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Bulletin 93 - An Analysis of the Student Body 1925-1926

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The
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Number 93

July 1, 1926

Eastern Illinois State Teachers College
—AT—
CHARLESTON



An Analysis of the Student Body
of the
EASTERN ILLINOIS STATE TEACHERS COLLEGE
FOR THE YEAR 1925-1926

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The Teachers College Bulletin

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Eastern Illinois State Teachers College

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An Analysis of the Student Body of the Eastern Illinois State Teachers College for the Year 1925-1926

By RALPH HAEFNER

CHAPTER I

INTRODUCTION

AIM AND SCOPE OF THE STUDY

The aim of this study is to investigate the character of the student body found in an institution whose primary purpose is the preparation of teachers for the elementary school. The specific student group which forms the material for the study was enrolled during the year 1925-1926 in the Eastern Illinois State Teachers College at Charleston.

The problem has been approached from three somewhat different angles. The set of influences which surrounded these students during their pre-college lives are analyzed in some detail. The native mental ability of the students as well as their college scholarship achievements reveal other elements in the composition of the group. The future use which these students, according to their present judgments, expect to make of their college training is considered indicative of additional group characteristics.

SOURCES OF THE DATA

The basic data for the study were obtained from three principal sources. The answers given by the students themselves in response to a set of questions submitted to them provided the larger part of the data. The scores made by the students on the Otis Self-Administering Tests of Mental Ability were used as a second type of data. Finally, the students' scholarship records as found in the permanent files of the college were drawn upon. Copies of both the set of questions answered by the students and sample questions from the mental test given them are appended.

METHODS OF COLLECTING DATA

Since the answers to the set of questions constitute the main body of data for the study, an analysis of the blank which was used will be given.

Forty-nine detailed questions were listed on a four-page blank. These questions were grouped under the following six headings: (I.) Personal data, (II.) Elementary and high school education, (III.) Extra-curricular activities,¹ (IV.) Experience since leaving high school, (V.) Home background, and (VI.) Outlook on life.

The questions under the first heading were designed to obtain a number of personal facts of a routine nature, such as: age, sex, birthplace.

¹ The data obtained under this heading seemed to widen the scope of the investigation unduly and were therefore not used.

The questions under the second heading were concerned with such matters as: age at entering elementary school, number of elementary schools attended, age at entering high school, age at graduation from high school.

The questions under the third heading called for details as to the student's participation in various extra-activities in high school and college.

The questions under the fourth heading were concerned with such matters as: the number of years which had elapsed since the student had graduated from high school, his activities during that interval.

The questions under heading five were designed to obtain such information as: father's occupation, size of family, educational progress of brothers and sisters.

The questions under the sixth heading attempted to obtain the student's view as to the influences which had brought him to college and as to the future use which he expected to make of the training which he was getting.

The procedure used in obtaining the answers to the questions consisted of the submission of the four-page blank by the writer to the majority of students during regular class hours. A small group of students who had very irregular programs filled the blank at a time appointed especially for the purpose.

The filling of the blank was preceded by a brief statement as to the purpose for which the information was to be used. Completeness in answering the questions was urged on the basis of the confidential use which was to be made of the information. The attitude of the students was serious and co-operative.

During the filling of the blank a pause was made at the end of each large heading until all persons had finished to that point. This method seemed to obviate any tendency to hurry and give ill-considered answers. It also permitted the one in charge to make, in the case of a few questions, a uniform explanation as to what was wanted. When all students had finished, a short time was used for checking answers. The entire work of filling the blank consumed about forty-five minutes.

The degree of accuracy of the information obtained from this set of questions is important. A grouping of the questions on the basis of the student's ability to answer them accurately may be made. The questions fall under the three main types: (1) those which could be answered almost automatically, (2) those requiring some effort to recall and check the answers, (3) those requiring the use of judgment in arriving at answers.

Examples of the first type of questions are: age, residence in town or country, home county, age upon entering high school, occupation of father.

Examples of the second type of question are: number in the high school class in which the student graduated, the student's participation in various extra-activities in high school, the educational achievements of the student's brothers and sisters.

Examples of the third type of question are: the student's purpose in coming to this college, whether he expects to make teaching a step to some other activity, the reason why he would go to some other college if he had his own entire choice.

Approximately one-half of the questions are of the first type; one-third of the second type; one-sixth of the third type.

How accurately could college students answer these three types of questions? Normal people could certainly answer the first type with a high degree of accuracy. The second type would require slightly more thought but could be answered by most students with almost as much accuracy as the first type. The answering of questions of the third type would require that the student project his present experiences into the future and draw conclusions concerning outcomes which might now appear vague to him. The answers to questions of this type would certainly be less reliable than those obtained from the other two types and could be used only as the basis for tentative conclusions.

The test of mental ability was given during regular class hours by the writer and two other teachers in the same department. The standard procedure for administration and scoring recommended by the author of the test was followed.¹ Exactly thirty minutes were allowed for writing the test. The scoring was done by the same teachers who administered the test.

The complete college scholarship record of each student was transcribed from the registrar's files to a sheet of paper. The transcription included the final records for all courses which the student had completed or was pursuing on the date the question blank was filled out.

The data thus obtained for each student consisted of: the department in which a course had been taken, for example, English, Mathematics; the term grade for the course; the term in which the course was taken; the amount of credit allowed for the course toward graduation. No differentiation was made between the courses taken in a single department: thus all courses in English were labelled "English" in the transcript. In all cases in which a condition or a failure in a course had been removed by a later passing grade, the latter was taken as the grade for the course.

The computations needed for finding the term and final averages for each student were facilitated by the use of an adding machine and a set of computation tables.²

¹ Otis, *Manual of Directions and Key*, pp. 2-3

² Crelle, *Rechentafeln*.

CHAPTER II

THE COLLEGE AND THE TERRITORY IT SERVES
STATE TEACHERS COLLEGES IN ILLINOIS

The Eastern Illinois State Teachers College at Charleston is one of five such institutions in the state. The other four are located at De Kalb, Normal, Macomb and Carbondale.

The geographical relation of the five colleges is shown in Figure 1. The circles are described with the schools as centers and with 75 mile radii. Except for a few small sections all parts of the state are within these circles.

The comparative size of the five state teachers colleges can be judged from Table I. The data for the table are based on a report¹ of the United States Bureau of Education and consist of

TABLE I
THE NUMBER OF DIPLOMAS AND DEGREES GRANTED BY
ILLINOIS STATE TEACHERS COLLEGE FOR THE
YEAR 1923-24

College	Number	
	Diplomas	Degrees
Normal.....	358	52
De Kalb.....	227	17
Carbondale.....	189	15
Macomb.....	128	34
Charleston.....	71	7

the number of graduates of each of the five schools in 1923-24. On the basis of these figures Normal leads in size, followed by DeKalb, Carbondale, Macomb, and Charleston. This study deals, therefore, with the student body of the smallest of the five state teachers colleges.

THE EASTERN ILLINOIS STATE TEACHERS COLLEGE

The Eastern Illinois State Teachers College at Charleston is located in Coles county in the east central part of the state.

The college was authorized by the state legislature in May, 1895, as the Eastern Illinois State Normal School. It opened to students in September, 1899.

The purpose of the institution as stated by the lawmakers was:

. . . to qualify teachers for the common schools of the state by imparting instruction in the art of teaching in all branches of study which pertain to a common school education, in the

¹ *Statistics of Teachers Colleges and Normal Schools, 1923-24.*

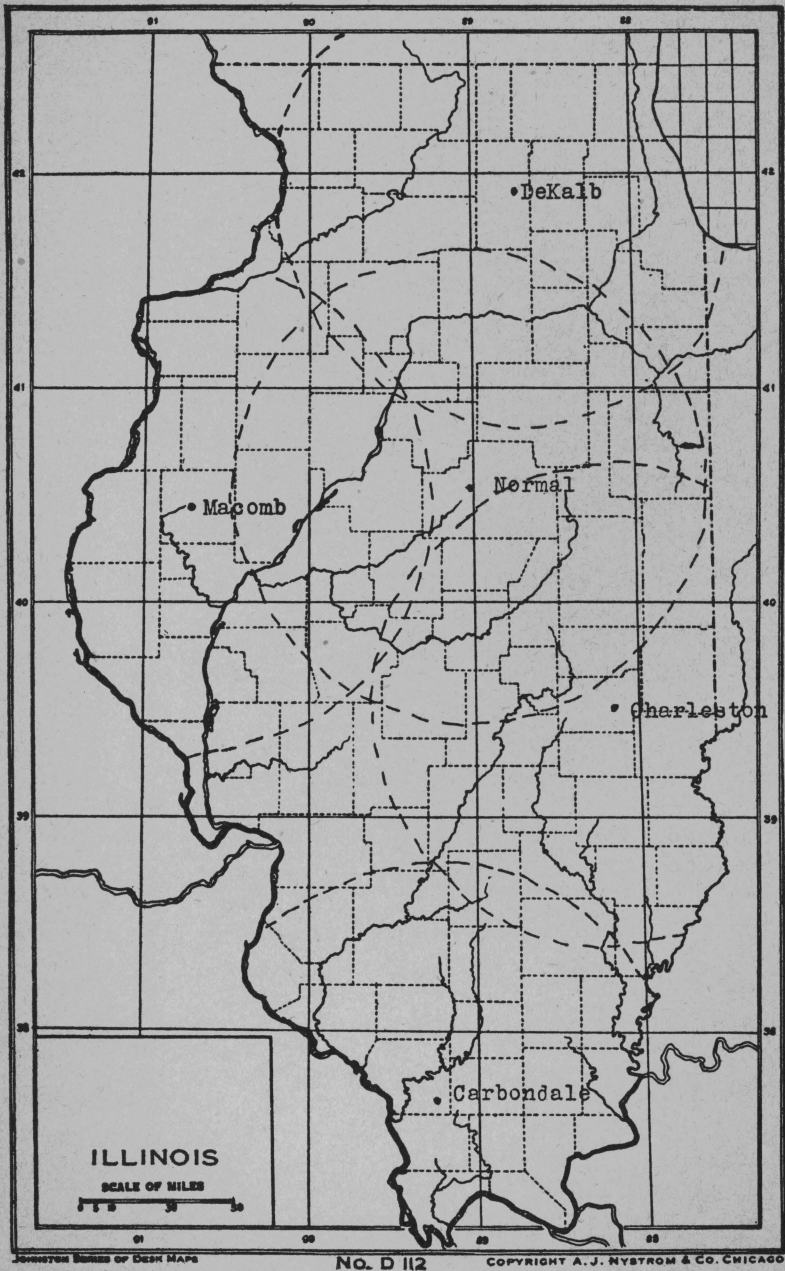


Fig. 1.—Geographical relation of teachers colleges of Illinois.

elements of the natural and physical sciences, in the fundamental laws of the United States and of the State of Illinois in regard to the rights and duties of citizens.¹

The grounds of the institution consist of a forty acre wooded tract of land lying in the south part of the city of Charleston.

The main building, a three story stone structure, was completed in 1899. It provides space for most of the class work, the library, the auditorium. A women's dormitory, a training school building and a small building for manual arts work have since been added. The institution is now badly in need of additional space for library purposes, academic classes, and industrial arts.

The faculty of the college has increased in number from 14 the first year to approximately 60 for the year 1925-1926.

The policy of the president of the institution has been to find promising young teachers and to give them opportunity for development. As a consequence a long list of men now prominent in education have "graduated" from the faculty of the school.

The present head of the school has been in active charge since the school was established. His vigorous emphasis of skillful teaching, of clear thinking, and of high ideals has influenced all members of the institution, faculty and students alike. In a very real sense the institution bears the stamp of his personality and thought.

The significant features of the history of the curriculum of the institution have been the following: the gradual elimination of combination high school and college curricula; the addition of courses in manual and household arts; the organization of senior college sequences, leading to a Bachelor of Education degree.

A few statements will summarize the present curriculum situation. For the year 1925-26 two-year curricula were offered giving preparation for the following types of teaching: elementary grades, junior high school English, manual arts, home economics, agriculture, art, and music. During the same year, four-year curricula were offered providing for specialization in the following fields: primary grades, intermediate grades, art and design, manual arts, English, foreign language, history, school administration and supervision, music, agriculture, mathematics, geography, biological science, physical science. A copy of one of each of the two- and four-year curricula is appended.

The growth of the school in attendance is indicated by the data of Table II which are presented graphically in Figure 2.

¹ Cahill (compiler), *Revised Statutes of the State of Illinois*, p. 2247.

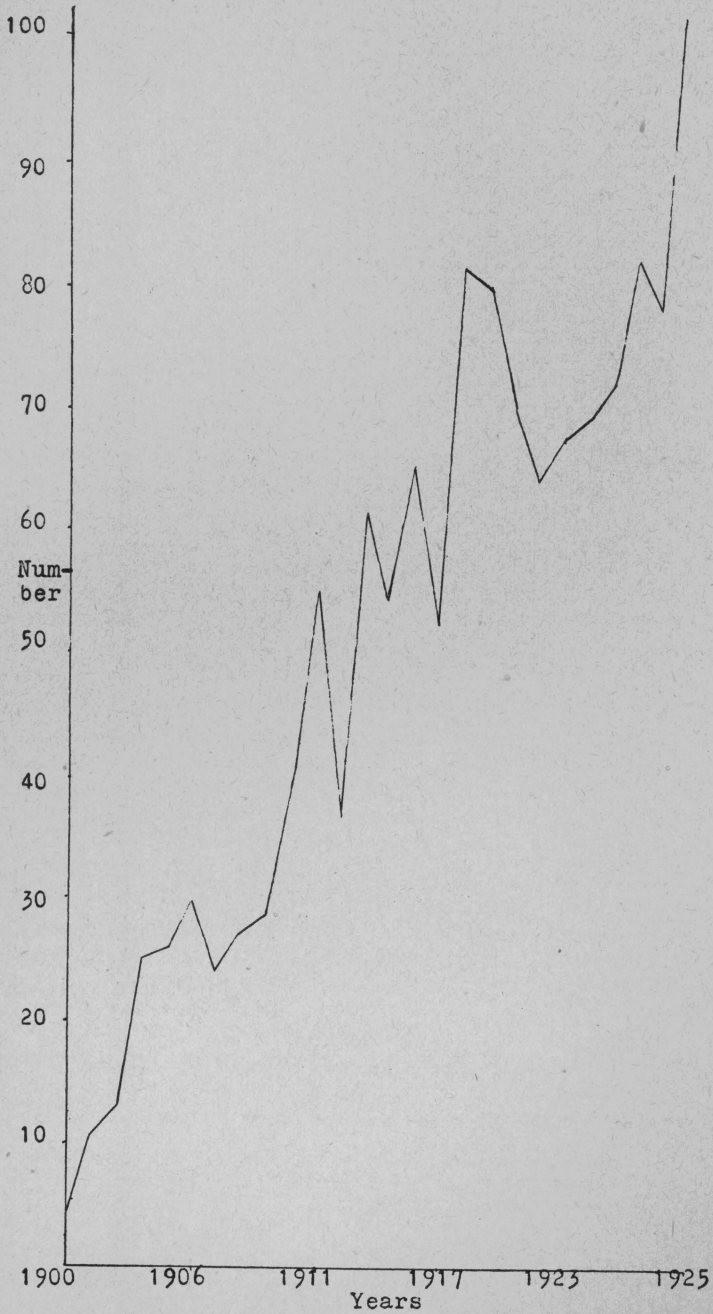


Fig. 2.—The growth in attendance at the Eastern Illinois State Teachers College from 1900 to 1926.

TABLE II

NUMBER OF GRADUATES BY YEARS SINCE THE FOUNDING
OF THE EASTERN ILLINOIS STATE TEACHERS COLLEGE

Year	Number	Year	Number	Year	Number	Year	Number
1900	4	1907	27	1914	65	1921	69
1901	11	1908	29	1915	52	1922a	72
1902	13	1909	39	1916	81	1923	82
1903	25	1910	55	1917	80	1924	78
1904	26	1911	36	1918	71	1925	101
1905	30	1912	61	1919	64	-----	-----
1906	24	1913	54	1920	67	-----	-----

^a The years from 1922 on include both two-year and four-year graduates.

A fairly steady but very gradual increase has taken place in the number of graduates since the institution's founding.

THE CHARACTER OF THE POPULATION OF EASTERN ILLINOIS

The cross-hatched sections of Figure 3, covering 38 counties, indicate the territory from which the Eastern Illinois State Teachers College received students in 1925-26. The seventy-five mile circle of Figure 1 is overlapped through two-thirds of its extent. An analysis of the general character of the population of this larger area will next be made.

The density of population for each of the 38 counties of the area being considered, as well as that for the remaining counties of the state, as determined by the United States Census Bureau,¹ are shown graphically in Figure 4. The counties in the area under consideration are enclosed by red lines.

The number of counties of each density among the 38 counties are indicated in Table III, which is based on the census data.² Of the 38 counties, nearly one-half have a maximum population of 44 inhabitants to the square mile; 13 have a maximum of 90; 7 have more than 90. The Eastern Illinois State Teachers College

TABLE III

DENSITY OF POPULATION OF COUNTIES IN EASTERN
ILLINOIS

Population Per Square Mile	Number of Counties
18-44.....	18
45-90.....	13
Over 90.....	7

¹ *Fourteenth Census of the United States, State Compendium for Illinois*, p. 10.

² *Ibid*, p. 10.

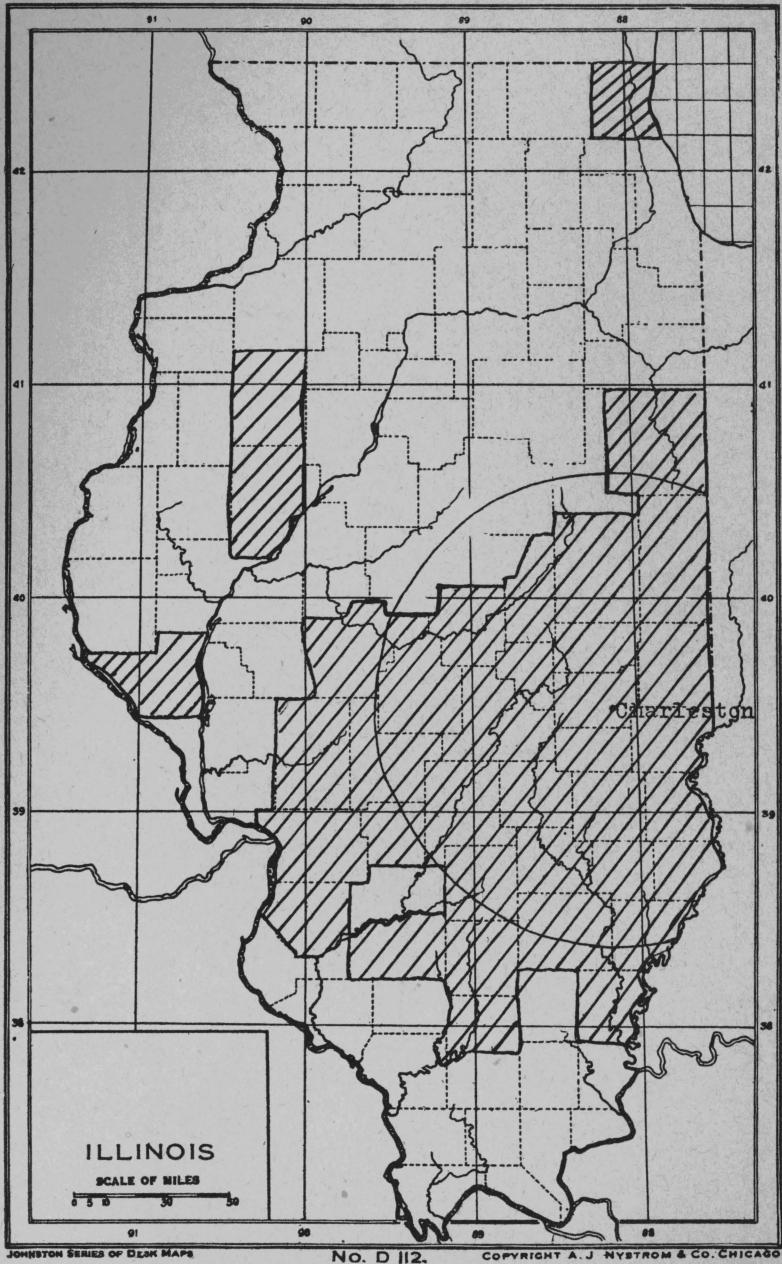


Fig. 3.—Territory served by the Eastern Illinois State Teachers College in 1925-26.

serves a territory somewhat less densely populated than other areas of the state of equal size.

