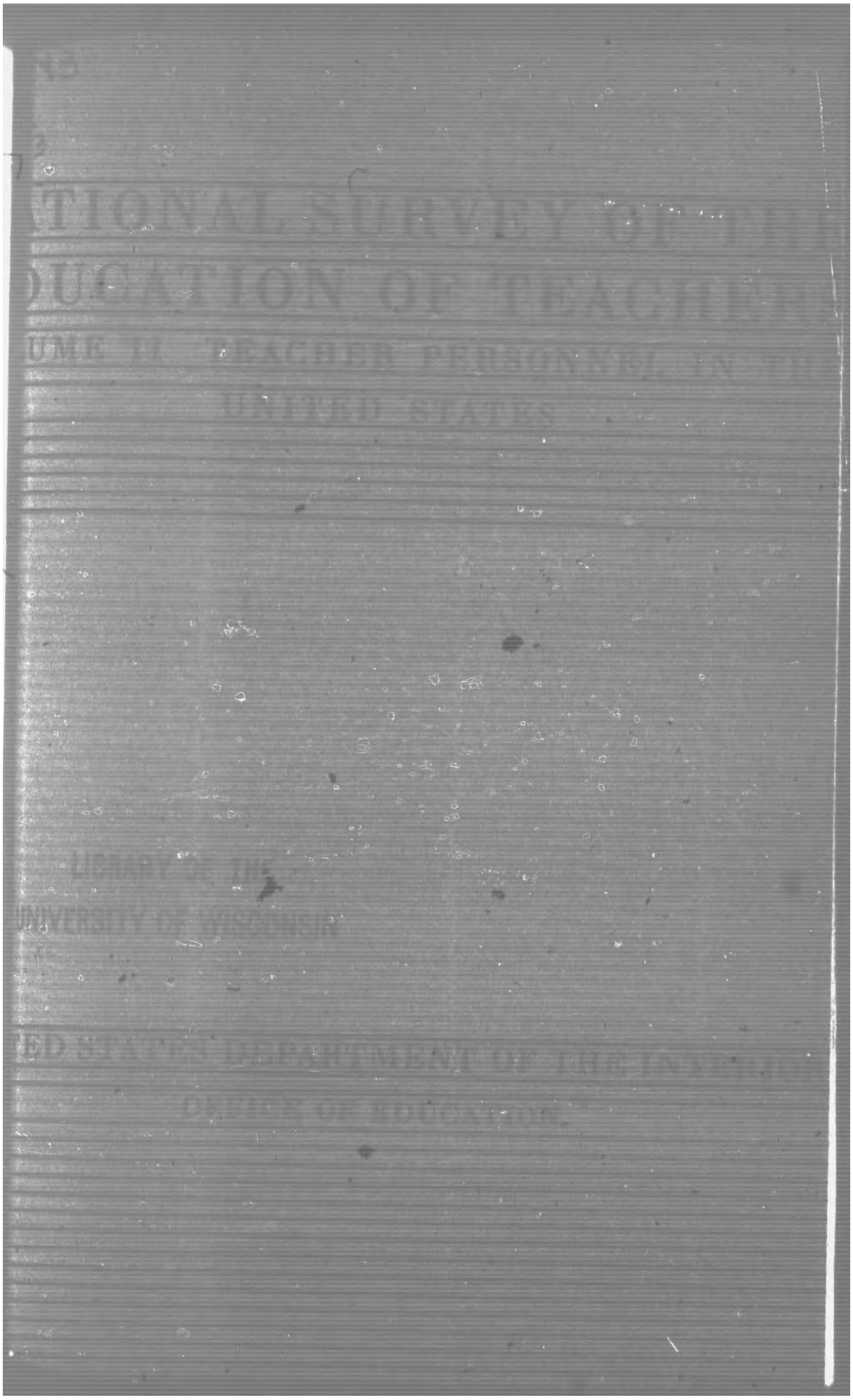

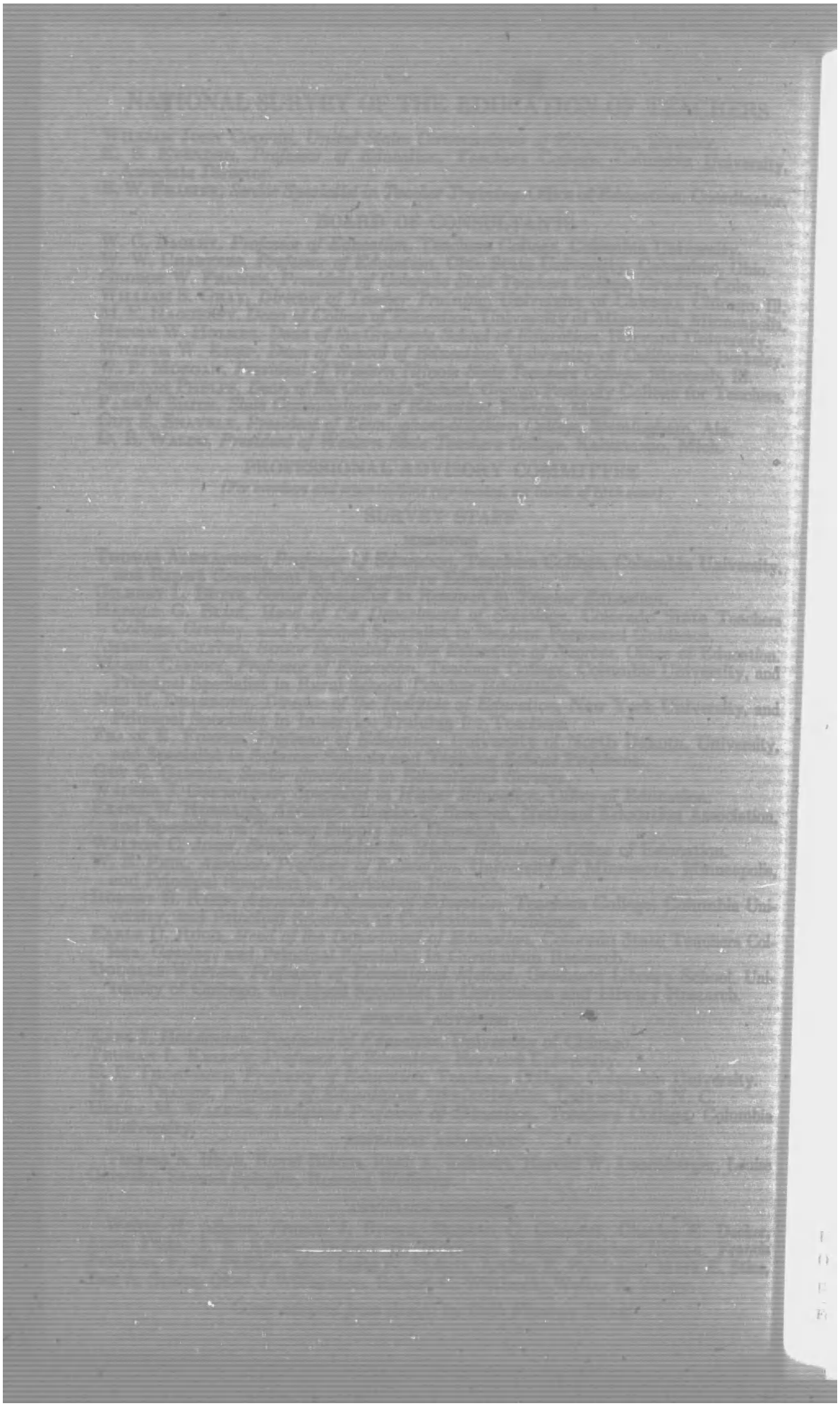

NATIONAL SURVEY

OF THE

EDUCATION OF TEACHERS

Bulletin 1933, No. 10

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IN SIX VOLUMES

Volume II

TEACHER PERSONNEL IN THE UNITED STATES

IN THREE PARTS

By

EDWARD S. EVENDEN, GUY C. GAMBLE
and HAROLD G. BLUE

UNITED STATES DEPARTMENT OF THE INTERIOR - - - *Harold L. Ickes*, Secretary
OFFICE OF EDUCATION - - - - - - - - - - - - *George F. Zook*, Commissioner

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LETTER OF TRANSMITTAL

DEPARTMENT OF THE INTERIOR,
OFFICE OF EDUCATION,
Washington, D.C., June 1933.

SIR: The first State normal school in America was founded by the colleagues of Horace Mann at Lexington, Mass. It was legally established during the panic of 1837. The law which gave it birth passed in 1838, and the school opened in 1839. Later it was moved to West Newton and still later to Framingham, where it still exists. This, the first State institution especially designed for the preparation of teachers, was a specialized type of secondary school to which pupils who passed an examination in common-school subjects were admitted. A few States still recognize high schools and junior colleges as adequate teacher-preparatory institutions, but it is believed that such arrangements are now passing.

In 1894 Massachusetts again took the lead, in making graduation from the high school necessary for admission to the normal schools. This step automatically put these institutions on the college level. The presidents of these schools now undertook to establish the proper standards for teaching. It was logical that they should find themselves preparing teachers for a profession. In the meantime the universities and the liberal arts colleges gave some attention to teaching. Iowa began in 1873, and Michigan founded a chair of pedagogy in 1879. In general, these schools prepared the high-school teachers and the normal schools prepared elementary-school teachers.

Since these early beginnings much progress has been made in the preparation of teachers. The majority of the normal schools have increased the length of their curricula and have become degree-granting teachers colleges and nearly all of the colleges and universities have larger numbers of their graduates going into teaching than into any other line of work. It was only natural that such a diversity of teacher-educating agencies should raise a great many controversial issues and that there should be numerous instances of overlapping and unnecessary duplication of effort. This was evident at the 1915 meeting of the National Education Association in Oakland, Calif., when the desirability of a survey was discussed and a committee to investigate its possibility was appointed. Mr. D. B. Waldo, president of the Teachers College at Kalamazoo, was a member of that early committee. At the time of the appointment of the board of consultants of this Survey only he and Dr. Lord were still living and in active service.

The Seventy-first Congress authorized a survey of the education of teachers on a Nation-wide scope which has been conducted during the last 3 years under the immediate direction of Dr. E. S. Evenden, professor of education, Teachers College, Columbia University, who has served as associate director.

