCORDING TO THE HIGHEST LEVEL OF EDUCATION COMPLETED Fall, 1956

Education		Junior Colleges			Senior Colleges		
		Men	women	Total	Men	women	Total
Grade	0 1-3	3 36	1 9	4 45	2 11	1 2	3
Total	4-6 7-8	118 <u>395</u> 552	42 203 255	160 598 807	39 <u>154</u> 206	12 <u>38</u> 53	51 <u>192</u> 259
<u>High</u> School	1 2 3	99 190 158	52 93 125	151 283 283	52 75 88	23 22 40	75 97 128
Total	4	430 877	211 481	<u>641</u> 1 , 358	<u>406</u> 621	<u>192</u> 27 7	<u>598</u> 898
Junior Coll	ege 1	19	15	34	18	16	34
Total	2	49 68	<u>26</u> 41	75 109	<u>36</u> 54	<u>20</u> 36	<u>56</u> 90
Senior Coll	ege 1 2 3	18 38 25	13 18 11	31 56 36	49 74 37	21 33 23	70 107 60
Total	4	$1\frac{72}{53}$	30 78	$\frac{108}{231}$	<u>134</u> 294	160	<u>21</u> 7 454
<u>Graduate</u> <u>Sc</u>	hool 1 2 3	11 10 10	8 56	19 15 16	17 21 29	10 9 22	27 30 51
Total	-	31	19	50	67	41	108
<u>Blank*</u>		94	39	133	39	27	66

*This line indicates the number of students who failed to answer the question.

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DISTRIBUTION OF THE MOTHERS OF JUNIOR AND SENIOR COLLEGE FRESHMEN ACCORDING TO THE HIGHEST LEVEL OF EDUCATION COMPLETED Fall, 1956

Education		Juni	ior Coll	eges	Senior_Colleges		
	•	Men	Women	Total	Men	Women	Total
Grade	_	_	_	_	_	_	
	0 1-3 4-6 7-8	0 14 53 264	1 3 17 108	1 17 70 372	1 3 23 76	0 2 6 28	1 5 29 104
Total		331	129	460	103	36	139
<u>High</u> School	1 2 3	98 184 251	65 97 139	163 281 390	46 77 100	22 27 48	68 104 148
Total	4	1, <u>102</u>	$\frac{318}{619}$	$1,\frac{887}{721}$	$\frac{518}{741}$	<u>233</u> 330	1,071
Junior Colle	ege 1	27	22	49	25	14	39
Total	2	108 108	<u>27</u> 49	$\frac{108}{157}$	16 71	$\frac{18}{32}$	103 103
Senior College		24	18	42	43	2 7	70
Total	-2 3 4	33 25 <u>74</u> 156	11 20 <u>39</u> 88	44 45 <u>113</u> 244	64 30 <u>162</u> 299	47 23 70 167	111 53 <u>232</u> 466
Graduate Sch	1001 1 2	531	6 0	11	14 3 7	5	19 8 11
Total	ر	す	7	Ĩõ	24	14	38
<u>Blank*</u>		69	21	90	43	15	58

*This line indicates the number of students who failed to answer the question.

PERCENTAGE DISTRIBUTION OF THE FATHERS OF JUNIOR AND SENIOR COLLEGE FRESHMEN ACCORDING TO THE HIGHEST LEVEL OF EDUCATION COMPLETED Fall, 1956

Education		Junior Colleges			Senior Colleges		
		Men	Women	Total	Men	Women	Total
Grade	0 1-3 4-6	•2 2.0 6.6	.1 1.0 4.6		•2 •9 3•0	•2 •3 2.0	
Total	7-8	<u>22.3</u> 31 .1	22.2 27.9	30.0	$\frac{12.0}{16.1}$	<u>6.4</u> 8.9	13.8
<u>High School</u>	1 2 3	5.6 10.7 8.9	5.7 10.2 13.7		4.1 5.8 6.9	3.9 3.7 6.7	
Total	4	<u>24.2</u> 49.4	<u>23.1</u> 52.7	50 .5	<u>31.(</u> 48.5	46.6	47.9
Junior Colle Total	ege 1 2	1.1 2.8 3.9	1.6 2.9 4.5	4 . 1	1.4 2.8 4.2	2.7 <u>3.4</u> 6.1	4.8
<u>Senior</u> <u>Colle</u> Total	2 2 3 4	1.0 2.1 1.4 <u>4.1</u> 8.7	1.4 2.0 1.2 <u>3.9</u> 8.5	8.6	3.8 5.8 2.9 <u>10.5</u> 23.0	3.5 5.6 3.9 <u>14.0</u> 27.0	24•2
Graduate Sch	1001 1 2 3	•6 •6	•9 •5 •7		1.3 1.6 2.3	1.7 1.5 3.7	
Total		1.8	2.1	1.9	5.2	6.9	5.8
BLank*		5.3	4.3	4•9	∪₊ز	4•5	3•5

*This line indicates the percentage of students who failed to answer the question.