The upward and downward movement of population within a given area is of importance to the educational institutions within that area. These changes for the area being considered are shown for the decade 1910-1920 in Table IV. The data for the table were obtained from a United States census report.¹

TABLE IV
CHANGES IN TOTAL AND RURAL POPULATION IN 38 COUNTIES OF EASTERN ILLINOIS FROM 1910 TO 1920

Change in Population	Number of Counties	
	Total Pop.	Rural Pop.
Increase more than 50%.....	1	0
Increase 25-50%.....	1	2
Increase 15-24%.....	3	0
Increase 5-14%.....	7	2
Increase less than 5%.....	4	3
Decrease.....	22	31

More than one-half of the counties of the area have lost, both in total and in rural population; more than two-thirds have lost in rural population.

The distribution of the population between urban and rural communities in the 38 counties as reported by the United States Census² is shown in Table V. The Census Bureau classifies

TABLE V
PERCENTAGE OF URBAN POPULATION IN 38 COUNTIES OF EASTERN ILLINOIS IN 1920

Percentage of Urban Population	Number of Counties
0.....	7
1-15.....	7
16-25.....	5
26-50.....	10
Over 50.....	9

cities which have fewer than 2500 people with rural population. Under this definition seven counties, or more than one-fifth of the 38 counties in the area, have no urban population. Seven others have a maximum of 15 per cent of city dwellers. The remaining 19 counties, one-half of the total number, have more than 25 per cent of urban population. The subsequent discussion

¹ *Ibid*, p. 9.

² *Op. cit.*, p. 35.

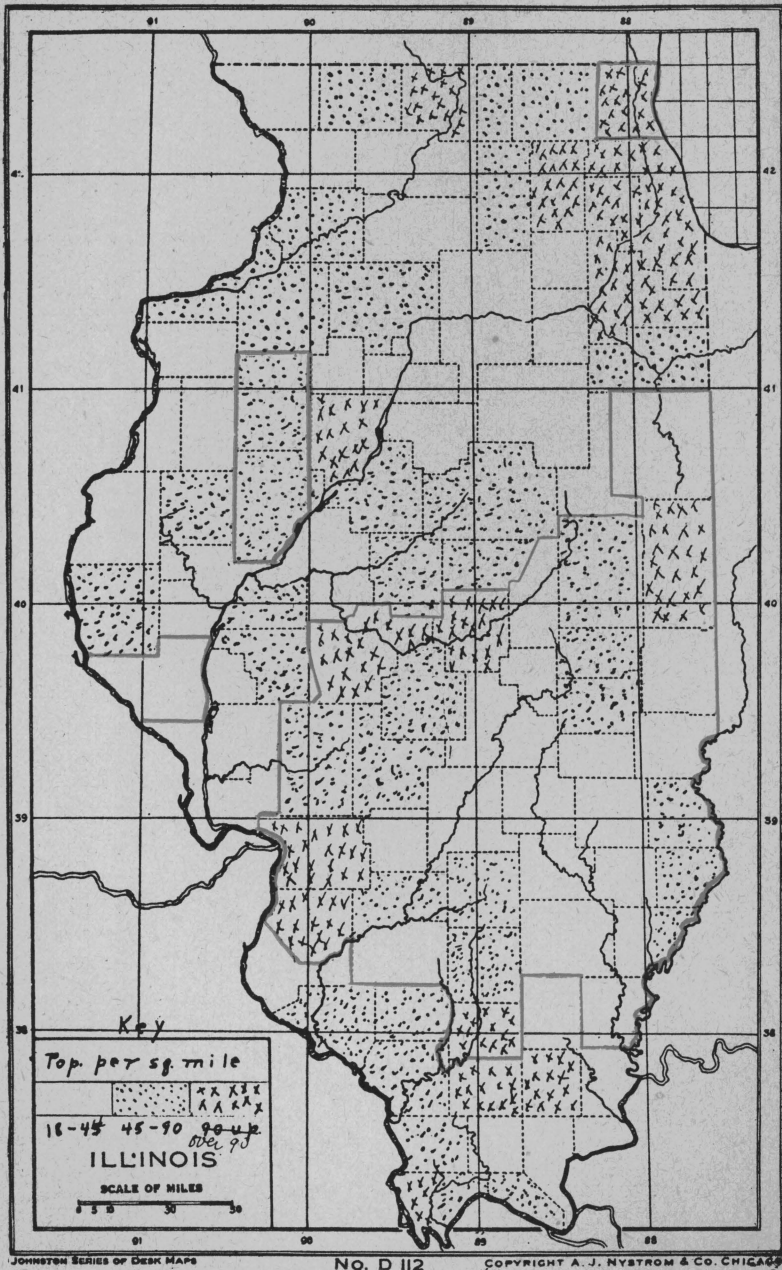


Fig. 4.—Density of population in the counties of Illinois.

of the geographical distribution of the students will greatly reduce the importance, for this study, of the last group of counties.

The data presented in Table VI, based on the United States Census,¹ show the general composition of the population as distinguished from its geographical distribution. The striking feature brought out by the data of Table VI is the highly homogeneous character of the population of this region. More than one-half of the counties have less than 5 per cent of foreign whites or people of any other race. More than three-fourths of the counties have less than 10 per cent of such people, and only

TABLE VI
PERCENTAGE OF NATIVE WHITES IN 38 COUNTIES OF
EASTERN ILLINOIS IN 1920

Percentage of Native Whites	Number of Counties
Less than 80.....	1
80-84.....	5
85-89.....	4
90-94.....	7
95 and above.....	21

one county has more than 20 per cent. Native white American people make up the larger part of the population of the area.

The data on literacy for this area, based on a United States Census report² are summarized in Table VII. The Census Bureau classifies as illiterate any person ten years of age or over who is unable to write in any language, not necessarily English, regardless of ability to read. By this definition three-fourths of

TABLE VII
PERCENTAGE OF ILLITERACY IN 38 COUNTIES IN EASTERN
ILLINOIS IN 1920

Percentage	Number of Counties
Less than 1.....	1
1-3.....	30
4-5.....	6
More than 5.....	1

the 38 counties have from 1 to 3 per cent of their population who are unable to qualify as literate people; while one-fifth of the counties have more than 3 per cent of such people. Although these percentages appear small, they represent hundreds of people

¹ *Op. cit.*, p. 45 ff.

² *Op. cit.*, p. 45 ff.

to whom writing is still closed as a channel of communication. However, it may be observed in passing that the decade 1910-1920 saw a reduction in the percentage of illiteracy in 37 of the 38 counties of this area.

SUMMARY

1. The Eastern Illinois State Teachers College has had 27 years of slow but steady growth.
2. It ranks last in size among the five teachers colleges of the state.
3. It draws students from more than a third of the counties of the state.
4. The population of the contributing territory is less dense than that of the state as a whole.
5. A small loss in population is taking place in the territory but the loss is more pronounced in rural districts than in the territory as a whole.
6. The great majority of the people of the territory live in the country or in country towns.
7. The composition of the population is predominantly native white American.
8. A small but decreasing percentage of the population has not yet learned to write in any language.

CHAPTER III

NUMBER AND AGE OF STUDENTS STUDIED

NUMBER

It was the expectation in planning the study to include all of the students enrolled in the college on a particular date. However, the collection of both the question blank data and the mental test scores was spread over almost the entire month of March, 1926. During that period a number of students dropped out of school entirely; others were absent on the days when the data were being collected. A number of the latter cases were checked up individually and the data secured.

Table VIII shows the number of members of each college

TABLE VIII
NUMBER, SEX AND CLASSIFICATION OF COLLEGE STUDENTS FILLING OUT INFORMATION BLANK

Sex	Number and Classification				Total
	First Year	Second Year	Third Year	Fourth Year	
Men.....	77	59	9	8	153
Women.....	180	123	18	9	330
Total.....	257	182	27	17	483

class who filled the question blank. Table IX shows the number of members of each class who did not fill the blank. Table X shows the number of members of each class who took the mental

TABLE IX

NUMBER OF STUDENTS WHO DID NOT FILL OUT QUESTION
BLANK

Sex	Number and Classification				Total
	First Year	Second Year	Third Year	Fourth Year	
Men.....	5	4	2	0	11
Women.....	4	2	0	0	6
Total.....	9	6	2	0	17

TABLE X

NUMBER OF STUDENTS WHO TOOK MENTAL TEST

Sex	Number and Classification				Total
	First Year	Second Year	Third Year	Fourth Year	
Men.....	76	62	9	8	155
Women.....	180	120	18	9	327
Total.....	256	182	27	17	482

TABLE XI

NUMBER OF STUDENTS WHO DID NOT TAKE MENTAL TEST

Sex	Number and Classification				Total
	First Year	Second Year	Third Year	Fourth Year	
Men.....	6	0	0	0	6
Women.....	4	6	0	0	10
Total.....	10	6	0	0	16

test. Table XI shows the number of students of each class who did not take the mental test. The groups which filled out the question blank and took the test are identical for the third and fourth years but are not entirely so for the first and second years.

Table XII is a combination of either Tables VIII and IX or X and XI. It presents the total number of students officially enrolled in the college at the time the data were collected. The

TABLE XII
TOTAL NUMBER OF STUDENTS ENROLLED, MARCH, 1926

Sex	Number and Classification				Total	Percent- age
	First Year	Second Year	Third Year	Fourth Year		
Men.....	82	62	11	8	163	32.6
Women.....	184	126	18	9	337	67.4
Total.....	266	188	29	17	500	100.0
Percentage.....	53.2	37.6	5.8	3.4	100.0	.....

total number of students who filled the question blank, 483, is 96.6 per cent of the total enrollment. The total number of those who took the mental test, 482, is 96.4 per cent of the total enrollment.

Reference again to Table XII will show the number and percentage of students in each class and by sexes. The first two classes include more than 90 per cent of the total enrollment. Men compose slightly less than one-third of the total; women slightly more than two-thirds.

This college is still predominantly a two-year institution. While the number of students in the senior college has gradually increased since the first degrees were conferred in 1922, that group is still distinctly in the numerical minority.

AGE DISTRIBUTION OF STUDENTS

The distribution of the student body by ages is shown in Table XIII. The table means that 170 first year students were

TABLE XIII
DISTRIBUTION AND PERCENTAGE OF COLLEGE STUDENTS
IN VARIOUS AGE GROUPS

Class	Number					Total
	Under 20	20 to 24-11	25 to 29-11	30 to 34-11	35 and above	
First Year.....	170	78	5	3	1	257
Second Year.....	68	98	11	3	2	182
Third Year.....	3	16	4	3	1	27
Fourth Year.....	0	6	8	3	0	17
Total.....	241	198	28	12	4	483
Percent.....	49.9	41.0	5.8	2.5	.8	100.0

of ages up to and including 19 years and 11 months at the time the data were collected; that a total of 241 students were of that age.

Of the entire group of students almost one-half are under 20 years of age. More than 90 per cent are under 25 years of age. Slightly less than 10 per cent are over 25 years of age.

Table XIV shows the median ages of the four classes. There is a regular increase in medians for men, for women and

TABLE XIV
MEDIAN AGE AND AGE RANGE OF COLLEGE STUDENTS

Class	Median Age			Age Range		
	Men	Women	Both	Men	Women	Both
First Year	19-10	19-2	19-5	17 to 33-1	16-11 to 37-4	16-11 to 37-4
Second Year	20-8	20-4	20-5	17-8 to 32-7	17-9 to 36-11	17-8 to 36-11
Third Year	21-9	21-5	21-9	20-10 to 31-3	19-1 to 37-3	19-1 to 37-8
Fourth Year	29-1	24-2	25-6	22-2 to 30-4	21-4 to 32	21-4 to 32

for both through the third year. At that point there appears an abrupt increase in all three medians. This increase is from two to seven years in excess of that between the lower years. The fourth year students are as a group older than their classification would lead one to expect.

The median ages for the men of all classes are higher than those for the women of corresponding classes. Apparently the women enter this kind of college earlier than men. The progress of the students through the public schools which will be discussed in a subsequent chapter will offer some explanation of the sex difference in median ages.

Table XIV also shows the range in ages for the four classes. This part of the table means that first year men range in age from 17 years to 33 years and one month. The difference between the youngest and the oldest in each class gradually decreases from the first to the fourth year. In the first year it is roughly equal to 20 years for men and women combined. This difference is equivalent in years to that between a child in the first grade and a graduate student in college. The ranges for the second and third years are slightly less than for the first year. For the fourth year the range is roughly ten years or about the difference between a first grade child and a high school sophomore.

These wide differences in age would be serious were it not for the fact that the percentage of very mature individuals is

small, about 8 per cent of all the students being 25 years of age and above. Nevertheless, the fact remains that classes in a number of subjects in this college are heterogeneous in age.

SUMMARY

1. More than 96 per cent of the enrollment of this college is included in this study.
2. While this institution offers four years of work, its enrollment figures indicate that it is predominantly a junior college.
3. Nine out of ten of the students of this college are under 25 years of age.
4. Very wide ranges in ages exist in all classes.

CHAPTER IV

GEOGRAPHICAL DISTRIBUTION OF STUDENTS

In Chapter II the extent of the territory served by the Eastern Illinois State Teachers College was outlined. It will be the purpose of this chapter to show how the students of the college are distributed over that territory.

DISTRIBUTION BY COUNTIES

The number and percentage of students who came from each of the 38 counties which make up the contributing area of the school are shown in Table XV. Three students designated their

TABLE XV
NUMBER AND PERCENTAGE OF STUDENTS WHOSE HOMES
ARE IN VARIOUS COUNTIES

County	Number	Percent- age	County	Number	Percent- age
Coles.....	176	36.4	Wayne.....	4	.8
Shelby.....	36	7.5	Clay.....	3	.6
Edgar.....	32	6.6	Bond.....	3	.6
Jasper.....	25	5.2	Macon.....	3	.6
Clark.....	24	5.0	Fulton.....	2	.4
Crawford.....	23	4.8	Pike.....	2	.4
Douglas.....	23	4.8	St. Clair.....	2	.4
Montgomery.....	17	3.5	Christian.....	1	.2
Cumberland.....	15	3.1	Franklin.....	1	.2
Moultrie.....	12	2.5	Jefferson.....	1	.2
Madison.....	8	1.7	Knox.....	1	.2
Lawrence.....	8	1.7	Lake.....	1	.2
Edwards.....	7	1.5	Macoupin.....	1	.2
Champaign.....	6	1.3	Piatt.....	1	.2
Effingham.....	6	1.3	Washington.....	1	.2
Vermilion.....	6	1.3	White.....	1	.2
Richland.....	5	1.0	Iroquois.....	1	.2
Wabash.....	5	1.0	Other States.....	3	.6
Fayette.....	5	1.0	Unknown.....	4	.8
Marion.....	4	.8			
Sangamon.....	4	.8			
			Total.....	483	100.0

home counties in other states and four others did not know the name of their home counties.

The geographical location of the counties listed in Table XV is shown in Figure 5. The figure also locates the city of Charleston, as well as the other cities of Illinois in which state teachers colleges are situated.

Table XV shows that a small number of the 38 counties from which students came to this school in 1925-26 contributed a large percentage of the students. The county in which the school is located, Coles, was the home of more than 36 per cent of all the students enrolled. No other county in the contributing territory sent a fifth of that number.

The next eight counties listed in Table XV—from Shelby to and including Cumberland—may be considered as a group. Each contributed three per cent or more of the total number of students. Taken together these eight counties sent slightly more than 40 per cent of the students to this school during the year 1925-26. The first nine counties listed in Table XV contributed, therefore, more than 76 per cent of the students.

The next ten counties listed in Table XV—from Moultrie to and including Fayette—each contributed from one to less than three per cent, or a total of almost 15 per cent of all of the students. These ten counties together with the nine already referred to, a total of 19 counties, contributed more than 91 per cent of the students.

The remaining 19 counties listed in Table XV, or one-half of the total number of counties sending students to the school, were the homes of less than 9 per cent of all of the students.

The total number of counties which send any students to this college is large. More than one-third of the counties of the state are represented. In reality, however, 19 counties send nine-tenths of the students and 9 counties send three-fourths.

DISTRIBUTION OF STUDENTS BY ZONES

The character of the student distribution can be seen from another angle by referring again to Figure 5. With Charleston as a center circles have been drawn with radii of 15, 30, 50 and 75 miles.

Within the first or 15 mile zone is included almost the whole of Coles county, as well as large parts of Cumberland, Clark, Edgar, and Douglas counties. This zone includes nearly 40 per cent of the students. Many of these students live in the city of Charleston within walking distance of the school. A considerable number of others live close enough to drive to and from school each day. For approximately two-fifths of these students, therefore, this college is almost as much a purely local institution as the county court house.

The second or 30 mile zone, in addition to Coles county, includes: the entire areas of Douglas and Cumberland counties;



major fractions of Clark, Edgar, and Moultrie counties; parts of Shelby, Effingham, Jasper, and Crawford counties. If the entire areas of Clark, Edgar, and Moultrie counties are included in this zone and the fractions of Shelby, Effingham, Jasper, and Crawford are excluded, the total percentage of students who live within 30 miles of the school is about 62.

The third or 50 mile zone includes: all of Coles, Clark, Edgar, Douglas, Moultrie, Shelby, Cumberland, Effingham, Jasper, and Crawford counties; fractions of Vermilion, Champaign, Piatt, Macon, Christian, Fayette, Clay, and Richland counties. A careful estimate shows that 80 per cent of the students of the school live within this area or have their homes within 50 miles of Charleston.

The fourth or 75 mile zone includes, in addition to the counties of the preceding zone, the following: the entire counties of Vermilion, Champaign, Piatt, Macon, Christian, Fayette, Clay, Richland, and Lawrence; major fractions of Montgomery, Marion, Wayne, Edwards, and Wabash. If half of the percentages of students contributed by this last group of counties be included in this zone, the total for the zone is nearly 92 per cent of all the students.

Finally, beyond the 75 mile zone is a group of 14 counties which last year sent a total of slightly more than 7 per cent of the students. These outlying counties are among the more densely populated counties of the territory. Since they send relatively few students, they can be lightly passed over. The students come, therefore, in the main from a group of more thinly populated counties in eastern Illinois.

SUMMARY

1. Two out of five of all the students in this college live within daily walking or driving distance of the institution.
2. The homes of three out of four of all the students are within 50 miles of the college.
3. Only one student out of twelve lives more than 75 miles from the college.
4. One-half of the counties from which students come send more than 90 per cent of the student body.

CHAPTER V

CHARACTER OF THE FAMILIES AND HOMES OF STUDENTS

In Chapter II attention was called to a number of the general characteristics of the population of eastern Illinois. It will be the purpose of the present chapter to show in detail some of the features of the families and homes from which this particular group of students have come.

BIRTHPLACE OF STUDENTS

The number and percentage of students of the four classes who were born in towns and in the country are shown in Table XVI, which shows that 53 first year men and 133 first year women or 72.4 per cent of the first year students were born in town.