According to the Authorization Act the National Survey of the Education of Teachers was to study "the qualifications of teachers in the public schools, the supply of available teachers, the facilities available and needed for teacher training, including courses of study and methods of teaching." The data presented in this volume, the second in a series of six volumes in which the final report will appear, are concerned primarily with the present personnel of the teachers in the American public schools, conditions affecting the supply of and demand for such teachers, the characteristics of prospective teachers in teachers colleges and liberal arts colleges, and the qualifications of the staff members in higher educational institutions in which prospective teachers are being educated.

The data for parts I and III were obtained and tabulated by the central Survey staff at Washington under the direction of Dr. Guy C. Gamble, senior specialist in educational surveys. Part II of this volume, the study of prospective teachers in higher educational institutions, was done as a cooperative study and directed by Harold G. Blue, head of the department of sociology, Colorado State Teachers College, Greeley, Colo., and principal specialist in student personnel guidance. The data in the three parts of this volume present the most complete pictures thus far available of the three personnel groups studied. The data were collected in the same way and at the same time, which makes them more useful for comparisons among groups of teachers, sections of the country, States, types of educational institutions, and other bases. It is certain that data in this volume will be useful not only in the development of State programs for the preparation of teachers, but they will also serve as a very valuable record of conditions existing throughout the United States at the time they were collected. I therefore recommend that these three studies be published as one volume in the final report of this investigation.

Respectfully submitted.

WM. JOHN COOPER,
Commissioner.

The SECRETARY OF THE INTERIOR.

FOREWORD

In order to present the situation in the United States with respect to the education of teachers in the public schools, the National Survey of the Education of Teachers endeavored to obtain information about the personnel of three groups—teachers in service, students preparing to be teachers, and teachers of prospective teachers. Tables summarizing the most important of the personnel data from these three studies are included in this volume of the Survey report. The primary purpose of these three studies was to secure data which would show conditions as they were at the time the Survey was made and which would serve as the basis for recommendations for lines of future development.

A letter was addressed to State superintendents of schools, presidents and deans of institutions preparing teachers, and a selected group of city and county superintendents asking them to list the most pressing problems in the education of teachers in their areas. The answers to these requests were used in determining which of the many problems should be selected for study in the Survey. The Survey staff then attempted to prepare the information blanks so that all data requested had a bearing upon one or more of the problems selected. In this way it was possible to reduce the number of questions asked, the time required to answer them and the time and expense of tabulating the answers. Many other questions, of course, could have been included, and individual members of the staff and special consultants in a number of cases suggested that additional data be requested. The policy followed, however, was to ask only questions related to the selected problems which the Survey expected to use in its reports.

In order to make the data comparable for the country as a whole the information blanks were distributed to all teachers, supervisors, and administrative officers in the public schools and the answers sent directly to the United States Office of Education in Washington, D.C. (The method of doing this and of tabulating the answers is described in chapter I.) Almost the same procedure was followed in obtaining the data from the staff members of the cooperating higher educational institutions.

As a result of the way in which the data blanks were prepared, distributed, collected, and tabulated, it is the opinion of the Survey staff that the data presented in this volume show in a reliable manner

the "personnel pictures" for the three groups studied as they were in the United States in the years for which the data were collected.

As was previously stated it was impossible to study all of the problems in the field of the education of teachers—not even all of the important problems. Neither was it possible to study for all groups of teachers the problems selected for study in the Survey. These limitations will appear as special groups of teachers or special workers attempt to secure data concerning their status in 1930–31 or 1931–32. Only the data for the largest groups were carried through the entire range of the studies and the smaller groups appear as separate groups in only a few of the tables. As soon as this policy was determined those in charge of the Survey offered to make available to interested and responsible representatives of the smaller and special groups the data which the Survey had collected concerning the personnel of those groups. The possibilities of such studies were made known through the columns of SCHOOL LIFE, the JOURNAL OF THE NATIONAL EDUCATION ASSOCIATION, and through reports to the members of the Professional Advisory Committee (made up of representatives of many of the special groups). In response to this invitation a number of States and several special groups had duplicate Hollerith cards punched for use in more intensive studies than were possible in the Survey. Neither the names nor the addresses of individuals were recorded on the Hollerith cards so the identity of individuals could not be determined in any of these studies.

The personnel data procured by the three studies reported in this volume were of service in most of the special studies conducted by the Survey. These personnel data revealed in several of the fields of special study problems which had not been attacked, showed some problems to be more and others less acute than was generally thought, indicated the extent and location of problems not national in scope, changed the focus of some teacher-preparation problems and in a number of instances suggested next steps in programs for the improvement of teacher education and located the educational units responsible for those next steps. It is expected that national and State educational officials responsible for the education of teachers will be able to find numerous other uses for these data. This volume also contains much material for desirable educational publicity which will keep the important problem of procuring adequately prepared teachers for the public schools before the school patrons of the several States until subsequent State or national studies show that the inadequacies and inequalities of 1930–31 and 1931–32 have been removed.

Because of the importance of the personnel data obtained in these studies and the necessary delay between their collection and appearance in the final report the policy was followed of making the more important findings available as quickly as the returns were tabulated.

This was done through a series of articles prepared by Survey staff members and published in School Life and also by numerous papers and addresses given before national educational organizations by Survey staff members. Many of the tables were mimeographed and presented to the Board of Consultants and the Professional Advisory Committee and also made available from the Office of Education to interested individuals or organizations.

The data blanks used in parts I and III of this report were prepared by the associate director and Dr. Guy C. Gamble. Helpful suggestions on form and arrangement were obtained from Richard Warren, and from Samuel H. Musick, of the Planning Division of the United States Government Printing Office. The handling of the returns, their transfer to Hollerith cards, their routing through the mechanical tabulating machines and the preparation of the final tables were done under the immediate direction of Dr. Gamble.

Part II—Student Personnel—Prospective Teachers, was prepared by Prof. Harold G. Blue, head of the department of sociology, Colorado State Teachers College, Greeley, Colo., and principal specialist in student personnel guidance. Professor Blue made this study in cooperation with the National Survey of the Education of Teachers and under the direction of a committee of the faculty of the school of education of the University of Chicago.

The Survey staff realizes that it would have been impossible to make the studies contained in this volume of the report had it not been for the cooperation of all of the people who supplied the basic data. We, therefore, wish to acknowledge our indebtedness and express our gratitude to (*a*) the State superintendents and State commissioners of education and the city and county superintendents who distributed Inquiry No. 1; (*b*) the 454,742 teachers, and administrative and supervisory officers who returned their data blanks; (*c*) the 12,880 students who supplied the answers to the student questionnaires; (*d*) the presidents of 637 cooperating institutions in which teachers are prepared who distributed the data blanks to their staffs; and (*e*) the 21,742 staff members who answered them.

In addition to these persons who supplied the essential material for the studies we acknowledge special assistance in connection with these studies from the Editorial Division of the Office of Education, the Tabulating and other units of the Miscellaneous Service Section of the Department of the Interior, the Mail Division of the Office of Education, and the Office of the Chief Clerk of the Office of Education.

E. S. EVENDEN,
Associate Director.

PART I

TEACHER PERSONNEL IN THE UNITED STATES

PART I. TEACHER PERSONNEL IN PUBLIC SCHOOLS OF THE UNITED STATES

CHAPTER I

PURPOSE AND SCOPE OF THE TEACHING PERSONNEL STUDY

Educational expansion after the World War.—The decade following the World War was a period of rapid expansion for education comparable in many ways to the expansions in other lines of endeavor. Educational conditions revealed during and immediately following the World War made us as a Nation more education-conscious than we had been before. Teachers' salaries were increased, more preparation was demanded of teachers, new school buildings were built, school terms were lengthened, many new high schools and junior colleges were started and colleges and universities were forced, within the space of 2 or 3 years, to provide for twice as many students.

All went well as long as the rate of economic expansion was fast enough to pay for the increased services and the services increased rapidly enough to absorb all the new recruits to teaching.

The financial crisis beginning in 1929 demonstrated to the economic and industrial groups that unplanned and unregulated expansion could not continue indefinitely. Two or three years before that date the educational leaders responsible for the preparation and certification of teachers were aware that the supply of new teachers had overtaken the demand and that something would have to be done about it.

From 1920 to 1930 the number of public-school elementary teachers increased from 576,246 to 640,957, an increase of 11 percent. Public-school secondary teachers increased in number from 101,958 to 213,306 or 109 percent. The increase for both combined was 26 percent. During the same 10-year period, the number of resident students in the normal schools and teachers colleges increased from 135,412 to 161,524, or 20 percent, while the attendance in the colleges and universities jumped from 462,445 to 924,275, or 100 percent, an increase of 82 percent for the two combined. Most of this increase came

during the first 6 years of this period, so that by 1927, presidents of normal schools and teachers colleges, deans of schools of education, and State superintendents of education were keenly aware that there were more certificated teachers than there were teaching positions. Placement offices and teachers agencies were unable to procure positions for their registrants. Student advisers and guidance officers did not know how to advise those interested in becoming teachers. Boards of education, especially in the larger and wealthier cities, were deluged with applications for placement.

Proposal for a survey of teaching.—These situations explain why the national organizations of the three groups most directly concerned with the education of teachers—the American Association of Teachers Colleges, the National Association of Deans of Education, and the Council of State Superintendents and Commissioners of Education—decided in 1928 to ask the Federal Government to include in its program of national surveys a survey of the education of teachers. With the aid of representatives of these three organizations, Dr. William John Cooper, United States Commissioner of Education, procured from the Seventy-first Congress an authorization for such a survey, at a cost not to exceed $200,000 (later reduced to $180,000). It was authorized to extend over a period of 3 years and to include a study of "the qualifications of teachers in the public schools, the supply of available teachers, the facilities available and needed for teacher training, including courses of study and methods of teaching."

Organization of the Survey.—As soon as possible after the survey was authorized an organization was perfected (described in more detail in vol. VI and shown on the inside covers of this volume) and inquiries were addressed to the presidents of all institutions educating teachers, to State superintendents of public instruction, and to representative city superintendents, asking them to list the problems connected with the education of teachers in their institutions, States, or cities which were most difficult to solve at that time. The replies were tabulated and, in the light of the answers, the problems to be included in the survey were selected.

At the second meeting of the board of consultants it became apparent that the problems selected for study demanded certain data about the teaching personnel which were not available in the Federal Office of Education or in the several State departments. Many of the facts had been ascertained by one or another agency but were not comparable. They had been collected for different years or at different times in the same year. They were not obtained in answer to the same questions or on the same forms. They had been tabulated in different combinations and for different purposes. As a result, even though some of these studies were comprehensive and conducted very scientifically, the results could not be used for comparison with the findings from similar studies in other States.