PERCENTAGE DISTRIBUTION OF THE MOTHERS OF JUNIOR AND SENIOR COLLEGE FRESHMEN ACCORDING TO THE HIGHEST LEVEL OF EDUCATION COMPLETED Fall, 1956

Education		Junior Colleges			Sei	Senior Colleges		
		Men	Women	Total	Men	Women	Total	
Grade	0 1-3 4-6	.0 .8 3.0	.1 .3 1.9		.1 .2 1.8	.0 .3 1.0		
Total	7-8	$\frac{14.9}{18.7}$	$\frac{11.8}{14.1}$	17.1	<u>5.9</u> 8.0	<u>4.7</u> 6.0	7•4	
<u>High School</u>	1 2 3	5.5 10.4 14.1	7.1 10.6 15.2		3.6 6.0 7.8	3.7 4.6 8.1		
Total	4	$\frac{32.0}{62.0}$	<u>34.8</u> 67.7	64.0	<u>40-4</u> 57-8	<u>39-2</u> 55-6	57.1	
<u>Junior Coll</u> Total	ege 1 2	1.5 4.6 6.1	2•4 <u>2•9</u> 5•3	5.9	2.0 <u>3.6</u> 5.6	2•4 <u>3•0</u> 5•4	5.5	
Senior Coll	ege 1 2 3 4	1.3 1.9 1.4 4.2	2.0 1.2 2.2 4.3 0.7	01	3.4 5.0 2.3 <u>12.6</u>	4.6 7.9 3.9 <u>11.8</u>	24 0	
Total	ha a1	0.0	9•1	9•1	(•(~	20 • Z	2409	
Graduate Sc	1 2 3	•3 •2 •1	•7 •0 •1		1.1 .2 .6	•8 •8 •7		
Total	-	••	•8	•6	1.9	2.3	2.0	
Blank*		2.9	2.3	3 •3	3.4	2.5	3.1	

*This line indicates the percentage of students who failed to answer the question. groups which attended high school is approximately equal, although more fathers of senior college freshmen (32.3 per cent) graduated than did the fathers of junior college freshmen (23.1 per cent). The large chi square value of 412.67 attests to the statistical significance of the observed differences.

Comparison of the data in Table 48, page 146, with the data in Table 49, page 147, shows the differences between the educational background of the fathers of junior and senior college freshmen and the mothers of these students. Among the junior colleges, the per cent of mothers who terminated their education at the eighth grade or below is 17.1, while 31.1 per cent of the fathers completed their formal schooling at this level. At the high school level the corresponding percentages for mothers and fathers of junior college freshmen are 50.5 and 64.0. The advantage is slightly in favor of the mothers at the college level. but shifts to the fathers at the graduate level. The same trends are observable for the senior colleges. At the eighth grade level and below, the percentages for the fathers and mothers of senior college freshmen are 13.8 and 7.4, while at the high school level they are 47.9 and 57.1. The differences above the high school level are relatively insignificant.

For mothers of junior and senior college freshmen, the corresponding percentages at each educational level are:

eighth grade and below, 17.1 per cent and 7.1 per cent; high school, 64.0 per cent and 57.1 per cent; college, including junior college, 15.0 per cent and 30.5 per cent; graduate school, .6 per cent and 2.0 per cent.

The differences between the educational background of the fathers and mothers of freshman men and women in the junior colleges are minor. The chi square values of 11.2 and 10.2 are not significant at the .Ol level. This is true also for differences between the educational background of the mothers of freshman men and women in the senior colleges. The chi square value of 9.3 is not significant at the .01 level. Significant differences are found, however, between the educational background of the fathers of freshman men and the fathers of freshman women in the senior colleges. The corresponding percentages at the two extremes for the fathers of men and of women are: eighth grade and below, 16.1 per cent and 8.9 per cent; college and graduate school, 32.4 per cent and 40.0 per cent. The chi square value of 24.4 with 4 degrees of freedom is significant at the .01 level.

The findings regarding the educational background of the fathers and mothers of freshman men and women discussed in the foregoing analysis may be summarized in the following statements:

1. Significant differences in the educational background of the fathers and mothers of freshman men and women exist among both the junior and the senior colleges included in this study.

2. Significant differences in the educational background of the fathers and mothers of both freshman men and freshman women exist between the junior and the senior colleges.

3. Differences between the educational background of the fathers and mothers of freshman men and the fathers and mothers of freshman women in the junior colleges are not significant.

