COLORADO STATE TEACHERS COLLEGE

# THE SOCIAL AND ECONOMIC BACKGROUND OF STATE TEACHERS COLLEGE STUDENTS

(Research Bulletin No. 11)



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## PREFACE

Any study in the social sciences must from its inherent nature be cooperative. This investigation is no exception. Nearly two thousand college students willingly furnished confidental information for the core of the study, and facts about many thousands in a half dozen states comprised the comparative data used. Dean E. A. Cross, Colorado State Teachers College, permitted the use of his Massachusetts questionnaire, and Doctor H. T. Manuel, at that time Director of Educational Research, Western State College, Gunnison, Colorado, and Doctor J. C. DeVoss, Director of the Bureau of Research and Extension, State Teachers College, San Jose, California, undertook the management of the study in their colleges. Valuable material was furnished also by Mr. W. G. Binnewies, Assistant Professor of Sociology, Mr. R. H. Morrison, Associate Professor of Extramural Education, and Doctor J. D. Heilman, Professor of Educational Psychology, all of Colorado State Teachers College. Mr. Dale Patterson, Research Fellow, Colorado State Teachers College, helped in planning and starting the investigation, and Miss Jessie L. Thompson, Research Secretary, Colorado State Teachers College, directed the classification of data and helped in the interpretation of findings.

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# INTRODUCTION

The type of person admitted to and graduated from teacher training institutions is a vital matter. Natural qualities possessed, the personnel of the home, economic and social conditions, all will make their contribution in determining the kind of education furnished pupil groups. As a desirable criterion the teacher will act as leader so that character traits, civic attitudes, and the like will appear on successive levels of efficiency generation after generation. But it might happen that such low undesirable levels of social background would be represented by teachers that a static condition in society would result, or even that there might be retrogression.

Coffman's pioneer study[1] was a recognition of the importance of this problem so far as it applied to the teacher in service. His findings seemed to show that—

"The typical American female teacher is twenty-four years of age, having entered teaching in the early part of her nineteenth year when she had received but four years training beyond the elementary schools. Her salary at her present age is $485 a year. She is native born of native born parents, both of whom speak the English language. When she entered teaching both of her parents were living and had an annual income of appoximately $800 which they were compelled to use to support themselves and their four or five children. The young woman early found the pressure, both real and anticipated, to earn her own way very heavy. As teaching was regarded as a highly respectable calling and as the transfer from the school room as a student to it as a teacher was but a step, she decided upon teaching.

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1 Coffman, L. D., The Social Composition of the Teaching Population, Teachers College, Columbia University, Contributions to Education, No. 41, 1911

"Her first experience as a teacher was gotten in the rural school where she remained but two years. If she went from there to a town school her promotion was based almost solely upon her experience as no additional training was required by the officials of the town. If she desired to teach in a city school, she was compelled to secure at least one more year of training in all, but each additional year of training she found increased her salary.

"So far she has profited each year of her brief experience by having her salary increased and this will probably be true for the next two years should she find it necessary to remain in teaching that long."

But during the last two decades there has been a marked increase in requirement of institutional attendance which results in the preparation of a larger and larger proportion of public school teachers in state teachers colleges and state normal schools. This makes an inquiry into the personnel of the student population in teacher training institutions of increasing importance and justifies the present study.

The Department of Educational Research of Colorado State Teachers College has undertaken this investigation, then, with a view to the discovery of an answer to the question, What are some of the important characteristics of the teacher in preparation in representative American state teachers colleges? First of all, the facts about social and economic levels have been determined for all of the teachers college students of Colorado and for a group in a representative teachers college of California (Table I). To these data have been added like findings from recent studies in Missouri (1920), Michigan (1922), Massachusetts (1923), Pennsylvania (1924), Louisiana (1924), and Connecticut (1924).

# TABLE I

PERCENTAGE OF ENROLLED STUDENTS OF THREE TEACHER TRAINING INSTITUTIONS FURNISHING DATA FOR THIS STUDY, 1924-25

| Institutions | Number students enrolled, Spring quarter, 1924-25 | Students furnishing data | | Percentage of enrollment |
|---|---|---|---|---|
| Colorado State Teachers College, Greeley, Colorado | 1386 | | | |
| Graduates | | 41 | | |
| Seniors | | 110 | | |
| Juniors | | 177 | | |
| Sophomores | | 445 | | |
| Freshmen | | 470 | | |
| Unclassified | | 42 | 1285 | 93.0 |
| Western State College, Gunnison, Colorado | 400 | | | |
| Graduates | | 2 | | |
| Seniors | | 20 | | |
| Juniors | | 45 | | |
| Sophomores | | 127 | | |
| Freshmen | | 143 | | |
| Unclassified | | 8 | 345 | 86.0 |
| San Jose State Teachers College, San Jose, California | 1100 | | | |
| Graduates | | 4 | | |
| Seniors | | 8 | | |
| Juniors | | 30 | | |
| Sophomores | | 52 | | |
| Freshmen | | 107 | | |
| Unclassified | | 2 | 203 | 18.0 |
| TOTAL | 2886 | | 1833 | 65.7 |

It is recognized that this group of facts, both new and comparative, does not constitute a complete study of the personnel of teachers college students. Such an investigation, in addition to matters of social and economic background, would determine intelligence levels, achievement in scholarship, success in student teaching, physical equipment, moral and aesthetic attitudes and personality traits, extra-curricular efficiency, and the like. But it is worth while to make inquiry into this segment of the total problem and, so far as like factors appear, to determine whether progress has been made since Coffman's checking in the type of person found among the ranks of public school teachers.

# CHAPTER I

## PROCEDURE AND TECHNIC

### 1. Collection of Facts

During the spring quarter of the school year, 1924-25, a questionnaire, similar to the personnel blanks used in Massachusetts,[1] were distributed at a general assembly period of Colorado State Teachers College. After the blanks were collected, a list was made of all students answering the questionnaire. This was checked with the enrollment list found in the registrar's office. An effort was then made to reach all students who had not been at the assembly. A third attempt was made through the cooperation of the College instructors. The second and third calls brought in many more blanks, leaving about one hundred unanswered. Many of these students had dropped out, and others could not be reached with time and facilities available.

A supply of the question lists was sent to Western State College, Gunnison, Colorado, and the same procedure was followed there. The completed question lists were received during the spring quarter, 1924-25.

This gave a very complete sampling of state teachers college students for the state of Colorado, a group of subjects as large as that used by Cross in Massachusetts and adequate for purposes of comparison with available data from other states.

It was thought desirable to include among the new data facts about state teachers college students from a second western state. California was selected and the San Jose State Teachers College used as representative of the six state teachers colleges of that state. Here, the question lists were used in the classrooms and filled out under the immediate supervision of the college instructors. The completed package was received at the close of the spring quarter, 1924-25.

### 2. The Scope of Data

The extent of samplings from the student bodies of the three teacher training institutions used in Colorado and California is shown in Table I. The group in Colorado State Teachers College is practically complete, as the enrollment figure no doubt includes some students who were no longer in College. The group of subjects from Colorado totals over 1600. This is about as large as the sampling obtained by Cross in

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1 See appendix. These blanks were used by Bagley and Cross, and the results compiled in Zook's study. Zook, G. F., **Report of a Fact-finding Survey of Technical and Higher Education in Massachusetts.** Massachusetts Legislature, House Document, Number 1700, 1923

Massachusetts,[2] and represents a larger percent of total enrollment than that for nine Massachusetts schools.

The factor of time limited the sampling for California to one college, but the figures from San Jose seem to show a fair representation of students from each of the six groups in that institution.

The representativeness of groups of students included in the six previous studies used for comparative purposes is not clearly indicated in the published reports in every case. In the Missouri survey, seventy-six percent of the students in current attendance were included in the group studied.[3] In the Michigan survey, nearly all students enrolled in the four schools studied were included in every tabulation.[4] In the Massachusetts survey, "over ninety percent of all the students in attendance in the nine schools are included in the returns as tabulated."[5] In the state of Pennsylvania, final report is made in terms of percents so that the adequacy of sampling cannot be determined.[6] A similar comment may be made on the Louisiana survey, but an examination of the table totals seems to show about eighty percent of all students represented.[7] In Connecticut, no report is found on sampling, but the small total enrollment in the four schools (950 c.) is very probably well represented in each tabulation.[8]

### 3. Classification of Material

The new data from the state teachers colleges of Colorado and California were drawn off onto large coordinate sheets by student clerks, under the direction of the Research Secretary of Colorado State Teachers College. This gave the frequency facts for each item of information. From this original classification one hundred and thirty-one tables were made representing the new facts and comparing them to similar data obtained in the six previous studies available.

### 4. Interpretation of Facts Obtained

Only the most significant points of interpretation are included in the final report which follows. Each group of facts

2 Zook, G. F., Op. cit. page 1.

3 Learned, W. S., Bagley, W. C., and Others, **The Professional Preparation of Teachers for American Public Schools, Carnegie Foundation for the Advancement of Teaching, Bulletin Number Fourteen, 1920**

4 Moehlman, A. B., **A Survey of the Needs of the Michigan State Normal Schools, Lansing, Michigan, State Board of Education, 1922**

5 **Zook, G. F., Report of a Fact-finding Survey of Technical and Higher Education in Massachusetts.** Chapter by Cross, E. A. "The Teaching Personnel of the Normal Schools of Massachusetts." Massachusetts Legislature, House Document, Number 1700, 1923

6 Rule, J. N., and Others, **Educational Survey, Commonwealth of Pennsylvania, March, 1925**

7 Bagley, W. C., and Others, **Report of the Survey Commission on the Louisiana State Normal College, the Louisiana Polytechnic Institute, the Southwestern Louisiana Institute, Baton Rouge, Louisiana, State Board of Education, 1924**

8 Meader, J. L., **Survey of the Normal Schools of Connecticut. Unpublished report, 1925**

is treated on two levels; first, that of discussion in which the analysis of the tabular form is made more complete; second, that of interpretation where real meanings are discovered and stated with reference to section heads and to chapter topics.

### 5. Brief Summary of Findings

The study finds students in modern state teachers colleges coming in about equal number from the agricultural and laboring classes on the one hand and from other occupational and cultural levels on the other. Their homes are those of modest comfort with native American traditions and speech habits and with some definite church affiliation. Brothers and sisters are rather more numerous than in the typical American family, and the student is, as a rule, second or third in age. Students attend usually in the state of their birth and at the nearest teachers college available. They do not, as a rule, teach before entering college; and many are wholly or partly self-supporting, including an increasing number who receive scholarships or fellowships. Curricula are organized, as a rule, so that students must have rather definite professional objectives. Nearly one-half of them plan to stay only for two years and to teach in an elementary school classroom. The other half wish to teach in high school, and but very few are looking forward to rural school work or to administrative or supervisory positions. Eventually more than one-half of the women will marry.

## CHAPTER II

## THE FIELD SERVED BY STATE TEACHERS COLLEGES

It is important to know the extent and the character of service which state teachers colleges are giving the states where they are located. This is indicated, from one viewpoint, by the distance of the homes of students from the college. But it is more significant to know whether state teachers colleges are serving virtually as city normal schools in caring for the local situation or whether the farm or urban centers of various sizes constitute the constituency.

### 1. The Distance State Teachers College Students Travel

There is a slight tendency in the United States toward the subsidy of state teachers college students to cover a part of their expenses during the period of preparation in a state professional school.[1-2] Transportation is one large item, and this varies with the relative location of home and college.

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1 Hertzog, W. S., **State Maintenance for Teachers in Training**, Warwick and York, 1921

2 Judd, C. H. and Parker, S. C., **Problems Involved in Standardizing State Normal Schools**, Bureau of Education, Department of the Interior, Bulletin No. 12, 1916

The distance of the homes of college students from the institution they were attending is reported in Table II. Colorado State Teachers College serves the entire eastern part of the state and receives many students from other states as well. The student body at Western State College comes from a rather wide mountain area. San Jose State Teachers College is more local in its clientele. The spread of the distributions of distances for the three colleges is significant, and particularly the first quartile point, which is but a few miles for Colorado State Teachers College and San Jose State Teachers College.

Pennsylvania's figure is the approximate median. No definite distance facts are found in the Louisiana report. It is stated, however, that "nearly nine-tenths of students in the

## TABLE II

DISTANCE OF THE HOMES OF STUDENTS FROM THE COLLEGE IN THE CASE OF TWENTY-EIGHT TEACHER TRAINING INSTITUTIONS IN FOUR STATES

| Miles | Colorado State Teachers College | Western State College | San Jose State Teachers College | Pennsylvania (1) | Minnesota (2) |
|---|---|---|---|---|---|
| Over 1000 | 3.87 | 2.22 | 2.46 | | |
| 901-1000 | 1.15 | 1.27 | .49 | | |
| 801- 900 | .59 | .32 | .00 | | |
| 701- 800 | .82 | .00 | .00 | | |
| 601- 700 | 1.06 | .00 | .49 | | |
| 501- 600 | 1.40 | .32 | .00 | | |
| 401- 500 | 3.04 | .63 | 2.46 | | |
| 301- 400 | 3.29 | 1.90 | 4.93 | | |
| 201- 300 | 10.53 | 8.86 | 4.93 | | |
| 101- 200 | 16.61 | 34.81 | 16.26 | | |
| 51- 100 | 18.09 | 28.48 | 18.72 | | |
| 26- 50 | 6.25 | .94 | 8.37 | | |
| 6- 25 | 6.66 | .63 | 9.36 | | |
| 0- 5 | 26.64 | 19.62 | 31.53 | | |
| Total | 100.00 | 100.00 | 100.00 | | |
| 1st Quartile | 4.70 | 57.67 | 3.97 | | |
| Median | 79.80 | 101.91 | 52.97 | 50.0 | 51.0 |
| 3rd Quartile | 208.00 | 173.73 | 144.18 | | |
| Q | 101.70 | 58.03 | 70.11 | | |

1 Rule, J. N., and Others, **Educational Survey**, Commonwealth of Pennsylvania, March, 1925
2 Schutte, T. H., **"Distance and the Normal School Graduate,"** Educational Administration and Supervision, December, 1923

three institutions were born in Louisiana. Most of the students not born in Louisiana are natives of one or the other of the three contiguous states"[3] In Missouri,[4] the data for Kirksville, Warrensburg, and Maryville show that the home county furnishes one-fourth of the student body, including eighteen

3 Bagley, W. C., Op. cit. p. 2
4 Learned, W. S., Op. cit., p. 2

percent who come from the local town, that six or seven neighboring counties furnish another fourth, that twelve or fifteen counties in the immediate district contribute one-third, while one-seventh come from other portions of the state and three percent from outside. In Minnesota, the median distance is fifty-one miles, according to Schutte's study. This fact is supplemented by a checking the writer made in the Moorhead, Minnesota, State Teachers College in 1923. Fifty-six percent of the entering class were found to have come from ten neighboring counties and forty percent of the graduates of the previous year were teaching in the same area.

So far as these six states are concerned, state teachers colleges are found attracting students from a radius of one hundred-fifty to two hundred miles, and about half of them come from a distance of fifty to one hundred miles. Exceptions to this might be found, of course, in large and in small states like Iowa and Vermont with but one teacher training institution. But in the majority of situations the above generalization holds.

## 2. The Local County

For the new material obtained for Colorado and California, the distribution of resident college students coming from the high schools in the counties of the state was tabulated. It was found that fifty-three counties of Colorado contributed students to Colorado State Teachers College and thirty counties sent students to Western State College. Thirty-two California counties contributed in like manner to the state teachers college at San Jose.

Table III summarizes these facts in terms of the contribution of the home county. From seventeen to thirty-three percent of students, enrolled in the eight colleges reporting, come from the local county; and more than one-half of these are from the city itself. In the case of Colorado State Teachers College, this is accounted for in part by the fact that Weld County covers a wide area. It ranks, however, but fourth, both Greeley and Denver sending more students. At Western State College, the local county ranks third; while two outside counties are first and second, and the local high school is but fifth. In the case of San Jose State Teachers College, the local county ranks second only to the local high school. The writer's study in the Moorhead State Teachers College, referred to in the preceding section, found twenty-two percent of the incoming class from Clay county, Minnesota, and Cass county, North Dakota. The college is located on the boundary between these two counties. It was found, also, that seventeen percent of the graduates were teaching in this same area.

## TABLE III

THE PROPORTION OF THE STUDENT POPULATION IN EIGHT TEACHER TRAINING INSTITUTIONS COMING FROM THE HOME COUNTY

| College | College High School | City High School | Outside School | Total |
|---|---|---|---|---|
| Colorado State Teachers College | 8.66 | 16.58 | 7.59 | 32.83 |
| Western State College, Colorado | 1.08 | 6.47 | 9.35 | 16.90 |
| San Jose State Teachers College, California | .. .... | 19.08 | 9.16 | 28.24 |
| Missouri (1) | .. .... | 18.00 | 7.00 | 25.00 |
| Mean | 4.87 | 15.03 | 8.27 | 25.74 |

1 Learned, W. S., Bagley, W. C., and Others, **The Professional Preparation of Teachers for American Public Schools**, Carnegie Foundation for the Advancement of Teaching, Bulletin Number Fourteen, 1920

For the eight colleges considered, about one-fourth of the student enrollment seems to come from the local county, but a large proportion of this is from the city and college high schools.

### 3. Outside States

Shall the state teachers college serve exclusively the state in which it is located? Or shall it seek for a cosmopolitan clientele widespread like that of the state university? The study shows thirty-five states, Canada, and Hawaii furnished one-fourth of the student body of Colorado State Teachers College. At Western State College, fourteen percent came from sixteen outside states and Italy, and at San Jose State Teachers College eighteen percent came from thirteen states and Canada. Table IV summarizes these facts in terms of diversity of source. The central tendency for three colleges is nearly three dozen states and countries, while in California with six state teachers colleges fourteen other political units contribute to the student body.