In order to obtain the data needed to throw light upon some of the problems included in the survey and data which would be comparable for different States and for different sections of the country, it was decided to obtain the desired information directly from the individuals working in the public schools. Only in this way was it possible to procure data which could be used as representing national conditions.

A million questionnaires.—The number of individuals employed as teachers, supervisors, and administrators in the public-school systems of the United States in 1930–31 was nearly a million. Because of the number of blanks to be handled and answers to be tabulated it was imperative to reduce the number of questions to the smallest possible number which would give the data desired for studying the problems selected. To insure the inclusion of all essential data and to preclude asking for any facts which would not be needed or used the survey staff first drew up in "dummy form" the tables which were desired for the final report. The inquiry or data sheet was then prepared in the light of those tables and the items in the tables checked against the items in the questionnaires. Other factors, largely of cost, made it desirable to limit the questions asked to those which could be included on both sides of one page. This, of course, made it necessary to omit many questions which individuals or special groups desired to include and to which the answers would undoubtedly have been both interesting and valuable to the groups concerned. Preference was given to those questions which concerned the largest groups. Also because of the number involved it was necessary to make the inquiry as easily handled as possible—both by those who supplied the data and by those who had to tabulate it. With this in mind the questions were "precoded" for use with Hollerith tabulating machines and a scheme of circling code numbers for the appropriate answers or inserting figures reduced the time needed to answer the questions to a minimum. This scheme also greatly reduced the time required to transfer the data from the questionnaires to Hollerith cards. Inquiry 1 is reproduced as figures 1 and 2 because it will help in understanding the tables presented in this section and also because it has many features which will be valuable as suggestions to those conducting similar studies.

Distribution of the inquiries.—One or two other facts in connection with these inquiries will aid in the understanding of this study and explain some of its limitations. In the first place it was thought desirable to have the data sheets returned directly to the Office of Education in Washington by each individual. The assurance was given in Commissioner Cooper's letter on each inquiry that the answers would be used only in group tabulations which would in no way identify the individual answering. It was thought that in this impersonal way more accurate data would be given on all questions

than would have been obtained had the inquiries been collected by local administrators, even though nearly all of the data asked for were matters of record in many school systems (although not in the exact form asked for).

UNITED STATES DEPARTMENT OF THE INTERIOR
OFFICE OF EDUCATION
WASHINGTON

January 12, 1931.

TO TEACHERS, SUPERVISORS, AND ADMINISTRATORS:

The present unemployment of many experienced and trained teachers led the Seventy-first Congress, at the request of professional organizations, to provide for a nation-wide survey of the demand for and education of teachers, supervisors, administrators and other specialists in the public school systems of the United States. You may have answered similar questions for local studies. However, to secure data comparable between States, all teachers and other professional employees are asked to reply to the same set of questions.

This study is solely for the improvement of American education. Since the questions are few in number and easily answered, please respond promptly. Mail answers in the official envelope which requires no stamp. Your answers are confidential. They will be used for group studies only.

Cordially yours,

Commissioner of Education.

(Your name)	(Your post office address)	(State)

THE NATIONAL SURVEY OF THE EDUCATION OF TEACHERS

Read carefully. DIRECTIONS: In the columns below are two types of questions. One type is answered by inserting the information requested in the space provided at the left of the question. The other type is answered by encircling the one code number to the left of the item which best represents your response to the question asked; e. g., in 9, YOUR WORK IS DONE IN ⑤ Elementary School.

Use a red or soft pencil preferably. Draw the circle neatly around the one code number representing your response. Please answer every question which pertains to your type of service.

9
YOUR WORK IS DONE IN:
0 Nursery School.
1 Kindergarten.
2 Elementary School.*
3 Junior High School.†
4 Senior High School.‡
5 Junior College.
6 Evening School.
7 City system as a whole.
8 County or County Institution.
9 State Office or State Institution.

*Elementary grades 1, 2, 3, 4, 5, and 6, and, where separate junior high schools are not maintained, grades 7 and 8 also.

†Junior high school grades 7 and 8, or 7, 8, and 9 when maintained as a separate school organization.

‡Senior high school grades 10, 11, and 12 where junior high school is maintained; otherwise grades 9, 10, 11, and 12.

10-11
BRIEF DESCRIPTION OF YOUR MAIN WORK:
00 Teacher of Grades or Academic Subjects.
01 Continuation School Teacher.
02 Visiting Teacher.
Teacher of Special Subjects—
03 Agriculture.
04 Art and Drawing.
05 Commercial.
06 Health, Physical Education.
07 Home Economics, Household Arts.
08 Industrial Arts.
09 Music.
10 Naturalization, Adult Illiteracy, Americanization.
11 Trades and Industries.
12 Vocational, Technical.
Teacher of Special Classes—
13 Blind.
14 Crippled.
15 Cerebral, Rhythm, Open Air, etc.
16 Deaf.
17 Speech Defectives.
18 Mentally Gifted.
19 Mentally Defective.
20 Disciplinary or temperamentally maladjusted.
21 Other _____ (Give type)
Supervisor—
22 General.
23 Art and Drawing.
24 Exceptional Children.
25 Home Economics, etc.
26 Commercial Subjects.

10-11—Continued
Supervisor—Continued
27 Industrial Arts.
28 Health, Physical Education.
29 Music.
30 Trades and Industries.
31 Principal.
32 Principal, Mentally Handicapped School.
33 Principal, Physically Handicapped School.
34 Assistant Principal.
35 Dean of Boys.
36 Dean of Girls.
37 Superintendent.
38 Assistant Superintendent.
39 Business Manager.
40 Building and Grounds Superintendent.
41 Attendance Officer.
42 Librarian.
43 Cafeteria Manager.
44 Dietitian.
45 School Physician.
46 School Dentist.
47 School Nurse.
48 Coach (athletic).
49 Psychologist.
50 Vocational Guidance.
51 Research or Survey.
52 Teacher Clerk.
53 Other _____ (Give title)

12
NUMBER OF TEACHERS OF TYPE YOU CHECKED IN NO. 9 IN BUILDING IN WHICH YOU TEACH. COUNT YOURSELF AS ONE.
0 One.
1 Two.
2 Three or four.
3 Five to nine.
4 Ten to twenty-four.
5 Twenty-five to ninety-nine.
6 One hundred to four hundred ninety-nine.
7 Five hundred and over.

13
SEX AND MARITAL STATUS:
0 Woman, Single.
1 Woman, Married.
2 Woman, Divorced.
3 Widow.
4 Man, Single.
5 Man, Married.
6 Man, Divorced.
7 Widower.

14
SCHOOL LOCATED IN:
0 Open Country.
1 Village less than 2,500.
2 City, 2,500 to 5,000 population.
3 City, 5,000 to 10,000 population.
4 City, over 100,000 population.

15-16
— — YOUR AGE AT NEAREST BIRTHDAY.

17-18
— — TOTAL NUMBER OF TEACH ERVICE. Count school year 1929-31 as one.

19-20
— — Counting present system as one, HOW MANY DIFFERENT SCHOOL SYSTEMS HAVE EMPLOYED YOU?

QUESTIONS 21 AND 22 ONLY FOR THOSE NOW TEACHING ELEMENTARY SCHOOL PUPILS.

21
GRADES NOW TAUGHT ARE:
0 One or Two Teacher Rural Schools
1 Kindergarten, Kindergarten-Primary
2 Intermediate.
3 Upper Elementary.

22
FIELD FOR WHICH YOU TOOK MOST TRAINING:
0 Rural School.
1 Kindergarten-Primary.
2 Intermediate.
3 Upper Elementary.
4 Junior High
5 Senior High
6 Junior College.
7 Other _____ (Give name of field)

23-24
YOUR SALARY
For school year 1929-31 paid by school boards. To include any additional compensation such as free house, etc. Estimate this.
$———.00

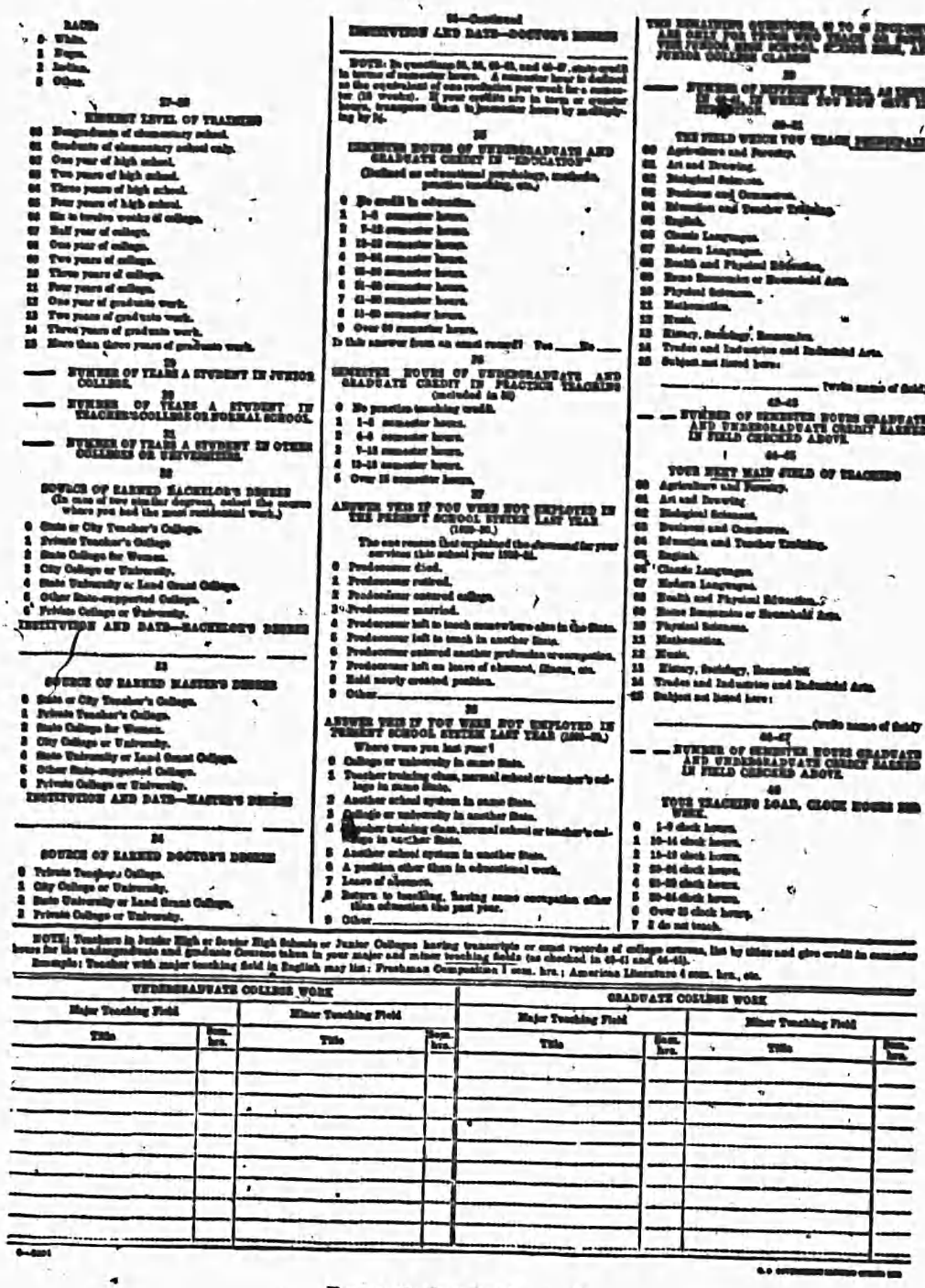
25
NO. OF MONTHS FOR WHICH YOU ARE EMPLOYED FOR ABOVE SALARY
0 One to six months, inclusive.
1 Seven months.
2 Eight months.
3 Nine months.
4 Ten months.
5 Eleven months.
6 Twelve months.