TABLE XVI
NUMBER AND PERCENTAGE OF COLLEGE STUDENTS BORN
IN TOWN AND COUNTRY

Class	Number					Percentage		
	Town		Country		Total	Town	Country	Total
	M	W	M	W		M and W	M and W	
First Year.....	53	133	24	47	257	72.4	27.6	100.0
Second Year.....	37	88	22	35	182	68.6	31.4	100.0
Third Year.....	6	11	3	7	27	62.9	37.1	100.0
Fourth Year.....	4	5	4	4	17	52.0	47.1	100.0
Total.....	100	237	53	93	483	69.8	30.2	100.0

A total of nearly 70 per cent of all the students reported towns as their birthplaces. The percentage born in town decreases from the first year to the fourth year. The table shows that 72.4 per cent of the first year students had urban birthplaces as compared with 52.3 per cent of the fourth year students.

This wide difference between the percentage of first year students and that of fourth year students may be explained, in part at least, by reference to some facts pointed out in earlier chapters. In Chapter II a marked decline in rural population of eastern Illinois was seen to have occurred during the decade from 1910 to 1920. The data presented in Chapter III touching on the age of the students showed that the median age of the first year students was 19 years and five months; that of the fourth year students 25 years and 6 months. The majority of the former students would, accordingly, have been born in 1907; the majority of the latter group in 1901. Viewing this difference in date of birth with the fact of a decline in rural population during the decade just referred to it seems reasonable to conclude that a considerable number of the parents of the first year students were included in the early stage of the cityward movement.

PRESENT HOMES OF STUDENTS

Table XVII is presented to show the present distribution between rural and urban homes of the student body under discussion. A much larger percentage of the older students claim

present city residence than do the members of the lower classes. The number of first year students who live in town makes up 57.5 per cent of that group as compared with 82.3 per cent of the fourth year students who live in town. Part of the explana-

TABLE XVII
NUMBER AND PERCENTAGE OF COLLEGE STUDENTS WHOSE
PRESENT HOMES ARE IN TOWN AND COUNTRY

Class	Number					Percentage		
	Town		Country		Total	Town	Country	Total
	M	W	M	W		M and W	M and W	
First Year.....	36	111	41	69	257	57.2	42.8	100.0
Second Year.....	33	77	26	46	182	60.0	40.0	100.0
Third Year.....	4	13	5	5	27	62.9	37.1	100.0
Fourth.....	6	8	2	1	17	82.3	17.7	100.0
Total.....	79	209	74	121	483	59.6	40.4	100.0

tion for this difference may be found in the fact that the upper class students are largely mature, self-supporting people. Many of them teach away from home during a large part of the year and look upon themselves as town residents.

The population trend from the country to the city has apparently been offset at certain periods by a movement in the reverse direction. While Table XVI shows that a total of 69.8 of the students were born in town, Table XVII shows that only 59.6 per cent of the same students now claim urban residence. Some 10 per cent of the students seemingly have moved to the country since birth.

It was pointed out in Chapter II that the population of eastern Illinois is predominantly rural. This fact is given further emphasis by the data presented in Tables XVI and XVII. These data show that more than one-half of the students of this college have had a background of rural experience. At the same time the majority of the cities in which the second half of the students have lived are places with populations under 2500. The college students, therefore, who have not grown up in the country, have, in the main, grown up in country towns.

RESIDENTIAL DISTRIBUTION OF COLLEGE STUDENTS AS COMPARED WITH THAT OF THE GENERAL POPULATION.

The data presented in Table XVII refer solely to the present residence of the students of this one teachers college. The extent to which the residential distribution of students is characteristic of the total population of eastern Illinois will next be considered.

In making the contrast between the homes of students and those of the general population the counties intersected by the 75 mile circle drawn in Figure 3 are alone included. A group of 11 counties outside this line, which last year sent a total of 26 students to the school, are thus eliminated from the comparison. This method was adopted in order to avoid giving undue weight to those counties which send few students to the school and which represent in their industrial and social make-up sections of the state which are widely different from the rest of the territory.

In order to make possible a direct comparison between the student group and the general population the definition of rural and urban population used by the United States Census Bureau was adopted. Rural population by this procedure includes all people whose homes are in towns with populations under 2500 as well as people who live on farms. Urban population is thus limited to the residents of towns with populations in excess of 2500.

The data concerning the residential distribution of the student group and of the general population are shown in Table XVIII. The table means that 288 students, or 63 per cent of those who now live in the counties touched by the 75 mile line, have rural homes; while 65 per cent of the general population within the same area have rural homes.

The striking fact about the data of Table XVIII is the practical identity of the percentage of rural and urban residences for the two population groups. Within the group of counties included in the table the number of students drawn from

TABLE XVIII
RESIDENTIAL DISTRIBUTION OF STUDENTS AND OF GENERAL POPULATION WITHIN 75 MILES OF THE COLLEGE

Population Group	Number		Total	Percentage	
	Rural	Urban		Rural	Urban
Students.....	288	169	457	63	37
General Pop.....	538,457	296,926	835,383	65	35

rural and urban homes is in very direct proportion to the distribution of rural and urban homes for the general population.

In passing attention should be called to the difference between the percentages of rural and urban homes of students as shown in Tables XVII and XVIII. Table XVII shows that nearly 60 per cent of the students have urban homes, while Table XVIII shows that only 37 per cent of the same group have urban homes. This difference represents the percentage of students who live in towns with populations of less than 2500. Under the term "town"

as used in Table XVII is included the very smallest group of people who carry on an organized community life.

STUDENTS' OCCUPATIONAL BACKGROUND

The main categories which Counts¹ adapted from the United States Census have been used to classify the occupations of the students' fathers. Counts' complete list of specific occupations is not listed but only those in which the fathers of students were actually engaged. The categories with the occupations of the fathers of students follow:

I. *Proprietors*.—Automobile dealers, bankers, coal dealers, garage owners, grain dealers, grocers, hardware dealers, merchants, morticians, piano dealers, poultry dealers, service station operators, shoe dealers.

II. *Professional service*.—Dentists, doctors, druggists, engineers, lawyers, ministers, opticians, teachers.

III. *Managerial service*.—Contractors, foremen, managers, postmasters.

IV. *Commercial service*.—Clerks, insurance dealers, real estate dealers, salesmen, secretaries.

V. *Clerical service*.—City officers, county officers.

VI. *Agricultural service*.—Farmers, fruit growers, livestock raisers, swamp clearers.

VII. *Artisan service*.—Bakers, electricians, manufacturers, tailors.

VIII. *Building and related trades*.—Blacksmiths, bricklayers, carpenters, decorators, granite-cutters, masons.

IX. *Machine and related trades*.—Draftsmen, mechanics, operators, pattern makers, stationary engineers.

X. *Printing trades*.—None.

XI. *Miscellaneous trades*.—Millers.

XII. *Transportation service*.—Conductors (railroad), mail carriers, mail clerks (railroad), station agents, taxi-drivers, transfer line operators.

XIII. *Public service*.—Constables, custodians.

XIV. *Personal service*.—Janitors.

XV. *Mineral and lumber work*.—Miners, lumbermen, oil field workers.

XVI. *Common labor*.

XVII. *Unknown*.

The number and the percentage of students' fathers who are, or have, engaged in each class of occupation are shown in Table XIX. Figure 6 presents the same data in graphical form.

¹ *The Selective Character of American Secondary Education*, pp. 22-23.

TABLE XIX
NUMBER AND PERCENTAGE OF FATHERS OF COLLEGE
STUDENTS IN VARIOUS OCCUPATIONS

Occupation	Number	Percentage
Agricultural service.....	240	49.7
Proprietors.....	53	11.0
Professional service.....	31	6.4
Commercial service.....	25	5.2
Managerial service.....	24	5.0
Common labor.....	21	4.4
Transportation service.....	20	4.1
Building and related trades.....	20	4.1
Machine and related trades.....	13	2.7
Mineral and lumber work.....	11	2.3
Artisan service.....	10	2.1
Clerical service.....	6	1.2
Public service.....	2	.4
Personal service.....	1	.2
Not given.....	6	1.2
Total.....	483	100.0

Almost one-half of the fathers of all the students in this group are now following or have in the past followed some form of agricultural service as an occupation. In the majority of cases the specific form of agricultural service engaged in was farming.

While approximately 50 per cent of the fathers of students are engaged in agriculture as a profession, Table XVII shows that only 40 per cent of the students have homes in the country. In the case of 10 per cent of the families which reside in town the father directs or has directed the operation of a farm.

Only three other categories of occupations account for as much as 5 per cent each of the total number of fathers' occupations. Almost 11 per cent of the fathers are proprietors of such enterprises as garages, banks, grocery stores, hardware stores. Somewhat over 6 per cent of the fathers are engaged in the professions of dentistry, medicine, pharmacy, law, the ministry, and teaching. Slightly more than 5 per cent are engaged in such commercial service occupations as the insurance and real estate business.

Below these four classes of occupations are four others of nearly equal size: managerial service, represented by contractors, foremen, postmasters; common labor; building trades, represented by blacksmiths, bricklayers, carpenters, decorators; transportation service, represented by railroad conductors, mail carriers, station agents. The remainder of the main categories have only small representations among the occupations of students' fathers.

The data as to occupations of fathers of students stress again the distinctly rural character of the homes from which about

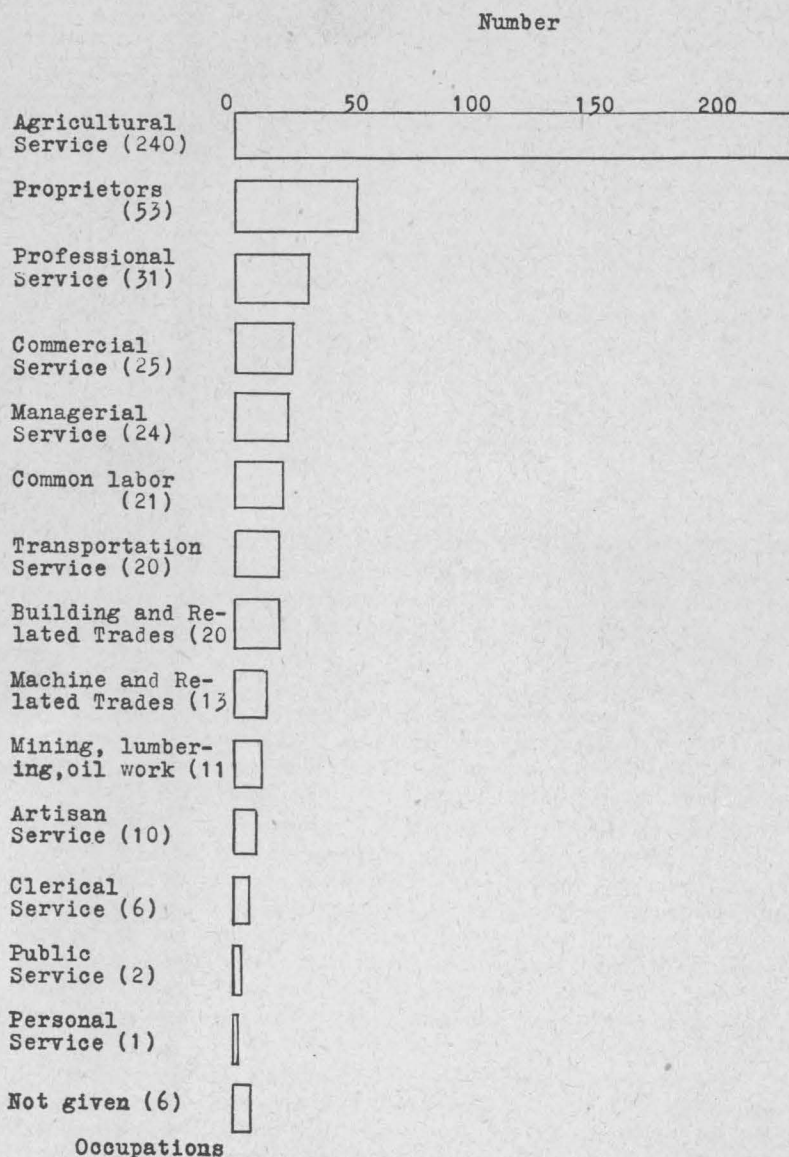


Fig. 6.—The number of students' fathers in various classes of occupations.

one-half of the students come. This fact may be emphasized from another point of view by the statement that while 49.7 per cent of the fathers of students are engaged in farming, only 17.8 per cent of the males of the state as a whole are so engaged.¹ On the other hand, while the building, machine and miscellaneous trades constitute the occupations of about 7 per cent of the fathers of students, these same lines of work are followed by 36 per cent of the males of the state as a whole.²

ECONOMIC STANDING OF THE FAMILIES OF STUDENTS

The fathers of two-thirds of the students own the enterprise in which they are engaged. One-third of the fathers work for someone else. The exact numbers and percentages are shown in

TABLE XX
BUSINESS STATUS OF FATHERS OF COLLEGE STUDENTS

Status	Number	Percentage
Own business.....	282	66.0
Work for someone.....	145	34.0
Total.....	427	100.0

Table XX. The atmosphere of independence which the ownership of a business brings to a home has been enjoyed by the majority of the families of students.

With the view to determining a somewhat more specific index to the economic standing of the families from which students come, the question was asked as to whether the student was earning any part of his expenses for the year. This sum was to include any money which he himself had earned previous to his coming to college but which he was now applying to his expenses here, as well as any money or its equivalent which he would earn while attending school.

Table XXI shows the number and percentage of students who are responsible for some part of their college expenses. A total of 45 per cent of all the students enrolled are self-supporting to some extent. The percentages for the four years show only small differences. A total of 79 per cent of all of the men were earning a part of their own expenses, as compared with 29 per cent of all of the women.

Nearly one-half of the members of this student group find it necessary to supplement by earnings of their own the financial support which their families can provide for them.

¹ *Fourteenth Census of the United States, State Compendium for Illinois*, pp. 81 ff.

² *Ibid*, pp. 81 ff.

TABLE XXI
NUMBER OF STUDENTS WHO ARE EARNING PART OF
THEIR EXPENSES

Class	Number		Total	Percent- age
	Men	Women		
First Year.....	61	51	112	44
Second Year.....	47	36	83	46
Third Year.....	7	5	12	44
Fourth Year.....	6	3	9	53
Total.....	121	95	216	
Percentage.....	79	29	45	

COMPOSITION OF FAMILIES OF STUDENTS

The number of children in the families from which college students come is shown in Table XXII. The table means that 9.1 per cent or 44 out of all of the families of students have one child; that 18.4 per cent or 89 families from which students come have two children.

TABLE XXII
SIZE OF FAMILIES FROM WHICH COLLEGE STUDENTS COME

Size.....	1	2	3	4	5	6	7	8	9	10	11	12	13
Number of Families.....	44	89	86	88	60	45	31	21	8	5	4	0	2
Percentage.....	9.1	18.4	17.8	18.2	12.4	9.3	6.4	4.4	1.7	1.1	.8	....	.4

Less than 10 per cent of the students have had no home contacts with other children. More than half of the students have from one to three brothers and sisters. Almost a third have from four to seven brothers and sisters. About three per cent have from eight to twelve brothers and sisters.

The median number of children in the families from which these students come is four. The United States Census for 1920¹ reports that the family of average size in Illinois consists of a total of 4.2 members. If two parents are subtracted from this number, the remainder of 2.2 will represent the number of children in the family of average size in this state. The median number of children, therefore, in the families from which these students come is more than 80 per cent greater than the average number of children in the families of the state as a whole.

The question may be asked as to what extent the distribution of college students over families of various sizes is charac-

¹ *Op. cit.*, p. 459.

teristic of the general population. A partial answer to this question can be obtained by comparing the data of Table XXII with those of Table XXIII. The data for the latter are adapted from a study by Baber and Ross¹ concerning changes in the size of American families in one generation. The study referred to is based on data relative to the number of children in 1419 families living in the central and middle west. The following occupations were represented: professions (268 families), business (388 families), clerical work (85 families), farming (326 families), skilled

TABLE XXIII
SIZE OF FAMILIES IN CENTRAL AND MIDDLE WESTERN STATES

Size	1	2	3	4	5	6	7	8	9	10	11	12	13	15	Tot.
No. of Families	218	294	242	181	120	88	39	19	9	11	10	2	0	1	1234
Percentage	17.7	23.8	19.6	14.7	9.7	7.1	3.3	1.5	.7	.9	.8	.1	.....	.1	100.0

labor (135 families), unskilled labor (32 families). In adapting the data for comparison with the families of the college students, 185 families from the middle west in which there were no children were omitted. This left a total of 1234 families with which the 483 families of students were compared.

A close examination of Tables XXII and XXIII shows considerably larger percentages of the families of the middle west have from one to two children than is the case among the families of the college students. Conversely, of course, the percentages of families of the middle west which have from four to six children are appreciably smaller than for the families of the students. Again, the percentages of families of the middle west which number above seven children are smaller than those for the families of students of corresponding sizes.

The relation between the two groups of families is presented graphically in Figure 7. The line representing the families of the middle west reaches its maximum percentage in families of two children and declines abruptly from that point. The line for the college students is spread at its high point over a number of families of medium size and declines somewhat less rapidly toward the families of larger size.

EDUCATIONAL ACHIEVEMENTS OF BROTHERS AND SISTERS OF STUDENTS

The data which are summarized in Table XXIV were obtained by asking the students to state the number of brothers and sisters who were located educationally at the points indicated.

¹ *Changes in the Size of American Families in One Generation*, p. 81.

No brother or sister was to be listed at more than one point and that point was to be the highest which he had reached. The table means then that these students had a total of 286 brothers and sisters in the elementary school; 540 who were only elementary school graduates; 230 who had only finished high school; 112 who had finished only one year of college work.

TABLE XXIV
EDUCATIONAL ACHIEVEMENTS OF BROTHERS AND SISTERS
OF COLLEGE STUDENTS

Educational Level	Number
In elementary school.....	286
Graduate of elementary school.....	540
Graduate of high school.....	230
One year in college.....	112
Two years in college.....	125
Three years in college.....	34
Four years in college.....	45
Graduate work in college.....	18

A summation of the three public school points in the table—the first three groups under “educational level”—gives a total of 1056 brothers and sisters. This means an average of slightly more than two brothers and sisters for each of the 483 college students. All of the brothers and sisters who have gone beyond the high school—the last five groups under “educational level”—total 334. This is an average of .6 of a brother or sister for each of the college students. Each student has, accordingly, an average of two brothers and sisters who have gotten all of their education in the public schools and an average of .6 of a brother or sister who has reached some point beyond the high school.

For the majority of these students there has been abundant family precedent for completing the public high school. Beyond that point some 40 per cent of these students are the first children in the family to begin a college course.

The influence of this college on the length of course pursued by the brothers and sisters of these students is marked. Of the 334 brothers and sisters who have done any college work 70 per cent have finished one or two years. The explanation for this fact is not far to seek. A second grade certificate can be obtained by taking one year of college work; a first grade certificate can be obtained for two years of college work.