These colleges are cosmopolitan with regard to the source of a small proportion of their students, and very probably a reasonable reciprocity which preserves a balance between enrollment and placement should tend to prevent an inbreeding of localized standards. This may eventually contribute toward a national system of public schools.

## TABLE IV

NUMBER OF STATES AND FOREIGN COUNTRIES FURNISHING HIGH SCHOOL GRADUATES FOR EIGHT TEACHER TRAINING INSTITUTIONS

| College | States | Foreign Countries | Total |
|---|---|---|---|
| Colorado State Teachers College | 36 | 2 | 38 |
| Western State College, Colorado | 17 | 1 | 18 |
| San Jose State Teachers College, California | 14 | 1 | 15 |
| Missouri (1) | | | |
| Mean | 22.2 | 1.3 | 23.6 |

1 Learned, W. S., Bagley, W. C., and Others, **The Professional Preparation of Teachers for American Public Schools**, Carnegie Foundation for the Advancement of Teaching, Bulletin Number Fourteen, 1920 "Three percent come from outside the state."

### 4. The Home State

But the great majority of students in these colleges live in the home state. Table V speaks positively on this point, including data from twenty-nine schools in six states. The range is from the situation in the four two-year normal schools in Connecticut, with an exclusively local student body, to Colorado State Teachers College, enrolling in its five years of college work but three-fourths of its students from the home state.

No definite data can be given in Chapter IV to follow on the state nativity of students, but brief quotations will be included here from three state surveys. Bagley and Alexander report that "nearly nine-tenths of the students in the three institutions were born in Louisiana."[5] In the Carnegie Foundation report for Missouri, the statement is, "Natives of Missouri constitute nearly seven-eighths of the students. The local county furnishes about one-fourth of all the students in

5 Bagley, W. C., Op. cit., p. 2

## TABLE V

THE PROPORTION OF THE STUDENT POPULATION IN TWENTY-NINE TEACHER TRAINING INSTITUTIONS COMING FROM THE HOME STATE

| Rank | College | Percent |
|---|---|---|
| 1 | Connecticut (1) | 99.40 |
| 2 | Missouri (2) | 93.31 |
| 3 | Pennsylvania (3) | 91.98 |
| 4 | Louisiana (4) | 90.00 |
| 5 | Western State College, Colorado | 85.80 |
| 6 | San Jose State Teachers College, California | 81.48 |
| 7 | Colorado State Teachers College, Colorado | 75.22 |
| | Mean | 88.17 |

1 Meader, J. L., **Survey of the Normal Schools of Connecticut.** Unpublished report, 1925
2 Learned, W. S., Bagley, W. C., and Others, **The Professional Preparation of Teachers for American Public Schools,** Carnegie Foundation for the Advancement of Teaching, Bulletin Number Fourteen, 1920
3 Rule, J. N., and Others, **Educational Survey,** Commonwealth of Pennsylvania, March, 1925
4 Bagley, W. C., and Others, **Report of the Survey Commission on the Louisiana State Normal College, the Louisiana Polytechnic Institute, the Southwestern Louisiana Institute,** Baton Rouge, Louisiana, State Department of Education, 1924

the normal schools, including eighteen percent who come from the local town. Six or seven contiguous counties furnish another fourth; the remaining twelve or fifteen counties in the district contribute a third, while one-seventh come from other portions of the state."[6] In Pennsylvania, it was found that "ninety-one and ninety-eight hundredths percent of students were born in Pennsylvania."[7]

State teachers colleges are serving, first of all, the home state, but a desirable exchange of matriculates and of graduates occurs to include small proportions of student bodies, and these groups seem to increase as the teacher training institution approaches the full stature of collegiate rank.

### 5. The Farm and the City

Approximately half of the population of the United States is urban and half agricultural, and up to within a few years rather distinct types of culture obtained in the farm situation and in the city. No doubt these differences are slowly disappearing with the increase in ownership of automobiles, ease of communication, and spread of scientific appliances and of information. However, it is probably still significant to know whether our public school teachers come from the country or from urban centers.

6 Learned, W. S., Bagley, W. C., and Others, Op. cit. p. 2
7 Rule, J. N., Op. cit. p. 2

It was found that in Colorado State Teachers College, over forty percent of the students come from the farm and from villages of less than 2500 people. In Western State College, the figure is sixty-eight percent, and in San Jose State Teachers College it is forty-two percent. The mean is forty-four percent, and so far as these three schools are concerned less than one-half of the students are of small town and farm origin.

In Table VI, data from five more states are included. The mean, which is based on figures from two western and three eastern states, confirms the findings of the paragraph preceding.

## TABLE VI

POPULATION OF COMMUNITIES FURNISHING COLLEGE STUDENTS FOR THIRTY-SEVEN TEACHER TRAINING INSTITUTIONS IN SEVEN STATES IN TERMS OF PERCENTS

| Item | Colorado State Teachers College | Western State College | San Jose State College | Louisiana | Massachusetts (2) | Michigan (3) | Pennsylvania | Connecticut (5) | Mean (6) |
|---|---|---|---|---|---|---|---|---|---|
| Farm | 21.02 | 31.50 | 25.40 | 40.20 | 9.28 | 33.33 | 22.56 | 8 | 19.62 |
| Less than 2,500 | 23.39 | 36.42 | 16.76 | 28.40 | 19.00 | 66.66 | 42.88 | 15 | 25.59 |
| 2,500 to 25,000 | 36.88 | 27.46 | 27.03 | 21.20(1) | 32.00 | ---- | 34.56(4) | 20 | 29.65 |
| Over 25,000 | 18.71 | 4.62 | 30.81 | ---- | 39.72 | ---- | ---- | 57 | 25.14 |
| Total | 100.00 | 100.00 | 100.00 | ---- | 100.00 | ---- | 100.00 | 100 | 100.00 |

1 Bagley, W. C., and Others, **Report of the Survey Commission on the Louisiana Louisiana Institute,** Baton Rouge, Louisiana, State Department of Education, 1924

2 Zook, G. F., **Report of a Fact-finding Survey of Technical and Higher Education in Massachusetts.** Chapter by Cross, E. A., "The Teaching Personnel of the Normal Schools of Massachusetts," Massachusetts Legislature, House Document, Number 1700, 1923

3 Moehlman, A. B., **A Survey of the Needs of the Michigan State Normal Schools,** Lansing, Michigan, State Board of Education, 1922

4 Rule, J. N., and Others, **Educational Survey,** Commonwealth of Pennsylvania, March, 1925

5 Meader, J. L., **Survey of the Normal Schools of Connecticut. Unpublished** report, 1925

6 These figures refer to the Colorado, California, Massachusetts, Pennsylvania, and Connecticut institutions.

When percents of student population coming from distinctly rural (farm) and from large city environment are compared, one finds no great preponderance either way. An exception is noticed in Connecticut where more than one-half of the students come from cities of over 25,000 population and but a small percent from farms. Very probably it is the location of the school which is the final determining factor. If it is in or near a large urban center, many city students will attend.

In Louisiana, the federal census gives the proportion of students classed as rural, 68.6 per cent; urban, 31.4 percent. The population of Louisiana in rural communities in 1920 was sixty-five percent of the total; in urban communities it was thirty-five percent. The figure 31.2 is for cities from 2,500 to 100,000. In Table VI, the figure 66.66 percent for Michigan is for communities of "less than 2,500 to over 25,000 population." In Pennsylvania, the figure 34.56 is for cities from 2,500 to over 25,000.

In general, it may be said that there seems to be rather an equal distribution of percents of teachers college student origin among the four types of communities considered, and about one-half come from the farm and small village and one-half from the city.

## 6. Summary

On the basis of facts available for this study, the following tentative generalizations may be made.

A. One-half of teachers college students travel fifty to one hundred miles from home to college, many come from a radius of one hundred-fifty to two hundred miles, and the median distance is nearly seventy miles.

B. One-fourth of the enrollment in teachers colleges comes from the local county, and a large part of these students are from the college high school and the city high school in the community where the college is located.

C. A small percent of the student body in teachers colleges comes from a wide area including many states and an occasional foreign country.

D. State teachers colleges are serving, first of all, the local commonwealths, as a large percentage of their students come from the home state and are born there.

E. There is almost an equal distribution of student origin between rural and urban centers with about one-fourth of all coming from cities of over 25,000 population.

# CHAPTER III

## THE HOMES OF STATE TEACHERS COLLEGE STUDENTS

The subtle influence of the character traits of teachers upon pupils with whom they come in contact is well known; and it is probably true that the home the teacher comes from, as furnishing both remote and near ancestry, determines in large measure what he is. Is the father a day laborer or in the professions, including perhaps that of teacher? Is the home dominated by alien standards of living and is a foreign tongue spoken there? Is the home circle large and complete? Answers to such questions as these with regard to that group of prospective teachers who are in attendance at state teachers colleges are probably enormously significant in determining levels of teaching ability among the public school teaching group.

### 1. Occupation of Fathers

New facts about the occupation of the fathers of teachers college students in Colorado and California discovered over one-third of them to be farmers, and the professional group comprises only ten to fifteen percent. This generalization is not changed materially when data from forty-two colleges in eight states are considered. The facts are found in Table VII. The miscellaneous percentage figure for Michigan (28.1) includes extraction of minerals, 3.0 percent; manufacturing, 11.0 percent; transportation, 3.9; public service, 4.1; domestic and personal service, .7; clerical, 2.0; retired, 3.4. The miscellaneous figure for Missouri (48.7) includes manufacturing, 23.6 per cent, and "all others," 25.1 percent. The median column of the table shows that over one-fourth of college students' fathers are farmers, and less than ten percent are in the professions.

It is significant to note from the above data that sixty percent are found in the farm and laboring class and only some thirty percent in business and the professions.

### 2. Approximate Income

The income of the family is one index of the standard of living maintained, and this is some indication of cultural levels. The central tendency of incomes reported in Colorado State Teachers College and Western State College is $2500 and $2200 respectively, but in San Jose State Teachers College it is nearly $3800. The nature of the distributions is significant

## TABLE VII

OCCUPATION OF THE FATHERS OF COLLEGE STUDENTS IN FORTY-TWO TEACHER TRAINING INSTITUTIONS IN TERMS OF PERCENTS: A, COLORADO STATE TEACHERS COLLEGE; B, WESTERN STATE COLLEGE; C, SAN JOSE STATE TEACHERS COLLEGE; D, LOUISIANA; E, MASSACHUSETTS; F, MICHIGAN; G, CONNECTICUT; H, MISSOURI; I, PENNSYLVANIA

| Rank | Item | A | B | C | D | E (1) | F (2) | G (3) | H (4) | I (5) | Median |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Farmer | 37.57 | 46.23 | 31.48 | 34.20 | 7.60 | 33.33 | 8 | 35.50 | 19.1 | 29.73 |
| 2 | Skilled labor | 16.64 | 14.04 | 11.73 | 10.40 | 39.78 | .... .... | 47 | .... .... | 42.5 | 21.97 |
| 3 | Business | 23.04 | 13.36 | 26.54 | 23.40 | 29.70 | 28.60 | 27 | 11.10 | 23.6 | 20.75 |
| 4 | Miscellaneous | .... .... | .... .... | .... .... | .... .... | .... .... | 28.10 | 13 | 48.70 | 2.9 | 10.75 |
| 5 | Professional | 11.85 | 10.27 | 14.82 | 6.90 | 5.71 | 6.70 | 5 | 4.70 | 6.0 | 8.76 |
| 6 | Unskilled labor | 10.90 | 16.10 | 15.43 | 5.00 | 11.41 | .... .... | .... .... | .... .... | 5.9 | 8.04 |
| | Total | 100.00 | 100.00 | 100.00 | | | | 100.00 | 100.00 | 100.0 | 100.00 |

1 Bagley, W. C., and Others, **Report of the Survey Commission on the Louisiana State Normal College, the Louisiana Polytechnic Institute, the Southwestern Louisiana Institute,** Baton Rouge, Louisiana, State Department of Education, 1924

2 Moehlman, A. B., **A Survey of the Needs of the Michigan State Normal Schools,** Lansing, Michigan, State Board of Education, 1922

3 Meader, J. L., **Survey of the Normal Schools of Connecticut.** Unpublished report, 1925

4 Missouri State Census, 1910

5 Rule, J. N., **Educational Survey,** Commonwealth of Pennsylvania, March, 1925

also, Q being but $700 in Western State College, but $1100 in Colorado State Teachers College, and $1600 in San Jose State Teachers College.

The facts for thirty-eight state teachers colleges in seven states are found in Table VIII. The Michigan survey reports that "fifty percent have incomes ranging from $1000 to $3000." The Missouri report says that fifty percent earned less than $1001; twenty percent earned between $1001 and $1500, and thirty percent earned over $1500. The mean of the eight approximate medians is $2388.

It may be said then that the average income in the families of teachers college students represented in this study ranges from $1000 to $3800 with a central tendency at about $2400.

### 3. Nativity of Parents

It is important to inquire into the racial antecedents of our public school teachers. Are they of American stock, or are they one or possibly two generations removed from foreign ancestry? If they are of alien extraction, do they come from northern Europe, southern Europe, or Russia? It is not known which origin is most desirable, but a knowledge of the facts may lead to this further inquiry.

The nativity of the parents of state teachers college students in eleven institutions is detailed in Table IX. The mode is found in American nativity, although the western percentage of eighty plus is lowered by the presence of Canadians in Michigan and of Irish and Russians in Connecticut.

Table X reports the amount of foreign born parentage in forty-two state teacher training institutions. The range is from more than one-third in Connecticut to a negligible proportion in Louisiana, with the median at about one-fourth.

Meader's report[1] completes the data on nativity for the four normal schools of Connecticut. He adds to the fact that 37.1 percent of students have both parents foreign born the statement that 16.4 percent had one parent born in the United States and the other in a foreign country and that 46.5 percent

1 Meader, J. L., Op. cit. p. 2

# TABLE VIII

## APPROXIMATE INCOME OF FAMILIES FROM WHICH THE COLLEGE STUDENTS OF THIRTY-EIGHT TEACHER TRAINING INSTITUTIONS COME IN TERMS OF PERCENTS

| Intervals | Colorado State Teachers College | Western State College | San Jose State Teachers College | Louisiana (1) | Massachusetts (2) | Michigan (3) | Pennsylvania (4) | Missouri (5) | Percent (6) |
|---|---|---|---|---|---|---|---|---|---|
| Over $10.000 | 4.41 | 1.23 | 5.13 | 2.9 | .... .... | .... .... | .... .... | .... .... | 3.59 |
| $9,001- 10,000 | 1.26 | .... .... | 6.41 | 3.8 | .... .... | .... .... | .... .... | .... .... | 2.54 |
| 8,001- 9,000 | .47 | .... .... | 1.28 | .4 | .... .... | .... .... | .... .... | .... .... | .57 |
| 7,001- 8,000 | 2.37 | 1.23 | 3.85 | 2.5 | .... .... | .... .... | .... .... | .... .... | 2.47 |
| 6,001- 7,000 | 1.74 | .61 | 4.49 | 1.7 | .... .... | .... .... | .... .... | .... .... | 2.28 |
| 5,001- 6,000 | 5.21 | 4.91 | 8.97 | 5.0 | .... .... | .... .... | .... .... | .... .... | 6.35 |
| 4,501- 5,000 | 5.52 | 1.84 | 13.46 | 9.3 | .... .... | .... .... | .... .... | .... .... | 6.94 |
| 4,001- 4,500 | 2.99 | .61 | 3.20 | 1.7 | .... .... | .... .... | .... .... | .... .... | 2.25 |
| 3,501- 4,000 | 5.99 | 7.98 | 7.69 | 8.0 | .... .... | .... .... | .... .... | .... .... | 7.22 |
| 3,001- 3,500 | 5.84 | 4.30 | 7.69 | 3.2 | .... .... | .... .... | .... .... | .... .... | 5.93 |
| 2,501- 3,000 | 14.04 | 17.18 | 10.26 | 17.1 | .... .... | .... .... | .... .... | .... .... | 13.81 |
| 2,001- 2,500 | 12.78 | 15.95 | 10.26 | 10.3 | .... .... | .... .... | .... .... | .... .... | 12.98 |
| 1,501- 2,000 | 20.35 | 20.86 | 7.69 | 18.8 | .... .... | .... .... | .... .... | .... .... | 16.30 |
| 1,001- 1,500 | 10.88 | 14.72 | 4.49 | 7.2 | .... .... | .... .... | .... .... | .... .... | 10.03 |
| 501- 1,000 | 4.89 | 6.13 | 5.13 | 5.9 | .... .... | .... .... | .... .... | .... .... | 5.37 |
| 0- 500 | 1.26 | 2.45 | .... .... | 2.1 | .... .... | .... .... | .... .... | .... .... | 1.37 |
| Total | 100.00 | 100.00 | 100.00 | .... .... | .... .... | .... .... | .... .... | .... .... | 100.00 |
| 1st Quartile | $1,696.74 | $1,541.44 | $2,376.00 | | | | | | $1871.39 |
| Median | 2,494.83 | 2,183.69 | 3,792.67 | $2,665.00 | $3,231.50 | $1500.00 | $2236.00 | $1000.00 | 2823.73 |
| 3rd Quartile | 3,915.47 | 2,934.04 | 5,572.43 | | | | | | 4140.64 |
| Q | 1,109.37 | 696.30 | 1,598.22 | | | | | | 1134.63 |

1 Bagley, W. C., and Others, **Report of the Survey Commission on the Louisiana State Normal College, the Louisiana Polytechnic Institute, the Southwestern Louisiana Institute,** Baton Rouge, Louisiana, State Department of Education, 1924