4. Differences between the educational background of the fathers of freshman men and the fathers of freshman women in the senior colleges are significant, but differences between the educational background of the mothers are not significant.

5. In both the junior and the senior colleges, the per cent of the fathers who terminated their formal education at or below the eighth grade level is approximately twice the per cent of the mothers.

6. In both the junior and the senior colleges, the parents of women students tend to show a slight superiority in educational background over the parents of men students.

7. A larger per cent of the fathers of senior college freshman women attended college and graduate school than of any other parental group.

Summary

In conclusion, comparative analyses of the data show that marked differences in each of the four factors examined in this chapter exist among the thirteen junior col-Leges and among the four senior colleges included in this study. Comparative analyses of the data also show consistent and extensive differences between the two groups when the total freshman enrollment in the junior colleges is examined with reference to the total freshman enrollment in the senior colleges. And, finally, comparative analyses of the data emphasize the significance of the differences between men and women in both the junior and the senior colleges particularly in stated educational and vocational plans.

CHAPTER VII

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This study was prompted by the belief that intelligent long-range curriculum planning and the development of adequate guidance services in the junior and senior colleges of Mississippi must necessarily be based upon knowledge of the characteristics and needs of freshmen entering these institutions. The specific purpose of the study was to determine what differences, if any, exist between freshmen entering Mississippi white county-district type public junior colleges and Mississippi white state-supported coeducational colleges in the following areas: (a) social status, (b) economic status, (c) academic aptitude, (d) education of parents, (e) place of residence, and (f) educational and vocational plans.

In order to determine the significance of such differences, if any, it was proposed to test the hypothesis that definite differences do exist between freshmen who enter junior colleges and freshmen who enter senior colleges in each of the selected factors.

Consideration of the general objectives of the study resulted in the following breakdown of the investigation:

1. Determination of the present status of junior and senior college freshmen in each school in each of the selected factors.

2. Determination of the significance of the differences, if any, among the schools in each of the two groups.

3. Determination of the significance of the differences, if any, between freshmen entering junior colleges and freshmen entering senior colleges.

4. Determination of the significance of the differences, if any, between men and women in each of the factors.

The investigation was limited to freshmen entering the thirteen white county-district type public junior colleges and the four white state-supported coeducational senior colleges of Mississippi in the fall of 1956.

The major part of the study was based upon data obtained from two sources. Information relative to social and economic status, education of parents, place of residence, and educational and vocational plans was secured directly from students in the form of easily tabulated responses to items on a short questionnaire. Data for the appraisal of academic aptitude were provided by the participating institutions. These data consisted of the scores made by freshmen on the test of academic aptitude regularly administered by each school.

Data were secured for all freshmen entering the participating institutions in the fall of 1956 with the
exception of a few students who were late entering or who were unavoidably absent when the questionnaires or the tests were administered. A total of 4,563 questionnaires were returned by the participating schools: 1,875 were returned by the four senior colleges, and 2,688 were returned by the thirteen junior colleges.

The data for each factor obtained from the questionnaires were tabulated by sex, by school, and by group. Frequency distributions were then made according to appropriate categories and presented in tabular form. In addition to rational analysis of the tables to appraise the nature and extent of the differences observed, the significance of the differences found was determined by using the chi-square test of independence to test the hypothesis of no difference between selected distributions. The computed chi-square values were considered significant if the value was such that there was only one chance in a hundred that the chi square values would be that large by chance.

The frequency distributions of test scores were analyzed to determine differences in central tendencies and variability. The significance of the differences between the means was established by testing the hypothesis of no difference between the means of the samples being considered. The use of the z statistic for this purpose was justified by the large size of the samples and by the assumption that the samples were drawn from normal populations.

In this investigation the social status of the student is based on the Level classification of the father's occupation. The economic status of the student is identified with the income of his family. A summary of the results of the study related to the social and economic status of freshmen entering junior and senior colleges follows:

1. Junior and senior college freshmen are found at each social level and in each income category.

2. Significant differences in social status and in economic status exist among both the junior colleges and the senior colleges. Application of the chi-square test of independence to the relationship among junior colleges and to the relationship among senior colleges yielded chi-square values which were significant beyond the .01 level.

3. Significant differences in social status exist between freshmen entering junior colleges and freshmen entering senior colleges. The ratio of the paternal occupations of junior college freshmen to the paternal occupations of senior college freshmen classified at Levels 1 and 2 is approximately two to one; whereas, the ratio of these two groups at the upper end of the occupational scale, Levels 5 and 6, is about one to three. Marked differences are also found at Levels 3 and 4. The respective

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4. The families of junior college freshmen as a group have lower incomes than do the families of senior college freshmen. At the lower end of the income scale the percentages of families with incomes below \$4,000 are 45.7 for junior college freshmen and 21.8 for senior college freshmen. At the upper end of the scale (above \$10,000) the respective percentages are 3.4 and 13.5. Seventy-seven per cent of the families of junior college freshmen have incomes below \$6,000 as compared with 51 per cent of the families of senior college freshmen.