OVER

FIGURE 1.—Inquiry 1, page 1.

In the second place, several conditions made it necessary to secure the cooperation of State and city superintendents in the distribution of the inquiries. There is no mailing list for all public-school teachers and the task of addressing a million letters, using the State directories

(not available in many States), would have been prohibitive in cost and time. It was necessary to ask State commissioners of education, State superintendents of education, and superintendents of schools in cities of 2,500 population and more to cooperate in the distribution of



RACE
0 White.
1 Negro.
2 Indian.
3 Other.

27–28
HIGHEST LEVEL OF TRAINING
00 Nongraduate of elementary school.
01 Graduate of elementary school only.
02 One year of high school.
03 Two years of high school.
04 Three years of high school.
05 Four years of high school.
06 Six to twelve weeks of college.
07 Half year of college.
08 One year of college.
09 Two years of college.
10 Three years of college.
11 Four years of college.
12 One year of graduate work.
13 Two years of graduate work.
14 Three years of graduate work.
15 More than three years of graduate work.

29
—— NUMBER OF YEARS A STUDENT IN JUNIOR COLLEGE.

30
—— NUMBER OF YEARS A STUDENT IN TEACHERS COLLEGE OR NORMAL SCHOOL.

31
—— NUMBER OF YEARS A STUDENT IN OTHER COLLEGE OR UNIVERSITY.

32
SOURCE OF EARNED BACHELOR'S DEGREE
(In case of two similar degrees, select the source where you had the most residential work.)
0 State or City Teacher's College.
1 Private Teacher's College.
2 State College for Women.
3 City College or University.
4 State University or Land Grant College.
5 Other State-supported College.
6 Private College or University.
INSTITUTION AND DATE—BACHELOR'S DEGREE

33
SOURCE OF EARNED MASTER'S DEGREE
0 State or City Teacher's College.
1 Private Teacher's College.
2 State College for Women.
3 City College or University.
4 State University or Land Grant College.
5 Other State-supported College.
6 Private College or University.
INSTITUTION AND DATE—MASTER'S DEGREE

34
SOURCE OF EARNED DOCTOR'S DEGREE
0 Private Teacher's College.
1 City College or University.
2 State University or Land Grant College.
3 Private College or University.

34—Continued
INSTITUTION AND DATE—DOCTOR'S DEGREE

NOTE: In questions 35, 36, 39–43, and 45–47, state credit in terms of semester hours. A semester hour is defined as the equivalent of one recitation per week for a semester (18 weeks). If your credits are in term or quarter hours, transpose them to semester hours by multiplying by ⅔.

35
SEMESTER HOURS OF UNDERGRADUATE AND GRADUATE CREDIT IN "EDUCATION"
(Defined as educational psychology, methods, practice teaching, etc.)
0 No credit in education.
1 1–3 semester hours.
2 4–8 semester hours.
3 9–12 semester hours.
4 13–16 semester hours.
5 17–20 semester hours.
6 21–25 semester hours.
7 26–30 semester hours.
8 31–40 semester hours.
9 Over 40 semester hours.
Is this answer from an exact record? Yes ____ No ____

36
SEMESTER HOURS OF UNDERGRADUATE AND GRADUATE CREDIT IN PRACTICE TEACHING
(included in 35)
0 No practice teaching credit.
1 1–3 semester hours.
2 4–6 semester hours.
3 7–12 semester hours.
4 13–18 semester hours.
5 Over 18 semester hours.

37
ANSWER THIS IF YOU WERE NOT EMPLOYED IN THE PRESENT SCHOOL SYSTEM LAST YEAR (1933–34.)
The one reason that explained the demand for your services this school year 1934–35.
0 Predecessor died.
1 Predecessor retired.
2 Predecessor entered college.
3 Predecessor married.
4 Predecessor left to teach somewhere else in the State.
5 Predecessor left to teach in another State.
6 Predecessor entered another profession or occupation.
7 Predecessor left on leave of absence, illness, etc.
8 Held newly created position.
9 Other ____

38
ANSWER THIS IF YOU WERE NOT EMPLOYED IN PRESENT SCHOOL SYSTEM LAST YEAR (1933–34.)
Where were you last year?
0 College or university in same State.
1 Teacher training class, normal school or teacher's college in same State.
2 Another school system in same State.
3 College or university in another State.
4 Teacher training class, normal school or teacher's college in another State.
5 Another school system in another State.
6 A position other than in educational work.
7 Leave of absence.
8 Return to teaching, having some occupation other than education the past year.
9 Other ____

THE REMAINING QUESTIONS, 39 TO 47 INCLUSIVE, ARE ONLY FOR THOSE WHO TEACH IN A JUNIOR HIGH SCHOOL, SENIOR HIGH, THE JUNIOR COLLEGE CLASSES

39
—— NUMBER OF SEMESTER HOURS, AS DEFINED IN 35–36, IN WHICH YOU NOW GIVE IN-STRUCTION.

40–41
THE FIELD WHICH YOU TEACH PREDOMINANTLY
00 Agriculture and Forestry.
01 Art and Drawing.
02 Biological Sciences.
03 Business and Commerce.
04 Education and Teacher Training.
05 English.
06 Classic Languages.
07 Modern Languages.
08 Health and Physical Education.
09 Home Economics or Household Arts.
10 Physical Sciences.
11 Mathematics.
12 Music.
13 History, Sociology, Economics.
14 Trades and Industries and Industrial Arts.
15 Subject not listed here:
_____ (write name of field)

42–43
—— NUMBER OF SEMESTER HOURS GRADUATE AND UNDERGRADUATE CREDIT EARNED IN FIELD CHECKED ABOVE.

44–45
YOUR NEXT MAIN FIELD OF TEACHING
00 Agriculture and Forestry.
01 Art and Drawing
02 Biological Sciences.
03 Business and Commerce.
04 Education and Teacher Training.
05 English.
06 Classic Languages.
07 Modern Languages.
08 Health and Physical Education.
09 Home Economics or Household Arts.
10 Physical Sciences.
11 Mathematics.
12 Music.
13 History, Sociology, Economics.
14 Trades and Industries and Industrial Arts.
15 Subject not listed here:
_____ (write name of field)

46–47
—— NUMBER OF SEMESTER HOURS GRADUATE AND UNDERGRADUATE CREDIT EARNED IN FIELD CHECKED ABOVE.

48
YOUR TEACHING LOAD, CLOCK HOURS PER WEEK.
0 1–9 clock hours.
1 10–14 clock hours.
2 15–19 clock hours.
3 20–24 clock hours.
4 25–29 clock hours.
5 30–34 clock hours.
6 Over 35 clock hours.
7 I do not teach.

NOTE: Teachers in Junior High or Senior High Schools or Junior Colleges having transcripts or exact records of college courses, list by titles and give credit in semester hours for the undergraduate and graduate Courses taken in your major and minor teaching fields (as checked in 40–41 and 44–45).
Example: Teacher with major teaching field in English may list: Freshman Composition 3 sem. hrs.; American Literature 4 sem. hrs., etc.

UNDERGRADUATE COLLEGE WORK				GRADUATE COLLEGE WORK			
Major Teaching Field		Minor Teaching Field		Major Teaching Field		Minor Teaching Field	
Title	Sem. hrs.	Title	Sem. hrs.	Title	Sem. hrs.	Title	Sem. hrs.

6-3201

FIGURE 2—Inquiry 1, page 2.

the questionnaires and the return envelops. Because the franking privilege could not be extended to these State, city, and county education officials the cooperation also involved the expense of mailing or

delivering the inquiries and envelops to county superintendents, to superintendents of smaller cities, and to building principals, who in turn were asked to complete the distribution to the individual teachers and educational workers under their immediate jurisdiction. It is clear that the necessity of using this method of distribution resulted in a number of leakage points before the data sheets ever reached the teachers who were expected to answer them. Subsequent checks on this item indicated that some State departments, a number of city superintendents, and many county superintendents and principals did not distribute the inquiries or did not distribute all of them. This may have been because they were not fully informed concerning the purpose of the study, or of the desirability of having replies from all teachers, or because they were too occupied with other things and did not distribute the material before the time set for returning data and decided that it was then not necessary, or because they did not choose to invest in this study the few dollars required for postage.