2 Zook, G. F., **Report of a Fact-finding Survey of Technical and Higher Education in Massachusetts,** Massachusetts Legislature, House Document, Number 1700, 1923

3 Moehlman, A. B., **A Survey of the Needs of the Michigan State Normal Schools,** Lansing, Michigan, State Board of Education, 1922

4 Rule, J. N., and Others, **Educational Survey,** Commonwealth of Pennsylvania, March, 1925

5 Learned, W. S., and Bagley, W. C., and Others, **The Professsional Preparation of Teachers for American Public Schools,** Carnegie Foundation for the Advancement of Teaching. Bulletin Number Fourteen, 1920

6 These figures refer to Colorado State Teachers College, Western State College, and San Jose State Teachers College.

# TABLE IX

## NATIVITY OF PARENTS OF STATE TEACHERS COLLEGE STUDENTS IN ELEVEN INSTITUTIONS IN FOUR STATES IN TERMS OF PERCENTS

| Rank | Country | Colorado State Teachers College | Western State College | San Jose State Teachers College | Michigan (1) | Connecticut (2) | Mean |
|---|---|---|---|---|---|---|---|
| 1 | United States | 84.6 | 85.8 | 81.1 | 72.2 | 46.5 | 74.0 |
| 2 | Ireland | 1.3 | 1.0 | 1.5 | 1.1 | 18.5 | 4.7 |
| 3 | Canada | 1.9 | 1.8 | 2.5 | 9.4 | 2.4 | 3.6 |
| 4 | England | 2.7 | 4.3 | 2.0 | 3.8 | 3.6 | 3.3 |
| 5 | Sweden | 2.8 | .9 | 3.4 | 3.7 | 3.6 | 2.9 |
| 6 | Russia | .3 | .4 | 1.2 | .2 | 10.5 | 2.5 |
| 7 | Germany | 2.4 | 1.3 | 1.5 | 2.6 | 3.6 | 2.2 |
| 8 | Italy | 1.1 | 2.1 | .5 | .3 | 4.6 | 1.7 |
| 9 | Denmark | .4 | .2 | 2.5 | .6 | — — | .7 |
| 10.5 | Scotland | .7 | .5 | — — | .2 | 1.8 | .6 |
| 10.5 | Austria | .5 | — — | .5 | .6 | 1.6 | .6 |
| 14 | Norway | .3 | .2 | .6 | 1.1 | — — | .4 |
| 14 | Bohemia | .1 | — — | — — | .13 | — — | .4 |
| 14 | Finland | .1 | — — | — — | 1.9 | — — | .4 |
| 14 | France | .1 | .9 | .5 | .2 | — — | .4 |
| 14 | Miscellaneous | — — | — — | — — | — — | 2.1 | .4 |
| 17 | Poland | .2 | — — | — — | .2 | 1.2 | .3 |
| 18 | Netherlands | — — | — — | — — | 1.0 | — — | .2 |
| 20.5 | Holland | .1 | — — | .5 | — — | — — | .1 |
| 20.5 | Switzerland | .1 | — — | .4 | .2 | — — | .1 |
| 20.5 | Bavaria | — — | — — | .4 | — — | — — | .1 |
| 20.5 | China | — — | — — | .5 | .03 | — — | .1 |
| 23.5 | Belgium | — — | .3 | — — | .1 | — — | .08 |
| 23.5 | Azores | — — | — — | .4 | — — | — — | .08 |
| 25 | Philippine Islands | — — | .3 | — — | .03 | — — | .07 |
| 27.5 | Mexico | .1 | — — | — — | — — | — — | .02 |
| 27.5 | Lithuania | — — | — — | — — | .1 | — — | .02 |
| 27.5 | Hawaiian Islands | .1 | — — | — — | — — | — — | .02 |
| 27.5 | Spain | .1 | — — | — — | — — | — — | .02 |
| 34 | Porto Rico | — — | — — | — — | .03 | — — | .01 |
| 34 | Syria | — — | — — | — — | .06 | — — | .01 |
| 34 | Newfoundland | — — | — — | — — | .03 | — — | .01 |
| 34 | Turkey | — — | — — | — — | .03 | — — | .01 |
| 34 | Nova Scotia | — — | — — | — — | .03 | — — | .01 |
| 34 | Luxemburg | — — | — — | — — | .03 | — — | .01 |
| 34 | Wales | (3) | (3) | (3) | .03 | — — | .01 |
| 34 | Persia | — — | — — | — — | .03 | — — | .01 |
| 34 | Australia | — — | — — | — — | .04 | — — | .01 |
| | Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.00 |

1 Moehlman, A. B., **A Survey of the Needs of Michigan State Normal Schools,** Lansing, Michigan, State Board of Education, 1922

2 Meader, J. L., **Survey of the Normal Schools of Connecticut.** Unpublished report, 1925

3 Parents from Wales were totaled with England.

## TABLE X

PERCENTAGE OF STUDENTS OF FOREIGN BORN PARENTAGE IN FORTY-TWO TEACHER TRAINING INSTITUTIONS IN EIGHT STATES

| Rank | State | Percent |
|---|---|---|
| 1 | Connecticut (1) | 37.1 |
| 2 | Massachusetts (2) | 35.5 |
| 3 | Missouri (3) | 31.0 |
| 4 | Michigan (4) | 27.8 |
| 5 | California | 19.0 |
| 6 | Colorado | 15.0 |
| 7 | Pennsylvania (5) | 14.5 |
| 8 | Louisiana (6) | 2.5 |
| | Median | 23.4 |

1 Meader, J. L., **Survey of the Normal Schools of Connecticut.** Unpublished report, 1925

2 Zook, G. F., **Report of a Fact-finding Survey of Technical and Higher Education in Massachusetts.** Massachusetts Legislature, House Document, Number 1700, 1923

3 Learned, W. S., Bagley, W. C., and Others, **The Professional Preparation of Teachers for American Public Schools,** Carnegie Foundation for the Advancement of Teaching, Bulletin Number Fourteen, 1920

4 Moehlman, A. B., **A Survey of the Needs of the Michigan State Normal Schools,** Lansing, Michigan, State Board of Education, 1922

5 Rule, J. N., and Others, **Educational Survey,** Commonwealth of Pennsylvania, March, 1925

6 Bagley, W. C., and Others, **Report of the Survey Commission on the Louisiana State Normal College, the Louisiana Polytechnic Institute and the Southwestern Louisiana Institute,** Baton Rouge, Louisiana, State Department of Education, 1924

had both parents born in the United States. In Table XI, Meader analyzes the last figure by giving sixteen items of nativity of parents of normal school students born in the United States. This is perhaps not so important as data on immediate ancestry. We hope that teachers from the second generation will be more skillful than the first in developing those common skills, knowledges, and character traits necessary in a democracy.

In view of the recent discussion about our Nordic stock, Table XII is interesting, if not significant. An attempt is made to distribute the nativity of the parents of state teachers college students into two more or less distinct racial groups. We have thought that northern Europe has sent us a more desirable citizenry than has come from farther south and east. If this be true, the comparative size of the two total percents (20 percent and 5.4 percent) is encouraging.

On the basis of samplings obtained, the generalization from the data of this section is that public school teachers in preparation come in large degree from native born stock and that the smaller proportion of foreign ancestry has a northern European origin.

## TABLE XI

NATIVITY OF FAMILIES OF THE NORMAL SCHOOL STUDENTS OF FOUR CONNECTICUT INSTITUTIONS IN TERMS OF THE ANCESTRY OF PARENTS BORN IN THE UNITED STATES (1)

| Country | Percent |
|---|---|
| Ireland | 36.8 |
| England | 21.5 |
| America | 16.5 |
| Germany | 10.0 |
| Scotland | 5.5 |
| France | 3.6 |
| Sweden | 2.0 |
| Wales | 2.0 |
| Poland | 2.0 |
| Belgium | 2.0 |
| Denmark | 2.0 |
| Lithuania | 2.0 |
| Holland | 1.0 |
| African (negro) | 1.0 |
| Palestine (Hebrew) | 1.0 |
| Italy | 1.0 |

1 Meader, J. L., Survey of the Normal Schools of Connecticut. Unpublished report, 1925

## TABLE XII

PROPORTION OF STUDENTS WHO HAVE PARENTS OF NORTHERN EUROPEAN AND OF RUSSIAN AND SOUTHERN EUROPEAN ANCESTRY

| Northern | Percent | Southern | Percent |
|---|---|---|---|
| Ireland | 4.60 | Russia | 2.50 |
| Canada | 3.60 | Italy | 1.70 |
| England | 3.30 | Austria | .60 |
| Sweden | 2.90 | Bohemia | .40 |
| Germany | 2.20 | Bavaria | .10 |
| Denmark | .70 | Lithuania | .02 |
| Scotland | .60 | Spain | .02 |
| Norway | .40 | Turkey | .01 |
| Finland | .40 | Persia | .01 |
| France | .40 | Syria | .01 |
| Poland | .30 | | |
| Holland | .30 | | |
| Switzerland | .10 | | |
| Belgium | .08 | | |
| Nova Scotia | .01 | | |
| Newfoundland | .01 | | |
| Luxemburg | .01 | | |
| Wales | .01 | | |
| Total | 19.92 | Total | 5.37 |

### 4. Languages Spoken in the Home

The discussion in the preceding section revealed the fact that nearly one-fourth of state teachers college students come from foreign born parentage. One index of effective assimilation into complete understanding and sympathy in our democracy might be found in the vernacular used in the home.

If it be found that more than three-fourths of the homes use the English language, this would be an indication that foreign ancestry, remote or immediate, was very probably no serious handicap to teaching ability so far as citizenship objectives are concerned.

The facts about the home language for Colorado and San Jose State Teachers College, California, are detailed in Table XIII. It will be noticed that among Colorado State Teachers College students eighteen types and combinations of speech are found, in the case of Western State College eight, and in San Jose State Teachers College thirteen. The size of the first item in the mean column (English, 92.9 percent) is the significant fact, as intimated in the paragraph above, but it is

TABLE XIII

LANGUAGES SPOKEN IN TERMS OF PERCENTS IN THE HOMES OF TEACHERS COLLEGE STUDENTS IN THREE TEACHER TRAINING INSTITUTIONS, 1924-25

| Rank | Language | Colorado State Teachers College | Western State College | San Jose State Teachers College | Mean |
|---|---|---|---|---|---|
| 1 | English | 93.92 | 96.52 | 88.10 | 92.9 |
| 2 | English-German | 2.17 | .58 | 2.47 | 1.8 |
| 3 | English-Swedish | 1.24 | .... .... | 2.47 | 1.2 |
| 4 | English-Italian | .77 | 1.45 | .50 | .9 |
| 5 | English-Danish | .16 | .... .... | 1.48 | .8 |
| 6.5 | English-French | .16 | .... .... | .99 | .3 |
| 6.5 | English-Spanish | .39 | .29 | .99 | .3 |
| 10.5 | English-Dutch-German | .... .... | .... .... | .50 | .2 |
| 10.5 | English-Spanish-German | .... .... | .... .... | .50 | .2 |
| 10.5 | English-French-German-Spanish | .... .... | .... .... | .50 | .2 |
| 10.5 | English-Finnish | .... .... | .... .... | .50 | .2 |
| 10.5 | English-Norwegian | .... .... | .... .... | .50 | .2 |
| 10.5 | Chinese | .... .... | .... .... | .50 | .2 |
| 14 | English-Russian-German | .... .... | .29 | .... .... | .1 |
| 15.5 | English-French-German | .08 | .29 | .... .... | .07 |
| 15.5 | Spanish | .08 | .29 | .... .... | .07 |
| 17.5 | English-Spanish-Latin-Irish | .31 | .... .... | .... .... | .06 |
| 17.5 | Italian | .... .... | .29 | .... .... | .06 |
| 22 | English-Dutch | .08 | .... .... | .... .... | .03 |
| 22 | English-Tyrol-Italian-German | .08 | .... .... | .... .... | .03 |
| 22 | English-Hebrew | .08 | .... .... | .... .... | .03 |
| 22 | English-Tyrol | .08 | .... .... | .... .... | .03 |
| 22 | English-Hungarian | .16 | .... .... | .... .... | .03 |
| 22 | English-Polish | .08 | .... .... | .... .... | .03 |
| 22 | English-French-Belgian | .08 | .... .... | .... .... | .03 |
| 22 | English-Spanish-Swedish-German | .08 | .... .... | .... .... | .03 |
| | Total | 100.00 | 100.00 | 100.00 | 100.00 |

interesting to note the twenty-five other types of speech as well. The presence of English in combination with the other languages in all but three items is an indication that the home speech is in a transitional stage toward the accepted American vernacular.

In Table XIV, the preponderance of the English language in the homes of state teachers college students is shown by data from thirty-eight institutions in eight states. The Missouri survey reports that "English and German are the predominant foreign elements, and occur in nearly equal numbers." The Pennsylvania report states that "for the normal schools of Connecticut the proportion is even higher than thirty percent from non-English speaking homes." The Louisiana survey reports a special situation. "Louisiana occupies an almost unique position among the states of the country. While practically all of the Louisiana students represent native born stock, a considerable proportion comes from homes in which French is the language commonly used." The significant figure in the table is, of course, ninety-three percent, the proportion of student homes where English is used.

## TABLE XIV

PERCENTAGE OF ENGLISH SPOKEN AS COMPARED WITH OTHER LANGUAGES IN THE HOMES OF TEACHERS COLLEGE STUDENTS IN THIRTY-EIGHT INSTITUTIONS

| Language | Colorado State Teachers College | Western State College | San Jose State Teachers College | Michigan (1) | Pennsylvania (2) | Massachusetts (3) | Missouri (4) | Louisiana | Mean (6) |
|---|---|---|---|---|---|---|---|---|---|
| English | 93.92 | 96.52 | 88.0 | 94.5 | 91.17 | .... .. | .... .. | .... .... | 92.84 |
| English and other languages | 6.00 | 2.90 | 11.5 | .... .. | .... .. | .... .. | .... .... | .... .... | 4.08 |
| French | .... .. | .... .. | .... .. | .... .. | .... .. | .... .. | .... .... | (5) | .... .... |
| All other languages | .08 | .58 | .5 | 5.5 | 8.83 | 10.2 | 30.0 | .... .... | 3.08 |
| Total | 100.00 | 100.00 | 100.0 | 100.0 | 100.00 | .... .... | .... .... | .... .... | 100.00 |

1 Moehlman, A. B., **A Survey of the Needs of the Michigan State Normal Schools,** Lansing, Michigan, State Board of Education, 1922
2 Rule, J. N., and Others, **Educational Survey,** Commonwealth of Pennsylvania, March, 1925
3 Zook, G. F., **Report of a Fact-finding Survey of Technical and Higher Education in Massachusetts,** Massachusetts Legislature, House Document, Number 1700, 1923
4 Learned, W. S., Bagley, W. C., and Others, **The Professional Preparation of Teachers for American Public Schools,** Carnegie Foundation for the Advancement of Teaching, Bulletin Number Fourteen, 1920
5 Bagley, W. C., and Others, **Report of the Survey Commission on the Louisiana State Normal College, the Louisiana Polytechnic Institute, the Southwestern Louisiana Institute,** Baton Rouge, Louisiana, State Department of Education, 1924
6 The mean is computed from the Colorado, California, Michigan, and Pennsylvania columns.

The case is clear that in practically all of the homes from which state teachers college students come English is the sole mode of speech.

## 5. Vital Statistics

Facts about the presence and the absence of fathers and of mothers in the homes of teachers in preparation are significant. Among other implications, it might be that certain individuals have enrolled in teachers colleges more or less under the force of circumstances and because they have been compelled through the loss of parental support to prepare as quickly and as cheaply as possible for a life vocation. If there is found to be a large proportion of such cases, very probably one might not be quite so sure of future teaching success in the group.

Table XV gives the facts on this inquiry with complete returns from Colorado and California. The percentage from the Massachusetts survey refers to "one parent living." In Pennsylvania, the report shows eighty-six percent of fathers living and ninety percent of the mothers. The central tendencies of new data give but 4.5 per cent orphaned, eight to eleven percent with one parent dead, and seventy-six percent

### TABLE XV

VITAL STATISTICS OF THE PARENTS OF THE STUDENTS IN TWENTY-SIX TEACHER TRAINING INSTITUTIONS IN TERMS OF PERCENTAGES OF TOTAL SAMPLINGS

| Item | Colorado State Teachers College | Western State College | San Jose State Teachers College | Massachusetts (1) | Pennsylvania (2) | Louisiana (3) | Mean (4) |
|---|---|---|---|---|---|---|---|
| Father and mother living | 74.10 | 77.04 | 77.34 | .... .... | .... .... | .... .... | 76.16 |
| Mother living and father dead | 13.45 | 8.72 | 12.31 | .... .... | 90.51 | .... .... | 11.49 |
| Father living and mother dead | 7.55 | 9.01 | 6.90 | 16.9 (1) | 86.09 | .... .... | 7.82 |
| Father and mother dead | 4.90 | 5.23 | 3.45 | .86 | .... .... | 6.7 | 4.53 |
| Total | 100.00 | 100.00 | 100.00 | .... .... | .... .... | .... .... | 100.00 |

1 Zook, G. F., Report of a Fact-finding Survey of Technical and Higher Education in Massachusetts. Chapter by Cross, E. A., "The Teaching Personnel of the Normal Schools of Massachusetts." Massachusetts Legislature, House Document, Number 1700, 1923

2 Rule, J. N., and Others, Educational Survey, Commonwealth of Pennsylvania, March, 1925

3 Bagley, W. C., and Others, Report of the Survey Commission on the Louisiana State Normal College, the Louisiana Polytechnic Institute, the Southwestern Louisiana Institute, Baton Rouge, Louisiana, State Department of Education, 1924

4 The mean is computed from the Colorado and California columns.

with both parents living.