5. Relatively small, but statistically significant, differences in paternal occupation are found between men and women in senior colleges. The differences between the paternal occupations of men and women in junior colleges is not significant. For paternal occupations classified at the upper three Levels, the percentages for men and women in junior and senior colleges are as follows: men in junior colleges, 31.5; women in junior colleges, 35.9; men in senior colleges, 54.5; and women in senior colleges, 66.2.

6. The differences between men and women in family income are statistically significant for both the junior and the senior colleges. The respective percentages of families with incomes below \$6,000 for each of these groups

are as follows: men in junior colleges, 77.2; women in junior colleges, 76.4; men in senior colleges, 54.2; and women in senior colleges, 44.1. For families with incomes above \$10,000, the respective percentages are: men in junior colleges, 4.2; women in junior colleges, 1.9; men in senior colleges, 12.5; women in senior colleges, 15.8.

The following statements summarize the findings regarding the academic aptitude of freshmen entering junior and senior colleges.

1. Measures of central tendency and variability computed for the frequency distributions of raw scores on the ACE of freshmen who entered seven junior colleges and three senior colleges are as follows: the mean for junior colleges, 85.14; the mean for senior colleges, 103.9; the median for junior colleges, 84.62; the median for senior colleges, 103.53; Q_1 for junior colleges, 66.80; Q_1 for senior colleges, 86.31; Q_3 for junior colleges, 101.98; Q_3 for senior colleges, 120.49; standard deviation for junior colleges, 24.98; and the standard deviation for

2. Observed differences between the means computed for the sample of junior college freshmen and the sample of senior college freshmen indicate real differences between the population means. The z value resulting from application of the test of the hypothesis of no difference between means is significant far beyond the .Ol level.

3. The differences between the means having the highest and the lowest values in both the junior and the senior colleges are significant at the .01 level.

4. Differences in academic aptitude between men and women in both the junior and the senior colleges are not significant.

5. Differences in academic aptitude between men in the junior colleges and men in the senior colleges, and between women in the junior colleges and women in the senior colleges are significant beyond the .Ol level.

6. Approximately 75 per cent of junior college freshmen fall below the mean for senior college freshmen in academic aptitude as measured by the ACE.

7. Approximately 8 per cent of junior college freshmen are found in the fourth quarter of senior college freshmen in the distribution of scores made on the ACE while approximately the same per cent of senior college freshmen are found in the first quarter of junior college freshmen.

8. Results of the analysis of the frequency distributions of test scores on the Otis tests obtained for freshmen entering three junior colleges and one senior college support the findings reported from the analysis of the test scores made on the ACE.

A summary of the findings regarding educational and vocational plans is presented in the statements that follow.

1. There is considerable variability among the junior colleges in the expressed educational plans of students entering these schools. The range among the junior colleges for students planning only one year of college attendance is from 0 to 22.7 per cent. The range for students expressing an intention of attending college for four or more years is from 56.0 to 85.6 per cent.

2. There is also intragroup variability in the senior colleges regarding the expressed educational plans of entering freshmen. The range among the senior colleges for students planning only one year of college attendance is from .4 to 15.3 per cent. The range for students planning to attend college for four or more years is from 75.0 to 97.3 per cent.

3. In both the junior and the senior colleges significant differences exist between the educational plans of men and the educational plans of women. The respective percentages for freshmen planning two years or less of college work are as follows: men in junior college, 18.4 per cent; women in junior college, 42.8 per cent; men in senior college, 1.5 per cent; and women in senior college, 23.7 per cent. 4. Among freshmen planning to attend college for four or more years the corresponding percentages are: for men in junior college, 82.6 per cent; for women in junior college, 55.7 per cent; for men in senior college, 97.4 per cent; and for women in senior college, 74.1 per cent.

5. Marked differences exist between the educational plans of men in the junior colleges and the educational plans of men in the senior colleges. This is true also for women in the junior and senior colleges.

6. Although there is some variation, the general pattern of the vocational choices of men and women in the junior colleges is similar to the pattern of choices of men and women in the senior colleges.

7. Three vocations, teaching, clerical work, and medical services represent the vocational choices of 87.0 per cent of junior college women and of 69.1 per cent of senior college women. The choices of junior college women are distributed as follows: teaching, 32.2 per cent; clerical work, 42.8 per cent; and medical services, 12.4 per cent. The corresponding percentages for senior college women are 35.5, 34.5 and 9.1.