TABLE 1.—*Distribution of inquiries to public-school personnel and total receipts by States, 1930–31*

State	Grand total number distributed	Number received and tabulated	Sampling percentage	State	Grand total number distributed	Number received and tabulated	Sampling percentage
1	2	3	4	1	2	3	4
Alabama	18,468	7,667	41.5	Nebraska	16,170	7,701	47.6
Arizona	4,580	1,957	42.7	Nevada	1,025	571	55.7
Arkansas	13,770	3,679	26.7	New Hampshire	3,525	2,059	58.4
California	42,725	23,553	55.1	New Jersey	28,243	22,326	79.1
Colorado	9,475	4,402	46.5	New Mexico	3,575	1,505	42.1
Connecticut	12,375	7,154	57.8	New York	81,600	48,094	58.9
Delaware	1,550	813	43.9	North Carolina	27,450	11,882	43.3
District of Columbia	3,235	1,683	52.0	North Dakota	10,280	5,519	53.7
Florida	11,550	4,258	36.5	Ohio	48,150	27,439	57.0
Georgia	22,225	3,687	16.6	Oklahoma	22,343	6,428	28.8
Idaho	5,325	1,518	28.5	Oregon	9,213	5,486	59.5
Illinois	49,235	16,973	34.5	Pennsylvania	67,575	41,161	[illegible]
Indiana	26,222	16,570	63.2	Rhode Island	4,325	1,777	[illegible]
Iowa	27,250	16,227	59.5	South Carolina	14,650	2,504	17.1
Kansas	21,725	10,308	47.4	South Dakota	9,120	3,499	38.4
Kentucky	17,675	6,396	36.2	Tennessee	21,825	8,522	39.0
Louisiana	12,190	7,308	59.9	Texas	46,980	17,945	38.2
Maine	7,141	3,948	55.3	Utah	5,075	2,318	45.7
Maryland	9,627	5,606	58.2	Vermont	3,675	1,722	46.9
Massachusetts	30,550	18,060	59.1	Virginia	18,250	9,327	51.1
Michigan	39,285	21,372	54.4	Washington	13,140	8,003	60.9
Minnesota	24,020	13,966	58.1	West Virginia	17,150	991	5.8
Mississippi	22,100	2,471	11.2	Wisconsin	22,740	12,128	53.3
Missouri	27,785	9,647	34.7	Wyoming	4,100	1,789	43.6
Montana	7,165	3,228	45.0	Total	967,827	463,141	47.9

To the foregoing losses in possible replies must of course be added the number of individuals who received the data blank and for one reason or another did not answer it. Because of the simple nature of the questions asked, the ease of answering them, the imper-

sonal handling of the replies and reports from several representative groups of teachers, it is believed that a very high percentage of the inquiries which were received were answered and returned to the survey headquarters at Washington. In any event, the number of replies received (463,141 in time to be tabulated, 2,601 too late to be used) represent 47.9 percent of the number sent out. The number distributed was based upon estimates of the number needed by the State and city superintendents who were asked to cooperate in the distribution. Since these estimates should have been slightly in excess of the actual numbers needed, the returns undoubtedly represent more than a 50 percent return. The number of inquiries distributed and the number of replies received by States is given in table 1.

Representativeness of answers received.—From this table it will be seen that the percentage of returns varies from 5.8 percent in West Virginia to 79.1 percent in New Jersey. It is also clear from this table that while some States were not adequately represented these States were not confined to any section of the country nor to any special type so far as industrial or economic status was concerned. The slightly lower percentages of returns from some of the Southern States is due, at least in part, to the lower percentage of returns from Negro teachers. This situation was indicated in volume IV of the Survey report—The Education of Negro Teachers—which was prepared under the direction of Dr. Ambrose Caliver, senior specialist in the education of Negroes, Office of Education.

When possible throughout the preparation of the report comparisons were made with data from other studies, particularly recent State surveys in order to determine to what extent the data obtained from this inquiry were representative. In almost all cases they have been found to be representative of conditions in 1930–31. In the instances where differences were found they indicated that the selective factors which operated in this inquiry tended to present conditions in a slightly more favorable light than would have been the case had 100 percent returns been received. A selective factor may have been introduced in the cities and counties which did not distribute the inquiry blanks. These may have included a larger proportion of the cities and counties with embarrassed budgets or those without professionally minded leaders. Even this possible selective factor did not operate uniformly because in some of the larger and wealthier cities and counties the blanks were not distributed because of the attitude of the superintendents toward any and all questionnaires.

TABLE 2.—*Distribution of white personnel answering the inquiry by educational level and main work, 1930–31*

Main work	Work done in—										Total	Percentage
	Nursery school	Kindergarten	Elementary	Junior high	Senior high	Junior college	Evening school	City	County	State		
1	2	3	4	5	6	7	8	9	10	11	12	13
Teacher of grades	82	8,137	251,557	25,503	56,884	1,183	66	541	452	320	344,725	77.0
Continuation school			2,240	171	498		32	367	26		3,334	.7
Visiting teacher			155	38	68		3	94	9	4	401	.1
Teacher, agriculture			120	123	1,674	12	7	38	11	21	2,006	.4
Teacher, art and drawing		24	2,048	1,387	1,554	57	7	391	5	10	5,483	1.2
Teacher, commercial				1,121	9,183	103	42	66	5	16	10,536	2.4
Teacher, health			2,235	1,918	3,714	116	7	532	15	40	8,577	1.9
Teacher, home economics			1,290	2,409	5,279	54	13	168	7	51	9,271	2.1
Teacher, industrial arts			1,021	2,211	2,824	42	9	156	5	42	6,310	1.4
Teacher, music		24	2,290	1,201	1,603	63	8	1,045	37	52	6,323	1.4
Teacher, naturalization			188	47	67	1	58	47		2	410	.1
Teacher, trades and industries			72	159	709	15	40	83		39	1,117	.2
Teacher, vocational			99	219	1,454	45	49	91	3	28	1,987	.5
Teacher of blind		7	189	20	22	1	1	13		227	480	.1
Teacher of crippled		4	356	11	12			29	2	6	420	.1
Teacher of cardiac		2	509	13	10		1	8	8		551	.1
Teacher of deaf		20	326	17	12	1	3	35	4	706	1,123	.3
Teacher of speech defectives		8	206	15	43	3		58	2	4	338	.1
Teacher of mentally gifted			87	16	7			3			113	
Teacher of mentally defective		17	2,980	133	21	1	6	91	31	231	3,513	.7
Teacher of disciplinary			254	47	22	1		18	6	29	387	.1
Teacher of other special classes		39	818	187	278	114	8	88	14	40	1,586	.4
Supervisor, general	1	30	603	72	303	14	2	217	87	25	1,354	.3
Supervisor, art and drawing			148	55	84	3	6	262	2	1	561	.1
Supervisor, exceptional children		1	21	1	1		2	29		2	57	
Supervisor, home economics			24	37	110	3		59	1	3	237	.1
Supervisor, commercial subjects				10	199	3		12		1	225	.1
Supervisor, industrial arts			31	24	132	3	2	81	1	4	298	.1
Supervisor, health		1	169	56	258	8	1	295	6	6	802	.2
Supervisor, music			280	83	207	11		659	17	3	1,260	.3

Supervisor, trades and industries			4	6	26		3	26		7	84	
Principal	1	33	8,999	1,738	5,844	89	25	361	79	45	17,205	3.8
Principal, mentally handicapped			72	8	8	1		7		22	118	
Principal, physically handicapped			31	2	9	3		4	1	16	66	
Assistant principal		5	1,018	400	980	17	2	20	6	4	2,452	.5
Dean of boys				28	128	8		1		9	178	
Dean of girls				80	417	23		7		8	535	.1
Superintendent			178	47	1,135	8	1	3,364	574	44	5,348	1.2
Assistant superintendent			32	9	22	2	1	149	54	11	280	.1
Business manager			4	4	17			25		3	53	
Building and grounds superintendent			1	1	1			12	2	2	19	
Attendance officer			25	14	31		6	336	10		422	.1
Librarian			227	266	1,017	46	3	88	1	18	1,766	.4
Cafeteria manager			20	20	115	2		15		1	182	
Dietitian			6	18	27	1		8	1	3	64	
School physician			13	7	17			221		7	265	.1
School dentist			31	4	1			56		3	95	
School nurse		5	183	41	66	2		549	7	2	853	.2
Coach (athletic)			29	92	683	8		18	1	5	836	.2
Psychologist				14	17	8	1	123	1	4	168	
Vocational guidance				122	142	6	2	71	2	1	346	.1
Research or survey				5	14	4		114	1	2	140	
Teacher clerk			467	78	134		2	53	4	2	760	.2
Other	3	21	302	139	578	178	12	283	18	44	1,578	.4
Total	87	8,376	282,004	40,578	98,668	2,263	434	11,477	1,517	2,184	447,568	
Illogical classification	21	100	169			13				26	329	.1
Grand total	108	8,476	282,173	40,578	98,668	2,276	434	11,477	1,517	2,210	447,917	100.0

Representativeness of different fields of work.—A distribution of the returns to Inquiry No. 1 (table 2) in terms of the educational level and the kind of work performed is valuable for two reasons. In the first place it shows from another basis of comparison that the sampling was representative because such items as the proportion of teachers in elementary grades are similar to the proportion reported by the United States Office of Education in its statistics on public-school systems. The returns from the Survey investigation indicate, for example, that about 71 percent of the teachers were in elementary schools and the United States Office of Education statistics indicate 75.03 percent.[1] In the second place this distribution (table 2) gives the most complete distribution of the total educational personnel for public schools which has been obtained. This table should be of use to all persons engaged in vocational guidance and of equal use to all persons responsible in any way for the administration of institutions which prepare teachers. A few examples of the type of information which may be obtained from table 2 will be given but before listing them one important caution will be expressed. In any table in which the data have been combined for the country as a whole the national averages should not be used as the basis for programs of individual States. For example, there were listed 3,513 teachers of the mentally defective. This means about one such teacher per hundred teachers in the regular elementary and secondary classes. Owing to the fact that some States have made very meager provision for such children while others have been much more generous in providing for such unfortunates the actual percentages vary from a small fraction of 1 percent to 2 or more percent. National medians or averages may be considered only as rough guides or indices.

The distributions in table 2 indicate that for the country as a whole there were about 20 times as many teachers as principals—the next largest group. This does not mean that the average school building was one with 20 teachers and a principal because many teaching principals would have listed teaching as their main work. The fact that the inquiry provided for only one answer—the main work of the individual—will also affect the national picture for some of the special forms of work, e.g., athletic coach, was reported as the main work of only 836 individuals but there were obviously thousands of teachers who gave some of their time to coaching athletics.

Table 2 also shows the very marked tendency in the United States to have separate teachers for the so-called special subjects of agriculture, art and drawing, commercial education, health, home economics, industrial arts, and music. It also shows that except for commercial subjects these special teachers were used extensively in

[1] Foster, Emery M. Statistical Summary of Education, 1929-30. Washington, D.C., U.S. Office of Education, Bulletin 1931, no. 20, vol. 2, p. 8.

the elementary schools as well as in the departmentally organized junior and senior high schools.

Similar observations may be made for the supervisors in those special fields. Obviously, most of the work in those special subjects was carried by the special teachers. Because the regular classroom teachers more frequently carry responsibility for instruction in art, health, and music these three fields showed the largest number of supervisors.