SUMMARY

1. A majority of these college students have passed a part of their lives on farms.
2. The distribution of the students between town and country residences is directly proportional to the distribution of the

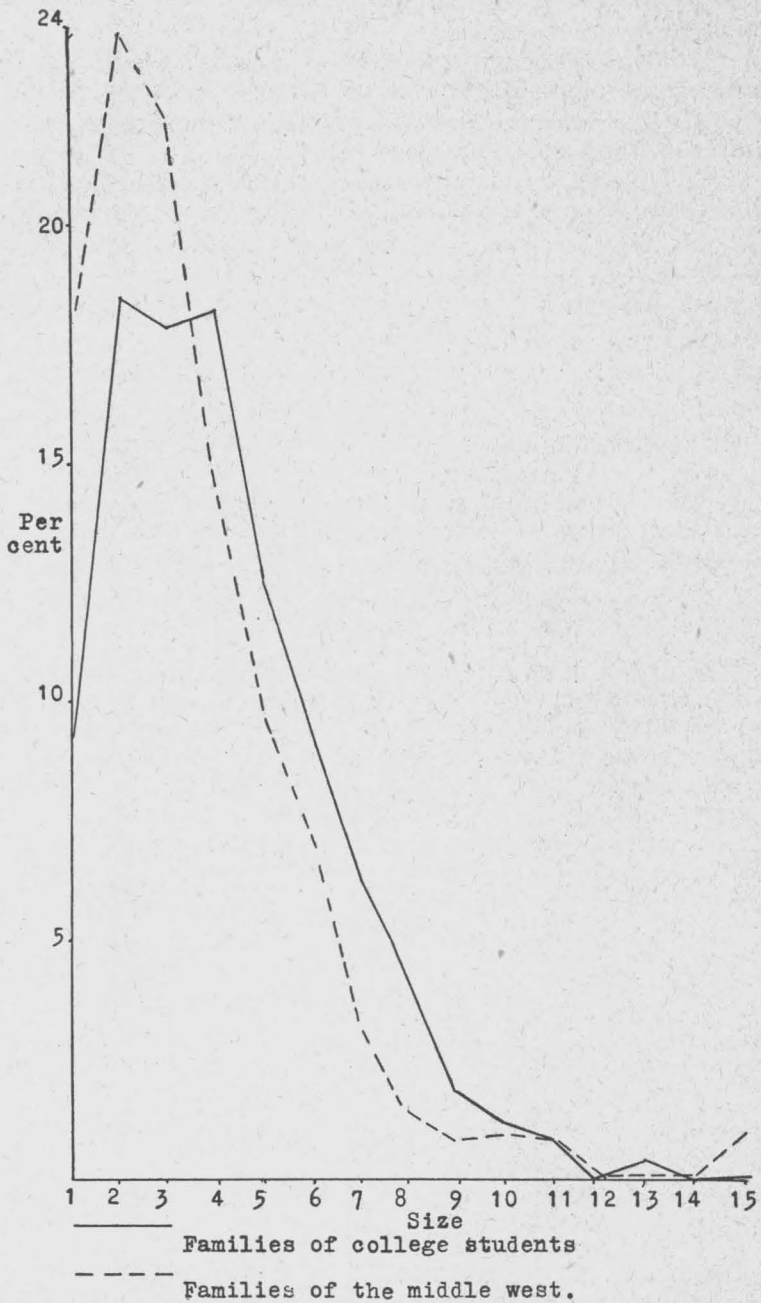


Fig. 7.—The percentages of families of students and of families of the middle west of various sizes.

total population of eastern Illinois between town and country residences.

3. The number of families dependent upon farming as a means of living equals that of all other occupations combined.

4. The fathers of two-thirds of the students own the enterprises in which they are engaged.

5. Almost one-half of the members of this student body find it necessary to provide a part of their college expenses themselves.

6. These students come from larger families than are found on the average in Illinois or in the middle west.

7. Two out of five of these students are the first children of families to go to a college.

CHAPTER VI

ELEMENTARY AND HIGH SCHOOL EXPERIENCE OF COLLEGE STUDENTS

This chapter will attempt to point out the main events in the school history of these students previous to their college entrance.

PROGRESS OF COLLEGE STUDENTS THROUGH THE ELEMENTARY SCHOOL

The nature of the students' progress through the elementary school can be shown by a comparison of the data presented in Tables XXV and XXVI. Table XXV shows that two of the first year students entered school at the age of four; 43 at five

TABLE XXV
AGE AT WHICH COLLEGE STUDENTS ENTERED
ELEMENTARY SCHOOL

Class	Number at Various Ages					Not given
	4	5	6	7	8	
First Year.....	2	43	172	35	5	.....
Second Year.....	1	28	125	25	3	.....
Third Year.....	.....	4	19	4	.....	.....
Fourth Year.....	.....	2	13	1	.....	1
Total.....	3	77	329	65	8	1
Percent.....	.6	15.9	68.1	13.5	1.7	.2

years of age, etc. Each student in Table XXVI whose birthday occurred during June, July or August was assumed to have reached that birthday when he finished the eighth grade. Thus a student who was 13 years old when he finished the eighth

grade is considered 14 if his birthday occurred in one of the three months mentioned. Table XXVI means that 18 of the first year students finished the eighth grade at 12 years of age; 64 at 13 years of age.

TABLE XXVI
AGE AT WHICH COLLEGE STUDENTS FINISHED THE
EIGHTH GRADE

Class	Number at Various Ages							Tot.
	11	12	13	14	15	16	17	
First Year.....		18	64	114	45	16		
Second Year.....		17	52	67	37	8	1	
Third Year.....	2	4	5	10	4	2		
Fourth Year.....		1	3	7	5	1		
Total.....	2	40	124	198	91	27	1	483
Percentage.....	.4	8.3	25.7	41.0	18.8	5.6	.1	100.0

College students did not all begin their formal education at the same age. Table XXV shows that slightly more than two-thirds of them started school at 6 years, the customary age; about one-half of the remaining third began earlier or later. The maximum age range for starting school was from 4 to 8 years. More than 97 per cent of the students entered school between the ages of 5 and 7 inclusive. From an age standpoint these college students represented a fairly compact group on entering school.

As one turns to the age at which these students finished the eighth grade, it is evident that the early compactness of the group has in part disappeared. Although only 16.5 per cent of the students entered school at the ages of 4 and 5, 34.4 per cent or more than twice that number finished school by the age of 13. The difference between these two percentages (18 per cent) represents a group of students who made rapid progress and were able to finish the elementary school in less than 8 years.

Again, as one compares the 68 per cent of the students who entered school at 6 years of age with the 41 per cent who finished the eighth grade at 14, it is clear that the difference between these two percentages covers in part the pupils who made rapid progress. In part it also covers a group of slow moving students. The presence of the latter is shown by the fact that 15.1 per cent of the students entered school at 7 or 8 years of age while 24.6 per cent finished the eighth grade at ages 15, 16 and 17. The difference between these two percentages represents a slow group of about 10 per cent of the total.

Summarizing then, it may be said that 18 per cent of the college students made rapid progress through the elementary school, 72 per cent made normal progress; 10 per cent made slow progress.

COMPARISON OF ELEMENTARY SCHOOL PROGRESS OF COLLEGE STUDENTS AND CHILDREN IN GENERAL

The question naturally suggests itself as to whether the progress made through the elementary school by college students is the typical rate of children in general. A study made by Odell¹ covering the progress of children in 92 elementary and high school districts of Illinois provides a basis for comparison. The elementary schools used in Odell's study, 82 in number, were located, in all except three instances, in cities of less than 30,000 people. The data refer to children in school in those cities in November, 1922.

Out of a total of 53,163 elementary school children Odell found that two-thirds had made normal progress up to 1922; somewhat less than one-third had lost time; less than one-twentieth had gained time.²

The progress of the college students through the elementary school may be compared directly with the children studied by Odell. Some 18 per cent of the college students finished the elementary school in less than eight years as compared with 5 per cent of the children of Odell's study. Ten per cent of the college students required more than eight years to finish the elementary school as compared with more than 30 per cent of the children of Odell's study. Finally, 72 per cent of the college students made normal progress as compared with 65 per cent of the children of Odell's study.

Children who made normal or rapid progress through the elementary school compose the majority of these college students. The child who moves slowly through the elementary school is less likely to enter college.

NUMBER OF ELEMENTARY SCHOOLS ATTENDED BY COLLEGE STUDENTS

Table XXVII presents some data which show the elementary school experience of these students from another angle. The table shows that 116 first year students attended only one elementary school; that 90 first year students attended two elementary schools.

Nearly one-half of the students attended a single elementary school, which means that they lived in the same community up to the age of 14 or 15. Thirty per cent attended two different schools. Slightly more than 20 per cent of the students attended more than two different elementary schools.

A change from a rural to a city residence or vice versa, which a considerable number of these students made, probably accounts for a number of cases in which more than one school was attended. Such a change would involve some school adjust-

¹ *The Progress and Elimination of School Children in Illinois.*

² *Op. cit.*, p. 18.

TABLE XXVII
NUMBER OF ELEMENTARY SCHOOLS ATTENDED BY
COLLEGE STUDENTS

Class	Number of Students Attending Number of Schools										Tot.
	1	2	3	4	5	6	7	8	9	10	
First Year.....	116	90	26	18	4	2				1	
Second Year.....	96	41	26	8	5	4		2			
Third Year.....	11	10	4	1				1			
Fourth Year.....	9	6	1	1							
Total.....	232	147	57	28	9	6		3		1	
Percentage.....	48.	30.4	11.8	5.8	1.9	1.3		.6		.2	100.0

ment. A change from one city to another or from one school to another in the same city would ordinarily involve less adjustment. Probably few of these students have gained or lost greatly by adjustment to new school situations.

PROGRESS OF COLLEGE STUDENTS THROUGH HIGH SCHOOL

A comparison of the data presented in Tables XXVIII and XXIX will show the progress of the college students through the high school. In Table XXIX students whose birthdays occurred during the months of June, July and August were considered that age at graduation. Thus a student who was 17 years old when he finished high school but whose next birthday came during the three months mentioned is considered to be 18 years old.

TABLE XXVIII
AGE OF COLLEGE STUDENTS AT ENTERING HIGH SCHOOL

Class	Number at Various Ages										Not given
	11	12	13	14	15	16	17	18	19	20	
First Year.....		11	66	109	49	16	4		1	1	
Second Year.....			13	51	66	35	11	6			
Third Year.....		1	2	6	9	4	2		1		2
Fourth Year.....				2	5	3	2	1		1	3
Total.....	1	26	125	189	91	31	11	1	1	2	5
Percentage.....	.2	5.4	25.9	39.1	18.9	6.4	2.3	.2	.2	.4	1.0

The striking fact concerning Tables XXVIII and XXIX is the close correspondence between the percentages of students entering and finishing at the various ages. Thus 5.4 per cent of

the students entered high school at the age of 12 and 5.8 per cent graduated at the age of 16; 25.9 per cent entered at 13 and 24.6 per cent graduated at 17.

NUMBER OF YEARS SPENT IN HIGH SCHOOL BY COLLEGE STUDENTS

The progress of college students through high school can be seen somewhat more exactly from Table XXIX. The data in this table were obtained by asking the students to state the number of years they had spent in high school. The four students who finished high school in one or two years are exceptions as the

TABLE XXIX
NUMBER OF YEARS SPENT IN HIGH SCHOOL BY
COLLEGE STUDENTS

Class	Number of Students Attending Number of Years									Tot.
	1	2	3	3½	4	4½	5	7	Not given	
First Year.....		2	6	12	223	4	10			
Second year.....			5	5	163	5	3	1		
Third year.....		1	2		22	1				1
Fourth year.....	1		1		11					4
Total.....	1a	3a	14	17	419	10	13	1	5b	
Percentage.....	.2	.6	2.9	3.5	86.8	2.1	2.7	.2	1.0	100.0

a. Mature students who entered high school late.

b. Mature students who took high school and college course together.

notes to the table indicate. In the case of the students who spent 3½ years in high school there are, in all cases, four years of time between entrance and graduation. Consequently this group does not appear clearly in Tables XXVIII and XXIX.

Table XXIX shows that 86.8 per cent of the college students made normal progress through high school; 7.2 per cent made rapid progress; 6 per cent made slow progress.

Odell's study¹ of the progress of children through school may again be referred to by way of comparison. He based his conclusions concerning the progress of high school students on 8,595 individuals in 51 high schools of Illinois. Forty of the 51 schools had enrollments under 300 students. He found that 82 per cent of the high school pupils made normal progress; 5 per cent made rapid progress; 13 per cent made slow progress. If these percentages are compared with the progress made by the college students a close correspondence is found. Some 87 per

¹ *Op. cit.*, p. 17.

cent of the college students made regular progress in high school; some 7 per cent made rapid progress; some 6 per cent made slow progress. Table XXX presents the percentages for the college

TABLE XXX

PERCENTAGE OF COLLEGE STUDENTS AND HIGH SCHOOL PUPILS OF ILLINOIS WHO PROGRESSED AT VARIOUS RATES IN HIGH SCHOOL

Group	Percentage		
	Fast	Normal	Slow
College students.....	7	87	6
High school pupils.....	5	82	13

students and for the high school pupils of Odell's study. The decimals for the percentages of the college students have been dropped.

SUMMARY OF PROGRESS OF COLLEGE STUDENTS THROUGH ELEMENTARY SCHOOL AND THROUGH HIGH SCHOOL

The movements of the college students through the elementary school and through the high school present some differences. In the former there is considerable diversity in the rate of movement. Less than three out of four of the college students have passed through the elementary school at the rate of a grade a year. Almost one out of six has made rapid progress. One out of ten has made slow progress in the elementary school.

In the high school, on the other hand, the movement is much more uniform. Almost seven out of eight of the college students have moved through high school at the normal rate. Slightly more than one in twenty has made slow progress and about the same number has made rapid progress.

SIZE OF HIGH SCHOOL CLASSES IN WHICH COLLEGE STUDENTS GRADUATED

The size of high school attended by a student is an important element in his school experience. In order to get at this matter through the student the question was asked as to the number in the class in which he graduated. The answers to this question are summarized in Table XXXI. The table means that 8 first year students graduated in classes numbering up to 9; 40 first year students graduated in classes numbering from 10 to 19.

If the percentages for classes of the first three sizes are added, a total of almost one-third of the students is obtained. This means that one-third of these college students were members of graduating classes numbering less than 30 members. The next

three classes with memberships ranging from 30 to 59 students include more than 38 per cent of the college students. The classes

TABLE XXXI
SIZE OF HIGH SCHOOL CLASSES IN WHICH COLLEGE
STUDENTS GRADUATED

Size	Number of Students				Total	Percent- age
	First Year	Second Year	Third Year	Fourth Year		
0-9.....	8	9	2	2	21	4.3
10-19.....	40	23	6	2	71	14.7
20-29.....	33	25	3	3	64	13.3
30-39.....	37	35	9		81	16.8
40-49.....	27	14	1	2	44	9.1
50-59.....	32	24	3	2	61	12.6
60-69.....	24	10			34	7.0
70-79.....	16	6	1		23	4.8
80-89.....	14	12			26	5.4
90-99.....	5	1			6	1.2
100-149.....	7	12			19	3.9
150.....	6	4			10	2.1
Not given.....	8	7	2	6	23	4.8
Total.....	257	182	27	17	483	100.0

with memberships from 60 to 89 students total 17.2 per cent. The class of median size is one with a membership from 30 to 39. In calculating the median the 23 students in the last column of the table who did not answer the question were subtracted. Most of these 23 are the mature students already referred to who combined their high school and college courses.

THE TOTAL SIZE OF THE HIGH SCHOOLS FROM WHICH COLLEGE STUDENTS GRADUATED

The size of all high schools in Illinois can be obtained from the biennial reports of the state superintendent of education.¹ The last such report was issued in 1924. The data of Table XXXII are taken from that report. They show the number of high schools of each size which the college students attended. The table means that 5 of the high schools from which college students came enrolled fewer than 50 students in 1924; 17 enrolled from 50 to 99 students.

It will be noticed that the high schools with enrollments under 200 students total 45 or 46.4 per cent of all the schools. The schools with enrollments from 200 through 499 total 27 or 27.9 per cent. The schools with enrollments of 500 and above total 14 or 14.3 per cent.

¹ State of Illinois, *Thirty-fifth Biennial Report of the Superintendent of Public Instruction*, pp. 132-168.

TABLE XXXII
SIZE OF HIGH SCHOOLS FROM WHICH COLLEGE
STUDENTS CAME

Size	Number	Percentage
Under 50.....	5	5.2
50-99.....	17	17.5
100-199.....	23	23.7
200-299.....	16	16.5
300-399.....	9	9.3
400-499.....	2	2.1
500-599.....	4	4.1
600-699.....	3	3.1
700-799.....	1	1.0
800-899.....	1	1.0
900-999.....	1	1.0
1000-.....	4	4.1
Outside of Illinois.....	11	11.4
Total.....	97	100.0

A group of 11 high schools in states other than Illinois are placed under a separate heading in the table. These schools are included in the total of 97 schools but did not lend themselves to classification under the plan used for the Illinois high schools.

The question may be asked as to what extent these high school enrollment figures for the year 1924 represent the size of those schools when the 483 college students being discussed attended them. In order to aid in answering this question Table XXXIII was arranged. This table indicates the number and percentage of the college students who graduated from high school

TABLE XXXIII
NUMBER OF COLLEGE STUDENTS WHO GRADUATED FROM
HIGH SCHOOL IN VARIOUS YEARS

Year	Number of Students				Total	Percent- age
	First Year	Second Year	Third Year	Fourth Year		
1926.....	3	1			4	.8
1925.....	161	4			165	34.2
1924.....	54	109	3		166	34.4
1923.....	16	27	13		56	11.6
1922.....	7	13	4	5	29	6.0
1921.....	2	7		1	10	2.1
1920.....	3	4	1	4	12	2.5
1919-15.....	2	10	3	1	16	3.3
1914-05.....	2	3	2	1	8	1.6
Not given.....	7	4	1	5	17	3.5
Total.....	257	182	27	17	483	100.0

in various years. It means that three first year students finished their high school work in 1926; 161 in 1925.

Table XXXIII shows that more than 34 per cent of the college students graduated from high school in 1924, the year on which the total enrollment figures presented in Table XXXII are based. A total of 35 per cent of the college students graduated in the years 1925 and 1926, one or two years following the date of the total enrollment figures. Approximately 17 per cent of the students graduated in the years 1923 and 1922, one or two years earlier than the date of the total enrollment figures. Thus 86 per cent of the college students would have graduated from high school either the same year or within two years of 1924, the date of the total high school enrollment figures. Table XXXII probably represents, therefore, substantially the size distribution of the high schools attended by this group of college students.

In addition to the number of high schools of each size represented in the secondary schools from which these college students came, it is of value to point out the percentage of students who attended these sized institutions. The data presented in Table XXXIV show both the number and percentage of college students who attended high schools of each size. The table means

TABLE XXXIV
NUMBER AND PERCENTAGE OF COLLEGE STUDENTS WHO
GRADUATED FROM HIGH SCHOOLS OF VARIOUS SIZES

Size	Number	Percentage
Under 50.....	8	1.7
50-99.....	43	8.9
100-199.....	104	21.5
200-299.....	173	35.8
300-399.....	44	9.1
400-499.....	13	2.7
500-599.....	51	10.6
600-699.....	5	1.0
700-799.....	2	.4
800-899.....	2	.4
900-999.....	2	.4
1000—.....	10	2.1
Not given.....	15	3.1
Outside of Illinois.....	11	2.3
Total.....	483	100.0

that eight college students or 1.7 per cent of the total number of students attended high schools with enrollments under 50 students; 43 or 8.9 per cent attended high schools with enrollments ranging from 50 to 99 students.

Table XXXIV shows that a total of 155 students or 32.1 per cent of all of the college students graduated from high schools

with enrollments under 200. A total of 230 students or 47.6 per cent of the group attended high schools which enroll from 200 to 499. A total of 72 students or 14.9 per cent attended high schools enrolling more than 500 students. A group of 26 students composing 5.4 per cent of the total did not give the location of their high school or had attended a high school outside the state of Illinois. These two groups are included in the table but are not classified as to size of high school attended.