8. The three leading vocational choices of men entering junior colleges are engineering, 24.6 per cent; private business and farming, 17.5 per cent; and teaching, 16.6 per cent. The three leading choices of senior college men are engineering, 37.0 per cent; private business and farming, 14.2 per cent; and medicine and pharmacy, 11.0 per cent.

9. Approximately 67 per cent of junior college men and 80 per cent of senior college men designated vocations that require four or more years of college training. The corresponding percentages for junior and senior college women are 54.0 and 64.6.

10. Only 8.0 per cent of freshmen men entering junior college stated a vocational choice that could be classified in the vocational category.

A summary of the results of the study pertaining to the place of residence of freshmen while attending college is given in the following statements.

1. Both the junior and the senior colleges exhibit significant intragroup variability in the proportion of entering freshmen who live in college housing. The range of percentages of freshmen in junior colleges who live on the campus is from 14.1 to 86.9. For the senior colleges the percentage range is from 70.7 to 95.1.

2. Sixty-two per cent of all junior college freshmen live on the campus as compared with 82.0 per cent of senior college freshmen.

3. Within the junior colleges there is little difference between men and women in place of residence while attending college. 4. In the senior colleges more men than women commute. The differences in place of residence between men and women in senior colleges are not extensive, but are statistically significant.

5. Marked differences exist among both the junior and the senior of colleges in the percentages of students who commute. In the junior colleges the range is from 9.4 per cent to 81.0 per cent. The range for senior colleges is from 2.6 per cent to 17.3 per cent.

The statements that follow summarize the findings of the study regarding the educational background of the parents of freshmen entering junior and senior colleges.

1. Considerable variability in the educational background of the parents of freshmen is evident among both the junior and the senior colleges.

2. Significant differences in the educational background of both parents are found between freshmen in the junior colleges and freshmen in the senior colleges.

3. Differences between the educational background of the mothers of freshmen men and women in the senior colleges are not significant, but the differences in the educational background of the fathers of freshmen men and the fathers of freshmen women in the senior colleges are significant. 4. Differences between the educational background of the parents of freshmen men and the parents of freshmen women in the junior colleges are minor.

5. For the fathers of junior and senior college freshmen, the corresponding percentages at each educational level are as follows: eighth grade and below, 30.0 and 13.8; high school, 50.5 and 47.9; college (including junior college), 12.7 and 29.0; and graduate school, 1.9 and 5.8.

6. For the mothers of junior and senior college freshmen, the corresponding percentages at each educational level are as follows: eighth grade and below, 17.1 and 7.4; high school, 64.0 and 57.1; college (including junior college), 15.0 and 30.5; and graduate school, .6 and 2.0.

7. In both the junior and the senior colleges marked differences exist between the educational background of the fathers and the educational background of the mothers of entering freshmen. The per cent of fathers who terminated their formal education at or below the eighth grade is approximately two times the per cent of mothers who terminated their formal education at this level.

8. Marked differences between the educational background of fathers and mothers of freshmen entering the junior and the senior colleges are also evident at the upper end of the educational ladder. At the graduate school level, the per cent of fathers who attended graduate

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school is approximately three times the per cent of mothers who attended graduate school.

9. In both the junior and the senior colleges, the parents of women students tend to show a slight superiority in educational background over the parents of men students.

<u>Conclusions</u>

The findings of this investigation justify the conclusion that within the limits of the study the main hypothesis that differences do exist between freshmen entering junior colleges and freshmen entering senior colleges in (a) social status, (b) economic status, (c) academic aptitude, (d) education of parents, (e) place of residence, and (f) educational and vocational plans may be accepted.

The findings also support the following general conclusions:

1. There are marked and statistically significant differences among both the junior colleges and the senior colleges in each of the variables studied.

2. Extensive overlapping is characteristic of the distributions of the two groups in each factor.

3. Sex differences, while statistically significant for some factors, appear to be relatively unimportant except in the area of educational and vocational plans. The findings relative to specific factors suggest the following concluding statements:

1. The junior colleges of Mississippi draw a larger proportion of their students than do senior colleges from families in which the father is engaged in some type of skilled labor, in farming, or in other types of occupations classified in the three lower Levels.

2. The average income of the families of freshmen entering junior colleges is below the average income of the families of freshmen entering senior colleges.

3. Freshmen entering junior colleges tend to score lower on tests of academic aptitude than do freshmen entering senior colleges. There is, however, extensive overlapping of the distributions for the two groups.

4. Of the student groups investigated, there is a slight, but consistent, superiority evident for women students entering senior colleges as regards the father's occupation and the level of family income.

5. Extensive differences exist between the educational plans of men and women in both the junior and the senior colleges as well as between freshmen entering the junior college and freshmen entering the senior colleges.