In general, it may be said that state teachers college students come in rather large proportion from homes in which the family circle is complete so far as fathers and mothers are concerned, that but a very few are orphans, and that less than twelve percent have lost either father or mother.

## 6. Size of Family

Are the family groups from which state teachers college students come large or small? It may be that lower types of intelligence and culture are tending toward over-reproduction in America, while the intelligentsia are failing to perpetuate themselves in proper proportion.[2] Then, too, among other implications, large families might contribute more prospective teachers because of economic pressure.

However this may be, the facts on size of family for the students in thirty-eight state normal schools and state teachers colleges are given in Table XVI. In Missouri, the survey found five percent of students' homes containing one child, thirty-five percent two to four children, forty-four percent five to eight, fourteen percent nine to eleven, and two percent twelve or more. The figures for Louisiana, Michigan, and Pennsylvania were taken from the Louisiana survey. In the case of Michigan, the survey says: "The median size of family of these students is between three and four children. The native Americans average 4.5 children to the family."

The average number of children in American homes has decreased steadily from nearly four in the middle 1800's to less than three about 1900.[3] Our medians show that teachers college students are coming from families larger than the average, the more prolific element of our population. This is a most significant fact with important implications for the general character of the teaching population of the next decade.

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2 Popenoe, P. I., and Johnson, R. H., **Applied Eugenics**, The Macmillan Company, 1918

3 Reports of the United States Census.

## TABLE XVI

NUMBER OF CHILDREN IN THE FAMILIES OF COLLEGE STUDENTS IN THIRTY-EIGHT TEACHER TRAINING INSTITUTIONS IN TERMS OF PERCENTS

| Children | Colorado State Teachers College | Western State College | San Jose State Teachers College | Louisiana (1) | Missouri (2) | Massachusetts (3) | Michigan (3) | Pennsylvania (3) |
|---|---|---|---|---|---|---|---|---|
| Over ten | 2.73 | 1.48 | 1.48 | 3.1 | 2.0 | ..... | ..... | ..... |
| Ten | 1.56 | 1.48 | 2.46 | 4.0 | ..... | ..... | ..... | ..... |
| Nine | 3.74 | .59 | 2.46 | 3.6 | 14.0 | ..... | ..... | ..... |
| Eight | 4.99 | 8.29 | 4.43 | 8.1 | ..... | ..... | ..... | ..... |
| Seven | 6.70 | 5.92 | 6.40 | 9.2 | ..... | ..... | ..... | ..... |
| Six | 9.81 | 10.36 | 11.82 | 12.0 | ..... | ..... | ..... | ..... |
| Five | 13.47 | 15.98 | 13.80 | 15.0 | 44.0 | ..... | ..... | ..... |
| Four | 17.99 | 16.57 | 11.33 | 13.9 | ..... | ..... | ..... | ..... |
| Three | 17.13 | 18.64 | 16.26 | 14.6 | ..... | ..... | ..... | ..... |
| Two | 15.73 | 14.50 | 18.72 | 11.9 | 35.0 | ..... | ..... | ..... |
| One | 6.15 | 6.21 | 10.84 | 4.3 | 5.0 | ..... | ..... | ..... |
| Median | 4.61 | 4.64 | 4.37 | 4.4 | 6.5 | 4.6 | 3.5 | 4.0 |

1 Bagley, W. C., and Others, **Report of the Survey Commission on the Louisiana State Normal College, the Louisiana Polytechnic Institute, the Southwestern Louisiana Institute,** Baton Rouge, Louisiana, State Department of Education, 1924

2 Learned, W. S., Bagley, W. C., and Others, **The Professional Preparation of Teachers for American Public Schools,** Carnegie Foundation for the Advancement of Teaching, Bulletin Number Fourteen, 1920

3 Only the median was given for these states.

In summation, it may be said that, on the basis of facts from thirty-eight schools, the number of children in the families of state teachers college students is from four to five; and it appears that this is a larger number of children than is found in the average American home.

### 7. Teaching Experience in the Family

Are teachers in preparation in state teachers colleges recruited from families in which there is a teaching tradition? So far as fathers are concerned, Table VII would seem to say, No, for but ten percent are engaged in all types of professional work. But, although parents may not have been teachers, the family may be a teaching family in that a number of brothers and sisters are now in this work.

The data on teaching experience in the families of thirty-four state teachers colleges are given in Table XVII. The outstanding fact seen is that in one-half of the families no members have taught or are teaching. In Louisiana, the total figure means that, in the data on occupation of parents, 1.6 percent were found to be teachers. The total figure for Massachusetts refers to 15.3 percent of all students who have one or

## TABLE XVII

TEACHING EXPERIENCE IN THE FAMILIES OF COLLEGE STUDENTS OF THIRTY-FOUR TEACHER TRAINING INSTITUTIONS IN SIX STATES IN TERMS OF PERCENTS

| Item | Colorado State Teachers College (1) | Western State College (2) | San Jose State Teachers College (3) | Louisiana (4) | Massachusetts (5) | Pennsylvania (6) | Missouri (7) | Mean (8) |
|---|---|---|---|---|---|---|---|---|
| None | 47.39 | 46.09 | 56.10 | ---- | ---- | ---- | 38.0 | 49.86 |
| Father | 12.76 | 14.20 | 6.89 | ---- | ---- | 9.24 | ---- | 11.29 |
| Mother | 24.20 | 26.08 | 19.21 | ---- | ---- | 12.60 | ---- | 23.16 |
| One brother or sister | 28.09 | 27.82 | 18.72 | ---- | ---- | 26.86 | 47.0 | 24.87 |
| Two brothers or sisters | 3.81 | 2.60 | 2.46 | ---- | ---- | ---- | ---- | 2.96 |
| Three brothers or sisters | .47 | 1.44 | ---- | ---- | ---- | ---- | 15.0 | .63 |
| Over three brothers or sisters | .78 | ---- | .49 | ---- | ---- | ---- | ---- | .42 |
| Totals | ---- | ---- | ---- | 1.6 | 15.3 | ---- | 100.0 | ---- |

1 The percents are computed from a base of 1285, the total number of question blanks used.
2 The percents are computed from a base 345, the total number of question blanks used.
3 The percents are computed from a base of 203, the total number of question blanks used.
4 Bagley, W. C., and Others, **Report of the Survey Commission on the Louisiana State Normal College, the Louisiana Polytechnic Institute, the Southwestern Louisiana Institute,** Baton Rouge, Louisiana, State Department of Education, 1924
5 Zook, G. F., **Report of a Fact-finding Survey of Technical and Higher Education in Massachusetts,** Massachusetts Legislature, House Document, Number 1700, 1923
6 Rule, J. N., and Others, **Educational Survey,** Commonwealth of Pennsylvania, March, 1925.
7 Laarned, W. S., and Bagley, W. C., and Others, **The Professional Preparation of Teachers for American Public Schools,** Carnegie Foundation for the Advancement of Teaching, Bulletin Number Fourteen, 1920.
8 These figures refer to the California and Colorado colleges.

more brothers or sisters teaching. In Pennsylvania, 26.86 percent of students are reported as having from one to three brothers or sisters teaching. In the case of Missouri, the report shows forty-seven percent who have one or two brothers or sisters teaching and fifteen percent who have three or over in this work.

It is evident that about half of state teachers college students come from families in which there is no teaching tradition, but that in the case of about one-fourth of them either the fathers or mothers, or some brothers or sisters have taught or are now teaching.

### 8. SUMMARY

On the basis of data available about the homes of state teachers college students, the following generalizations may be suggested. Where it appears to be particularly significant, the findings of Coffman's study of a decade ago among teachers in service are added.[4]

4 Coffman, L. D., **The Social Composition of the Teaching Population,** Teachers College, Columbia University, Contributions to Education, No. 41, 1911

A. A decreasing number of state teachers college students are coming from the farm and laboring class, and the parents of but some thirty percent of them are in business and the professions. Coffman found fifty-seven percent of teachers in service coming from farms. There was a total of eighty-one percent who were children of farmers and laborers and but eighteen percent in business and the professions.

B. The family income among state teachers college students ranges from $1000 to nearly $4000 with a central tendency around $2400. Coffman's study of 1911 found the median parental income of public school teachers to be but a little over $700.

C. State teachers college students come in large proportion from native stock, and the small percentage of foreign ancestry have a northern European background. Coffman's investigation shows about eighty-eight percent "native born with native born parents," approximately eleven percent "native born with one or both parents foreign born," and over one percent "foreign born with foreign born parents."

D. The English language is spoken in all homes from which state teachers college students come, and it is the only mode of speech in practically all such families. Coffman found English spoken in but seventy-five percent of teachers' homes, German in nearly nine percent, and a Scandinavian language in four percent.

E. On the whole, state teachers college students now come from homes in which the family circle is complete, and Coffman found practically the same situation in 1911 (seventy-eight percent with both parents living, twelve percent with fathers dead, nine percent with mothers dead, and nearly two percent orphans).

F. The number of children in the homes of teachers college students is from four to five, a larger number than is found in the average American home. Coffman's findings for teachers in service were identical; four in the families of women students, five in the families of men.

G. About half of state teachers college students come from teaching families, and in the case of about one-fourth of them some member of the family is now teaching.

# CHAPTER IV

## TYPES OF STUDENTS IN STATE TEACHERS COLLEGES

This chapter and the next on students' objectives inquire somewhat more specifically into the personality of teachers college students. The maturity of teachers in preparation in terms of age and of previous teaching experience has too often been disregarded in determining the content of courses and in deciding on technic of college teaching. The economic status of the student must be considered also, if individual success is to be insured in both curricular and extra-curricular activities, and knowledge of attitudes and habits in matters of religion may contribute toward faculty efforts in the development of desirable character traits.

### 1. Chronological Age

The investigation of the life age of teachers college students in Colorado State Teachers College and in San Jose State Teachers College, California, reveals the fact that the median entering age is between eighteen and nineteen years, from 18 years 9 months to 19 years 2.5 months. This fact, in conjunction with the data on teaching experience before matriculation, seems to indicate that a great many teachers in preparation come directly from the high schools where they have completed their secondary work.

The columns for the first three colleges in Table XVIII show also that the median age of seniors is between nineteen and twenty years, 19 years 4.5 months to 20 years 3 months. These figures seem to indicate for the typical teachers college student in the three institutions practically a continuous term of preparatory experience from secondary school to graduation from the four-year college course. In cases where this is found to be the fact, any background of professional understanding based upon interims of teaching experience in the field is, of course, precluded. The chances for exceptions to this generalization are seen to be very small for the freshman groups because of the compactness of the distribution (Q is 0.91), but the senior classes have a wider spread of ages (Q is 2.96).

Percentage facts on chronological age distributions are collected in Table XVIII for a total of forty-two state teacher training institutions. The figure for age twenty-six under Louisiana (3.36 percent) refers to ages twenty-six to thirty. In the Michigan survey, we find the statement, "Eighty-seven percent are twenty-one years of age or younger." In the Pennsylvania column, the figure found (18.9 years) is the average age at matriculation. The four figures for Missouri refer specifically to the following age spans with percents given:

## TABLE XVIII

CHRONOLOGICAL AGE OF COLLEGE STUDENTS AT THE TIME OF ENTRANCE TO FORTY-TWO TEACHER TRAINING INSTITUTIONS IN TERMS OF PERCENTS

| Age | Colorado State Teachers College | Western State College | San Jose State Teachers College | Louisiana (1) | Michigan (2) | Missouri (3) | Connecticut (4) | Massachusetts (5) | Pennsylvania (6) | Mean (7) |
|---|---|---|---|---|---|---|---|---|---|---|
| 30 and over | 5.33 | 3.24 | 3.50 | .... .... | 2.4 | .... .. | .11 | | | 2.92 |
| 29 | 1.11 | 1.48 | 1.00 | .... .... | 0.6 | .... .. | .... .... | | | .84 |
| 28 | 1.11 | 1.18 | .... .... | .... .... | 1.0 | .... .. | .11 | | | .68 |
| 27 | 1.51 | .30 | .50 | .... .... | 1.4 | .... .. | .11 | | | .76 |
| 26 | 1.43 | .30 | 2.50 | 3.36 | 1.7 | .... .. | .... .... | | | 1.19 |
| 25 | 1.27 | .30 | 1.00 | .68 | 3.3 | .... .. | .21 | | | 1.22 |
| 24 | 1.43 | .59 | 1.00 | .56 | 2.8 | .... .. | .21 | | | 1.21 |
| 23 | 2.63 | 2.65 | .50 | 2.49 | 4.2 | .... .. | .32 | | | 2.06 |
| 22 | 4.22 | 2.36 | 2.50 | 2.55 | 5.6 | 40.0 | 1.28 | | | 3.19 |
| 21 | 5.89 | 7.97 | 2.00 | 6.47 | 10.5 | 11.0 | 1.91 | | | 5.65 |
| 20 | 8.99 | 13.57 | 9.50 | 12.39 | 14.8 | 14.0 | 5.21 | | | 10.41 |
| 19 | 16.71 | 20.35 | 17.50 | 20.79 | 21.2 | 35.0 | 18.19 | | | 18.79 |
| 18 | 26.02 | 25.66 | 33.00 | 26.65 | 19.7 | .... .. | 45.00 | | | 29.87 |
| 17 | 17.42 | 16.81 | 23.00 | 16.68 | 9.6 | .... .. | 23.72 | | | 18.11 |
| 16 and under | 4.93 | 3.24 | 2.50 | 7.33 | 1.2 | .... .. | 3.62 | | | 3.10 |
| Total | 100.00 | 100.00 | 100.00 | .... .... | 100.0 | .... .. | 100.00 | | | 100.00 |
| 1st Quartile | 18.10 | 18.19 | 17.98 | .... .... | .... .... | .... .... | .... .... | .... .... | .... .... | .... .... |
| Median | 19.10 | 19.21 | 18.74 | 18.97 | 19.92 | 20.0 | 18.50 | 18.65 | 18.9 | 19.09 |
| 3rd Quartile | 21.16 | 20.66 | 19.94 | .... .... | .... .... | .... .... | .... .... | .... .... | .... .... | .... .... |
| Q | 1.53 | 1.24 | .98 | .... .... | .... .... | .... .... | .... .... | .... .... | .... .... | .... .... |

1 Bagley, W. C., and Others, **Report of the Survey Commission on the Louisiana State Normal College, the Louisiana Polytechnic Institute, the Southwestern Louisiana Institute**, Baton Rouge, Louisiana, State Department of Education, 1924
2 Moehlman, A. B., **A Survey of the Needs of the Michigan State Normal Schools**, Lansing, Michigan, State Board of Education, 1922
3 Learned, W. S., Bagley, W. C., and Others, **The Professional Preparation of Teachers for American Public Schools**, Carnegie Foundation for the Advancemenet of Teaching, Bulletin Number Fourteen, 1920
4 Meader, J. L., **Survey of the Normal Schools of Connecticut.** Unpublished report, 1925
5 Zook, G. F., **Report of a Fact-finding Survey of Technical and Higher Education in Massachusetts**, Massachusetts Legislature, House Document, Number 1700, 1923
6 Rule, J. N., and Others, **Educational Survey**, Commonwealth of Pennsylvania, March, 1925
7 Average figures refer to Colorado, California, Michigan, and Connecticut.

under twenty, thirty-five percent; twenty, fourteen percent; twenty-one, eleven percent; over twenty-one, forty percent.

In the table, the mean central tendency in the last column (19.09 years) is not changed materially when all nine medians are averaged (19.11 years). The findings for this section are, then, that the most usual age of entrance to our state teachers colleges is about nineteen years.

It is not known whether the entering age of teachers college students is changing, but an indirect answer to this important query may be had by a comparison of present matriculation ages with the ages of beginning teachers as reported by Coffman in 1911. Table XIX contains these arrays. The median entering age in the second column for the Colorado students and those in San Jose State Teachers College is found to be 18.68 (18 years 8 months). The median for 5,000 beginning teachers in 1911 is 19.49 (19 years 6 months), ten months

## TABLE XIX

THE CHRONOLOGICAL AGE OF TEACHERS WHEN BEGINNING PREPARATION IN THREE MODERN TEACHERS COLLEGES (1924) COMPARED WITH THE CHRONOLOGICAL AGE OF TEACHERS WHEN BEGINNING TEACHING IN THE FIELD A DECADE AGO (1911)

| | 1924 | | |
|---|---|---|---|
| Age | Freshmen | Juniors | 1911 (1) |
| 30 and over | 16 | 17 | 31 |
| 29 | 6 | 6 | 12 |
| 28 | 2 | 3 | 14 |
| 27 | 3 | 1 | 17 |
| 26 | 6 | 8 | 25 |
| 25 | 5 | 1 | 46 |
| 24 | 3 | 6 | 94 |
| 23 | 10 | 9 | 151 |
| 22 | 14 | 10 | 272 |
| 21 | 32 | 21 | 527 |
| 20 | 56 | 26 | 864 |
| 19 | 130 | 38 | 1099 |
| 18 | 240 | 40 | 1387 |
| 17 | 158 | 45 | 508 |
| 16 and under | 36 | 10 | 168 |
| Total | 717 | 241 | 5215 |
| 1st Quartile | 17.91 | 18.13 | 18.45 |
| Median | 18.68 | 19.67 | 19.49 |
| 3rd Quartile | 19.80 | 22.08 | 20.86 |
| Q | .95 | 1.98 | 1.21 |

1 Coffman, L. D., The Social Composition of the Teaching Population, Teachers College, Columbia University, Contributions to Education, No. 41, 1911

older. Probably it would not be safe to assume two years of preparation for this group, but if so they should be twenty-

four months older. If they have had on the average one year of preparation, then the central tendencies of ages are practically identical. Possibly a more significant comparison would be between the 1911 beginning age and the junior preparatory age in 1924 (19 years 6 months and 19 years 8 months). Here there is no appreciable difference, and the type of distribution is very similar in each case as shown by the two Q's (1.21 and 1.98).