SIZE OF HIGH SCHOOLS ATTENDED BY COLLEGE STUDENTS COMPARED WITH THOSE OF THE ENTIRE STATE

As the source of data for a comparison of the size of high schools attended by this group of college students and the size attended by students in Illinois as a whole the 1924 report of the state superintendent of education may again be used.¹ For that year 592 four-year high schools were listed, exclusive of the city of Chicago. The number and percentage of high schools in the state of various sizes are shown in Table XXXV.

This table indicates that more than 85 per cent of the high schools of the state have enrollments under 300 students. Approximately 7 per cent of the high schools of the state have total enrollments ranging from 300 to 499 students. Almost 8 per cent have enrollments of 500 students or more. In terms of

TABLE XXXV
NUMBER OF HIGH SCHOOLS OF VARIOUS SIZES IN ILLINOIS

Size	Number	Percentage
Under 50.....	100	16.9
50-99.....	191	32.3
100-199.....	155	26.2
200-299.....	60	10.1
300-399.....	23	3.9
400-499.....	16	2.7
500-599.....	8	1.3
600-1000.....	22	3.7
Over 1000.....	17	2.9
Total.....	592	100.0

number of institutions, therefore, the small high school in Illinois is in the large majority.

The size distribution of Illinois high schools as a whole may be contrasted with the size distribution of the institutions attended by the college students. The data for the latter distribution are presented in Table XXXII, which has already been analyzed. While nearly 50 per cent of the high schools of the state have total enrollments of 100 students or fewer, only 23 per cent of

¹ *Op. cit.*, pp. 132-168.

the high schools attended by the college students were of those sizes. On the other hand, while 36 per cent of the high schools of the state enrolled from 100 to 300 students, 40 per cent of the college students had attended schools of those sizes. Again, nearly 8 per cent of the high schools of the state have enrollments ranging from 300 to 600 students, while 16 per cent of the college students attended schools of those sizes. Finally, 7 per cent of the high schools of the state enrolled 600 students or more, while 10 per cent of the college students have attended high schools of those sizes. By way of summary, then, it may be said that the 97 different high schools which the 483 college students attended compare in size more closely to the high schools of the state which are of medium or large size than to those of comparatively small size.

The comparison between the high school experience of the college students and that of the secondary students of the state as a whole may be shown from a second standpoint by calling attention to the percentages of students of each of the two student groups who attended high schools of various sizes. Table XXXVI, which is based on the report of the state superintendent

TABLE XXXVI
NUMBER AND PERCENTAGE OF STUDENTS IN HIGH
SCHOOLS OF VARIOUS SIZES IN ILLINOIS IN 1924

Size	Number	Percentage
Under 50.....	3,649	3.1
50-99.....	14,079	12.0
100-199.....	21,260	18.1
200-299.....	14,503	12.4
300-399.....	7,906	6.8
400-499.....	7,418	6.3
500-599.....	3,786	3.2
600-1000.....	16,394	14.0
Over 1000.....	28,287	24.1
Total.....	117,282	100.0

of education,¹ shows the number and percentage of students who attended the high schools of various sizes in Illinois in 1924. The table means that 3649 students or 3.1 per cent of the total number attended schools with enrollments under 50 students.

A comparison may be made between the data of Table XXXVI and the parallel data for the college students which are presented in Table XXXIV. Table XXXVI shows that more than 15 per cent of the high school pupils of the state were attending institutions with enrollments under 100. Table XXXIV shows, on the other hand, that slightly more than 10 per cent of the col-

¹ *Op. cit.*, pp. 132-168.

lege students came from schools of those sizes. Again, the percentage of pupils in the state at large who attended high schools with enrollments from 100 to 400 was some 37 per cent of the total. By contrast more than 66 per cent of the college students have come from high schools of those sizes.

The percentages of students attending high schools in Illinois which have enrollments of 400 and above are greater, with one exception, than the corresponding percentages for the college students. While 14 per cent of the high school students of the state as a whole attended schools which enrolled from 600 to 1000 students, only 3 per cent of the college students have had experience in schools of those sizes. While 24 per cent of the high school students of the state were attending schools with enrollments in excess of 1000, only 2 per cent of the college students came from schools of those sizes.

The two comparisons which have been carried out in this section of the chapter have emphasized the fact that the majority of the college students have received their high school training in institutions with enrollments ranging from 100 to 400 students. About as many have attended high schools with enrollments below 100 as have attended high schools with enrollments between 400 to 600. A negligible number of the college students have had contact with very large high schools.

SUMMARY

1. The college students passed through the elementary school and the high school at a rate somewhat faster than that of children in general.
2. One out of two of the college students attended a single elementary school; three out of four made only one change in elementary schools.
3. Three out of five of the college students attended high schools enrolling 300 students or fewer.
4. The size distribution of the high schools attended by the college students does not parallel exactly the size distribution of the high schools attended by students of the state as a whole.

CHAPTER VII

TRANSITION FROM HIGH SCHOOL TO COLLEGE

Even very casual observation shows that a considerable number of students do not go directly from high school to college. Intervals of time of varying lengths often elapse between the date on which many students leave the one institution and enter the other. Frequently a variety of activities are engaged in by the student in that interim. The purpose of this chapter is to canvass the length and character of that transition period as it is related to the students under consideration.

THE NUMBER OF COLLEGE STUDENTS INVOLVED

The number and percentage of students in each class who came to college directly¹ from high school and the number who experienced a transition period are shown in Table XXXVII. The table means that 48 first year men or 62.3 per cent of the men of that class came to college directly; that 29 first year men or 37.7 per cent of the men of that class did not come directly.

More than one-third of all the students being investigated came to college following the lapse of a period of time subsequent to high school graduation. Slightly less than two-thirds of the students entered college directly from high school with no time interruption.

Delayed entrance between the sexes is closely proportional to the total number of students of each sex. The women students who did not come to college directly compose some 65 per cent of the total delayed group, while the men compose some 34 per cent of the group. The percentages of women and men in the

TABLE XXXVII
NUMBER AND PERCENTAGE OF STUDENTS WHO DID AND
DID NOT COME TO THIS COLLEGE DIRECTLY
FROM HIGH SCHOOL

Class	Time of College Entrance					
	Came Direct	Per-cent.	Did not come Direct	Per-cent.	No Ans.	Per-cent.
First Year.....M	48	62.3	29	37.7		
W	126	70.0	54	30.0		
Second Year.....M	38	64.4	21	35.6		
W	72	58.5	51	41.5		
Third Year.....M	4	44.4	4	44.4	1	11.1
W	14	77.8	3	16.7	1	5.5
Fourth Year.....M	3	37.5	3	37.5	2	25.0
W	5	55.6	2	22.2	2	22.2
Total.....	310		167		6	
Percentage.....	64.2		34.6		1.2	

entire group of students being studied are 69 and 31 respectively. The causes which operate to prevent students from entering college immediately after high school graduation operate with equal strength on men and women. In the case of the first and second year students no striking tendencies appear with respect to delay

¹ Entering college directly means registering in college in the autumn following high school graduation.

in entering college. About two-thirds of the men of each class were delayed. The women of the second year were delayed in 10 per cent more cases than were the first year women.

A considerably larger percentage of the third and fourth year men were delayed in entering than were the first and second year men. The percentages for the two upper years were 44 and 50 as compared with 37 and 35 for the first two years. The high median age of the fourth year men (over 29 years) is a corollary to the fact of delayed entrance.

If the third and fourth year women who did not answer the question concerning the time of college entrance are deducted, a relatively small percentage of women for the two upper years were delayed. The percentages for the two groups of women are 16.7 and 22.2. The small number of third and fourth year students does not warrant any final conclusions concerning their tendencies.

THE LENGTH OF TIME INTERVAL BETWEEN HIGH SCHOOL AND COLLEGE

The number and percentage of students who were delayed various lengths of time in entering college are shown in Table XXXVIII. The table means that 46 first year students were de-

TABLE XXXVIII
NUMBER OF STUDENTS WHO WERE DELAYED IN ENTERING COLLEGE VARIOUS NUMBER OF YEARS

Years of Delay	Number of Students				Total	Percentage
	First Year	Second Year	Third Year	Fourth Year		
1.....	46	18	5	1	70	41.9
2.....	16	121			28	16.7
3.....	9	14			23	13.8
4.....	4	10			14	8.4
5.....	2	3	1	1	7	4.2
6.....	1	5		1	7	4.2
7.....		3			3	1.8
8.....	1	2			3	1.8
9.....	1			1	2	1.2
10.....			1		1	.6
11.....		1			1	.6
12.....		1		1	2	1.2
13.....	3	1			4	2.4
14.....						.0
15.....						.0
16.....						.0
17.....		1			1	.6
18.....		1			1	.6
Median delay in years	1	3	1	6		
Range in years.....	1-13	1-18	1-10	1-12		

layed one year; 18 second year students were delayed one year; a total of 70 students or 41.9 per cent of those who did not enter college directly were delayed one year.

The tendency to come to college after an interval of more than one year following high school graduation declines rapidly. The totals and percentages of Table XXXVIII indicate that the interval for more than one-half of the delayed students was one or two years in length. Only very small percentages of students came to college after intervals of more than six years.

At the bottom of Table XXXVIII have been placed the medians and ranges in years for the four classes. The median delay in years for second year students exceeds that for first year students by two years; while the progress of the two groups through the public schools shows no corresponding difference. The fact that a larger percentage of the second year students live in the country than do the first year students may offer a partial explanation of the difference in time of entering college.

The median time of delay for the third year students is equal to that of the first year students. The median for the fourth year students is six years. The number of cases is so small for these two years, however, that no general conclusions can safely be drawn from the medians.

The ranges for the four classes in length of time of the interval between high school and college parallel closely the age ranges pointed out in Chapter III and offer the principal explanation of the age ranges.

SOCIAL BACKGROUND OF THE DELAYED GROUP

Table XXXIX summarizes the data concerning the present residence of the students who were delayed in entering college. Of the 168 students who came to college after an interval of

TABLE XXXIX
DISTRIBUTION OF LATE ENTRANTS BETWEEN TOWN AND COUNTRY

Residence	Number								Tot.	Per- cent.
	First Year		Second Year		Third Year		Fourth Year			
	M	W	M	W	M	W	M	W		
Town.....	8	25	13	38	2	1	2	2	91	54
Country.....	22	28	8	13	2	2	2	0	77	46

time since high school graduation 91, or 54 per cent, were residents of towns. The group living in the country totals 77, or 46

per cent of the delayed group. Delayed students are fairly evenly distributed between country and town homes.

Reference to Table XVII in Chapter V will show that a total of 59.6 per cent of all the students being investigated come from towns and 40.4 per cent come from the country. Therefore, while the country sends 40.4 per cent of the students to this college, it sends 46 per cent of the delayed students. Apparently students with country homes are somewhat more likely to have to remain out of college for some period of time after high school graduation than are students who live in towns.

The size of high school attended by a student seems to have relatively little to do with the directness of his going to college. The data of Table XL may be compared with those of Table XXXI of Chapter VI. The latter table shows that some 30 per

TABLE XL
SIZE OF HIGH SCHOOL CLASSES IN WHICH COLLEGE
STUDENTS GRADUATED

Size	Number	Percentage
0-9.....	9	5.4
10-19.....	38	22.8
20-29.....	25	14.9
30-39.....	25	14.9
40-49.....	14	8.4
50-59.....	11	6.6
60-69.....	10	6.0
70-79.....	9	5.4
80-89.....	2	1.2
90-99.....	3	1.8
100-149.....	9	5.4
150 and above.....	5	3.0
Not given.....	7	4.2
Total.....	167	100.0

cent of all the students graduated from high school in classes of 30 students or fewer; 38 per cent in classes from 30 to 59; 17 per cent in classes from 60 to 89; 7 per cent in classes above 90. Table XL indicates that some 44 per cent of the delayed students were members of classes under 30; 31 per cent of classes from 30 to 59; 9 per cent of classes above 90. The parallel between these two sets of data is not exact at all points but it does in general indicate that the size of high school from which a student graduates is not a strong factor in determining the length of the transition period between high school and college.

The number of children in the families from which delayed college students come is shown in Table XLI. The table means that 7.2 per cent or 12 of the families from which delayed students come have one child; 17.9 per cent or 30 families have two children.

TABLE XLI
SIZE OF FAMILIES FROM WHICH DELAYED COLLEGE
STUDENTS COME

Size.....	1	2	3	4	5	6	7	8	9	10	Tot.
Number families.....	12	30	24	28	24	17	17	8	4	3	167
Percentage.....	7.2	17.9	14.4	16.7	14.4	10.2	10.2	4.8	2.4	1.8	100.0

The data of Table XLI may be compared with those of Table XXII of Chapter V in which the size of the families of all of the students under discussion are summarized. Nine per cent of all the students are "only" children, while 7 per cent of the delayed group belong to that class. More than one-half of all of the students have from one to three brothers and sisters, while slightly less than one-half of the delayed students belong to families of that size. Almost one-third of all of the students have from four to seven brothers and sisters while almost 40 per cent of the delayed students belong to families of that size. Some three per cent of all of the students have from 8 to 12 brothers and sisters, while four per cent of the delayed students belong to families of that size.

The family of median size from which all of the students come is one with four children. The family of median size from which the delayed group of students come is one with almost 5 children. The average number of children per family in Illinois as a whole was 2.2 in 1920.

Some 6 per cent fewer of the delayed students come from families with fewer than four children than do the entire group of students being investigated. A corresponding 6 per cent more of the delayed children come from families of 5 or more children than do all of the students. The delayed group come from families whose median size is almost 20 per cent greater than that of all of the students and 100 per cent greater than families in Illinois as a whole.

The strongest factors which lead to delayed entrance to college seem to be membership in larger families than the average and residence on farms rather than in towns. From the data presented on the size of high schools from which the delayed students come, it may be concluded that the character of the student's public school experience has little to do with the time at which he enters college.

ACTIVITIES OF THE TRANSITION PERIOD

The activities of students during the interval between high school and college can be grouped under a small number of types.

These groupings are shown in Table XLII. The table means that 23 first year students engaged in teaching before coming to this college; 17 did store and office work; 10 attended other schools.

TABLE XLII

ACTIVITIES ENGAGED IN BY STUDENTS BETWEEN HIGH SCHOOL GRADUATION AND COLLEGE ENTRANCE

Activity	Number				Total	Percent- age
	First Year	Second Year	Third Year	Fourth Year		
Teaching.....	23	44	4	3	74	44.3
Office and store.....	17	7		1	25	14.9
Attending school.....	10	12	1	1	24	14.4
House work.....	15	4			19	11.4
Farming.....	8	1	1		10	6.0
Not given.....	8	2			10	6.0
Mechanical work.....	2	2	1		5	3.0
Total.....	83	72	7	5	167	100.0

Teaching has filled the interval between high school and college in the case of 44 per cent of the delayed group of students. The reasons for the prominence of teaching during this period are not far to seek. Teaching offers to high school graduates in Illinois one of the few immediate opportunities to earn a moderate salary without much additional training. Certification for rural and village schools is obtainable through county examinations, sometimes supplemented by summer work at a training institution.

The next largest group, some 14 per cent of the delayed students, have worked in stores and offices until they were able to continue their schooling.

An almost equal number have attended school elsewhere preceding their coming to this school. This schooling has usually consisted of a year in a small liberal arts college or in another state teachers' college. In some instances the schooling has been of a very specialized type, such as business training or music.

A group composing more than 10 per cent of the delayed students have engaged in housework in the interval between high school and college. Most of this group is made up of women who stayed at home during this interval.

A small group has engaged in each of farming and mechanical occupations of various sorts. Another small group did not state the type of activity which occupied their time during this interval between high school and college.

SUMMARY

1. One out of three of all of the students coming to this college have been delayed in entrance following high school graduation.

2. The median delay for the entire group is two years.

3. Wide ranges in the length of the interval exist for all classes.

4. The main reasons for the delay are lack of economic resources rather than lack of educational preparation.

5. The types of activity engaged in during the transition period are small in number, with teaching the most common single activity.

CHAPTER VIII

THE CHOICE OF A COLLEGE

GENERAL INFLUENCES

Even when a student's choice of a college appears to the observer to be a somewhat accidental move, it usually has been determined by rather definite influences. The various forces which seemed to the students of this college to have directed them to this particular institution are summarized in Table XLIII. The

TABLE XLIII
INFLUENCES WHICH BROUGHT STUDENTS TO THIS COLLEGE

Influence	Number				Total
	First Year	Second Year	Third Year	Fourth Year	
High school prin.....	38	22	-----	2	62
High school teach.....	31	20	-----	1	52
Elementary teach.....	18	17	2	2	39
County supt.....	5	4	-----	-----	9
School board mem.....	6	2	-----	-----	8
Mother.....	153	104	16	8	281
Father.....	136	81	9	9	235
Friend.....	95	45	4	4	148
Sister.....	49	32	3	2	86
Brother.....	30	12	3	2	47
Other relatives.....	26	11	1	3	41
College catalogue.....	46	34	2	3	85
Own desire.....	34	22	4	1	61
School's name.....	3	6	3	3	15
Convenience.....	13	8	4	1	26
Finances.....	7	6	2	-----	15
Teachers here.....	1	1	-----	-----	2
Recognition.....	1	-----	-----	-----	1
Advancement.....	-----	1	-----	-----	1
Few negroes here.....	-----	1	-----	-----	1
Total.....	692	429	53	41	1215

table means that 38 first year students were influenced to come to this college by high school principals; 31 by high school teachers; 18 by elementary school teachers.

In the judgment of these college students, people composed the larger number of the influences which directed them to this college. More than 1100 of the total of 1215 influences consist of members of the family, friends and school officials. Only a small number of students mentioned such impersonal influences as the college catalogue, the school's name or convenience to home. Many of these latter influences were probably included in the advice given by people to the student.

Fathers and mothers made up almost one-half of all of the influences reported. If to the two parents are added brothers, sisters and other relatives the total is considerably above one-half of all the influences reported. More of these college students looked to the members of the family for guidance in selecting a college than to all other influences combined.

Friends are named by the students as influences which turned them toward college in 148 instances. In comparison it is significant to notice that all school people—teachers, principals, school board members—are mentioned only 170 times by the students. In the matter of the selection of a college the people directly in charge of the public schools are not thought of by the college students as influences that compare in importance with friends and members of the family.

The student's "own desire" is mentioned in 61 instances as an influence which determined the choice of a college. Without much conscious acceptance of the guidance of others these students made their own decision to come to this college. In most cases where this influence was cited no other was given.

In the minds of only a minority of the students did the college catalogue stand out as an influence. A total of 85 students listed it as a factor in determining their choice of this college.

The name of the school and of its teachers is mentioned by only a few students as an influence. It may be assumed that these two influences were rather strongly felt through the advice of relatives, friends and public school officials.

SPECIFIC PURPOSES OF STUDENTS IN COMING TO THIS COLLEGE

As a more concrete supplement to the preceding general influences which directed students toward college the data of Table XLIV are presented. The table means that 16 first year students stated that they came to college to get an education; 203 first year students stated that they came to prepare to teach. The total and the percentages for each purpose are shown at the right of the table.

The answers to the question as to the student's purpose in coming to college were expressed in a variety of ways but they

TABLE XLIV
STUDENTS' PURPOSES IN COMING TO COLLEGE

Purpose	Number				Tot.	Per- cent.
	First Year	Second Year	Third Year	Fourth Year		
1. Get an education.....	16	9	4	.....	29	6.0
2. Gen. prep. teach.....	203	141	18	10	372	77.0
3. Special prep. teach...	9	2	2	3	16	3.3
4. Gen. prep. other schools.....	21	7	1	1	30	6.2
5. Special prep. other schools.....	.....	5	.....	.....	5	1.1
6. Economic reasons.....	6	6	1	.....	13	2.7
7. Miscellaneous.....	2	12	1	3	18	3.7
Total.....	.....	.....	.....	.....	483	100.0

have been grouped under the seven types used in the table. The first type of purpose was usually given in the form used in the table. The second was some variation of the statement "to enable me to teach" without referring to any particular grade or subject. The third type of purpose consisted of a statement that preparation was sought to teach manual arts, English, second grade or some other specific branch. The fourth type consisted of a desire for training which could be made the basis of a course in some other institution, usually the state university. Type five was similar to type four, except that it represented a desire for training which could be used at some other institution as the basis for a specific course such as law, medicine, music, home economics. The sixth type included such answers as "get a certificate," "low cost," "make a better living."