6. There is marked inconsistency between the stated educational plans of students who enter junior colleges and the actual realization of these plans. 7. Mississippi junior colleges are not enrolling any appreciable number of freshmen in courses that may be classified as vocational.

8. The stated vocational plans of many junior college freshmen are not commensurate with their measured ability, or with their declared educational plans.

9. The majority of freshmen entering Mississippi junior colleges find it necessary or more convenient to live in college housing rather than commute from their homes.

10. The general educational level reached by the parents of junior college freshmen is below the general educational level of the parents of freshmen entering senior colleges.

Recommendations

It is the opinion of this researcher that the description of freshmen who entered the junior and senior colleges of Mississippi in the fall of 1956 and the appraisal of the similarities and differences among these students in certain characteristics and needs provided by the findings of this investigation have important implications for educational planning in both the junior and senior colleges of Mississippi. These findings also have implications for educational planning in other geographical areas to the extent that similar conditions prevail. The implications noted and the recommendations made in the following section of this report have special relevance to the objectives of this study. They should not be considered exhaustive.

1. The findings related to the variability among both the junior and the senior colleges emphasize the uniqueness of the problems faced by individual institutions. Although the general similarities found to exist among the institutions in the two groups attest to the value of institutional type studies, the extent of the differences among the institutions in each group makes it imperative that each institution base its planning also on the results of intensive self-studies.

2. The marked differences found between freshmen entering junior colleges and those entering senior colleges in socio-economic status, in academic aptitude, and in educational and vocational plans support the view that the junior colleges and the senior colleges of Mississippi do and should serve special functions in the over-all educational program of the state.

3. On the other hand, the extensive overlapping of the distributions for the junior and senior colleges in each of the characteristics studied points to a need for a variety of curricular offerings in both institutions if student needs are to be met.

4. In both the junior and the senior colleges, the extent and character of the differences between the educational and vocational plans of men and women suggest the importance of the recognition of and attention to the special educational needs of women.

The findings of the study which relate to the junior colleges appear to support the following recommendations:

1. While the junior colleges are enrolling an increasingly larger per cent of students from the lower socio-economic levels, the per cent of students from the lower levels, as determined by this investigation, enrolling in junior colleges is not yet proportionate to their representation in the general population. The implication seems evident that junior colleges must continue and extend their efforts to provide equal educational opportunity for all the youth of the state.

2. The large number of freshmen enrolling in the junior colleges who have less academic aptitude as indicated by scores on the ACE and Otis tests than is usually found necessary for success at the college level pose questions concerning the adequacy of the junior college offerings to meet the special needs of these students.

3. The number of junior college freshmen, approximately 25 per cent, who compare favorably with the upper 50 per cent of senior college freshmen would appear to

justify a continuation, and, possibly, an extension of curricular offerings of a college-prepartory nature.

4. The discrepancies found between the expressed educational plans of freshmen entering junior colleges and the extent to which these plans are realized present a number of questions to those responsible for educational planning in the junior colleges. These questions relate to the motivation of entering students, to the appropriateness of curricular offerings, and to the adequacy of guidance and counseling services.

5. The seeming inappropriateness of the vocational choices of many of these freshmen raises questions for the junior colleges similar to those stated above. As further evidence for the suggestion here that the present curriculum and guidance services in the junior college are inadequate, reference is made to the fact that less than 8 per cent of freshmen men who entered the junior colleges in the fall of 1956 enrolled in courses classified as vocational, although more than 50 per cent of them fell below the first quartile in academic aptitude when compared with freshmen men who entered senior colleges. Reference to these facts should not be construed as a claim that all students who fall below a certain level in academic aptitude should enroll in vocational courses.

6. The high attrition rate of the junior colleges must be evaluated with regard for the expressed educational plans of entering freshmen.

7. The junior colleges appear to be sharply divided in the extent to which their students live on the campus or commute. Students who commute daily present special problems in the scheduling of courses, and in providing for participation in extra-curricular activities. The provision or non-provision of transportation facilities by the college would also appear to have important implications in terms of the effect of differences in cost on college attendance.

8. The high drop-out rate, the discrepancies between stated educational plans and the extent to which these plans are realized, and the inappropriateness of the vocational choices of many students all point to the need for improved guidance and counseling services in both the secondary schools and the colleges.

Among the questions for further research suggested for the junior colleges by the findings of this study, the following are listed.

1. What effects do the social and economic status and the educational background of parents have on the motivations and aspiration level of college students?

2. What factors are responsible for the high attrition rate of junior college students?

3. What modifications in the curricular offerings of the junior colleges and in methods of instruction are necessary and desirable for meeting the needs of those students who are ill-prepared for, or are unable to do "college-level" work?

4. How can provision for minimum participation in the total school program be made for those students who, because they commute, spend a limited time on the college campus?