On the whole, no very striking differences in maturity appear when the chronological ages of 1911 teachers in service and of modern teachers in preparation are compared. This is not an answer to the inquiry in the preceding paragraph, but it is indirect evidence pointing to a probable constancy of life age in groups of teachers when they begin their period of professional preparation.

This section shows that the usual entering age of students to our state teachers colleges is slightly less than nineteen years, that the central tendency of the ages of all such students is slightly over nineteen years, and that there is no great difference in chronological age between modern teachers in preparation and teachers in service of a decade ago.

## 2. Relative Age

It is interesting and perhaps significant to inquire about the chronological age status of state teachers college students in the families from which they come. Is the student the oldest child, the second in age, or younger with reference to brothers and sisters?

Data on this point are presented in Table XX. For example, the figure thirty-three in the second column means that, among 1280 Colorado State Teachers College students, thirty-three percent were oldest in the families from which they came. It can be seen, also, that there were four percent of the students who were seventh in age in their families. The median figure (1.66) shows that the usual situation in this group is to be second or third in age among the children of the family.

Percentage levels are compared in Table XX for a total of twenty-nine normal schools and teachers colleges. In the Louisiana survey, the statement is "Nineteen and four-tenths are oldest children; 42.5 are either the oldest or second oldest; 58.2 are either first, second, or third children." The Pennsylvania report makes but the general statement, "The average student is one of the two older." Detailed information in this summary refers to the summer session only. This would not be comparable to our data. The column of mean percents shows that relative ages in the three columns considered are very similar and about as reported in the previous paragraph.

Median locations in the family group are summarized in Table XXI. It is evident that this is either second or third in age rank.

The general fact emerging, then, is that for the 1833 students furnishing data one-third are the oldest children in the families and the most usual position among all children in the family is either second or third in life age.

## TABLE XX

RELATIVE AGE OF THE CHILDREN IN THE FAMILIES OF COLLEGE STUDENTS IN TWENTY-NINE TEACHER TRAINING INSTITUTIONS IN TERMS OF PERCENTS

| Item | Colorado State Teachers College | Western State College | San Jose State Teachers College | Louisiana (1) | Massachusetts | Pennsylvania (2) | Mean (3) |
|---|---|---|---|---|---|---|---|
| Over six older | 4.14 | 3.83 | 4.93 | .... .... | .... .... | .... .... | 4.30 |
| Six older | 2.74 | 1.18 | .98 | .... .... | .... .... | .... .... | 1.64 |
| Five older | 3.20 | 4.72 | 3.45 | .... .... | .... .... | .... .... | 3.79 |
| Four older | 6.09 | 5.31 | 6.40 | .... .... | .... .... | .... .... | 5.93 |
| Three older | 10.39 | 9.44 | 10.34 | .... .... | .... .... | .... .... | 10.05 |
| Two older | 14.45 | 17.70 | 10.84 | 58.2 | .... .... | .... .... | 14.33 |
| One older | 26.33 | 23.30 | 24.14 | 42.5 | .... .... | .... .... | 24.59 |
| None older | 32.66 | 34.52 | 38.92 | 19.4 | .... .... | .... .... | 35.37 |
| Total | 100.00 | 100.00 | 100.00 | .... .... | .... .... | .... .... | 100.00 |
| Median | 1.66 | 1.66 | 1.46 | .... .... | 2.9 | .... .... | |

1 Bagley, W. C., and Others, **Report of the Survey Commission on the Louisiana State Normal College, the Louisiana Polytechnic Institute, the Southwestern Louisiana Institute,** Baton Rouge, Louisiana, State Department of Education, 1924

2 Rule, J. N., and Others, **Educational Survey,** Commonwealth of Pennsylvania, March, 1925

3 The average figures refer to Colorado and California colleges only.

## TABLE XXI

RELATIVE AGE OF THE CHILDREN IN THE FAMILIES OF STATE TEACHERS COLLEGE STUDENTS IN THREE COLLEGES IN TERMS OF MEDIAN POSITION IN THE FAMILY GROUP, 1924-25

| College | Graduate | Senior | Junior | Sophomore | Freshman | Unclassified | Total |
|---|---|---|---|---|---|---|---|
| Colorado State Teachers College | 1.71 | 1.70 | 2.02 | 1.64 | 1.57 | 1.68 | 1.66 |
| Western State College | 1.50 | 2.00 | 1.50 | 1.80 | 1.52 | 2.00 | 1.66 |
| San Jose State Teachers College | 2.00 | 0.80 | 1.60 | 1.43 | 1.52 | 3.50 | 1.46 |
| Mean | 1.73 | 1.52 | 1.70 | 1.28 | 1.23 | 2.39 | 1.59 |

### 3. Teaching Experience

One important problem in curriculum making for teachers colleges has to do with an effective introduction of the high school graduate to the new field of endeavor which he is entering. It is not completely terra incognita, for as pupil he has recently taken active part in the teaching process in the high school. But it is probably true that on the whole only incomplete and distorted notions about education and its problems are obtained in this manner. It would perhaps be worth while to require a certain period of precollege teaching before matriculation. And, of course, the reason for including student teaching in the curriculum is that teachers in preparation may be at the same time teaching and learning.

In the first section of this chapter, it was intimated that the usual situation during the preparatory period of teachers college students did not include much interruption of college life for teaching under contract. Definite reports on teaching experience for the time after secondary work had been completed have been included among the new data secured for this study.

This report on professional experience between secondary school and college is summarized from the original classification in Table XXII. The shortest period of teaching experience is seen to be less than five months (.47 school years). The mean of all medians is .59 school years, five and one-half months.

The proportion of teachers college students having one to four and more years of teaching experience between high

school and college is given in Table XXIII. The table shows a large percentage (85 percent) with no teaching experience, but 5.5 percent with one year of teaching, and very small numbers with more than one year.

The Pennsylvania survey reports that on the average 12.9 percent had had such experience, but definite periods are not given. In Missouri, the statement is that "Two-fifths of the students have had teaching experience." The column of mean percents confirms the findings of the preceding paragraph in that "None" is found to be the mode, a very small number (5.5 percent) have taught but one year, and a total of less than ten percent from two to four years and more.

## TABLE XXII

TEACHING EXPERIENCE OF STATE TEACHERS COLLEGE STUDENTS IN THREE INSTITUTIONS AFTER HIGH SCHOOL GRADUATION AND BEFORE ENTERING COLLEGE IN TERMS OF MEDIAN SCHOOL YEARS

| College | Graduate | Senior | Junior | Sophomore | Freshman | Unclassified | Total |
|---|---|---|---|---|---|---|---|
| Colorado State Teachers College | .88 | .72 | .68 | .68 | .58 | .59 | .64 |
| Western State College, Colorado | .50 | .67 | .58 | .47 | .93 | .80 | .58 |
| San Jose State Teachers College, California | .50 | .67 | .56 | .56 | .52 | .50 | .54 |
| Mean | .63 | .69 | .61 | .57 | .68 | .63 | .59 |

## TABLE XXIII

TEACHING EXPERIENCE OF STATE TEACHERS COLLEGE STUDENTS AFTER HIGH SCHOOL GRADUATION AND BEFORE ENTERING COLLEGE IN THREE TEACHER TRAINING INSTITUTIONS IN TERMS OF PERCENTS

| Item | Colorado State Teachers College | Western State College | San Jose State Teachers College | Mean |
|---|---|---|---|---|
| Over four years | 5.65 | 3.84 | 1.04 | 3.51 |
| Four years | 1.29 | .89 | 1.04 | 1.07 |
| Three years | 2.91 | 1.48 | 1.55 | 1.98 |
| Two years | 4.44 | 2.07 | 1.55 | 2.69 |
| One year | 7.91 | 5.92 | 2.59 | 5.48 |
| None | 77.80 | 85.80 | 92.23 | 85.27 |
| Total | 100.00 | 100.00 | 100.00 | 100.00 |

The findings on inter-teaching experience before college matriculation are, then, that the great majority of students have none and that for the small percent who do teach the period is but for a very short school year.

### 4. Length of Training

A recently accepted slogan among public school administrators calls for a professionally trained teacher in every classroom in the United States. As an immediate objective, this is usually interpreted to mean two years of professional preparation beyond the secondary school level, although the ultimate aim looks toward the happy time when every public school teacher shall have earned a bachelor's degree granted by a teachers college or a college of education.

As this study deals with the pre-service group, it gives no definite data on the training of in-service teachers. Tables XXIV and XXV, however, give the proportionate size of student groups at different training levels. Three-fourths are two years above the high school and about one-fourth beyond this point. This is very probably the general situation in our four year state teachers colleges, but only a small part of all public school teachers are prepared there.

## TABLE XXIV

THE PROPORTION OF STATE TEACHERS COLLEGE STUDENTS FOUND AT FIVE ACADEMIC LEVELS IN THREE TEACHER TRAINING INSTITUTIONS, 1924-25

| Academic level | Colorado State Teachers College | Western State College | San Jose State Teachers College | Mean |
|---|---|---|---|---|
| Graduate | 3.0 | (1) | (1) | 1.0 |
| Senior | 9.0 | 1.0 | 4.0 | 4.0 |
| Junior | 14.0 | 15.0 | 16.0 | 15.0 |
| Sophomore | 36.0 | 39.0 | 26.0 | 34.0 |
| Freshman | 38.0 | 45.0 | 54.0 | 46.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |

1 A negligible percent

## TABLE XXV

PROPORTION OF STATE TEACHERS COLLEGE STUDENTS GRADUATED AT THREE COMPLETION LEVELS AT COLORADO STATE TEACHERS COLLEGE DURING THE FOUR QUARTERS OF 1924-25

| Completion Levels | Percent |
|---|---|
| Masters | 3.42 |
| Bachelors | 21.92 |
| Two-year graduates | 74.66 |
| Total | 100.00 |

Recent checkings seem to say that the most usual length of training among all public school teachers is very close to the point of graduation from the secondary school, four years above the elementary level. It is interesting to compare this with the facts for 1911 as given in Table XXVI. Here, the median is slightly over four years.

It is not possible to carry this discussion further here, but very probably the clog on the wheel of progress toward our present day slogan would be found in the rural school situation. One-half of our public school pupils and teachers are found there, and no doubt there is our most serious public school problem, unsolved as yet.

### 5. Living Expenses and Fees

In view of the tendency mentioned in Chapter II for the state to take care of a part of the budget of teachers in preparation, the facts about the annual college expenses of state teachers college students are worth reporting. What part of this comes from the family income? What part is borrowed, and what amounts are derived from other sources, including work during college attendance?

## TABLE XXVI

THE NUMBER OF YEARS OF TRAINING OF TEACHERS IN SERVICE BEYOND ELEMENTARY SCHOOL, 1911 (1)

| Years | Frequency | Percent |
|---|---|---|
| 0 | 394 | 9.0 |
| ⅓ | 24 | .5 |
| ½ | 16 | .5 |
| ⅔ | 22 | .5 |
| 1 | 305 | 6.5 |
| 2 | 524 | 10.8 |
| 3 | 737 | 13.7 |
| 4 | 1247 | 21.8 |
| 5 | 745 | 13.2 |
| 6 | 637 | 10.6 |
| 7 | 222 | 4.8 |
| 8 | 242 | 5.5 |
| 9 | 53 | 1.2 |
| 10 | 31 | .9 |
| 11 | 8) | |
| 12 | 6) | .5 |
| 13 | 2) | |
| Total | 5215 | 100.0 |
| Median | 4.47 | |

1 Coffman, L. D., The Social Composition of the Teaching Population, Teachers College, Columbia University, Contributions to Education, No. 41, 1911

The data on living expenses are given in Table XXVII. In the original classification no great differences appeared on the five academic levels, but the Q's in the three colleges from which new figures were obtained varied from $93 to $135. In Michigan, the survey reports, "The range of the middle fifty percent is from $376 to $652, or a monthly range of $37 to $65. The range of weekly price for board is from $4 to $8 at all four schools. The weekly cost of room varies from $1 to $8." The Pennsylvania median is a rough estimate, and the report says, "Fees $55.78, room and board $303.15." The mean central tendency for twenty-one schools is $400, and about fifty percent of the students use from about $300 to nearly $600 in the college year.

The proportion of this annual amount required for college expenses which was received from the home income of the student is shown in Table XXVIII. The total number of students reporting was small (47 percent), and very probably many of those not included in the table are independent of home support. In the original classification, where the class medians represented good samplings, no great differences appeared within the school, but the total median for Western

## TABLE XXVII

LIVING EXPENSES AND COLLEGE FEES OF THE COLLEGE STUDENTS OF TWENTY-ONE TEACHER TRAINING INSTITUTIONS IN TERMS OF PERCENTS

| Interval | Colorado State Teachers College | Western State College | San Jose State Teachers College | Michigan (1) | Pennsylvania (2) | Mean (3) |
|---|---|---|---|---|---|---|
| Over $900 | 1.93 | 1.73 | .62 | 2.0 | .. .... | 1.57 |
| $801- 900 | 1.68 | 1.04 | 1.88 | 4.5 | .. .... | 2.28 |
| 701- 800 | 2.52 | 1.38 | 1.88 | 9.6 | .. .... | 3.85 |
| 601- 700 | 6.71 | 4.48 | 5.62 | 11.5 | .. .... | 7.08 |
| 501- 600 | 15.52 | 11.03 | 13.75 | 23.2 | .. .... | 15.87 |
| 401- 500 | 20.05 | 22.76 | 15.63 | 16.5 | .. .... | 18.73 |
| 301- 400 | 24.83 | 31.38 | 24.37 | 14.7 | .. .... | 23.82 |
| 201- 300 | 13.67 | 20.69 | 14.38 | 9.7 | .. .... | 14.61 |
| 101- 200 | 2.60 | 3.10 | 3.12 | 8.3 | .. .... | 4.28 |
| 0- 100 | 10.49 | 2.41 | 18.75 | .. .. | .. .... | 7.91 |
| Total | 100.00 | 100.00 | 100.00 | 100.0 | ..... .... | 100.00 |
| 1st Quartile | $288.12 | $296.83 | $222.74 | ..... .. | ..... .... | $269.23 |
| Median | 394.58 | 379.02 | 357.41 | $512.0 | $358.93 | 377.00 |
| 3rd Quartile | 522.62 | 482.06 | 493.00 | ..... | ..... .... | 499.22 |
| Q | 117.25 | 92.62 | 135.13 | ..... .. | ..... .... | 115.00 |

1 Moehlman, A. B., A Survey of the Needs of the Michigan State Normal Schools, Lansing, Michigan, State Board of Education, 1922

2 Rule, J. N., and Others, Educational Survey, Commonwealth of Pennsylvania, March, 1925

3 The average percents refer to Colorado, California, and Michigan.

## TABLE XXVIII

PERCENTAGE OF COLLEGE EXPENSES OF STUDENTS OF THREE TEACHER TRAINING INSTITUTIONS RECEIVED FROM RELATIVES (FATHER, MOTHER, BROTHER, OR SISTER)

| Interval | Colorado State Teachers College | Western State College | San Jose State Teachers College | Mean |
|---|---|---|---|---|
| 81-100 | 53.93 | 41.81 | 58.15 | 51.30 |
| 61- 80 | 10.01 | 11.07 | 14.68 | 11.92 |
| 41- 60 | 13.56 | 15.16 | 13.04 | 13.92 |
| 21- 40 | 13.03 | 15.16 | 6.52 | 11.57 |
| 0- 20 | 9.47 | 16.80 | 7.61 | 11.29 |
| Total | 100.00 | 100.00 | 100.00 | 100.00 |
| 1st Quartile | 44.69 | 31.81 | 57.67 | 44.73 |
| Median | 82.46 | 66.19 | 83.80 | 77.48 |
| 3rd Quartile | 91.73 | 89.04 | 92.40 | 91.06 |
| Q | 23.52 | 28.62 | 17.37 | 23.17 |

State College is much lower than in Colorado State Teachers College or San Jose State Teachers College. Here also Q is much larger, and the most compact distribution is that of the California school. In Pennsylvania, the report is that students borrow seventy-two percent of their expenses from father and mother and five percent from other relatives. The table shows an average median of 77.5 percent of expenses coming from relatives.

The proportion of the expenses of state teachers college students which is borrowed money is reported in Table XXIX. In the original tabulations, great differences were found among central tendencies for the five academic levels and in the spread of distributions, but this is caused in part no doubt by the meager samplings (12, 15, and 1 percent respectively). For this reason the tables are not very significant. However, the facts as collected are reported, and it appears that about forty percent of the college expenses of teachers college students are borrowed. This figure is probably too high, as will appear later.

Two usual types of activities are engaged in by state teachers college students in order to defray expenses unprovided for by family or state aid. These consist (1) of all kinds of work both on the college campus and in the community, and (2) of professional service in the college. The latter is very significant from the viewpoint of the professional preparation of teachers. Scholarships and fellowships, as a rule, are awarded on the basis of outstanding qualities of intellect and

## TABLE XXIX

PECENTAGE OF COLLEGE EXPENSES OF STUDENTS OF THREE TEACHER TRAINING INSTITUTIONS WHICH WAS BORROWED

| Interval | Colorado State Teachers College | Western State College | San Jose State Teachers College | Mean |
|---|---|---|---|---|
| 81-100 | 16.98 | 17.39 | 20.00 | 18.13 |
| 61- 80 | 8.80 | 15.94 | 13.33 | 12.69 |
| 41- 60 | 24.53 | 14.49 | 13.33 | 17.45 |
| 21- 40 | 25.79 | 23.19 | 20.00 | 22.99 |
| 0- 20 | 23.90 | 28.99 | 33.34 | 28.74 |
| Total | 100.00 | 100.00 | 100.00 | 100.00 |
| 1st Quartile | 21.85 | 17.25 | 15.00 | 18.03 |
| Median | 41.26 | 39.13 | 37.67 | 39.35 |
| 3rd Quartile | 62.79 | 71.45 | 73.50 | 69.25 |
| Q | 20.47 | 27.11 | 29.25 | 25.61 |

character which are sure to carry over to the future classroom or school office and to insure higher types of service there. Ordinarily, also, the preparation period of the scholar or the fellow is lengthened beyond that necessary to complete the course pursued when the student's whole time is given to it. And the activities engaged in provide a regimen of learning while doing which is sure to enhance the value of the preparatory period.