Turning to the number and percentages of students who had each of these types of purposes in coming to college, one finds that more than 80 per cent are preparing for some kind of teaching. In addition most of the students who gave purposes which are grouped in the sixth type are interested in teaching. A total of some 83 per cent of all of the students in this college are here for the immediate purpose of learning to teach.

Students who come to this college to begin a course which is to be completed at some other institution compose slightly more than 7 per cent of the total. A later chapter will show that a larger percentage of students than this 7 per cent plan ultimately to enter some vocation other than teaching.

THE FINALITY OF STUDENTS' CHOICE OF A COLLEGE

Up to this point there have been discussed a number of general factors and a number of specific factors which determine a students' choice of a college. It has been assumed that these

choices were freely made by the student and represented his own desire in the matter.

The data summarized in Table XLV represent the extent to which these students would have chosen this school if given

TABLE XLV
EXTENT TO WHICH STUDENTS WOULD CHOOSE THIS
SCHOOL IF GIVEN CHOICE

Attitude	Number								Tot.	Per- cent.
	First Year		Second Year		Third Year		Fourth Year			
	M	W	M	W	M	W	M	W		
Would come here.....	44	94	32	62	6	10	3	3	254	52.6
Would go elsewhere.....	33	86	26	51	3	6	5	5	215	44.5
Uncertain.....			1	10		2		1	14	2.9
Total.....									483	100.0

their own entire choice. The table means that 44 of the first year men and 94 of the first year women would have come here if given their entire choice.

A total of 215 students or 44 per cent of those enrolled would have gone to some other institution if circumstances had permitted. About the same proportion of each sex would prefer some other school. Slightly less than three per cent of the students were uncertain as to whether they would have gone elsewhere if given a choice.

The question suggests itself as to why such a large percentage of these students would prefer some other school. The answer from the students' point of view is found in the data presented in Table XLVI. The table means that 74 first year

TABLE XLVI
STUDENTS' REASONS FOR DESIRING TO GO TO OTHER
SCHOOLS

Reason	Number				Tot.	Per- cent.
	First Year	Second Year	Third Year	Fourth Year		
Get course wanted.....	74	47	10	4	135	55.6
Characteristics of other schools.....	24	29	2	1	56	23.0
Wider experience.....	4	2	3		9	3.7
Miscellaneous.....	16	3		1	20	8.2
No reason.....	9	13	1		23	9.5
Tot. l.....	127	94	16	6	243	100.0

students would have gone to some other school for the purpose of getting the course they wished; 24 first year students were attracted by certain general characteristics of other schools.

More than one-half of the students who would have gone elsewhere desired to pursue a course of study which they considered better suited to their needs than those offered at this school. Some 20 per cent of the students who desired a different course gave answers of a general sort such as "to get the course wanted." The large majority of these students, however, gave answers that were concrete as to the kind of course wanted but the answers were of two rather distinct types. One group of students, somewhat smaller than the other, desired courses in other schools which prepared for some form of teaching, such as home economics, art, physical education, coaching. The other group wanted training for vocations distinctly different from teaching, such as nursing, commercial work, law, agriculture, journalism, architecture, medicine, engineering.

The second largest group of reasons for desiring to attend some other school consisted of the appeal made to students by certain characteristics of other schools. The following are typical of the answers included under this group: "larger," "better school," "girls' school," "prestige of school." A considerable number of the answers indicated that the students' reasons for desiring some other school were based on such superficial characteristics as the size of the school. In other cases the student expressed the belief that in some rather vague way another school was "better" than the one which the student was attending. In the main this second group of reasons seems to represent a feeling on the part of the students giving them that in some way certain general characteristics of other schools mean a corresponding superiority in the training offered by those schools.

A small percentage of the students who wished to attend other schools wanted wider experience. Many of the students of this college have attended both the elementary school and the high school which are operated in connection with the college. Others have graduated from high schools located in neighboring towns. Both of these groups of students desired an opportunity to take their college work in an entirely different and new environment.

Slightly less than 10 per cent of the students who wished to go elsewhere gave no specific reason. A number of these stated that they did not know why they wanted to attend another school.

SUMMARY

1. The members of the immediate family constitute the most potent influence in directing students toward college.
2. More than four out of five of the students have in view a concrete vocational purpose in entering this college.

3. Four out of ten of the students made second choices when they came to this college.

4. The appeal of other schools consists, in more than one-half of the cases, of the attraction of the courses offered.

CHAPTER IX

USE TO BE MADE OF COLLEGE TRAINING

In the preceding chapter an evaluation was made of the influences which brought students to this particular college for training. It will be the purpose of the present chapter to point out the use which the students propose to make of this training after they get it.

TEACHING AFTER GRADUATION

The college which these students were attending has its curriculum organized primarily to meet the needs of prospective teachers. The first question to be answered in this chapter is the extent to which students expect to teach on graduation. The attitude of the students on this point is summarized in Table XLVII. The table means that 230 first year students expect to

TABLE XLVII
ATTITUDE OF STUDENTS TOWARD TEACHING AFTER
GRADUATION

Attitude	Number				Tot.	Per- cent.
	First Year	Second Year	Third Year	Fourth Year		
Expect to teach.....	230	171	24	16	441	91.3
Do not expect to teach	27	11	2	1	41	8.5
Uncertain.....			1		1	.2
Total.....	257	182	27	17	483	100.0

teach on graduation; that 27 first year students do not expect to teach on graduation.

At the time at which the data were collected more than 90 per cent of the students looked forward to the use of their training in teaching for some period of time. Only 8 per cent of the students made unqualified declaration that they did not expect to teach at all. This number corresponds closely to the 6 per cent of Table XLIV in Chapter VIII who stated that their purpose in coming to this college was to get an education.

The fundamental purpose for which this college was established—the training of public school teachers—is being substantially achieved. Apparently the state of Illinois is training very

few young people from whom some teaching service will not be obtained.

ACTIVITIES OF THOSE WHO DO NOT EXPECT TO TEACH

The question next suggests itself as to what the students who do not intend to teach expect to do. The anticipated activities which this group expect to engage in after graduation are summarized in Table XLVIII. This table means that 11 first

TABLE XLVIII
ANTICIPATED ACTIVITIES OF THOSE WHO DO NOT EXPECT
TO TEACH

	Number				Tot.	Per- cent.
	First Year	Second Year	Third Year	Fourth Year		
Gen. course U.....	11	6	.....	1	18	43.9
Pro. course U.....	6	2	1	.....	9	22.0
Practical work.....	7	3	1	.....	11	26.8
Miscellaneous.....	1	.....	.....	.....	1	2.4
Uncertain.....	2	.....	.....	.....	2	4.9
Total.....	27	11	2	1	41	100.0

year students expect to take a general course at some other institution, which is most frequently the state university; 6 first year students expect to take a professional course at some other institution.

From Table XLVIII it appears that 64 per cent of the 41 students who do not expect to teach on graduation plan to pursue general and professional courses at other institutions. The remainder of the group, 14 students, expect either to engage in some practical activity at graduation or are uncertain as to their future plans.

It may be said then that a large majority of the students who do not expect to teach on graduation will pursue advanced college courses. Data to be discussed later in this chapter will indicate that some proportion of those who do not intend to teach at once will ultimately enter some branch of educational work. With this possibility in sight it appears that the number of students who come to this institution entirely disinterested in teaching as even a temporary occupation is extremely small.

PERMANENCE OF TEACHING AS A VOCATION

The conclusions drawn in the preceding section of this chapter are based upon teaching when viewed mainly as a temporary occupation. The additional question suggests itself as to the extent to which students expect to make teaching a permanent

occupation. The data bearing on this question are presented in Table XLIX. The table means that 31 men or 40.2 per cent of the first year men plan to make teaching a step to some other vocation; that 60 first year women or 33.3 per cent of the women of that year expect to do the same.

An analysis will first be made of the data bearing on the students who expect to make teaching a step to some other

TABLE XLIX
EXPECTATION OF MAKING TEACHING A STEP TO SOME
OTHER VOCATION

Attitude	Number								Tot.
	First Year		Second Year		Third Year		Fourth Year		
	M	W	M	W	M	W	M	W	
Teach temporarily.....	31	60	32	41	5	3	3	1	176
Teach permanently.....	16	44	14	45	2	9	4	6	140
Uncertain.....	30	76	13	37	2	6	1	2	167
Total.....	77	180	59	123	9	18	8	9	483

Attitude	Percentage								Tot.
	First Year		Second Year		Third Year		Fourth Year		
	M	W	M	W	M	W	M	W	
Teach temporarily.....	40.2	33.3	54.0	33.3	55.6	16.7	38.5	11.1	36.4
Teach permanently.....	20.8	24.5	24.0	36.6	22.2	50.0	50.0	66.7	29.0
Uncertain.....	39.0	42.2	22.0	30.1	22.2	33.3	12.0	22.2	34.6
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

occupation. In number this group totals 176 students or more than 36 per cent of all of the students being considered.

The fact may be restated that this institution offers rather highly specialized courses which are organized for the training of teachers. In the face of this fact more than one-third of the students who take these courses do not intend to use them permanently in the vocation for which they are planned. Two important questions are raised by this situation. Is this increasingly specialized training a sound preparation for any vocation other than teaching? Is the attitude of the student who accepts this training for temporary use only a wholesome one toward whatever teaching he does?

The detailed data concerning those who expect to abandon teaching for some other occupation are less significant than are

the totals just commented on. The percentage of men exceeds the percentage of women for each year and exceeds the total percentage. Of the second and third year men more than one-half have decided to use teaching as a step to some other vocation. The percentages of first and fourth year men exceed slightly the total percentage for all years. For more than one-half of the men who attend a school of this type the problem of deciding upon a permanent vocation is not solved.

One-third of the first and second year women plan to shift from teaching to some other occupation. Much smaller percentages of the third and fourth year women, 16.7 and 11.1 per cent respectively, expect to make such a change. A total of slightly more than 30 per cent of all of the women expect to abandon teaching for some other occupation.

The number of students who have decided to make teaching their permanent occupation totals 140 or 29 per cent of all of the students. The large majority of the students of the school are in the first and second year classes. At the end of one or two years in this teacher training institution less than one-third of the students have decided that teaching appeals to them as a permanent occupation.

For all years except the fourth, the men who expect to remain in teaching show smaller percentages than the total percentage. Less than one-fourth of the men of the first three years have decided upon teaching as a life work.

After the first year the number of women who expect to remain in teaching greatly exceeds the total percentage. The percentages by years rise from 24.4 for the first year to 66.6 per cent for the fourth year.

The last large item in Table XLIX refers to a group of 167 students who expressed uncertainty as to their future occupation. Although they have been in a teacher training institution for from one to four years, they have not decided upon teaching as their vocation. At the same time they have not definitely chosen any other vocation.

The first year students, both men and women, show a greater percentage of uncertainty than do the students of any other year. The data were collected in March. After almost a year of work in this school nearly 40 per cent of the first year students were undecided as to occupation.

The three upper classes show an uneven but a steady decline in the percentage of uncertainty. The older students have made decisions for or against teaching in larger numbers of cases than have the younger students.

For each year a considerably larger percentage of women than of men expressed uncertainty as to their future occupation. The percentage of uncertainty is greatest for the first and third year women; it declines from the first to the second year and from the third to the fourth year.

The degree of uncertainty expressed by these students as to their vocational future may be explained in part by the nature of the course which they are offered in an institution of this kind; in part by the short period of time in which they receive their training. It was pointed out in Chapter VII that almost two-thirds of these students came to this school directly from high school. About 45 per cent of the remaining one-third had engaged in teaching in the interval between high school and college. The great majority of the students who came to this college have either had no vocational experience at all or at most have had a short period of rural school teaching.

With this background these students entered a type of institution which makes little attempt to provide opportunities for vocational adjustment. The aim of the institution is the training of teachers. Students who enter are assumed to be interested in learning to teach. The content of the courses, the sequences in which they are pursued, the methods used in presenting the material of the courses are all designed to serve the ends of a teacher training institution. Consequently the student receives little introduction to other fields of occupational activity. If he is not interested in teaching, he has little basis for any other vocational choice.

The brevity of the period of training in the teacher training institution is another factor which contributes to the student's vocational uncertainty. Although this institution is on a four year basis the large majority of its students complete only the two year course. Into these two years are crowded a large number of specialized courses all of which bear on teaching. As a result the student has neither time nor energy to think about the choice of a vocation. He must devote himself largely to the activity of learning to teach.

This time element becomes clearer if one contrasts this fact as it applies to teaching and as it applies to other professions. In nearly all of the other professions a preliminary course of more general character is required. This extends over a period of from two to four years. During this time the student can, if he has not already done so, reach a final decision as to the profession which he wishes to prepare for. He can usually change his mind during this time without suffering great loss in the courses which he has already taken.

ACTIVITIES TO WHICH TEACHING IS TO LEAD

It was pointed out in the preceding section that some 36 per cent of the students expected to make teaching a step to some other occupation. These anticipated occupations are listed in Table L. This table means that 32 first year students expected to obtain further training of a general sort; that three first year students expected to take further training for teaching.

TABLE L
ACTIVITIES TO WHICH TEACHING IS TO BE MADE A STEP

Activity	Number				Total	Per- cent.
	First Year	Second Year	Third Year	Fourth Year		
Further gen. training.....	32	38	-----	-----	70	39.5
Special teach. course.....	3	7	1	1	12	6.8
Other prof. course.....	23	8	2	2	55	19.8
Art course.....	14	4	2	-----	20	11.3
Practical course.....	9	2	-----	-----	11	6.2
Practical activity.....	7	7	2	1	17	9.6
Not given.....	3	7	2	-----	12	6.8
Total.....	91	73	9	4	177	100.0

Of the students who did not expect to teach permanently almost 40 per cent indicated an intention of taking further training. The specific character of the training sought by this group was not stated. The answers indicated that these students look forward to the completion at some future time of a four year college course.

Nearly 7 per cent of the students expect to use their early teaching activity as a means of pursuing more advanced courses in teaching. Such courses as home economics, art supervision, general supervision and school administration were mentioned.

These two groups of students will serve to reduce somewhat the total percentage of students who appeared to have an intention of abandoning teaching as a life work. Some of the group who were listed as expecting to take further general training will probably return to teaching at some other level, such as high school teaching or school administration. The majority of the students who expect to take more advanced courses in teaching will undoubtedly make school work their permanent vocation.

The remainder of the activities to which students expect to make teaching a step are distinctly different in character from teaching. Nearly 20 per cent of the students look forward to such professional courses as law, medicine, pharmacy. Some 11 per cent mentioned such art lines as music and drawing. Such practical courses as agriculture and commercial training were to be obtained by 6 per cent. Activities of an immediately practical character such as salesmanship and stenography were to be entered by 9 per cent. Slightly less than 7 per cent did not state what occupation teaching was to lead to.

The first five types of activities listed in Table L are to be engaged in by almost 85 per cent of the students who intend to make teaching a temporary occupation. These five types all involve training beyond that received at this school. A majority then of the students represented in Table L are looking forward

to types of activities which they believe require the possession of more adequate scholarship than they will have on completion of their work at this school.

SUMMARY

1. More than nine out of ten of the students expect to do some teaching after graduation.
2. More than 60 per cent of those who will not teach at once expect to continue their training.
3. Less than one student out of three has decided to continue in teaching permanently.
4. More than one student out of three is uncertain as to whether teaching or some other activity will be followed in the future.
5. The majority of the students who will make teaching a step to other activities expect to obtain more training as a basis for the change.

CHAPTER X

THE INTELLIGENCE OF COLLEGE STUDENTS

In the foregoing pages there have been discussed a number of factors of a social nature which have contributed to the character of the student body being studied. The present chapter concerns itself with the question as to the degree of mental capacity possessed by this group of students. In addition it attempts to indicate some of the relationships which exist between the mental ability of the students and the general factors which were dealt with in the earlier chapters.

The data used as the basis for the discussion in this chapter consists of the scores made by the students on the Otis Self-Administering Tests of Mental Ability. As stated in the first chapter, the group which took the mental test was not exactly identical with the group which filled out the questionnaire. The difference is so light, however, that it has not been taken into account in comparing the totals of the two sets of data.

The scores made on the mental tests rather than the intelligence quotients are used as the basis for this chapter. There are two reasons for the use of this method. In the first place, the table for computing intelligence quotients devised by the author of the test is based on the scores and on the chronological ages up to eighteen years. Since the majority of the students under discussion were more than eighteen years of age at the time the test was taken, it was decided that the scores would provide a more accurate measure of the group as a whole. In the second place, this study is not concerned with individual cases, the analyses of which are facilitated by a knowledge of the intelligence quotients.

MENTAL CAPACITY OF THIS STUDENT BODY AND OF OTHER STUDENT GROUPS

The scores made on the mental test by the 482 students of this college who took it can be compared directly to those made on the same test, and reported to the author of the test, by a group of 2516 students in 21 institutions.¹ The types of institutions in which these latter students were enrolled are shown in Table LI, the data for which were obtained from the College

TABLE LI
TYPES OF INSTITUTIONS WHICH GAVE OTIS TEST

Type	Number
Liberal arts college.....	11
Teacher training college.....	3
Junior college.....	3
State university.....	2
Institute of technology.....	1
Unclassified.....	1

Blue Book.² The institutions were widely scattered geographically, representing the east and northeast, the north central part of the country, the northwest and the far west. All of the institutions except the three junior colleges and the one "unclassified" institution grant the bachelor's degree; eight of them grant master's and doctor's degrees.

The percentile scores made by the two groups of students are summarized in Table LII. This table means that for the

TABLE LII
PERCENTILE SCORES OF TWO GROUPS OF COLLEGE STUDENTS ON OTIS SELF-ADMINISTERING TESTS OF MENTAL ABILITY

Student Group.....	Percentile Score								
	0	3	10	25	50	75	90	97	100
This School.....	20	36	42	47	53	60	66	68	73
Other schools.....	20	32	39	46	53	62	67	71	75

students of this study the lowest score made on the test was 20; the score three per cent from the lowest was 36.

The comparison between the two sets of scores that strikes one immediately is their close similarity at almost all points. The

¹ Otis, *Manual of Directions and Key*, p. 7.

² Hurd, *The College Blue Book*.

difference between the scores at the 3-percentile point is 4; at the 10- and 97-percentile points it is 3; at the 75- and 100-percentile points it is 2; at the 25- and 90-percentile points it is one; at the 0- and 50-percentile points the scores are identical.

From the 3-percentile point through the 25-percentile point the scores for the 482 students of this school are slightly higher than those for the larger group. The median scores for the two groups are identical. Above the median the larger group has a slight superiority at each percentile point.

It may be assumed that the mental test which was applied to these two groups of students measured, in a general way at least, the native ability of the students. If this supposition is accepted, there is little ground for concluding that the intellectual caliber of the student body being studied is of poorer quality than that of other college students. Indeed, when it is remembered that the group being studied is primarily a junior college student body, the question may be raised as to whether the group might not rank higher than the students of corresponding age in the larger group used for comparison purposes.