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APPENDIX A

Name of College_____

FRESHMAN STUDENT SURVEY

You are asked to contribute to a statewide study of college freshmen by completing this questionnaire. All information will be considered confidential. No names or individual cases will appear in the final report. Please read and answer ALL questions carefully.

1.	Name		2. Āge_	3. Sex						
	Last	First	Initial	M or F						
4.	Occupation of Parents									
	Please give full information. For example: OWNS AND FARMS ABOUT 300 ACRES. RENTS AND FARMS									
	ABOUT 300 ACRES, FARMS ON S	HARES, OWNS AND C	PERATES A HARDV	VARE STORE, SELLS						
	AUTOMOBILES, DOES PRIVATE NUL	ASING, WORKS AS SHO	P FOREMAN FOR H	ROWN AUTOMOBILE						
	COMPANY, etc.									
	Father's Occupation		•							
	Mother's Occupation									
	(If you live with a guardian or relative give occupation									
5.	Approximate family income \$1,	000 to \$1,999	\$ 6,000 to	\$ 9,999						
	(Income from all sources) 2,	000 to 3,999	10,000 to	14,999						
	Check appropriate space. 4,	000 to 5,999	15,000 or	above						
6.	Education of parents. Circle highest grade or college year completed.									
	FATHER	MOTHER								
	Elementary 3 6 8	Elementar	y 368							
	High School 1 2 3 4	Hig h Sch o	bol 1234	4						
	Junior College 1 2	Junior Co	llege l 2							
	College 1 2 3 4	College	1 2 3 4	J						
	Prof. or Grad. 1 2 3	Prof. or G	Frad. 1 2 3							
7.	State the course in which you are no BUSINESS ADMINISTRATION, NURS GENERAL AGRICULTURE, etc.	w enrolled or in which ; SING, ONE YEAR BUSI	you plan to enroll this NESS COURSE, ELEMI	fall. For example: ENTARY EDUCATION,						
	Course									
8.	State your present vocational choice. ELEMENTARY TEACHER, FARME DENTIST, etc.	For example: R. PRIVATE BUSINESS	sman, accountan	IT, STENOGRAPHER,						
	Vocational Choice									
9.	Circle the number of years that you	u now plan to attend so	:hool.							
	College 1 2 3 4	Graduate	or professional 1	2 3						
10.	Check appropriate space below:									
	Live on compus, Commute b	y college bus								
	Private transportation,Local	•								

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APPENDIX B

TABLE A

PERCENTAGE DISTRIBUTION OF THE FATHERS OF JUNIOR AND SENIOR COLLEGE FRESHMAN MEN ACCORDING TO THE HIGHEST LEVEL OF EDUCATION REACHED Fall, 1956

College	8th and	Grade Below	High School	Junior College	Senio r College	Graduate School	Blank*
Junior							
A B C D E F G H I J K L M	40 21 21 30 21 30 21 30 21 30 21 30 21 30 21 30 21 30 21 30 21 30 21 30 21 30 21 30 21 30 21 30 21 30 21 30 21 30 21 30 20 30 30 30 30 30 30 30 30 30 30 30 30 30	1 	43.9 58.2 47.7 59.0 57.0 57.0 52.6 52.6 52.6 52.4 37.5 44.8 47.8 49.5	3.8 2.1 6.0 5.4 1.4 3.7 5.1 2.1 3.3 7.8 3.9 1.8 3.2	5.3 9.2 14.9 12.9 6.5 3.7 6.2 9.0 10.5 8.6 9.0 10.6 7.5	.8 .7 1.5 2.0 2.2 .7 2.3 1.4 .8 3.9 3.4 .9 1.1	6.1 5.7 0.0 4.5 9.3 5.6 2 4.6 3.3 1.8 4.3
Total	31	.1	49•4	3.8	8.6	1.8	5.3
Senior							
SA SB SC SD	17 2] 16 10	7.8 .1 .3 .1	58.9 52.2 50.3 39.6	0.0 4.5 4.5 4.4	12.3 16.0 22.9 32.6	6.9 2.3 2.7 11.8	4.1 3.9 3.3 1.5
Total	16	5.1	48.5	4.2	22.9	5.2	3.1

*This column indicates the percentage of students who failed to answer the question.