Table 2 also shows that the teaching of atypical children was very largely an elementary-school problem. A few teachers for these groups were listed for the junior high school level and an almost negligible number for the senior high school—the one exception being teachers for speech defectives. Comment could be extended on this table to indicate the significance of the presence in the distribution of such classification as deans of boys, deans of girls, school librarians, cafeteria managers, dietitians, school physicians, school dentists, school nurses, psychologists, vocational councilors, and research and survey specialists. The table indicates the growing complexity of the educational service rendered in American public schools and the wide range of positions for which special preparation may be made. While there is little doubt that the number of workers in these special and newer fields of service will increase it must be remembered that about 91 percent of the returns were from teachers, about 7 percent from supervisors and administrators, and only 2 percent from these special service fields. These percentages help to keep the whole picture of public educational service in mind.

Classifications used in part I.—The original authorization by Congress for the Survey placed certain limitations upon the money available, the time of the study, and the principal fields to be studied. These limitations made it necessary to select the studies to be made and the educational groups to be included. When during the second year of the Survey the remaining $150,000 was reduced by $20,000 and the working time of all employees reduced by more than 7 percent, it became necessary to abandon some of the studies already started in order to complete the ones considered more important. For these reasons many of the groups listed in table 2 were not continued in the remaining tabulations. Selection was made primarily upon the basis of the numbers involved and the relationship of the groups to the other sections of the Survey.

Of the 463,141 answers received by June 20, 1931, the last date on which answers were included in the tables, 14,720 were from Negro teachers, 294 were from Indians, and 208 from school employees of other races. The replies from Negroes were used in volume IV of the Survey report and the replies from the Indian employees were turned over to the Education Division of the Bureau of Indian Affairs

for special study. The tabulations in this part of the report unless otherwise specified, will be for the 447,917 white employees whose answers were received in time to be used.

Rural teachers constitute one of the largest groups and so were selected for special emphasis in the tabulations. They are also involved in many of the controversial issues which were being studied in other sections of the Survey. In order to obtain a sharper classification of rural teachers they were selected by the use of classifications 12 and 14, figure 1. Teachers in 1- and 2-teacher schools in the open country are called "rural teachers" throughout this part. In the tabulations they were separated from teachers in open-country schools with three or more teachers since these schools are more likely to be consolidated schools and represent in most cases higher standards than are found in the rural schools. The size of the community has been shown by many studies to have a direct relationship to its educational standards. For this reason many of the tabulations were made for communities of different sizes. The distribition of replies according to size of community was: Rural teachers, 61,552 (24.7 percent); elementary teachers in open-country schools with three or more teachers, 13,635 (5.5 percent); elementary teachers in villages with less than 2,500 population, 51,315 (20.6 percent); elementary teachers in cities of 2,500 to 9,999 population, 27,034 (10.8 percent); elementary teachers in cities of 10,000 to 99,999 population 45,364 (18.2 percent); and elementary teachers in cities of 100,000 population and more, 50,498 (20.2 percent). In all cases the number of replies was large enough to give reliable data for the entire country or for large areas but here again a caution must be given when the tables carry returns from individual States. For example, the percentage of teachers reporting as rural from Massachusetts was only 2.5 while from South Dakota it was 73.5. The mean for the country as a whole was 30.2.

Table 3—a comparison of the elementary teachers in communities of different sizes in Massachusetts and South Dakota with the percentage of the population living in those communities—is introduced to show the possibilities of variations if the Survey returns were used for descriptions of educational conditions in individual States unless the number of returns was very large and all other principal factors involved were known.

The distribution of returns to inquiry 1 from teachers in junior high school and senior high school distributed by size of community are given in table 4.

TABLE 3.—*Comparison of white elementary teachers and population [1] in areas of varying population*

State, elementary teachers, and total population	Percent in—				
	Rural	Villages of less than 2,500	Cities of 2,500 to 9,999	Cities of 10,000 to 99,999	Cities of 100,000 and more
1	2	3	4	5	6
Massachusetts:					
Elementary teachers	2.5	11.9	14.9	38.6	32.1
Population	9.8		7.7	40.7	41.8
South Dakota:					
Elementary teachers	73.5	16.7	3.5	6.3	
Population	60.2	20.9	4.6	13.3	

[1] Bureau of the Census. Fifteenth Census of the United States, 1930. U.S. Government Printing Office, Washington, D.C. Vol. 3, pts. 1 and 2.

A comparison of these percentages with those for elementary teachers shows, as might be expected, the failure to provide secondary school facilities for the rural areas to the same extent as in the cities. Fifty and eight-tenths percent of the elementary teachers were in open country and in villages of less than 2,500 population compared to 11.2 percent of the junior high school teachers and 34.5 percent of the senior high school teachers. The other classifications stressed in the reporting of teacher personnel will be observed in the remaining chapters of this part.

Statistical handling of data.—As previously indicated the data from the answers to inquiry 1 were transferred to Hollerith cards which were sorted and counted for the different classifications used in most of the tables. Machine tabulation was necessary in order to deal with the large number of replies—nearly half a million.

TABLE 4.—*Distribution of secondary teachers answering the inquiry by areas of varying population, 1930–31*

Type of school		Percent from—				
	Total	Open country	Villages of less than 2,500	Cities of 2,500 to 9,999	Cities of 10,000 to 99,999	Cities of 100,000 and more
1	2	3	4	5	6	7
Junior high school	36,040	2.2	9.0	13.7	39.8	35.2
Senior high school	84,501	4.6	30.0	15.5	21.2	28.7

Before transferring the data to the Hollerith cards each inquiry blank was checked for completeness and at 2 or 3 points for consistency of replies. These checks may easily be seen by referring to figures 1 and 2. Examples of these checks are found in items 9 and 21, and any answers to items 39 to 48, inclusive, or items 27–28 and items 32, 33, or 34.

Various checks were made to determine the reliability of the tables. Progressively larger samples were taken in several of the groups to determine the smallest frequency at which the means and standard deviations became fairly constant. It was found for most of the groups that a sample of 40 or 50 cases gave reasonable reliability, providing that the returns from the larger group from which the sample was taken were adequate in size or proportional to the other groups in that State. If the group from which the sample was drawn was affected by some selective elements the effect of those elements would also be found in the samples.

In the tables in which returns are reported by States there are numerous instances in which the number of cases in some classification was too small to give reliable measures of central tendencies. All such cases will be evident from the distribution of the number of replies included in the tables. It was thought best to include the percentages and medians in most such cases in order to make a more complete record with the hope that this reservation will be borne in mind when the tables are used.

The form in which the data were obtained from the tabulating machines made it easier and more economical to use medians and the quartiles as measures of central tendency and deviation than to use means and standard deviations. Numerous checks were made against skewed and irregular distributions and the greatest differences between medians and means were usually very small. For example, in 12 distributions of "age at nearest birthday" the maximal difference between the median and the mean was 3 years and the mean of the differences 2.1 years.

Limitations of this study.—Aside from the limitations already mentioned or implied specific reference to 1 or 2 others will aid in a more accurate interpretation of the data in part I and will also assist those directing future studies in this field to improve their inquiry forms.

In limiting the size of the inquiry blank and the number of items to be studied it was also necessary to make certain arbitrary classifications which did not fit equally well all sections of the country. An example of this difficulty is shown in the list of school divisions as given in item 9, figure 1.

The questions on the number of semester-hours of "education" and "practice teaching", items 35 and 36, figure 2, were not satisfactorily answered in a number of instances. This may have been due to such difficulties as: No record of the number of semester-hours of education or practice teaching; inability to remember the numbers; confusion between semester-hours and clock-hours; and in a few cases difficulty in transposing quarter or term-hours to semester-hours even though the formula was given in the question. The wording of item 12,

"Number of teachers of type you checked in no. 9 in building in which you teach", caused some confusion, especially for high-school teachers.

The data on the "supply" side of the supply and demand section are only partially satisfactory because they do not reveal the number of teachers who were available or the number who were prepared during the year for which the data were obtained but merely the sources from which the "new" teachers were drawn who were placed that year.

The difficulties in the way of procuring accurate data upon the number of new teachers educated each year and the number of certificated teachers available during any one year will be discussed in chapter V.

Changes since data were collected.—The greatest limitation to the data in this section is due to the fact that they were collected for the year 1930–31 and that the continuation of the period of financial difficulties has caused a number of changes. Studies conducted by the Joint Commission on the Emergency in Education of the National Education Association, under the direction of Dr. John K. Norton as chairman, have shown that the 2 years since those data were collected have seen a number of very important changes, many of them representing financial retrenchments which in most cases also reduced the number of teachers and effectiveness of the schools. It is improbable, however, that these changes in salaries and length of school years would have resulted in radical changes in most of the personnel data for teachers as shown in 1930–31. For example, it is improbable that such items as age, experience, the number of school systems in which the teacher taught would have changed, and it is probable that the amount and professional nature of the teacher's preparation may even have been increased as a result of the increased competition for positions. The data presented in part I should therefore be interpreted with the foregoing facts in mind. It should also be realized that they represent the record of a school year which had not been materially affected by the "depression." The 1930–31 data will probably stand as a record of achievement in some phases of education against which data for subsequent years will be compared.

State comparisons.—Another value of the data in this study is that they show more clearly than in any other study the very great variations among the States in the teaching personnel of the public schools. These variations were probably more pronounced in 1929–30 and 1930–31 than for any year before that time or for any year since then. The basis for this conclusion is that before 1930–31 the wealthier States and cities expanded their educational programs most rapidly and since that date there has been some utilization of Federal funds to equalize educational opportunity, and keep schools open. In presenting tables in which these State differences are shown the reader should be

reminded that the Survey staff had no desire to make or to supply the material for making any invidious comparisons. Instead it is hoped that the recording of data as completely as space and funds will permit will supply information which can be used in the discovery of conditions unfavorable to the best interests of education and also used in helping to indicate the best methods of correcting the unfavorable conditions. If educational conditions appear better in one State than in another the policies of the better State may suggest ways of improving conditions in the poorer State. If educational conditions are much the same in two States in which other conditions are radically different the similarity may be a cause of concern to the wealthier or the more progressive of the two.

Summary.—This chapter has described the place of the teaching personnel study in the plan of the National Survey of the Education of Teachers; the method by which comparable data were secured; the adequacy of the responses; the teaching and administration groups represented; the method by which the tabulations were made; the principal limitations to the data as obtained and tabulated; and the value of the 1930–31 data.

Tabulations of the several personnel factors which were studied are presented in greater detail in the other chapters of part I.