The results obtained by Whitney¹ and Madsen² in their comparisons of normal school students with those of other higher institutions are similar to those found in the present study. The studies made by Kirkpatrick³ and Peterson and Kudorna,⁴ on the other hand, show some superiority in favor of college students as compared with normal school students. Additional studies of more closely comparable groups are apparently needed before the question as to the mental ability of teachers college students as compared with other students can be answered with finality.

CLASS DIFFERENCES IN MENTAL ABILITY

We now turn to the scores made by the classes within the entire group being studied. The medians for the four classes are shown in Table LIII. A fairly progressive increase in median ability takes place from the first to the fourth year.

Class variations in mental ability can be seen from a slightly different point of view by reference to Table LIV which presents the ranges in scores and net ranges for each class. While the median *scores* for the two junior college classes are lower than

¹ "Intelligence Levels Among State Normal School Graduates," *Journal of Educational Research*, VII (1923), pp. 229-235.

² "The Intelligence of Normal School Students and Its Relation to Learning and Teaching," *Educational Administration and Supervision*, X (1924), pp. 445-456.

³ "Intelligence Tests in Massachusetts Normal Schools," *School and Society*, XV (1922), pp. 55-60.

⁴ "The Army Alpha in the Normal Schools," *School and Society*, XIII (1921), pp. 476-480.

TABLE LIII
INTELLIGENCE TEST MEDIANS OF COLLEGE STUDENTS

Class	Median
First year.....	51
Second year.....	55
Third year.....	61
Fourth year.....	59
Median for all.....	53

TABLE LIV
RANGE IN INTELLIGENCE TEST SCORES OF COLLEGE STUDENTS

Class	Range in Scores	Net Range
First year.....	24-72	48
Second year.....	20-73	53
Third year.....	45-68	23
Fourth year.....	42-73	31

those for the two senior college classes; the reverse is true of the *ranges*; the first and second year classes have net ranges of 48 and 53 respectively, the third and fourth year classes have net ranges of 23 and 31 respectively. The net range for the third year is less than one-half of that for either of the first two years and the net range for the fourth year is less than two-thirds of that for either of the first two years.

A comparison of the net ranges for the first and second year classes reveals a significant tendency. Although the second year class is 40 per cent smaller in numbers than the first year class, its net range is larger than that of the first year class. There is little evidence that a "weeding out" process, which operates mainly to remove students of low mental ability, is taking place between the first and second years. Whatever reduction in numbers which takes place between the first and second years appears to be rather evenly distributed over all degrees of ability. When it is remembered that the two year course is the one completed by the large majority of the graduates of the school, the retention into the second year of many students of low ability means that a certain number of these people become legally qualified to teach.

The net ranges for the third and fourth year students, by contrast, indicate that these groups are much more homogeneous in mental ability than are the earlier classes. The lower limit of the range for both the third and fourth year groups is either at or above the 10-percentile score of 42 shown for the entire group

in Table LII. Students whose mental ability places them in the lower ten per cent of the group apparently do not return to complete the four year course.

SEX DIFFERENCES IN MENTAL ABILITY

The median mental test scores for men and for women are shown for the four college classes in Table LV. The table means that the first year men made a median score of 51; the second year men a median score of 56. The median for all men

TABLE LV
INTELLIGENCE TEST MEDIANS OF COLLEGE STUDENTS BY
SEXES

Class	Median	
	Men	Women
First year.....	51	51
Second year.....	56	55
Third year.....	61	59
Fourth year.....	61	53
Median for all classes.....	54	53

of the four classes is slightly higher than that for all the women of the four classes. The mental level of this student body is chargeable, therefore, in almost equal degree to both men and women students.

The median scores for the first year men and women are identical. Those for the second year men and women show a slight difference in favor of the men.

The median scores for the third and fourth year men are considerably higher than those for either the first and second year men or the third and fourth year women. The two older groups of men students are of higher mental ability than any other sex group for any of the four years.

MENTAL ABILITY OF CITY AND COUNTRY STUDENTS

Median scores by classes were computed for students whose homes are in towns and for those whose homes are in the country. These are presented in Table LVI. The table means that the first year students who live in town made a median score of 52.

The median score for all the town students exceeds somewhat the median score for all the country students. The difference is not large enough to warrant great emphasis but it seems well to point out that it does exist.

The difference in score between town and country students for each of the first three classes does not exceed two points. By contrast the difference between the town and country students

TABLE LVI
INTELLIGENCE TEST MEDIANS OF CITY AND COUNTRY
STUDENTS

Class	Median	
	Town	Country
First year.....	52	50
Second year.....	55	56
Third year.....	61	62
Fourth year.....	61	45a
Median for all.....	54	51

a. Based on three cases.

of the fourth year is strikingly large. This difference, however, loses much of its significance when it is noticed that the median for country students is based on only three cases.

MENTAL ABILITY AND YEARS SPENT IN HIGH SCHOOL

It was pointed out in an earlier chapter that wide differences exist in the length of time which was spent by college students in high school. Table LVII shows the relation of these differences to mental test scores. The table means that the students who spent less than four years in high school made a median score of 55, with a range in score from 36 to 69.

TABLE LVII
MEDIAN INTELLIGENCE TEST SCORES AND LENGTH OF
TIME SPENT IN HIGH SCHOOL

Length of Time	Median Score	Range of Scores
Less than 4 years.....	55	36 to 69
Four years.....	53	20 to 73
More than 4 years.....	49	29 to 63

Students who spent less than four years in high school made a median score of 55, which is two points higher than that of those who graduated in four years. The median score for those who spent 4 years in high school equals the median of 53, made by the entire group of students who took the test. Students who spent more than 4 years in order to graduate from high school made a median score four points lower than that of the students who graduated in four years and six points lower than that of the students who graduated in less than four years.

The ranges in scores for the three periods of time spent by students in high school are somewhat more significant than the medians. Those whose scores place them in the lowest three per cent of college students as well as those whose scores place

them in the upper three per cent of college students were able to complete the high school course in less than the regular four years. Similarly students whose scores place them at the very bottom of the college group as well as those whose scores place them at the very top of the college group graduated from high school in four years. The same general kind of statement can be made for those who spent more than four years in high school. Apparently college students who exhibit the widest kind of difference in mental ability occupied, in many cases, the same amount of time in completing their high school courses. It would appear that factors other than mental ability alone contribute to success in high school.

MENTAL ABILITY AND THE SIZE OF GRADUATION CLASS

The size of classes graduated from various high schools may be taken as a rough indication of the total size of the high schools. Table LVIII is intended to relate the size of high schools attended by students to the median scores made on the mental test. The table means that students who did not give the size of their high school class made a median score of 58; those from classes of 120 to 129 made a score of 57.

The nine groups of classes that have medians from 54 through 57 may be commented on first. It will be noticed that the students who graduated in these classes made median scores above the median of 53 made by all the students. Of these nine classes eight number fewer than one hundred students per class and six number fewer than 60 students per class. Students who come to this college from high schools of small and medium sizes are of higher mental caliber than the group as a whole.

TABLE LVIII
MEDIAN INTELLIGENCE TEST SCORES AND SIZE OF HIGH
SCHOOL CLASS IN WHICH STUDENTS GRADUATED

Size of High Schools	Median Score	Range in Score
Not given.....	58	40-69
120-129.....	57	55-58
40-49.....	56	38-73
20-29.....	55	26-71
0-9.....	54	40-64
10-19.....	54	33-71
30-39.....	54	30-70
50-59.....	54	20-70
70-79.....	54	37-69
90-99.....	54	46-67
140 and above.....	53	41-71
60-69.....	52	29-66
100-109.....	52	45-64
130-139.....	51	34-71
80-89.....	49	29-68
110-119.....	47	47-51

Only one group of classes, those from 140 and above, made a median score of exactly 53. This group includes the very largest classes in which any students graduated.

The lower group of classes include those, the median scores of whose students were from 47 to 52. These are all below the median of 53 for the entire group. Of these five groups of classes three include classes which number more than 100 students in each. Students who come to this college from very large high schools score below the median for all the students who come. The better students from larger high schools are apparently more inclined to go to a different type of higher institution.

MENTAL ABILITY AND PARENTAL OCCUPATION

Table LIX is intended to show the degree of mental ability possessed by college students whose fathers follow or have followed various occupations. The data include the former occupation of fathers who are now dead. The table means that a

TABLE LIX
MEDIAN INTELLIGENCE TEST SCORES AND OCCUPATIONS
OF FATHERS OF STUDENTS

Class of Occupation	Score	Range
Public service.....	61	29-61
Commercial service.....	58	39-70
Artisan service.....	58	41-66
Managerial service.....	57	38-67
Building trades.....	57	41-69
Machine trades.....	57	33-71
Mining, lumbering, oil.....	56	43-70
Proprietors.....	55	40-71
Professional service.....	54	36-72
Clerical service.....	54	42-65
Unknown.....	54	46-69
Transportation service.....	53	36-67
Agricultural service.....	49	20-73
Common labor.....	48	42-61

median score of 61 on the mental test was made by college students whose fathers are or were engaged in such forms of public service as constables and custodians. The occupational classification used in Table LIX is identical with that used in Table XIX of Chapter V, with the exception that two classifications which appear in the latter table do not appear in the former. The explanation of this difference is due to the fact that the two students whose fathers follow occupations grouped under "Miscellaneous Trades" and "Personal Service" in Table XIX did not take the mental test.

Of the 14 groups listed under "class of occupation" in Table LIX the first eleven, composing 10 occupation groups and the "Unknown" group, are followed by fathers whose children in

college make median scores above 53. These eleven groups constitute slightly more than 40 per cent of all the students. With the exception of the classification called "Mining, lumbering, oil," these ten occupations are the type usually engaged in in towns. It was pointed out in Table LVI of this chapter that the median score of college students whose homes are in towns exceeds that of students whose homes are in the country.

"Transportation service," which includes such occupations as railroad conductor, mail carrier, station agent, transfer line operator, constitutes the occupation of 4 per cent of the fathers of college students. These students made a median score of 53, which is the median score made by all of the students.

The two last occupational groups in Table LIX, "Agricultural service" and "Common labor," make up more than 54 per cent of the occupations of the parents of students. The students whose fathers follow the occupations in these two groups made median scores of 49 and 48 respectively. These scores are two and three points lower than the median shown in Table LVI for all of the country students. This is explained by the fact that a number of college students live in the country but their parents engage in mining, lumbering, oil work and some building and machine trades.

College students whose fathers are classified under the occupation groups of agriculture and common labor contribute, therefore, all of the scores below the median for the entire group. Students whose fathers belong to the ten occupation groups and the unknown group contribute all of the scores above the median for the entire group. Transportation service is the median occupation group in the sense that the children of fathers who follow that group of occupations make a median score equal to the median for all of the students.

SUMMARY

1. The median mental test score of this group of students equals that of a larger group of students of other institutions.
2. Median scores tend to increase by classes from the first year through the fourth year.
3. Sex differences in median scores are insignificant.
4. The median score for town students is somewhat higher than that for country students.
5. Students from very large high schools make lower scores than those from schools of medium size.
6. Students whose parents are engaged in agricultural occupations and in common labor make lower median scores than students whose parents pursue any other occupations.

CHAPTER XI

THE SCHOLARSHIP OF COLLEGE STUDENTS

The preceding discussion has called attention to the social background of these students and to the level of their native

mental ability. The present chapter will view them from a third standpoint—the achievements which they have made in college scholarship. Emphasis will be placed, not merely on the scholarship records themselves, but in addition on the relation which these records bear to the group characteristics which have already been touched upon.

The method of collecting the scholarship data has been described in detail in the introductory chapter. One statement needs to be added with reference to the tabulations of those data which are presented in this chapter. While the final scholarship record which was compiled for the individual student consisted of the *average* for each term of his work and for his total courses, the tendencies of the entire group which this chapter deals with are presented in terms of *medians*. In other words, the median rather than the averages for the entire group are used throughout the tables in this chapter. This plan was adopted for the purpose of achieving a consistent usage throughout the study, all of the earlier tabulations having been based on the medians.

During the time that the students achieved the scholarship records presented in this chapter the percentage system of grading was used in the school. A grade of 70 per cent was required for credit in a course. A grade of 65 per cent was considered a condition, the removal of which was necessary before credit was given for the course.

CLASS SCHOLARSHIP MEDIANS

The scholarship medians attained by each of the four college classes and by the entire group are shown in Table LX. The medians of 80 for the group as a whole is ten points above the passing grade of the school. This difference represents one-third of the interval of 30 points between the passing grade of 70 and a perfect grade of 100. If one assumes that this grading system

TABLE LX
MEDIAN TOTAL SCHOLARSHIP AVERAGES MADE BY EACH
CLASS

Class	Median
First year.....	79
Second year.....	82
Third year.....	84
Fourth year.....	87
For all students.....	80

has been used in its entirety to measure the work of student bodies as they have passed through the school from year to year, it seems reasonable to conclude that this particular student body did not produce a strong impression upon those responsible for grading its work.

A moderate increase in scholastic achievement takes place as one passes over the medians for the four classes. The first year students do slightly poorer work than the entire group, and considerably poorer work than the two upper classes. The increase in both quantity and quality of work required in college, as compared with the standards maintained in high schools, explains in part the lower median of the first year students. The necessity of preparing difficult assignments without the close supervision of the teacher is another situation which the beginning student has to adjust himself to. The relative freedom as to the use of his time and energy which the college freshman finds himself confronted with constitutes another factor which has an important effect on scholarship.

The second year students, with a somewhat higher median of mental ability, achieve a higher scholarship median. A number of the problems which confront the first year students have been met. In addition, the second year students are inducted into practice teaching which makes up part of their work for the entire year. The pressing demand for scholarship and technique which this activity puts upon them is reflected in improved quality of work in other courses.

The senior college students—the third and fourth year groups—achieve scholarship medians considerably above those for the younger students. We have already noticed that the upper class students are mature, both as to age and experience. Most of them have done some teaching; some of them have taught the subjects which they specialize in here. A number of them have had supervisory and administrative experience, which provides them with a concrete background for the courses in education and psychology.

Table LXI shows class differences in scholarship from another angle. The range in averages declines rapidly from the first year to the fourth year. The lower limit for the first year students is well below the passing grade of 70 per cent. The cor-

TABLE LXI
RANGE OF TOTAL SCHOLARSHIP AVERAGE MADE BY EACH CLASS

Class	Range
First year.....	60-93
Second year.....	69-95
Third year.....	75-91
Fourth year.....	79-92

responding point for the second year students is one point below the passing grade. The ranges for both of the senior college years are markedly narrower than those for the junior college and at the lower limit are both well above the passing grade.

SEX DIFFERENCES IN SCHOLARSHIP

Differences between the college men and women in respect to scholarship are summarized in Table LXII. A median grade of 80 is attained by each sex taken as a total group for the four years. While the scholarship median for the entire group of students is not strikingly high, the responsibility for its level is shared equally by both men and women.

TABLE LXII
MEDIAN SCHOLARSHIP GRADES MADE BY MEN AND
WOMEN OF EACH CLASS

Class	Men	Women
First Year.....	79	79
Second Year.....	79	82
Third Year.....	82	85
Fourth Year.....	87	82
For all students	80	80

The variations within the individual classes are not of large significance. For the men and women of the first year the medians are identical. The women of the second and third years show a moderate superiority over the men. Of the four classes the men of the fourth year alone are superior to the women of their class. While the difference between the sexes for that year is considerable, its importance is reduced by the small number of students involved.

RELATION OF SCHOLARSHIP AND NATIVE ABILITY

The degree to which the native ability and the educational achievement of a group of students vary together is often a matter of significance. The relation between these factors for the college students is presented in Table LXIII and in Figures 8 and 9.

The correlations were computed between the mental test scores and the scholarship averages for each class and for the total group of students. Because of the large number of cases in each of the first two years and in the total group, the method outlined by Garrett¹ for calculating the coefficient of correlation by the product-moment formula when the deviations are taken from the *guessed* averages of the two distributions was used. For the last two years in which the number of cases is relatively small, the product-moment formula was used with the deviations taken from the *actual* averages of the two distributions.

Table LXIII shows that for the group of students as a whole the coefficient of correlation between native ability and scholarship is .38 with a probable error of .02. The relation between

¹ *Statistics in Psychology and Education*, pp. 163-168.

TABLE LXIII
COEFFICIENTS OF CORRELATION BETWEEN MENTAL TEST
SCORES AND SCHOLARSHIP RECORDS FOR EACH CLASS

Class	Coefficient of Correlation	Probable Error
First year.....	.44	.03
Second year.....	.46	.03
Third year.....	.28	.11
Fourth year.....	.33	.14
For all students.....	.38	.02

the same two characteristics is presented graphically in Figure 8.

A correlation of .38 is considered by Rugg¹ to indicate a fairly close relation between two traits. That it is not an extremely high correlation can be found by an examination of Figure 8. Students with marked differences in ability have attained the same level of scholarship; for example, scholarship averages in the interval "70-74" are achieved by students with mental test scores from 20 to 69. Conversely, students with similar native ability have achieved widely different scholarship records; for example, students with mental test scores in the interval "50-54" made scholarship averages ranging from 65 to 89.

The coefficients of correlation for the first and second year classes are noticeably higher than those for the group as a whole —.44, with a probable error of .03 for the first year students and .46 with a probable error of .03 for the second year students. The two upper diagrams in Figure 9 present graphically the relation of the two traits for the first two classes. While some of the same lack of relation between the two traits which was pointed out in Figure 8 is found here also, a closer grouping of the two variables along the diagonal is noticeable.

The correlations of .28 and .33 for the third and fourth years respectively are of moderate size in themselves, but when considered with the high probable errors become very low. The two lower diagrams of Figure 9 indicate an almost complete lack of relation between native ability and scholastic achievement for the student groups of these two years.

A number of factors may be suggested, which produce this lack of relationship between ability and achievement of these older students. The groups themselves are too small to make any correlation very reliable. These students are mature in age and in experience. Most of them are attending school on their own initiative and at their own expense.

In summarizing this section, it may be said that for students of the junior college there is a fairly close relation between mental

¹ *A Primer of Graphics and Statistics*, p. 91.

Scholarship averages

	60-64	65-69	70-74	75-79	80-84	85-89	90-94	95-99
70-74					3	3	4	
65-69			2	8	16	20	3	1
60-64	2		3	9	17	29	2	
55-59	1		9	27	38	18	2	
50-54		2	10	37	34	8		
45-49		2	14	31	28	11		
40-44	1	4	12	26	9	3		
35-39	1	2	5	5	3			
30-34		2	1	2				
25-29			1	2				
20-24			2					

Mental test scores

Fig. 8.—Relation of mental scores and scholarship averages for all students.

Scholarship averages

	60-64	65-69	70-74	75-79	80-84	85-89	90-94
70-74						2	2
65-69				4	7	7	2
60-64	2		2	3	8	5	1
55-59	1		6	16	18	5	
50-54		2	6	24	21	2	
45-49		2	11	20	15	6	
40-44	1	3	9	17	2	2	
35-39	1	2	4	3	2		
30-34		2		1			
25-29			1	1			
20-24			1				

Mental test scores a. First year

Scholarship av.

	75-79	80-84	85-89	90-94
65-69	1	2	2	1
60-64	1	3	5	
55-59	2	3	1	
50-54	2		2	
45-49	1		1	

Mental test scores c. Third year

Scholarship averages

	65-69	70-74	75-79	80-84	85-89	90-94	95-99
70-74				1	1	1	
65-69	2	3	7	9			1
60-64	1	5	6	17	1		
55-59	3	9	16	11	1		
50-54	4	11	12	3			
45-49	3	9	13	3			
40-44	1	3	9	5	1		
35-39	1	2	1				
30-34	1	1					
25-29			1				
20-24	1						

Mental test scores b. Third year

Schol. av.