TABLE B

PERCENTAGE DISTRIBUTION OF THE MOTHERS OF JUNIOR AND SENIOR COLLEGE FRESHMAN MEN ACCORDING TO THE HIGHEST LEVEL OF EDUCATION REACHED Fall, 1956

College	8th and	Grade Below	High School	Junio Colle	r ge	Senic Colle	or ege	Gradu Scho	ate ol	Blank	÷
Junior											-
A B C D E F G H I J K L M	23 12 14 16 15 24 24 24 24 20 21 20 21 28	-5 -9 -9 -0 -0 -3 -3 -2 -6 -0 -0 -3 -2 -6 -0 -0 -3 -2 -6 -0 -0 -3 -2 -0 -3 -2 -0 -3 -2 -3 -2 	58.3 70.2 68.6 56.4 69.0 62.7 56.3 51.6 64.3 71.7 59.1	5. 7. 7. 6. 2. 3. 9. 4. 7. 10. 2. 5. 5.	3859976931834	10 5 4 13 6 7 9 16 11 7 3	6758563797354	0.0 0.7 0.0 0.5 0.7 0.0 1.1 0.7 0.0 0.8 1.1 0.0		2.55 5.68 2.22 4.55 3.91 2.53 9.1	
Total	18	.6	62.1	6.	1	8.	8	0.5		3.9	
Senior					- •						•
SA SB SC SD	11 11 7 4	•0 •5 •4 •7	67 .1 62.0 61.0 46.8	2. 5. 5.	7 1 4 8	12. 15. 22. 34.	3 8 5 9	0.0 1.1 0.8 4.7		6.9 4.5 2.9 2.1	
Total	đ	.0	57.8	5.	5	23.	.4	1,9		3.4	-

*This column indicates the percentage of students who failed to answer the question.

TABLE C

PERCENTAGE DISTRIBUTION OF THE FATHERS OF JUNIOR AND SENIOR COLLEGE FRESHMAN WOMEN ACCORDING TO THE HIGHEST LEVEL OF EDUCATION REACHED Fall, 1956

College	8th and	Grade Below	High School	Junior College	Senior College	Graduate Scho ol	Blank*
Junior							·
A B C D E F G H I J K L M	23 18 31 20 17 30 30 30 30 30 30 30 30 30 30 30 30 30	3.5 3.2 1.7 0.3 7.6 9.5 9.5 9.8 2.9	51.8 62.7 53.7 58.7 61.5 59.7 54.4 43.9 55.9 36.1 42.8 48.5 42.1	4.9 7.7 2.4 3.8 0.0 4.1 5.1 5.6 9.1 3.5	13.6 7.7 7.3 11.3 13.5 8.1 6.1 6.1 6.1 6.8 2.8 14.3 9.0 5.2	2.5 2.8 0.0 1.2 1.9 1.6 1.4 1.0 0.0 8.3 4.8 6.1 0.0	3.7 0.9 4.9 3.7 5.8 0.0 6.1 4.1 5.1 8.3 4.8 6.1 5.3
Total	27	7.9	52.7	4.5	8.5	2.1	4.3
Senior							
SA SB SC SD	19 9 3 6	9.5 9.9 1.6	48.0 55.8 50.0 31.8	4.0 6.1 3.6 7.2	23.3 18.7 35.7 39.5	0.0 3.4 0.0 15.9	5.2 6.1 7.1 1.5
Total	8	•9	46.6	6.1	26.9	6.9	4.6

*This column indicates the percentage of students who failed to answer the question.

TABLE D

PERCENTAGE DISTRIBUTION OF THE MOTHERS OF JUNIOR AND SENIOR COLLEGE FRESHMAN WOMEN ACCORDING TO THE HIGHEST LEVEL OF EDUCATION REACHED Fall, 1956

College	8th Grade and Below	High Scho ol	Junior College	Senior College	Graduate School	Blank*
Junior						
A B C D F G H I J K L M	7.4 9.6 24.4 7.5 5.8 24.2 13.6 24.5 13.6 13.9 9.5 9.1 22.8	67.9 70.2 58.5 73.8 71.1 69.4 70.1 65.3 61.7 69.4 60.3 72.7 64.9	6.2 8.7 7.3 2.5 5.8 1.6 4.8 2.0 6.8 2.8 9.5 12.1 3.5	14.8 7.7 9.8 11.2 13.5 4.8 6.1 15.2 8.3 14.3 6.1 7.0	0.0 1.9 0.0 2.5 1.9 0.0 0.0 0.0 0.0 0.0 3.2 0.0 0.0	3.7 1.9 0.0 2.5 1.9 0.0 3.4 2.1 1.7 5.6 3.2 0.0 1.8
Total	14.1	67.8	5•4	9.6	0.8	2.3
<u>Senior</u>						
SA SB SC SD	13.0 6.1 10.7 2.6	64.9 58.2 60.7 47.2	2.6 8.5 3.6 2.1	16.9 23.1 17.9 41.5	0.0 1.0 0.0 5.6	2.6 3.1 7.1 1.0
Total	6.1	55.6	5•4	28.1	2.3	2.5

*This column indicates the percentage of students who failed to answer the question.

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