Throughout the remaining chapters of part I the personnel data collected and tabulated will be presented with relatively little comment. The data collected in this part of the Survey were intended primarily to uncover problems in the professional preparation of teachers and to furnish supporting evidence for proposals made in the other sections of the Survey. While the tables in many instances are long and somewhat cumbersome, they are, nevertheless, in most cases quite simple and may be easily interpreted by readers interested in the data presented. Only enough comment will accompany the tables in these chapters to direct the attention of readers to some of the high lights and to suggest samples of interpretations which may be made. The more significant findings from these tables and the recommendations to which they lend support will be presented in volume VI, although many of these recommendations are mentioned or implied in the discussions in this part, and are summarized in chapter VI.

CHAPTER II

AGE, SEX, MARITAL STATUS, AND TEACHING EXPERIENCE [1]

AGE OF TEACHERS

While it is clearly understood that the age of teachers is only one factor of many which indicate the status of the group it nevertheless may be used as one diagnostic element in the total picture. For example, a large percentage of very young teachers would indicate that the standards of pre-service professional preparation are necessarily low. If the median age of teachers is relatively low the indication is that tenure is short and the group transient. If the groups display large percentages of very young teachers and also large percentages of very old teachers this shows a situation of maladjustment so far as steady recruiting to teaching is concerned.

A number of States have attempted to protect the schools against immaturity on the part of teachers by prescribing minimal age limits below which teachers will not be certificated. Thirty-two States had such regulations in 1931. Of these, 1 State specified 16 years as the minimal limit, 4 States 17 years, 26 States 18 years, and 1 State 19. These are, as would be expected, all younger ages of entrance than would be found in such established professions as medicine, law, and the ministry, for most of which 21 is the youngest age for legal entrance to practice. The ages at the nearest birthday of teachers in the elementary, junior, and senior high schools in communities of various sizes are given in table 5 for the school year 1930-31. The table also carries for each community size the Q_1, median, Q_3 and number of cases. These are given in the table by States. The most significant figures in this table are the median ages for the different groups and for communities of different sizes as well as the range of the middle 50 percent as shown by the differences between the Q_1 age and Q_3 ages. For example, the median age of rural teachers (open-country 1- and 2-teacher schools) for Alabama was 25 with a range for the middle 50 percent of the group extending from 22 to 30. Comparable figures for California showed a median age 7 years older with a range for the middle 50 percent extending from 24 years to 42. These figures show very clearly that the rural teachers in California were a much more experienced group than were the rural teachers in Alabama in which State only a fourth of the teachers were 30 or more years of age. The rural teachers in two New England States—Vermont and Rhode

[1] Quoted paragraphs not otherwise acknowledged in chapters II and III are from a manuscript prepared by Guy C. Gamble on the topics included in these chapters.

Island—presented a sharp contrast in the matter of the age of the rural teachers. The range of the middle 50 percent in Rhode Island extended from 23 to 46, a period of 23 years, whereas the range for rural teachers in Vermont extended from 22 to 29, a range of 7 years, showing a much younger and more transient group in Vermont than in Rhode Island.

TABLE 5.—*Age at nearest birthday of elementary, junior high school, and senior high school teachers, 1930–31*

State	Elementary teachers															
	Open country 1- and 2-teacher schools				Open country 3 or more teacher schools				Village of less than 2,500 population				City of 2,500 to 9,999 population			
	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Alabama	22	25	30	1,040	22	25	29	847	23	26	33	1,011	24	27	34	414
Arizona	25	30	39	132	24	25	35	69	24	27	34	290	24	27	32	273
Arkansas	22	25	33	629	23	25	30	205	23	25	32	577	24	27	35	228
California	24	32	42	967	24	29	38	600	24	29	38	1,564	25	30	39	1,700
Colorado	21	24	31	926	23	25	32	153	23	26	32	735	26	29	41	45
Connecticut	22	23	32	270	23	25	33	21	22	25	34	639	23	27	37	637
Delaware	25	32	43	60	24	27	43	20	24	28	37	136	24	27	34	41
Florida	22	26	35	130	22	26	34	116	23	28	37	519	25	29	38	410
Georgia	22	25	31	173	22	25	33	216	23	26	34	462	24	29	38	286
Idaho	22	25	30	163	23	25	32	44	22	24	29	315	24	27	35	173
Illinois	22	25	30	4,835	23	27	34	126	24	27	34	1,056	24	28	37	804
Indiana	23	27	36	1,183	23	26	33	818	24	27	34	2,273	26	31	44	921
Iowa	20	22	25	5,127	21	24	26	257	23	25	29	2,304	25	29	38	696
Kansas	20	22	25	3,156	22	24	30	121	23	26	30	1,158	24	27	35	580
Kentucky	21	23	26	1,112	23	26	31	183	22	25	31	703	24	27	34	394
Louisiana	22	24	29	402	22	25	30	671	22	25	30	1,300	24	27	35	468
Maine	21	24	31	629	22	24	37	32	23	27	37	772	24	29	40	428
Maryland	22	24	29	518	23	26	33	122	23	26	36	840	24	30	42	187
Massachusetts	22	24	38	159	23	25	48	52	23	27	40	990	25	29	41	1,241
Michigan	21	24	28	2,705	23	26	32	319	23	26	32	1,495	24	27	35	997
Minnesota	21	23	26	3,887	23	25	27	154	23	25	28	1,868	25	28	34	663
Mississippi	23	26	35	206	23	26	30	301	23	27	34	374	25	28	38	88
Missouri	21	23	26	645	22	25	27	58	23	25	29	1,108	24	27	34	528
Montana	22	24	29	1,109	24	31	49	45	24	26	30	488	25	29	34	195
Nebraska	20	21	24	2,957	20	22	25	96	23	25	28	922	25	28	34	208
Nevada	23	28	40	135				3	25	30	38	108	25	27	31	65
New Hampshire	22	24	32	267				5	22	26	37	452	24	31	42	122
New Jersey	22	26	34	339	22	25	34	318	23	26	34	1,940	23	27	34	2,453
New Mexico	22	25	35	218	22	27	32	90	23	27	34	315	25	30	38	115
New York	22	27	37	4,152	24	29	38	398	24	29	39	3,108	25	31	40	1,859
North Carolina	23	26	31	668	23	25	30	1,607	23	27	31	2,056	25	28	35	728
North Dakota	21	22	25	2,745	22	23	26	137	23	25	27	959	27	31	37	91
Ohio	22	25	32	1,811	23	26	32	862	23	26	33	2,748	25	29	37	1,632
Oklahoma	22	24	29	1,262	22	24	28	353	23	25	28	794	24	27	32	439
Oregon	22	25	33	960	23	28	39	160	24	27	36	676	26	29	36	423
Pennsylvania	23	25	35	3,872	23	26	34	851	23	26	35	71	24	27	37	2,513
Rhode Island	23	28	46	41	30	41	48	11	25	35	47	187	25	29	40	109
South Carolina	24	28	39	164	23	26	33	223	24	27	36	379	25	30	38	212
South Dakota	21	23	27	1,796	22	24	28	67	23	26	29	422	26	29	34	87
Tennessee	22	24	29	1,676	23	25	30	843	23	26	33	1,107	24	28	36	439
Texas	22	24	29	1,060	22	24	28	611	23	25	30	2,026	24	27	34	1,455
Utah	22	25	29	63	22	25	30	142	23	25	31	554	23	26	30	208
Vermont	22	24	29	451	26	31	50	15	24	27	37	497	27	34	48	162
Virginia	22	24	29	1,374	23	26	30	727	23	26	31	1,276	24	27	35	453
Washington	23	25	34	905	23	27	34	268	24	26	33	1,309	24	27	35	389
West Virginia	22	24	26	29				9	23	27	36	32	23	26	34	33
Wisconsin	21	23	26	3,552	23	26	30	158	23	25	29	837	24	27	36	516
Wyoming	21	22	27	505	23	24	35	35	23	26	29	376	25	28	33	94
Total				61,172				13,544				46,118				26,881

TABLE 5.—*Age at nearest birthday of elementary, junior high school, and senior high school teachers, 1930–31*—Continued

State	Elementary teachers								Teachers in junior high				Teachers in senior high			
	City of 10,000 to 99,999 population				City of more than 100,000 population											
	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases
1	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
Alabama	25	30	39	407	26	30	38	419	23	27	34	564	24	28	34	966
Arizona	25	29	37	200					25	29	36	137	27	30	36	326
Arkansas	26	32	39	248					24	28	36	314	24	27	32	501
California	27	34	42	2,469	30	36	44	2,974	28	35	42	2,536	30	37	44	4,952
Colorado	27	36	46	256	30	40	50	296	27	34	42	443	25	30	40	786
Connecticut	25	30	40	1,866	25	29	39	637	26	31	38	495	27	32	40	1,211
Delaware				8	27	38	47	103	24	30	44	81	26	31	37	175
District of Columbia					25	32	42	524	29	36	46	149	33	42	51	252
Florida	24	28	36	482	25	30	38	356	24	29	37	530	25	29	36	646
Georgia	26	31	39	448	25	32	38	480	25	30	36	273	25	28	38	561
Idaho	26	29	35	37												
Illinois	26	30	39	2,598	27	37	48	286	24	28	34	113	25	28	32	434
Indiana	26	31	40	1,600	28	35	43	1,532	26	31	40	713	26	31	39	4,780
Iowa	26	33	41	1,198	33	41	51	212	27	31	39	1,097	26	31	39	4,114
Kansas	26	30	39	678	29	34	40	282	26	32	41	992	24	27	33	2,670
Kentucky	25	29	38	600	23	26	36	498	25	31	38	691	25	29	35	1,818
Louisiana	25	30	36	356	24	32	41	783	25	29	38	467	25	29	36	999
Maine	28	38	49	508					24	28	35	119	24	27	36	1,299
Maryland	24	27	39	263	24	29	46	1,039	25	31	40	164	25	29	38	797
Massachusetts	25	31	44	3,218	27	35	49	2,678	26	31	40	394	25	29	39	798
Michigan	25	29	36	2,191	24	28	36	2,052	27	34	45	2,355	28	35	45	3,606
Minnesota	26	29	36	2,191	24	28	36	2,052	26	30	38	2,419	25	30	37	4,049
Mississippi	27	32	40	405	31	36	45	1,321	27	34	42	959	25	29	38	2,472
Missouri	25	29	39	236					24	28	33	153	24	27	32	492
Montana	25	30	39	816	27	35	47	1,389	26	30	39	655	26	31	40	1,992
	26	31	40	358					26	30	38	133	26	29	34	530
Nebraska	28	33	41	288	32	39	46	343	24	28	35	359	25	28	37	1,285
Nevada	28	32	42	31					25	28	32	40	25	29	34	101
New Hampshire	29	39	51	167					24	28	42	145	24	27	34	428
New Jersey	24	29	37	4,257	25	32	41	3,066	27	32	41	1,738	27	33	41	3,349
New Mexico	25	30	37	109					25	30	34	99	26	28	33	254
New York	26	33	42	3,888	25	31	41	12,378	29	36	45	3,687	26	32	41	8,665
North Carolina	25	29	37	816					25	28	33	366	24	26	31	1,719
North Dakota	27	31	37	94					25	27	32	126	24	26	31	600
Ohio	25	30	40	2,985	26	34	44	4,221	26	32	41	2,766	26	31	40	5,897
Oklahoma	25	28	36	320	27	32	40	363	25	29	36	497	25	28	34	1,124
Oregon	26	31	38	219	36	42	49	581	26	30	39	257	26	31	40	1,277
Pennsylvania	24	28	39	4,729	26	34	48	6,028	26	31	40	4,189	26	31	40	6,721
Rhode Island	27	38	50	338	25	32	44	188	26	32	43	183	28	34	46	276
South Carolina	26	34	42	347					26	29	34	82	24	28	34	514
South Dakota	26	30	35	162					25	28	35	115	24	27	30	431
Tennessee	25	29	39	181	26	33	42	959	26	30	38	556	26	30	37	911
Texas	25	29	37	1,889	26	33	40	1,812	25	29	35	1,281	25	28	35	3,340
Utah	24	31	39	47	24	29	39	172	26	30	39	376	27	32	39	417
Vermont	27	36	43	75					25	34	46	60	24	27	32	285
Virginia	25	29	37	654	24	29	37	418	25	29	37	512	24	27	34	1,369
Washington	27	30	38	549	31	38	46	878	26	30	39	537	26	31	40	1,892
West Virginia	26	30	39	352					25	29	37	118	28	33	38	161
Wisconsin	26	31	38	1,187	28	35	46	873	26	30	37	926	25	30	38	2,268
Wyoming	28	32	36	94					26	29	34	90	25	28	34	352
Total				45,014				50,120				36,041				84,503