The new data secured for this study include material on the proportion of college expenses provided for by scholarships, fellowships, and savings. This is set forth in Table XXX. One significant fact is that such a large number of students in each school report aid of this kind (52 percent). As one would expect, the older students report larger portions of their expenses covered by these stipends.

In the Pennsylvania survey, four schools report the median savings of students to be 12.5 percent of all expenses. Four percent of this comes from scholarships and 3.25 percent from other sources. The larger medians in the table for Colorado State Teachers College and the Michigan schools are accounted for, no doubt, because of the larger enrollment in upper classes, including those of graduate rank. The mean of the four medians in the table is forty-nine percent.

On the basis of data available, then, it appears that about one-half of the college expenses of teachers college scholars and fellows is covered by institutional stipends and that the middle half of such students take care of from one-fifth to three-fourths of their expenses in this way.

### 6. Self-Support

It is important to inquire the type of person found in preparation for teaching in our state teachers colleges in terms

## TABLE XXX

PERCENTAGE OF COLLEGE EXPENSES OF STUDENTS OF THIRTY-FIVE TEACHER TRAINING INSTITUTIONS COMING FROM SCHOLARSHIPS, FELLOWSHIPS, AND SAVINGS IN VARYING PROPORTIONS

| Interval | Colorado State Teachers College | Western State College | San Jose State Teachers College | Michigan (1) | Pennsylsylvania (2) | Mean (3) |
|---|---|---|---|---|---|---|
| 81-100 | 34.42 | 23.95 | 26.16 | ..... | ..... | 28.18 |
| 61- 80 | 11.44 | 9.58 | 10.28 | ..... | ..... | 10.44 |
| 41- 60 | 14.00 | 15.27 | 21.50 | ..... | ..... | 16.92 |
| 21- 40 | 13.07 | 17.67 | 21.50 | ..... | ..... | 17.41 |
| 0- 20 | 27.07 | 33.53 | 20.56 | ..... | ..... | 27.05 |
| Total | 100.00 | 100.00 | 100.00 | ..... | ..... | 100.00 |
| 1st Quartile | 18.47 | 14.91 | 25.13 | ..... | ..... | 19.50 |
| Median | 55.08 | 39.64 | 48.39 | 51.0 | ..... | 47.70 |
| 3rd Quartile | 86.48 | 78.81 | 81.89 | ..... | ..... | 82.39 |
| Q | 34.00 | 31.95 | 28.38 | ..... | ..... | 31.44 |

1 Moehlman, A. B., **A Survey of the Neeeds of the Michigan State Normal Schools,** Lansing, Michigan, State Board of Education, 1922
2 Rule, J. N., and Others, **Educational Survey,** Commonwealth of Pennsylvania, March, 1925
3 The average percents refer to Colorado and California.

of degrees of economic independence resulting from self help. Very probably this will indicate to some extent levels of maturity of desirable social and character traits which will affect immediate success in school management after graduation.

The preceding section presents material on sources of support. Here, facts obtainable in the new data about students' savings and student work will be added, and reports on students' independence from a number of other states will be included.

The percent of students in Colorado and California furnishing data on savings is found to be twenty-eight, and this is some indication that over one-fourth are using this means of meeting college expenses. Table XXXI gives the distribution of these students among the five academic levels represented. The largest use of savings seems to be found in the freshman and sophomore classes, upper classmen depending on other sources.

The returns gave but a small proportion of students mentioning outside work during college life (14 percent). Table XXXII distributes percents found among the college classes. Here, too, the under classmen seem to be most independent, as indicated by the percent who are working. This similarity is further shown in Table XXXIII, where it appears that forty percent of freshmen and one-third of sophomores meet their college expenses from savings and by work.

## TABLE XXXI

THE PERCENT OF STUDENTS IN EACH CLASS OF THREE STATE TEACHERS COLLEGES USING THEIR SAVINGS FOR COLLEGE EXPENSES

| Academic Level | Colorado State Teachers College | Western State College | San Jose State Teachers College | Mean |
|---|---|---|---|---|
| Graduate | 4.8 | 0.0 | 1.5 | 2.1 |
| Senior | 10.5 | 5.9 | 4.3 | 6.9 |
| Junior | 15.8 | 14.6 | 13.0 | 14.5 |
| Sophomore | 33.3 | 37.1 | 21.7 | 30.7 |
| Freshman | 31.2 | 41.1 | 58.0 | 43.4 |
| Unclassified | 4.4 | 1.3 | 1.5 | 2.4 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |

## TABLE XXXII

THE PERCENT OF STUDENTS IN EACH CLASS OF THREE STATE TEACHERS COLLEGES MEETING THEIR COLLEGE EXPENSES BY WORK

| Academic Level | Colorado State Teachers College | Western State College | San Jose State Teachers College | Mean |
|---|---|---|---|---|
| Graduate | 2.7 | 1.1 | 3.6 | 2.5 |
| Senior | 14.1 | 6.3 | 3.6 | 8.0 |
| Junior | 17.5 | 14.7 | 17.8 | 16.7 |
| Sophomore | 33.7 | 34.7 | 35.7 | 34.7 |
| Freshman | 27.1 | 42.1 | 39.3 | 36.1 |
| Unclassified | 4.9 | 1.1 | -- -- | 2.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |

## TABLE XXXIII

THE PERCENT OF STUDENTS IN EACH CLASS OF THREE STATE TEACHERS COLLEGES MEETING THEIR COLLEGE EXPENSES BY SAVINGS AND WORK

| Academic Level | Savings | Work | Mean |
|---|---|---|---|
| Graduate | 2.1 | 2.5 | 2.3 |
| Senior | 6.9 | 8.0 | 7.4 |
| Junior | 14.5 | 16.7 | 15.6 |
| Sophomore | 30.7 | 34.7 | 32.7 |
| Freshman | 43.4 | 36.1 | 39.8 |
| Unclassified | 2.4 | 2.0 | 2.2 |
| Total | 100.0 | 100.0 | 100.0 |

In the matter of the amount of outside work students do at Colorado State Teachers College, it is worth while to add here a group of findings on the distribution of the student's time taken from one volume of a survey made seven

years ago. This appears as Table XXXIV where material from the original report is rearranged in percentage form. The general fact seen here is that on the average students who did outside work used nearly one-fifth of the total hours available in the week in that way.

For the new data coming from the three state teachers colleges in Colorado and California, the average amount expended (Table XXXV) is found to be approximately $400, about one-half of which may be classed as self-earned.

What facts are available on self-support among state teachers college students in six states are collected in Table XXXVI. In Michigan, the figure fifty-one percent represents all of those students who are self-supporting to any degree. The survey says, "Of those who work, 18.5 percent are one quarter self-supporting; 13.5 percent provide half of their expenses, and 44.8 percent earn practically all of the money necessary to keep them in school. There are 4.3 percent who work for room and board only, and 8.5 percent who worked before coming to school." In Massachusetts, the actual report is that "29.5 percent of students are partly or wholly self-supporting." In Missouri, seven percent are re-

## TABLE XXXIV

PERCENTAGE OF THE TIME OF ONE HUNDRED TWENTY-NINE STUDENTS IN COLORADO STATE TEACHERS COLLEGE GIVEN TO COLLEGE WORK AND OUTSIDE WORK, 1917-18 (1)

| College Year | Sampling | College Work | Outside Work | Total |
|---|---|---|---|---|
| Freshman | 63 | 80 | 20 | 100 |
| Sophomore | 50 | 78 | 22 | 100 |
| Junior, senior and graduate | 16 | 85 | 15 | 100 |
| Total | 129 | | | |
| Mean | | 81 | 19 | 100 |

1 Heilman, J. D., **Educational Survey of Colorado State Teachers College**, Section IV, Part II, "Student Load," 1920

## TABLE XXXV

AN ESTIMATE OF THE EXPENSES AND INCOME OF THE TYPICAL STATE TEACHERS COLLEGE STUDENT IN COLORADO AND SAN JOSE STATE TEACHERS COLLEGE, CALIFORNIA, 1924-25

| | |
|---|---|
| I. Annual expenses | $377 |
| II. Sources of income | |
| 1. The family | 75 (77.5) percent |
| 2. Loans | 25 (39.4) percent |
| 3. Scholarships, fellowships, other work, and like sources | 50 (47.7) percent |

## TABLE XXXVI

THE APPROXIMATE PROPORTION OF TEACHERS COLLEGE STUDENTS IN SIX STATES WHO ARE SELF-SUPPORTING

| State | Percent |
|---|---|
| Michigan | 51 |
| Colorado and California | 50 |
| Massachusetts | 29 |
| Missouri | 36 |
| Connecticut | 14 |
| Mean | 36 |

ported as partly self-supporting. In Connecticut, eighty-five percent are supported from family funds, four percent from scholarships, ten percent from their own savings, and less than one percent from loans.

This table shows, then, from one-tenth to one-half of state teachers college students to be wholly or partly self-supporting, with the central tendency near one-third. In 1922, a committee of the National Council of Education,[1] reported the number to be forty-five percent. The specific question was, "Estimated percent of your students who must pay for all or the larger part of their education?" As data in this study were "received from every state in the union," no doubt the figure reported is very near the facts for three years ago.

### 7. Religious Affiliation

On the assumption that personality traits found among church members and attendants are desirable in the light of teaching success after graduation, distribution of the church preferences of state teachers college students available are presented in this section. At the time of registration, the Religious Council at Colorado State Teachers College secures an expression on this point from each entering student. The facts for the spring quarter, 1925, as taken from the College paper, The Mirror, are given in Table XXXVII. A total of thirty-two religious denominations are listed, but the upper half of students mentioned the Methodist, Presbyterian, and Christian churches.

The table gives also one other available distribution from Michigan. Here the upper fifty percent are included in the Methodist, Presbyterian, and Catholic churches; and in the column of means the order is Methodist, Presbyterian, Catholic. Another significant figure in this column is that indicating no church preference. This is but ten percent.

1 McKenny, C., and Others, **Report of the Committee on Teachers Colleges, National Council of Education, National Education Association, February 27, 1922**

## TABLE XXXVII

RELIGIOUS AFFILIATION OF STUDENTS IN FIVE TEACHER TRAINING INSTITUTIONS

| | Denomination | Colorado State Teachers College Number | Colorado State Teachers College Percent | Michigan (1) Percent | Mean Percent |
|---|---|---|---|---|---|
| 1 | Methodist | 375 | 27.06 | 31.60 | 29.33 |
| 2 | Presbyterian | 230 | 16.59 | 13.40 | 14.99 |
| 3 | No church affiliation | 152 | 10.96 | 9.91 | 10.43 |
| 4 | Catholic | 103 | 7.43 | 12.40 | 9.91 |
| 5 | Congregational | 91 | 6.56 | 8.50 | 7.53 |
| 6 | Baptist | 116 | 8.37 | 5.90 | 7.13 |
| 7 | Episcopal | 97 | 7.00 | 4.30 | 5.65 |
| 8 | Christian | 120 | 8.66 | .60 | 4.63 |
| 9 | Lutheran | 19 | 1.37 | 6.60 | 4.00 |
| 10 | Christian Scientist | 24 | 1.73 | 1.10 | 1.41 |
| 11 | Reformed | .... | .. .... | 1.40 | .70 |
| 12 | Church of Christ | .... | .. .... | 1.40 | .70 |
| 13 | United Presbyterian | 18 | 1.30 | .. .... | .65 |
| 14 | Swedish Evangelical | 2 | .15 | .90 | .52 |
| 15 | United Brethren | 1 | .07 | .40 | .24 |
| 16 | Unitarian | 6 | .43 | .. .... | .22 |
| 17 | Reformed Presbyterian | 6 | .43 | .. .... | .22 |
| 18 | Christian Reformed | .... | .. .... | .40 | .20 |
| 19 | Nazarene | 4 | .28 | .. .... | .14 |
| 20 | Free Methodist | 2 | .15 | .10 | .13 |
| 21 | Jewish | 1 | .07 | .30 | .13 |
| 22 | Disciple | .... | .. .... | .20 | .10 |
| 23 | Unclassified | .... | .. .... | .20 | .10 |
| 24 | Latter Day Saints | 2 | .15 | .03 | .09 |
| 25 | Church of God | 2 | .15 | .. .... | .08 |
| 26 | Swedish Lutheran | 2 | .15 | .. .... | .08 |
| 27 | English Lutheran | 2 | .15 | .. .... | .08 |
| 28 | Evangelical | 2 | .15 | .. .... | .08 |
| 29 | Free Church | 2 | .15 | .. .... | .08 |
| 30 | Seventh Day Adventist | 1 | .07 | .07 | .07 |
| 31 | Mennonite | 1 | .07 | .03 | .05 |
| 32 | Universalist | .... | .. .... | .10 | .05 |
| 33 | Mission | 1 | .07 | .. .... | .04 |
| 34 | German Lutheran | 1 | .07 | .. .... | .04 |
| 35 | Undenominational Christian | 1 | .07 | .. .... | .04 |
| 36 | Church of Brethren | 1 | .07 | .. .... | .04 |
| 37 | International Bible Student Association | 1 | .07 | .. .... | .04 |
| 38 | Apostle | .... | .. .... | .07 | .04 |
| 39 | Greek Orthodox | .... | .. .... | .03 | .02 |
| 40 | Friends | .... | .. .... | .03 | .01 |
| 41 | Moravian | .... | .. .... | .03 | .01 |
| | Total | 1386 | 100.00 | 100.00 | 100.00 |

1 Moehlman, A. B., **A Survey of the Needs of the Michigan State Normal Schools,** Lansing, Michigan, State Board of Education, 1922

Over one-fourth of these students prefer the Methodist church, ten percent are Catholic, and but ten percent have no church affiliation.

## 8. Summary

On the basis of facts available the following general statements may be made descriptive of types of students found in American state teachers colleges:

A. State teachers college students now matriculate for their preparatory experience at slightly under nineteen years of age, the median age of all state teachers college students in all classes is slightly over nineteen years, and these groups of teachers in preparation are very nearly the age of teachers in service in 1911.

B. One-third of state teachers college students are oldest children in the families from which they come, and the central tendency of relative age is either second or third among all children in the family.

C. Nearly all state teachers college students come directly from high school to college without an inter-period of first teaching, and the experience of the small percent who do teach is for but a very short school year.

D. Three-fourths of state teachers college students are on an academic level two years beyond secondary school, but on the evidence of indirect proof obtainable it does not appear that the average length of training of all teachers has changed much in ten years' time.

E. On the average, the expenses of each state teachers college student for one year amount to $400, and about three-fourths of this comes from the family income. But many students report nearly forty percent of their expenses covered by loans, and scholars and fellows receive about one-half of the funds they need as stipends.

F. About forty percent of freshmen reporting and one-third of sophomores in state teachers colleges meet their expenses through savings or by work. In the latter case, one-fifth of the total hours available in the week are given over to gainful occupations.

G. From one-tenth to one-half of state teachers college students are wholly or partly self-supporting, with a median of one-third.

H. All but a very small percent of state teachers college students are affiliated with some organized church, the larger part (about one-fourth) preferring the Methodist denomination and smaller groups the Presbyterian, Catholic, Congregational, Episcopal, and Christian churches. A total of forty denominations are represented in the five state teachers colleges reporting.

# CHAPTER V

## VOCATIONAL OBJECTIVES OF STATE TEACHERS COLLEGE STUDENTS

The criterion for every activity in a state teacher training institution is success in teaching under contract after graduation; and the fact is gradually receiving recognition that the first step toward making the teacher training curriculum effective is a scientific analysis of this complex objective and a discovery of relationships among all variables involved, both dependent and independent.[1-2] Complete analyses of any teaching job have not as yet appeared, although at least two research centers have been at work in this field for more than a year.[3] The procedure used in these studies[4] consists in brief of concrete checkings of things done by teachers on the job in terms of duties, difficulties, and activities; of an evaluation of these items in terms of actual teacher training offerings of needed knowledges, skills, and attributes; and of the judgments of frontier thinkers in the special realm of thought under investigation.

This chapter suggests and illustrates analysis of our teacher training objective on another level, a study of (1) the hopes and plans of teachers in training as to "what they expect to do" after completing the period of training, of (2) specific requests for teachers coming in the spring quarter from superintendents and boards of education, of (3) actual placements of graduates for two calendar years, of (4) a checking of proportions of graduates actually found in one type of life occupation, and of (5) the percentage of state teachers college students who are not planning to teach.

The tabulations of new data available for this investigation from Colorado and one California college giving analyses of the future plans of 1924-25 students are too extensive to give here. The astonishing length of the list of teaching jobs (over one hundred and fifty) is the first significant fact noted. Is a recognition of this complexity of objective found in an effective differentiation of preparatory items in our teacher training curricula? Another important fact found is that the field of preference narrows as students progress

1 Whitney, F. L., The Prediction of Teaching Success, Journal of Educational Research Monograph No. 6, Public School Publishing Company, Bloomington, Illinois, 1924

2 Whitney, F. L., "The Determination of Objectives in Teacher Training," Educational Administration and Supervision, May, 1923

3 W. W. Charters at the University of Pittsburgh and the University of Chicago and E. A. Cross, E. U. Rugg, and F. L. Whitney constituting the Curriculum Committee at Colorado State Teachers College for 1924-25

4 Whitney, F. L., "Curriculum Revision in a Teacher Training Institution," Educational Administration and Supervision, February, 1926

through the teacher training period. Upper classmen seem to know more definitely what type of work they want than do freshmen.