	75-79	80-84	85-89	90-94
70-74	2		1	
65-69		2		
60-64		2	1	
55-59	1	1	1	
50-54	1	1		
45-49	1		1	
40-44		2		

Mental test scores d. Fourth year

Fig. 9.—Relation of mental test scores and scholarship averages by classes.

test scores and scholarship averages; for the students of the senior college there is relatively little relation between the same two characteristics.

SCHOLARSHIP AND SIZE OF HIGH SCHOOL ATTENDED

As was done in the preceding chapter, the size of a student's high school graduation class is here again assumed to indicate the size, and to a limited extent the type, of secondary school which he attended. The data presented in Table LXIV show the extent of relationship between a student's college scholarship record and the number in his high school class. The table includes not only the medians but in addition the range for each size of high school class.

The first eight groups of classes under the heading "size of high school class" in Table LXIV have scholarship medians which are either equal to or are above the median of 80 for the entire group. Of these eight classes all except two groups—those marked "not given" and "140 and above"—have memberships

TABLE LXIV
MEDIAN COLLEGE SCHOLARSHIP AVERAGES FOR GRADUATES OF HIGH SCHOOLS OF VARIOUS SIZES

Size of High School Class	Median	Range
Not given.....	83	73-93
30-39.....	82	68-90
40-49.....	81	64-95
50-59.....	81	63-89
10-19.....	80	64-92
20-19.....	80	63-91
80-89.....	80	63-88
140 and above.....	80	73-90
90-99.....	79	70-84
0-9.....	79	65-89
60-69.....	78	60-89
70-79.....	78	61-88
100-109.....	78	75-87
110-119.....	78	72-78
130-139.....	77	71-92
120-129.....	75	71-78

under 90 students. Students of this college who have attended high schools of small and medium size are not only above the median of native ability, as was pointed out in the preceding chapter, but tend to attain scholarship averages above the median.

The next two groups under "size of high school class"—the "90-99" and "0-9" classes—have medians only a single point below the median for the entire group. For purposes of generalization this difference may be ignored and these two groups may be added to the eight groups of classes which were discussed in the preceding paragraph. When this is done, it will be seen that the students who were members of high school classes which numbered fewer than 100 equal or nearly equal the scholarship median for the entire group.

The remaining six groups under "size of high school class" show a negative deviation of from two to five points from the group median of 80. Of these six groups four consist of high school classes with memberships above 100 students. Students who come to this college from very large high schools are not of high native ability, as the preceding chapter has shown, and do not attain high scholarship records in this college.

The data in Table LXIV under the heading "range" present the relation of scholarship and size of high school class from a different point of view. While the small and medium sized high schools send to this college a body of students whose scholarship median is at or above the group median, they also send a large proportion of students who achieve individually low and individually high scholarship records. For example, of the first eight classes listed under "size of high school class" six have individual averages at the lower limit of their ranges which are under the passing grade of 70; on the other hand six have individual averages of 90 or above at the upper limit of their ranges. Of the six groups of classes with the lowest median scholarship records, four have individual averages above 70 at the lower limit of their ranges, but only one has an upper limit of 90.

SCHOLARSHIP AND FATHERS' OCCUPATIONS

The comparison in this section is presented for the purpose of discovering any effect which the students' occupational background may have on the quality of his college scholarship. The median scholarship averages achieved by students whose fathers now follow or did follow certain classes of occupations are shown in Table LXV. The same categories for classification of occupa-

TABLE LXV
MEDIAN SCHOLARSHIP RECORDS AND OCCUPATION OF
FATHERS OF STUDENTS

Occupation	Median
Building trades.....	84
Artisan service.....	83
Unknown.....	83
Professional service.....	81
Managerial service.....	81
Machine trades.....	81
Proprietors.....	80
Clerical service.....	80
Agricultural service.....	80
Public service.....	80
Commercial service.....	79
Transportation service.....	78
Common labor.....	78
Mining, lumbering, oil.....	77

tions are used here as were used in the earlier chapters in which occupations were discussed.

The medians for the 14 occupation groups fall into three classes; the first six, which are above the general median of 80; the next four, which are equal to the general median; and the last four, which are below the general median.

A superficial comparison of the data contained in Table LXV with those found in Table LIX of the preceding chapter shows that fathers' occupations have somewhat the same relation to scholarship averages as they have to mental test scores. Thus, of the first seven occupation groups in Table LXV, four are found among the first seven in Table LIX. Again, of the second seven listed in Table LXV, four are found among the second seven listed in Table LIX.

The most striking difference which a close examination of the two tables reveals is the relative position in them of the occupation called "agricultural service." This occupation, it will be remembered, is followed by nearly one-half of the fathers of college students. Table LIX shows that college students whose fathers belong to this occupational group make a median mental score which is considerably below the median for the entire group and is superior only to that made by students whose fathers are engaged in common labor as an occupation.

Table LXV shows, on the other hand, that students whose fathers are engaged in "agricultural service" made a median scholarship average equal to that of the entire group of students. The table shows further that the median scholarship average for "agricultural service" is equal to that of three other occupational groups, viz.: "proprietors," "clerical service," "public service;" that it is superior to four other occupational groups, viz.: "commercial service," "transportation service," "common labor," "mining, lumbering and oil" work; that it is exceeded by only six occupational groups, viz.: "building trades," "artisan service," "professional service," "managerial service," "machine trades" and "unknown" occupations.

Apparently students who have had some form of agricultural occupation as a background for their lives bring to an institution of this kind certain abilities and attitudes which enable them to overcome, in part, the handicap of mediocre native ability. Among desirable attitudes may be mentioned a keen appreciation of the opportunity which college training offers. Many students from country homes are paying a large part of their own expenses through college. Some familiarity with long hours of hard work at home probably makes the time and effort required for college work seem less onerous to the country student than to students who have had a larger element of leisure in their home experiences.

SUMMARY

1. There is an increase in scholarship medians and a decrease in range of scholarship averages from the first to the fourth year.

2. Sex differences in scholarship are insignificant.
3. Correlation between scholarship and native ability is moderately high for the junior college students, but low for the senior college students.
4. Graduates of medium sized high schools do better work in this college than those of larger high schools.
5. Students whose parents engage in agricultural occupations overcome in scholarship some of their handicap in native ability.

CHAPTER XII

CONCLUSIONS

The preceding chapters have been devoted to a detailed presentation and analysis of several kinds of data which throw light on the character of the student body of a particular teachers' college. This final chapter will concern itself with the general problem of bringing together the specific characteristics of the student body and of arranging these as a unified whole. This will consist of a discussion of the following elements in the character of this student body: (1) the social component, (2) the intellectual component, (3) the achievement component.

THE SOCIAL COMPONENT

Of the various elements which contributed to the social background of this student body one stands out conspicuously above all others: the background has been predominantly rural in character. This feature has colored the social setting for the lives of practically all of the students; both those who have lived in towns, and those who have actually resided in the country.

Within the area which sent the great majority of the members of this student body to this school there are few cities of large size. Indeed, the larger number of the incorporated places have fewer than 2500 people and are therefore classed with rural territory by the United States census. Thus the students who do not now, or have not actually lived in the country, have spent their lives in places which are largely devoted to country interests and country problems.

The rural character of the communities from which students come is further emphasized by the small high schools which the majority of the students have attended. Schools whose total enrollments were fewer than 200 were attended by one-half of the students. Fewer than 15 per cent of the students attended high schools whose total enrollments were more than 500.

The transition from the home community to the college did not greatly reduce, for most students, the rural element. The city in which the school is located, while not as distinctly rural in character as some smaller places, is still rather close to country interests. Furthermore, the great majority of the students have homes within a short distance of the college. Many are able to spend week-ends at home; others live at home entirely.

The second element of note in the social setting of the students' lives is the character of the families from which they have come. In size these greatly exceed those of the state as a whole. Many of the families are lacking in educational traditions, a large number of the members of this student body being the first to enroll in a college. The economic resources of many of the families are so modest that the students have to assume the responsibility for providing a part of their own college expenses.

THE INTELLECTUAL COMPONENT

In native mental ability this student body compares favorably with students of a number of other higher institutions. On a test designed to measure mental capacity the median score of the student body of this school equalled that of the student bodies of 21 other colleges and universities. At all points below the 50-percentile except one, the scores of the students of this college exceeded slightly the scores of the students in the 21 institutions; at all points above the 50-percentile the scores of the students in the 21 institutions exceeded slightly those of the students of this school.

Within the group there are very wide ranges in ability. No sifting process seems to have operated to eliminate many students of low quality. Students whose ability necessitated the spending of five or more years for the completion of a high school course are found in the group. On the other hand, there are those students who were able to complete their high school course in three years or less.

THE ACHIEVEMENT COMPONENT

The achievement element includes not only the scholarship records attained by the students in college, but in addition touches upon the nature of the future activities which the students expect to engage in. Scholarship records of other student bodies are not available for purposes of comparison. Nevertheless, it seems reasonable to repeat the statement that a median scholarship average of 80 per cent on a 100 per cent scale is low for a college group. Such a median means, obviously, that a considerable number of students are doing work which is barely acceptable for credit and that this type of work is not counterbalanced by an equal amount of the very highest quality of work which is possible under the grading system.

Beyond the present achievements only the most tentative kind of conclusions are possible. Only a small percentage of this student body expects to do no teaching following the completion of the period of training. However, only a third of the students have decided that teaching will be their permanent occupation. Another third of them are uncertain as to their future occupation. The remaining members of the group have made plans to enter types of work far different from teaching. Although the state has established this school for the preparation of teachers a

sizable percentage of the college students being discussed do not expect to make permanent use of their training in teaching.

The typical student found in this teachers college may be described, finally, as an individual who has passed most of his life in rural surroundings; whose native ability approaches that of the college students of other types of institutions; whose college scholarship is of fair quality; who will make teaching his immediate but possibly not his permanent occupation.

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APPENDIX

I. TWO-YEAR CURRICULUMS

24 Credits

1. FOR PREPARATION OF TEACHERS FOR THE GRADES

FRESHMAN YEAR

Psychology 20, 21, 22	Reading 24
English 20, 21, 22 (or 24)	Drawing 24
Arithmetic 20, 21	Penmanship 20
Botany 20 or Zoology 20	Library 20
Geography 20	Physical Education 1, 2, 3

SOPHOMORE YEAR

Education 20, 21	Geography 21 and an elective
Teaching 20, 21, 22	or English 23 and
History 20, 21	Education 24
Music 24	Hygiene 20
Manual Arts 24 or 25	Physical Education 4, 5, 6.

Notes: 1. The completion of the work of the freshman year entitles the student to recommendation for a second grade certificate without examination. The completion of the sophomore year in this curriculum entitles the student to the diploma of the Junior College and to a first grade certificate.

2. A credit is the amount of work done in a prepared subject reciting five periods a week for a term of twelve weeks.

3. Each subject has five fifty-minute periods a week unless otherwise indicated by a number in parentheses; but laboratory sciences have seven or eight fifty-minute periods (except chemistry, which has the equivalent of nine fifty-minute periods); manual arts and home economics require ten periods a week for full credit. In each five-period course there is one unassigned recitation a week.

FOUR-YEAR CURRICULUM

48 Credits

II. 3. I. MATHEMATICS

JUNIOR COLLEGE

Freshman Year

FALL	WINTER	SPRING
Psychology 20	Psychology 21	Psychology 22
English 20	English 21	English 25
Algebra 31	Algebra 32	Algebra 36
Geometry 30	Arithmetic 20	Arithmetic 21
Library 20 (1)	Penmanship 20 (1)	Physical Edu. 3 (2)
Physical Edu. 1 (2)	Physical Edu. 2 (2)	

Sophomore Year

Teaching 20	Education 20	Education 21
Social Science 20	Social Science 21	Hygiene 20
Minor Subject	Minor Subject	Minor Subject
Trigonometry 33	Analytics 34	Analytics 35
Physical Edu. 4 (2)	Physical Edu. 5 (2)	Physical Edu. 6 (2)

SENIOR COLLEGE

Junior Year

Education 44	Psychology 47	Education 45 or 47
English 43	English 44	English 45
Minor Subject	Minor Subject	Minor Subject
Calculus 43	Calculus 44	Calculus 45

Senior Year

Mathematics 40	Mathematics 41	Mathematics 42
Laboratory Science	Laboratory Science	Laboratory Science
Elective	Elective	Elective
Elective	Elective	Elective

INFORMATION BLANK FOR STUDENTS

Date.....

I. Personal data

1. Name

last
first
middle

Mr.
Miss
or Mrs.
2. Sex.....
3. Age: years.....months.....
4. Class here.....
5. Birthplace: town.....or township.....
county.....state.....
Postoffice address: town.....
county.....state.....
6. Present principal of high school from which you graduated: name.....address.....
7. Year of your graduation from high school.....

II. Elementary and high school education

8. Age on entering elementary school.....
9. Age on finishing eighth grade.....
10. Were the seventh and eighth grades part of a Junior High School?.....
11. How many different elementary schools did you attend until you finished?.....
12. Age on entering high school.....
13. Number of years spent in high school.....
14. Age on graduating from high school.....
15. Number in class in which you graduated.....

III. Extra curricular activities in high school and college

16. How many years were you a member of the high school squad in: football.....basketball.....baseball.....
track.....other sports (name).....
17. How many years in high school were you a member of class teams in: football.....basketball.....
baseball.....track.....other sports (name).....
18. How many years in high school were you a voluntary member of: chorus.....glee club.....orchestra.....
band.....other musical organizations (name).....
19. How many times did you take part in any of the following: dramatics.....literary programmes.....
debates.....speaking contests.....other similar activities (name)
20. What elective class offices did you hold in high school?
.....

21. What other high school organizations were you active in?
.....
22. Since you have been here in college what activities have you engaged in: (indicate position and year) athletics
.....glee club.....
chorus.....dramatic club.....
News staff.....Warbler staff.....
student council.....Y. M. C. A.....
.....Y. W. C. A.....
class offices
any others (name).....
- IV. Experience since leaving high school
 23. Did you come here directly from high school?.....
 24. If not, how many years have elapsed since your high school graduation?.....
 25. If not, what have you been doing since graduation?.....
.....
 26. If you have been teaching, state the number of months
.....and the type of school (rural, semi-graded,
graded, high school).....
 27. In what institution *other* than this one have you had any
training above high school?.....
.....
 28. What were the year or years and total number of months
of that schooling?.....
 29. What type of work was that schooling intended to prepare
you for?
- V. Home background
 30. Is your father living?.....
 31. His present occupation?.....
 32. Does he own the business or does he work for someone?
.....
 33. If not now living or working, what was his occupation
while living or working?.....
 34. Is your mother living?.....
 35. How many brothers have you living?.....Sisters
living?.....
 36. How many brothers and sisters living have only:
 - a. Graduated from the elementary school?.....
 - b. Graduated from high school?.....
 - c. Spent one year in college?.....
 - d. Spent two years in college?.....
 - e. Spent three years in college?.....
 - f. Spent four years in college?.....
 - g. Have done graduate work in college?.....

37. How many of your brothers are engaged in teaching as an occupation?..... Sisters?.....
38. What are the occupations of your other brothers?.....
.....other sisters?

VI. Outlook on life

39. What is your primary purpose in coming to this school?
.....
40. Do you expect to teach on graduation?.....
41. What kind of teaching position do you desire?.....
42. If you do not expect to teach, what do you expect to do?
.....
43. Do you expect to make teaching a step to something else?
If so, to what?.....
44. How long do you expect to stay here? (check) one year
.....two years.....three years.....four years.....
45. What person or persons influenced you to come here?
(check) elementary school teacher.....high school
teacher.....high school principal.....member of school
board..... father..... mother..... sister..... brother
.....other relative (name).....friend.....
college catalogue.....any other influence.....
46. If you had your own entire choice would you go to some
other school?..... Where?.....
Why?
47. Do you expect to earn any part of your expenses while
here?.....About what fraction?.....
48. Do you have any special means of earning? (specify)....
.....
49. Do you expect to borrow any part of your expenses?.....
About what fraction?.....

From Otis Self-Administering Tests of Mental Ability, Copyright 1922 by World Book Company, Publishers, Yonkers-on-Hudson, New York.

By ARTHUR S. OTIS

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HIGHER EXAMINATION: FORM A

20

Score.....

Read this page. Do what it tells you to do.

Do not open this paper, or turn it over, until you are told to do so. Fill these blanks, giving your name, age, birthday, etc. Write plainly.

Name

First name, initial, and last name

Age last birthday.....years; Birthday.....

Month

Day

Class..... Date.....192...

School or College.....City.....

This is a test to see how well you can think. It contains questions of different kinds. Here is a sample question already answered correctly. Notice how the question is answered:

Which one of the five words below tells what an apple is?

1 flower, 2 tree, 3 vegetable, 4 fruit, 5 animal...(4)

The right answer, of course, is "fruit"; so the word "fruit" is underlined. And the word "fruit" is No. 4; so a figure 4 is placed in the parentheses at the end of the dotted line. This is the way you are to answer the questions.

Try this sample question yourself. Do not write the answer; just draw a line under it and then put its number in the parentheses: Which one of the five words below means the opposite of north?

1 pole, 2 equator, 3 south, 4 east, 5 west.....()

The answer, of course, is "south"; so you should have drawn a line under the word "south" and put a figure 3 in the parentheses. Try this one:

A foot is to a man and a paw is to a cat the same as a hoof is to a—what?

1 dog, 2 horse, 3 shoe, 4 blacksmith, 5 saddle...()

The answer, of course, is "horse"; so you should have drawn a line under the word "horse" and put a figure 2 in the parentheses. Try this one:

At four cents each, how many cents will 6 pencils cost?...()

The answer, of course, is 24, and there is nothing to underline; so just put the 24 in the parentheses. If the answer to any question is a number or a letter, put the number or letter in the parentheses without underlining anything. Make all letters like printed capitals.

The test contains 75 questions. You are not expected to be able to answer all of them, but do the best you can. You will be allowed half an hour after the examiner tells you to begin. Try to get as many right as possible. Be careful not to go so fast that you make mistakes. Do not spend too much time on any one question. No questions about the test will be answered by the examiner after the test begins. Lay your pencil down.

Do not turn this page until you are told to begin.

EXAMINATION BEGINS HERE:

1. The opposite of hate is (?)
1 enemy, 2 fear, 3 love, 4 friend, 5 joy.....()
2. If 3 pencils cost 5 cents, how many pencils can be bought for 50 cents?.....()
3. A bird does not always have (?)
1 wings, 2 eyes, 3 feathers, 4 a nest, 5 a bill..()
4. The opposite of honor is (?)
1 glory, 2 disgrace, 3 cowardice, 4 fear, 5 defeat()
* * * * *
* * * * *
34. Of the five things below, four are alike in a certain way. Which is the one not like these four?
1 smuggle, 2 steal, 3 bribe, 4 cheat, 5 sell....()
35. If 10 boxes full of apples weigh 400 pounds, and each box when empty weighs 4 pounds, how much do all the apples weigh?()
36. The opposite of hope is (?)
1 faith, 2 misery, 3 sorrow, 4 despair, 5 hate..()
37. If all the odd-numbered letters in the alphabet were crossed out, what would be the tenth letter not crossed out? Print it. *Do not mark the alphabet.*()
ABCDEFGHIJKLMNOPQRSTUVWXYZ
* * * * *
* * * * *
72. A hotel serves a mixture of 2 parts cream and 3 parts milk. How many pints of cream will it take to make 15 pints of the mixture?.....()
73. What is related to blood as physics is to motion?
1 temperature, 2 veins, 3 body, 4 physiology, 5 geography()
74. A statement the meaning of which is not definite is said to be (?)
1 erroneous, 2 doubtful, 3 ambiguous, 4 distorted, 5 hypothetical()
75. If a wire 20 inches long is to be cut so that one piece is $\frac{2}{3}$ as long as the other piece, how long must the shorter piece be?()