The findings from five more states are included in a summary table (Table XXXVII). In Louisiana, the percent given for grade seven, the closing year of the elementary period, is 4.7. In the Massachusetts figures, the elementary section shows 2.78 percent for kindergarten, 14.47 percent for grades one and two, 25.03 percent for grades three and four, 15.39 percent for grades five and six, or a total of 57.67 percent. In Michigan, the statement is, "Seventy-one and nine-tenths percent intend to teach." In Pennsylvania, the seventh and eighth grades are included in the figures given for junior high school. Here also manual training shows 1.06 percent, health education an average of seven percent, and commercial education 1.23 percent. In Missouri, the figures are for three colleges out of five only and include those students who said that they intended to teach immediately upon graduation.

### 1. Administration

The distribution of vocational objectives among the eight main types of positions shown in the summary tables is instructive, and when administrative work is considered the figures are very small indeed. The largest number of students are looking toward this objective in Colorado State Teachers College. This might be expected from a five-year college institution, but in some of the other states represented in Table XXXVIII at least four years of college work are offered with good enrollment in upper classes.

This suggests the long-discussed question of the distinctive function of state normal schools and state teachers colleges, if they have such in contradistinction from the teacher training task of the state universities. It would seem that after nearly one hundred years of development, the question of fact might be pointed out, and it might be conceded that with the multiplication of secondary schools and the progressive acceptance of the ideal of a bachelor's degree for every teacher of American children a sharp line of demarcation cannot be drawn to delegate the preparation of administrators, supervisors, and high school teachers to the state universities and that of elementary teachers to state normal schools and state teachers colleges.[5]

5 Hall-Quest, A. L., **Professional Secondary Education in Teachers' Colleges, Teachers College, Columbia University, Contributions to Education, No. 169, 1925**

## TABLE XXXVIII

VOCATIONAL OBJECTIVES OF COLLEGE STUDENTS IN TWENTY-NINE TEACHER TRAINING INSTITUTIONS IN TERMS OF PERCENT OF TEACHING POSITIONS THEY PLAN TO ENTER

| Objectives | Colorado State Teachers College | Western State College | San Jose State Teachers College | Louisiana (1) | Massachusetts (2) | Pennsylvania (3) | Missouri (4) | Mean (5) |
|---|---|---|---|---|---|---|---|---|
| I. Administration | 1.21 | 0.67 | --- --- | --- --- | --- --- | --- --- | --- --- | 0.63 |
| II. Supervision | | | | | | | | |
| 1. Urban | 5.51 | 3.70 | 13.22 | --- --- | 2.7 | 3.21 | --- --- | 7.48 |
| 2. Rural | 0.92 | 0.67 | 0.44 | --- --- | --- --- | --- --- | --- --- | 0.68 |
| III. Teaching | | | | | | | | |
| 1. Elementary | 37.46 | 42.76 | 48.01 | 60.50 | 57.67 | 11.26 | 21 | 42.74 |
| 2. Rural | 0.07 | 0.67 | 5.73 | 0.10 | 3.13 | 5.49 | 37 | 2.16 |
| 3. Junior High School | 25.45 | 11.46 | 20.27 | --- --- | 17.50 | 4.23 | --- --- | 19.05 |
| 4. Senior High School | 25.98 | 39.73 | 9.69 | 34.60 | 18.90 | 4.61 | 42 | 25.13 |
| 5. College | 3.40 | 0.34 | 2.64 | --- --- | --- --- | --- --- | --- --- | 2.13 |
| Total | 100.00 | 100.00 | 100.00 | --- --- | --- --- | --- --- | 100 | 100.00 |

1 Bagley, W. C., and Others, **Report of the Survey Commission on the Louisiana State Normal College, the Louisiana Polytechnic Institute, the Southwestern Louisiana Institute**, Baton Rouge, Louisiana, State Department of Education, 1924

8 Zook, G. F., **Report of a Fact-finding Survey of Technical and Higher Education in Massachusetts.** Chapter by Cross, E. A., "The Teaching Personnel of the Normal Schools of Massachusetts." Massachusetts Legislature, House Document, Number 1700, 1923

3 Rule, J. N., and Others, **Educational Survey,** Commonwealth of Pennsylvania, March, 1925

4 Learned, W. S., Bagley, W. C., and Others, **The Professional Preparation of Teachers for American Public Schools,** Carnegie Foundation for the Advancement of Teaching, Bulletin Number Fourteen, 1920

5 The mean refers to the Colorado and California institutions.

### 2. SUPERVISION

The figures for supervisory objectives are much larger, but still less than nine percent of all students reporting in Colorado and California. The relative size of the percent figure for San Jose State Teachers College and the fact that it is based on rather numerous cases from the lower classes casts some doubt upon its reliability. Very likely the mean (7.48 percent plus 0.68 percent) is too large to represent the facts.

It is important to note that these colleges are able to interest even a small number of students in the rural school problem, and a very few of these say that they wish to be rural supervisors. The aid of professional supervision is needed most where teachers are youngest in life age and in length of training and experience. Should the four-year state teachers college become effectively conscious of the need in this important segment of our total teacher training objective? Or should the preparation of rural teachers and supervisors be left to the high school and to the two-year normal schools of junior college rank with many classes on the secondary level?

### 3. TEACHING

But the larger part of our 800,000 American educators must function as classroom teachers, and the figures in Tables XXXVIII and XXXIX show a rough correspondence here between need in the field and preparatory enrollment in our state teachers colleges. Some forty-five percent of all students in three colleges are looking forward to work in elementary classrooms, and in two states reporting the pro-

TABLE XXXIX

LEVELS OF PROFESSIONAL ACTIVITY ON WHICH STATE TEACHERS COLLEGE STUDENTS PLAN TO FUNCTION

| Objectives | Percent |
|---|---|
| I. Administration | 1 |
| II. Supervision | 8 |
| III. Teaching | 91 |
| Total | 100 |

portion is more than one-half. But a comment must be made similar to that in the preceding paragraph about rural objectives, although a notable exception seems to appear in the figure for Missouri (thirty-seven percent). This is for the schools at Kirksville, Warrensburg, and Maryville, and represents the "kind of teaching sought by those intending to teach immediately upon leaving the normal school."

The rank order of preference for "teaching" objectives seems to be (1) Elementary, forty-three percent, (2) Senior High School, twenty-five percent, (3) Junior High School, nineteen percent, (4) Rural, two percent, and (5) College, two percent. The complexity of the situation in the secondary positions of the original tables was striking. One wishes that some supreme legislature might reenact a law of formal discipline! It would simplify attempts to fit our preparatory curriculum to actual needs in the field. Of the small number who are looking toward college teaching, many have in mind the position of training teacher in charge of student teaching. And this is another segment of our objective of which we must become more effectively conscious, as presidents and training school directors can testify[6]. At present it is necessary to take the successful classroom teacher and, through years of training in service, to develop the difficult technic required in the combined teaching and supervisory job involved in handling at the same time both pupil and student groups.

6 Whitney, F. L., "The Equipment of State Normal School Critic Teachers," Educational Administration and Supervision, November, 1922

The tables on vocational objectives show that, among those students in our state teachers colleges who plan to teach, a very large proportion are looking forward to the classroom and that less than ten percent hope to have administrative or supervisory positions.

## TABLE XL

VACANCIES REPORTED TO THE PLACEMENT BUREAU OF COLORADO STATE TEACHERS COLLEGE FOR THE YEAR 1925-26 (1)

| Position | Frequency | Total |
|---|---|---|
| I. Elementary | | |
| Kindergarten | 4 | |
| First grade | 155 | |
| Second grade | 34 | |
| Third grade | 42 | |
| Fourth grade | 58 | |
| Fifth grade | 56 | |
| Sixth grade | 34 | |
| Seventh grade | 48 | |
| Eighth grade | 12 | 443 |
| II. Secondary | | |
| Junior high school | 27 | |
| Senior high school | 8 | 35 |
| III. Supervisors | | |
| Public school principals | 84 | |
| Special teachers | | |
| Commercial | 76 | |
| Domestic science | 37 | |
| English | 72 | |
| Manual training | 31 | |
| Science | 27 | |
| Spanish | 11 | |
| Mathematics | 35 | |
| Latin | 23 | |
| French | 3 | |
| Art | 13 | |
| Music | 38 | |
| History | 40 | |
| Physical Education | 19 | 509 |
| IV. College | | |
| College instructors | 40 | 40 |
| V. Administrators | | |
| Superintendents | 34 | 34 |
| Vi. Rural | | |
| Rural teachers | 17 | 17 |
| Grand total | | 1078 |

1 This table was furnished by Mr. R. H. Morrison, Executive Secretary of the Placement Bureau.

As suggested at the beginning of this chapter, one possible analysis of the teacher training objective in any preparatory school for teachers might consist of a statement of types of teachers called for from the field in terms of specific jobs to be filled. Analyses of this kind for Colorado State Teachers College are found in Table XL. A total of nearly thirty different types of "teachers" are called for by hiring bodies. About an equal number of these calls come for elementary and for secondary teachers.

Finally, there remains the analysis of fact which reports the actual vocational destination of all graduates placed at Colorado State Teachers College during two calendar years. Table XLI furnishes these data. Over one-half of all are now teaching in the elementary grades. Junior and senior high school subjects come next with a total of thirty percent, and supervision (secondary and elementary principalships) includes six percent of all. College teaching is next in order, with administrative work and rural teaching last including but three percent each.

It is significant to compare these proportions with the distributions of requests for teachers (Table XL) and with the teaching plans of students (Table XXXVIII). Arranging these percents in rough parallels and attempting no smoothing of distributions to total properly, they appear as in Table XLII. On the whole, the plans of state teachers college students seem to work out well, except that in some cases those who desire high school teaching are obliged to take grade work.

It is interesting to compare this correspondence of professional destination with rather definite vocational objectives in a strictly professional school with the blind groping

## TABLE XLI

AN ANALYSIS OF THE ACTUAL PLACEMENT OF SEVEN HUNDRED AND FIFTY-THREE GRADUATES OF COLORADO STATE TEACHERS COLLEGE FOR THE CALENDAR YEARS 1924 and 1925 (1)

| Positions | 1924 | 1925 | Total | Percent |
|---|---|---|---|---|
| Elementary teaching | 201 | 207 | 408 | 54 |
| Secondary teaching | 102 | 126 | 228 | 30 |
| High school principalship | 19 | 11 | 30 | 4 |
| College teaching | 14 | 15 | 29 | 4 |
| Superintendency | 8 | 11 | 19 | 3 |
| Rural teaching | 8 | 18 | 26 | 3 |
| Elementary principalship | 3 | 8 | 11 | 2 |
| Auditorium teaching | 2 | ..... | 2 | .... |
| Total | 357 | 396 | 753 | 100 |

1 The facts for this table were furnished by Mr. R. H. Morrison, Executive Secretary of the Placement Bureau.

## TABLE XLII

THE RELATIONSHIP OF VOCATIONAL OBJECTIVES OF STATE TEACHERS COLLEGE STUDENTS TO REQUESTS FOR THEIR SERVICES AND TO ACTUAL PLACEMENT AFTER GRADUATION IN TERMS OF PERCENTS FOR SIX TYPES OF TEACHING SERVICE

| Position | Objectives | Requests | Placement |
|---|---|---|---|
| Elementary | 43 | 55 | 54 |
| Secondary | 45 | 40 | 30 |
| Supervision | 8 | 5 | 6 |
| College | 2 | 4 | 4 |
| Rural | 2 | 1 | 3 |
| Administration | 1 | 2 | 3 |

through preparatory years to final occupational plans reported by Koos in the case of the high school principal.[7]

Column three of Table XLII shows that the distribution of requests for teachers bears some relation to both the market and the field of work. But no doubt buyers are familiar with the types of teaching offered, so that the column of requests does not reflect the total actual need.

### 4. No Teaching Plans

Our state teachers colleges are strictly professional schools with definite vocational objectives, so far as the intent of the law is concerned. But it would be interesting to determine definitely what proportion of state money expended in these institutions is used for the preparation of future business and professional men or for housekeepers. Such expenditure is not, of course, lost to the state, and in a pioneer educational situation like that in the United States we shall very probably have to await for a more complete professionalization of teaching before it can be expected that the majority of our educators shall make teaching a life career.

The management in our teachers colleges strives to enhance the future values of teaching, and in many states definite promises of teaching activity are required. It may be that this explains why no negative attitude toward teaching is reported in the original tables, but in the data for Colorado State Teachers College ten students among those reporting on vocational objectives say that they do not intend to teach. (Two of these are in the administrative offices of the College.)

Possibly, after all, this is not so important as a truthful report, if it could be obtained, as to how long students intend

7 Koos, L. V., **The High School Principal; His Training, Experience, and Responsibilities,** Houghton Mifflin Company, 1924

to teach. In view of this query, the report from the Missouri survey is surprising. There, it is said that seventy-eight percent of the men and fifty-two percent of the women in three schools planned "to teach permanently." In the state of Michigan, the report is that "twenty-eight percent of the students do not intend to teach and are attending the normal schools for cultural and professional ends other than teaching."

It seems evident that the duties of the administration in every state teacher training institution lies in a limitation of matriculation to those persons who are to become public school teachers. And this to the same degree that enrollment in university medical schools is reserved for future doctors only. This is not the discussion at this point, but it will be noted that the dictum contains the verb "are to become" not "wish" to become. The well-known fact of individual differences should be recognized at the point of entrance to the state teachers college, and until the office of the registrar becomes skillful in functioning before classwork has begun elimination of the unfit must take place early in the first term of attendance.

### 5. The Marriage of Women Graduates

The place of the married woman in teaching is still under discussion. Restrictive school board regulations fluctuate with the available supply of teachers and with changes in the personnel of the boards. In view of this situation, and of the fact that a large proportion of state teachers college graduates are women (ninety percent in the last thirty-three years at Colorado State Teachers College), it is significant to know something of the relation of marriage to student personnel and to the future plans of state teachers college students.

Partial data for the past thirty-three years are available for Colorado State Teachers College and are presented in Table XLIII. The proportions in columns three and four give the percentage of all women graduates who were married at the time of completing their preparatory period. This is five percent (4.7 percent). But the discussion of this chapter is concerned in particular with the last column which gives the percent of women who have married since graduation. The arithmetic average here is fifty-five percent, but many in the more recent classes will marry eventually, as from eighty percent to ninety percent of all women who marry very probably do so before the age of thirty years. Cutting off the table at the year 1918, then, the percentage of those who have married since graduation is raised to

## TABLE XLIII

MARRIAGE AS AN OBJECTIVE AMONG WOMEN GRADUATES OF COLORADO STATE TEACHERS COLLEGE, 1891-1924 (1)

| Graduation year | Number graduating | Number of single women graduating | Number of married women graduating | Number of men graduating | Number of women married since graduation | Percent of women graduates married since graduation |
|---|---|---|---|---|---|---|
| 1891 | 11 | 7 | .... | 4 | 4 | 57.14 |
| 1892 | 15 | 11 | 1 | 3 | 10 | 90.91 |
| 1893 | 21 | 16 | 2 | 3 | 12 | 75.00 |
| 1894 | 33 | 28 | 0 | 5 | 20 | 71.43 |
| 1895 | 29 | 22 | 1 | 6 | 12 | 50.00 |
| 1896 | 28 | 20 | 1 | 7 | 17 | 85.00 |
| 1897 | 43 | 33 | 3 | 7 | 26 | 78.78 |
| 1898 | 55 | 42 | 1 | 12 | 36 | 85.71 |
| 1899 | 72 | 59 | 3 | 10 | 46 | 77.96 |
| 1900 | 64 | 53 | 2 | 9 | 34 | 64.15 |
| 1901 | 61 | 46 | 1 | 14 | 35 | 76.09 |
| 1902 | 64 | 55 | 1 | 8 | 42 | 76.36 |
| 1903 | 69 | 64 | 2 | 3 | 50 | 78.12 |
| 1904 | 74 | 69 | 1 | 4 | 46 | 66.66 |
| 1905 | 88 | 83 | 0 | 5 | 57 | 68.67 |
| 1906 | 136 | 126 | 2 | 8 | 87 | 69.04 |
| 1907 | 177 | 163 | 2 | 12 | 85 | 52.14 |
| 1908 | 155 | 142 | 4 | 9 | 77 | 54.22 |
| 1909 | 146 | 127 | 3 | 16 | 82 | 64.56 |
| 1910 | 186 | 173 | 7 | 6 | 85 | 49.07 |
| 1911 | 186 | 175 | 6 | 5 | 92 | 52.57 |
| 1912 | 231 | 208 | 8 | 15 | 88 | 42.30 |
| 1913 | 261 | 228 | 17 | 16 | 103 | 45.18 |
| 1914 | 360 | 314 | 6 | 40 | 130 | 41.40 |
| 1915 | 315 | 276 | 12 | 27 | 103 | 37.32 |
| 1916 | 331 | 278 | 17 | 36 | 196 | 70.50 |
| 1917 | 394 | 339 | 23 | 32 | 152 | 44.83 |
| 1918 | 472 | 385 | 44 | 43 | 144 | 37.40 |
| 1919 | 183 | 151 | 12 | 20 | 70 | 46.35 |
| 1920 | 257 | 215 | 11 | 31 | 65 | 30.23 |
| 1921 | 221 | 186 | 8 | 27 | 30 | 16.12 |
| 1922 | 293 | 246 | 11 | 36 | 39 | 15.85 |
| 1923 | 410 | 331 | 24 | 55 | 15 | 4.53 |
| 1924 | 307 | 258 | 9 | 40 | 7 | 2.71 |
| Total | 5748 | 4929 | 245 | 574 | 2097 | |
| Mean | 168.8 | 144.9 | 7.2 | 16.8 | 61.7 | 55.24 |

1 The data for this table were furnished by Mr. W. G. Binnewies, Assistant Professor of Sociology, Colorado State Teachers College.

sixty-three with a range of thirty-seven percent to ninety-one percent. It is significant, also, to note the mean for the first sixteen years from 1891 to 1906 (seventy-three percent) and for the twelve years from 1907 to 1918 (forty-eight percent). Evidently, some factor in the situation is holding more women in teaching longer, so far as those who leave to marry are concerned.

Mr. Binnewies compared these findings for a representative state teachers college with like figures in twelve women's colleges and state universities. The period investigated was about that during which seventy-three percent of women graduates of Colorado State Teachers College had married. He found that for similar classes in these other institutions but sixty-seven percent have married since graduation, and that the figure for men graduates of Harvard, Yale, Stanford, and Syracuse is seventy-seven percent.

On the basis of the situation in one state teachers college, then, it may be said that but a very small number of women student undergraduates are married, that about one-half of women graduating from more recent classes marry after leaving the college, and that this proportion is somewhat smaller than like figures for both men and women from other types of institutions for higher education.

### 6. Summary

A. Any effective determination of the objectives of teacher training must be in terms of scientific activity analyses with discovery of relationships among all variables for which expressions of amount are available.

B. An analysis of the plans of teachers in training contributes to knowledge of teacher training objectives. It appears that the large part of them wish to teach in the elementary school and that smaller proportions are looking toward high school teaching, supervision, college teaching, rural teaching, and administrative work in the order given.

C. Another type of analysis, which gives data about the criterion for teacher training, tabulates requests for teachers of all kinds as they come to the teachers colleges from the field. Over one-half of these are for elementary teachers, one-fifth are for high school teachers, and fewer calls come for teachers of special subjects, supervisors, college instructors, administrators, and rural teachers in the order named.

D. A third technic of analysis scrutinizes actual teaching jobs filled by state teachers college graduates. And here it is found that more than half take elementary positions, about one-third high school class work, and small percents secondary principalships, college teaching, superintendencies, rural schools, and elementary principalships in the order named.

E. All but a negligible few of students in state teachers colleges have rather definite vocational objectives looking toward teaching after graduation.

F. Only a small percent of the graduates of one state teachers college are married women, but more than one-half of the remaining women marry eventually.

# CHAPTER VI

## GENERAL SUMMARY

Changes in the curriculum of the public schools have resulted in the large from the impelling influence of social development and the indirect suggestion of leaders outside the teaching group. But educators themselves have for the past fifty years, and ever increasingly, expressed a desirable professional consciousness in active insistence upon improvement in their teaching personnel. A teacher is no longer "a teacher" from the viewpoint of the superintendent's office. And on the other hand the social mind, expressing itself haltingly in legislative enactment, is also accepting the fact of individual differences among members of the teaching corps.

The present study, then, of a modern group of teachers in preparation, even though based upon insufficient data and dealing with but one segment of the total problem of the personality of public school teachers, is worth while if it can contribute in any small degree to a revised generalization in the field of inquiry.

It appears that a decreasing number of students in our state teachers colleges are coming from families in the farm and labor class and more from families in business, the professions, and other like occupations, an equal proportion (thirty percent) being farmers on the one hand and in business and the professions on the other. The most usual family income is $2400. The English language is spoken in nearly all of these homes, three-fourths of the parents are native-born, and four-fifths of the remainder are of northern European ancestry. The majority of these families are intact, consisting of father, mother, and four to five children, one-third of the students being oldest and the usual relative age second or third in the family. But half of the families have a teaching tradition, and only one-fourth of the students have brothers or sisters with teaching experience. The church has a place in nearly all homes, and one-half of the students are affiliated with the Methodist, Presbyterian, and Catholic denominations.

State teachers college students attend usually in the state of their birth and residence, one-fourth of them coming from the home county, and one-fifth from the city where the college is located. The usual distance traveled is sixty-five miles.

A large majority of students come directly from high school to college with no teaching experience, and the small number who have had contact with actual classroom problems

have taught but a few months. Their average age is 19 years 1.5 months, and they enroll in the college at the age of 18 years 8.4 months.

The yearly expense of students amounts to $400, more than one-half of parents furnishing three-fourths of this. Over a third of the students are self-supporting, using one-fifth of their time in outside work. Savings, in particular among younger students, help to meet college expenses, and one-half of all students get one-half of their living from professional stipends as scholars or fellows.

All state teachers college students have rather definite professional objectives. Nearly one-half of them plan to graduate from the two year level and to teach in the elementary schools, and one-half want to teach in the high school. But a very small number are looking forward to administrative, supervisory, or rural school experience. However, more than half of the women will marry eventually.

It is interesting and significant to compare this characterization with the conditions found among teachers in service in 1911 as set forth in the "Introduction" and in the parallel columns of Table XLIV. Detailed point to point comparison here is left to the reader, but two or three striking differences may be mentioned. Our teaching corps has no longer an agricultural and labor background. It is being recruited more and more from higher economic levels in business and the professions. Very probably foreign strains of the second or third generation are appearing among our teaching group, but the home is English speaking and thoroughly Americanized. It is significant to note that teachers are still coming from prolific families and that the same proportion (three-fourths) have both parents living. Economic necessity in the family has not as yet begun to affect our teaching personnel. Family income and salaries are, of course, larger, but Norton[1] has shown that apparent differences are not actual because of the decrease in the purchasing power of the dollar.

From the viewpoint of the teacher training situation, this study and that of 1911 may be regarded as difficulty analyses at two points of progress in the professionalization of our public school teaching corps. And, so far as principles of curriculum making have appeared, we are probably agreed that preparatory courses must first of all deal with deficiencies revealed. This will leave as an ultimate aim that effective preparation for all important elements in our teacher training objective which teachers colleges and colleges of education must eventually undertake.

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1 Norton, J. K., **Public School Salaries in 1924-25**, Research Bulletin of the National Education Association, Vol. III, Nos. 1 and 2, January and March, 1925

# TABLE XLIV

TEACHERS IN TRAINING IN MODERN STATE TEACHERS COLLEGES COMPARED WITH TEACHERS IN SERVICE OF A DECADE AGO

| Item | Students | Teachers | |
|---|---|---|---|
| | | Men | Women |
| I. Family status | | | |
| 1. Percent of students' fathers in the farm and labor class | 59.7 | 84.7 | 72.5 |
| 2. Percent of students' fathers who are in business and the professions | 29.5 | 13.2 | 22.8 |
| 3. Percent of fathers farmers | 29.7 | 67.7 | 44.8 |
| 4. Annual family income | $2388.0 | $691.0 | $753.0 |
| 5. Percent of students coming from farms and towns of less than 2500 | 45.0 | .... .. | .... .. |
| II. Race and nationality | | | |
| 1. Percent native born of native born parents | 76(c.) | 91.3 | 83.8 |
| 2. Percent of parents of students born in the United States | 74.0 | .... .. | .... .. |
| 3. Percent of students of foreign born parentage | 23.4 | .... .. | .... .. |
| 4. Percent of students with parents of northern European ancestry | 19.9 | .... .. | .... .. |
| 5. Percent of students with parents of southern European ancestry | 5.4 | .... .. | .... .. |
| 6. Percent of parents speaking the English language | 92.8 | 76.4 | 73.3 |
| III. Size and vital statistics of the family | | | |
| 1. Number of children | 4.6 | 5.0 | 4.0 |
| 2. Percent of students who are orphans | 4.5 | .... .. | .... .. |
| 3. Percent of students with father only living | 7.8 | .... .. | .... .. |
| 4. Percent of students with mother only living | 11.5 | .... .. | .... .. |
| 5. Percent of parents (both) living | 76.0 | 79.5 | 75.5 |
| IV. Church affiliation | | | |
| 1. Number of churches represented in the student body | 40.0 | .... .. | .... .. |
| 2. Percent of students in Methodist, Presbyterian, and Catholic churches | 54.2 | .... .. | .... .. |
| 3. Percent of students expressing no church preference | 10.0 | .... .. | .... .. |
| V. Chronological age | | | |
| 1. Median age | 19.1 | 29.0 | 24.0 |
| 2. Percent of students who are "oldest children" | 35.4 | .... .. | .... .. |
| 3. Median relative age of students | 1.6 | .... .. | .... .. |
| 4. Median age of freshmen | 18.7 | .... .. | .... .. |
| 5. Median age of juniors | 19.7 | .... .. | .... .. |
| 6. Median age when beginning to teach | .... .. | 20.0 | 18.0 |

## TABLE XLIV (Cont'd)

| Item | Students | Teachers Men | Teachers Women |
|---|---|---|---|
| VI. Field served by the college | | | |
| 1. Median distance of home from college (miles) | 67.0 | .... .. | .... .. |
| 2. Percent of students coming from the home county | 26.0 | .... .. | .... .. |
| 3. Percent of students coming from the college city | 20.0 | .... .. | .... .. |
| 4. Number of states sending students to the college | 22.0 | .... .. | .... .. |
| 5. Percent of students coming from the home state | 88.0 | .... .. | .... .. |
| 6. Percent of students born in the home state | 93.0 | .... .. | .... .. |
| VII. Training | | | |
| 1. Years of professional training beyond elementary schools | .... .. | 3-4 | 4 |
| 2. Percent of students in freshman classes | 46.0 | .... .. | .... .. |
| 3. Percent of students in sophomore classes | 34.0 | .... .. | .... .. |
| 4. Percent of students in junior classes | 15.0 | .... .. | .... .. |
| 5. Percent of students in senior classes | 4.0 | .... .. | .... .. |
| 6. Percent of students on the graduate level | 1.0 | .... .. | .... .. |
| 7. Percent of students graduated from the two-year level | 74.7 | .... .. | .... .. |
| 8. Percent of students graduated as bachelors | 21.9 | .... .. | .... .. |
| 9. Percent of students graduated as masters | 3.4 | .... .. | .... .. |
| VIII. Teaching experience and salary | | | |
| 1. Percent of the families of students with no teaching experience | 49.9 | .... .. | .... .. |
| 2. Percent of the fathers of students with teaching experience | 11.3 | .... .. | .... .. |
| 3. Percent of the mothers of students with teaching experience | 23.2 | .... .. | .... .. |
| 4. Percent of students who have one brother or sister with teaching experience | 24.9 | .... .. | .... .. |
| 5. Precollege teaching experience of students (school years) | 0.6 | .... .. | .... .. |
| 6. Percent of students with no precollege teaching experience | 85.3 | .... .. | .... .. |
| 7. Percent of students with one year of precollege teaching experience | 5.5 | .... .. | .... .. |
| 8. Percent of students with two to four years of precollege teaching experience | 5.7 | .... .. | .... .. |
| 9. Median years of teaching experience | .... .. | 7 | 4 |
| 10. First teaching in rural schools | | | |
| a. Years of experience | .... .. | 2 | 2 |
| b. Salary | .... .. | $390 | $366 |
| 11. Median annual salary | .... .. | $489. | $450. |

## TABLE XLIV (Cont'd)

| Item | Students | Teachers Men | Teachers Women |
|---|---|---|---|
| IX. College expenses | | | |
| 1. Median annual college expenses of students | $400.0 | ---- -- | ---- -- |
| 2. Percent of students whose expenses are paid in part by relatives | 46.5 | ---- -- | ---- -- |
| 3. Percent of expenses of students paid by relatives | 77.5 | ---- -- | ---- -- |
| 4. Percent of students whose expenses are met in part by loans | 9.2 | ---- -- | ---- -- |
| 5. Percent of students' expenses met by loans | 39.4 | ---- -- | ---- -- |
| 6. Percent of students whose expenses are met in part by professional stipends | 51.6 | ---- -- | ---- -- |
| 7. Percent of students' expenses met by professional stipends | 49.0 | ---- -- | ---- -- |
| 8. Percent of students whose expenses are met by savings | 28.3 | ---- -- | ---- -- |
| 9. Percent of freshmen using savings for college expenses | 43.4 | ---- -- | ---- -- |
| 10. Percent of sophomores using savings for college expenses | 30.7 | ---- -- | ---- -- |
| 11. Percent of juniors using savings for college expenses | 14.5 | ---- -- | ---- -- |
| 12. Percent of seniors using savings for college expenses | 6.9 | ---- -- | ---- -- |
| 13. Percent of graduate students using savings for college expenses | 2.1 | ---- -- | ---- -- |
| 14. Percent of students doing outside work for college expenses | 14.4 | ---- -- | ---- -- |
| 15. Percent of freshmen meeting part of expenses by work | 36.1 | ---- -- | ---- -- |
| 16. Percent of sophomores meeting part of expenses by work | 34.7 | ---- -- | ---- -- |
| 17. Percent of juniors meeting part of expenses by work | 16.7 | ---- -- | ---- -- |
| 18. Percent of seniors meeting part of expenses by work | 8.0 | ---- -- | ---- -- |
| 19. Percent of graduate students meeting part of expenses by work | 2.5 | ---- -- | ---- -- |
| 20. Percent of freshmen meeting part of expenses by savings and work | 39.8 | ---- -- | ---- -- |
| 21. Percent of sophomores meeting part of expenses by savings and work | 32.7 | ---- -- | ---- -- |
| 22. Percent of juniors meeting part of expenses by savings and work | 15.6 | ---- -- | ---- -- |
| 23. Percent of seniors meeting part of expenses by savings and work | 7.4 | ---- -- | ---- -- |
| 24. Percent of graduate students meeting part of expenses by savings and work | 2.3 | ---- -- | ---- -- |
| 25. Percent of students' time used in college activities | 81.0 | ---- -- | ---- -- |
| 26. Percent of students' time used in outside work | 19.0 | ---- -- | ---- -- |
| 27. Percent of students who are self-supporting | 36.0 | ---- -- | ---- -- |

## TABLE XLIV (Cont'd)

| Item | Students | Teachers | |
|---|---|---|---|
| | | Men | Women |
| X. Teaching plans | | | |
| 1. Percent of students planning to teach in elementary schools | 43.0 | ---- -- | ---- -- |
| 2. Percent of requests for elementary teachers | 55.0 | ---- -- | ---- -- |
| 3. Percent of students placed in elementary schools | 54.0 | ---- -- | ---- -- |
| 4. Percent of students planning to teach in secondary schools | 45.0 | ---- -- | ---- -- |
| 5. Percent of requests for secondary teachers | 20.0 | ---- -- | ---- -- |
| 6. Percent of students placed in secondary schools | 30.0 | ---- -- | ---- -- |
| 7. Percent of students planning to teach in rural schools | 2.0 | ---- -- | ---- -- |
| 8. Percent of requests for rural school teachers | 1.0 | ---- -- | ---- -- |
| 9. Percent of students placed in rural schools | 3.0 | ---- -- | ---- -- |
| 10. Total number of students with no teaching plans | 10.0 | ---- -- | ---- -- |
| 11. Percent of married women graduating | 4.7 | ---- -- | ---- -- |
| 12. Percent of women teachers who have married since graduation | 63.0 | ---- -- | ---- -- |

# APPENDIX

## The Question List used in This Study

## THE PERSONNEL OF THE STUDENT POPULATION

Name of College _____

Your Academic ranking (Freshman, Sophomore, Junior, Senior, Graduate) _____

1. Name of student (Last name first) _____ (M____)
2. Where was your father born? _____ Your mother? _____
   (e. g. United States) (e. g. Ireland, Germany)
3. Is your father living? _____ Your mother? _____
4. What language or languages are spoken in your home? _____
5. Where were you born _____
   City County State
6. How many children did your parents have? _____ How many older than you? _____
7. How many children still make their home with your parents? _____
8. What is your father's occupation? _____
9. Your father's total annual income at the time you entered this College? About $_____
10. Approximate total income of the whole family at that time? _____
11. How many contribute substantially to that income? _____
12. Did your father ever teach school one or more years? _____ Your mother? _____
13. Have you a brother or sister who has taught or is now teaching? _____
14. Your home address _____
    Distance in miles from the College you are attending _____
15. Your age at the time you entered College? Years _____ and _____ months
16. From what high school or preparatory school did you graduate ? _____
17. How many years in the course beyond the eighth grade? _____
18. If not a graduate, how many years of high school work did you have? _____
19. Did you teach between completion of the eighth grade and the beginning of your high school course? _____
    If so, how many years? _____
20. Did you teach between the completion of your high school (or preparatory) course and your entrance into the College? _____
    If so, how many years? _____
21. Place a check in the blank applying to you. Is your home
    a. On a farm? _____ b. In a village (small town) of less than 2500 inhabitants? _____
    c. In an urban community or 2500 to 25,000 inhabitants? _____ d. In a city of over 25,000 _____
22. About what do you expect your expense to be for the nine month school year, covering the items of room and board? $_____ School fees $_____
23. About what percent of the money you are using for your expenses this year comes from the following sources?
    a. Father or mother? _____ d. Brother, sister, or other relative? _____
    b. Borrowing? _____ e. Scholarships _____
    c. Your own savings? _____ f. Other sources? (please specify) _____
24. Check the type of teaching you expect (or hope) to do after completing your college course.
    Kindergarten _____ First Grade _____ Second Grade _____ Third Grade _____
    Fourth Grade _____ Fifth Grade _____ Sixth Grade _____ Seventh Grade _____
    Eighth Grade _____ Junior High School (specify what subject or subjects) _____
    _____
    Other types of teaching (specify) _____