In comparing the median ages for elementary teachers in different groups one is impressed with the similarity of ages. A few extreme differences can be found but in the main the figures in table 5 indicate that in most of the States teachers probably began at about the same age and continued for approximately the same number of years.

The median ages for rural teachers in 31 States fell within the 3-year range of 23 to 25. Another observation which is supported by inspection of the median ages given in table 5 is that there was a general tendency for the older teachers to be found in the larger population areas. Massachusetts furnished a good example in which the median ages for the successive size groups were 24, 25, 27, 29, 31, and 35. In general, junior high school teachers were slightly older than senior high school teachers probably due to the fact that many junior high school teachers were recruited from successful, experienced elementary teachers. The median age of junior high school teachers exceeded that of teachers in the senior high school in 24 States and was the same in 10.

By taking a median of the median ages for each group an approximation of conditions for the country as a whole in 1930–31 may be obtained. Such a measure would give 24 years for the rural group, 25 for the three or-more-teacher open-country schools, 26 for the elementary teachers in villages with less than 2,500 population, 28 for teachers in cities of 2,500 to 9,999; 30 for the elementary teachers in cities of 10,000 to 99,999, and 34 years for elementary teachers in cities of more than 100,000 population. The corresponding approximate median ages for junior high school teachers was 30 years and for senior high school teachers, 29. Occupational data of the Bureau of the Census, Department of Commerce, showed an increasing proportion of older persons giving teaching as their occupation. The percent of teachers who were 45 years of age or older in 1890 was 8; in 1910, this had increased to 11, and 20 years later in 1930, to 17 percent. Apparently the percentage of teachers 45 years of age or over has more than doubled in the 40 years since 1890. The 1930 census data gave the median age of 943,683 white teachers as 29.1 years; of 54,343 Negro teachers as 29.2 years.

The situations presented in table 5 suggest the possibility of increasing the minimum age at which teachers may be certificated as one means of increasing the time of preservice education and thereby raising the level of professional preparation.

SEX AND MARITAL STATUS OF TEACHERS

Sex of teachers.—"Teaching in elementary schools is distinctly a woman's occupation. In 1930–31 women outnumbered men at an approximate ratio of 19 to 1 (table 6). However, there were variations in the proportions when comparisons were made among areas of different sizes. In 1930–31 the 1- and 2-teacher schools had the largest percentage (12.2) of men; the 3-or-more-teacher schools in the open country, 10.8 percent; villages of less than 2,500 population, 8.2 percent; cities of 2,500 to 9,999 population, 2.4 percent; cities of 10,000 to 99,999 population, 1.3 percent; and cities of more than 100,000 population, 4.3 percent.

"State variations in the practice of employing men in elementary schools are clearly indicated in table 6. Indiana returns showed that men constituted 40.6 percent of the 1- and 2-teacher school staffs while in New Hampshire, Connecticut, and Maine less than 2 percent of these teachers were men. Of all other elementary teachers in Idaho, Indiana, New Mexico, and Utah, men constituted more than 10 percent of the teaching staffs. In Connecticut, Delaware, District of Columbia, and Massachusetts, however, less than 1 percent of the elementary teaching staffs were men. Both sets of data are consistent in showing a difference between Eastern and Western States.

"Men have entered the field of secondary teaching to a greater extent (table 7). In 1930–31 approximately 1 of every 4 teachers in junior high schools was a man, the corresponding ratio for senior high schools being 1 in every 3. Delaware, Iowa, Vermont, and Virginia had low proportions (below 15 percent) of men employed in junior high schools and Alabama, Idaho, and Utah high proportions (more than 35 percent). The District of Columbia, Florida, Louisiana, Mississippi, Vermont, and Virginia had a lower proportion (less than 25 percent) of men teachers in the senior high schools than other States. Idaho, Indiana, Maryland, Ohio, Pennsylvania, and Utah had the highest proportion (more than 40 percent) of men teachers in senior high schools.

"The Report of the Commissioner of Education for the year ended June 30, 1909, presented a table relating to the number and sex of teachers and covering a period of years. In 1870–71, 41 percent of the teachers of the country were men; in 1879–80, 42.8 percent; in 1889–90, 34.5; in 1899–1900, 29.9; and in 1907–8, 21.1. Similar data in the Office of Education Biennial Survey of Education for 1928–30 indicate that men constituted 16.5 percent of the teaching staff for 1930. The returns of this survey for combined elementary and secondary teaching staffs give a corresponding figure of approximately 12 percent.

"Occupational data from the United States Census in each of the five periods, 1890, 1900, 1910, 1920, and 1930, gave 17.4, 18.8, 23.4, 21.1, and 22 percent as the respective proportions of men teachers in the teaching population. In four decades, according to this source of information, the percentage of men teachers has increased from 17.4 to 22 percent.

TABLE 6.—*Sex and marital status of rural and elementary school teachers, 1930–31*

State	Elementary-school teachers in open-country 1- and 2-teacher schools									All other elementary-school teachers								
	Number involved	Woman, single	Woman, married	Woman, divorced	Widow	Man, single	Man, married	Man, divorced	Widower	Number involved	Woman, single	Woman, married	Woman, divorced	Widow	Man, single	Man, married	Man, divorced	Widower
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Alabama	913	61.3	21.5	0.8	1.8	5.9	8.5	0.1	0.1	2,896	72.1	18.9	1.3	2.8	1.3	3.5		0.1
Arizona	107	38.4	38.3	4.7	8.4	.9	8.4	.9		708	65.0	17.2	3.0	7.8	2.5	3.6	0.5	.4
Arkansas	547	40.1	22.5	.7	.7	13.5	21.6	.2	.7	1,159	68.3	18.7	2.0	4.2	3.3	4.7	.2	.6
California	514	37.7	47.5	5.1	6.6	.6	2.3		.2	8,160	54.1	33.1	4.9	5.5	1.0	2.3		
Colorado	872	55.8	24.9	2.8	3.7	6.4	6.2		.2	1,494	73.3	17.4	1.3	3.3	1.7	2.7	.1	.2
Connecticut	254	76.7	19.7		2.8	.4	.4			3,658	79.7	15.4	.9	3.3	.2	.4		.1
Delaware	56	41.0	39.3		5.4		14.3			253	71.1	25.3	.4	2.8	.4			
District of Columbia										430	66.0	29.1	.9	3.3	.2	.5		
Florida	129	43.3	38.8	2.3	1.6	6.2	7.8			1,628	53.0	38.1	2.1	4.5	.7	1.5		.1
Georgia	144	59.0	27.8		2.8	4.2	6.2			1,633	67.9	24.5	1.5	4.6	.7	.8		
Idaho	157	57.4	24.2	2.5	1.9	4.5	8.9	.6		498	69.3	15.9	1.0	2.8	4.4	6.4		.2
Illinois	4,800	62.1	20.8	1.0	1.6	7.8	6.4	.1	.1	4,292	81.7	8.6	1.5	3.1	2.1	2.9		.1
Indiana	1,171	40.2	16.4	.9	2.0	14.3	25.1	.3	.9	6,895	68.2	15.9	1.6	3.2	3.5	7.4		.2
Iowa	5,079	84.1	10.4	.8	.9	3.0	.7	.1		4,328	87.9	6.7	.13	2.6	.8	.7		
Kansas	3,130	76.7	11.8	.8	.8	6.7	3.0	.1	.1	2,649	82.8	5.7	2.3	3.1	2.2	3.9		
Kentucky	1,222	59.4	12.8	1.0	.7	18.8	7.3			2,338	74.1	15.6	1.3	3.0	2.8	3.2		
Louisiana	383	66.6	18.3	.5	2.1	5.5	7.0			3,261	75.7	16.7	1.0	3.1	1.3	2.2		
Maine	532	66.5	24.8	1.7	2.3	3.2	1.3	.2		1,690	69.0	22.0	1.7	3.9	2.0	1.4		
Maryland	470	72.3	18.2	.9	1.5	6.8	5.3			2,254	79.4	13.8	.7	2.2	2.1	2.0		
Massachusetts	145	75.1	15.9	2.8	6.2					7,105	88.8	6.5	.8	2.9	.6	.4		
Michigan	2,670	56.7	27.9	1.0	1.6	7.2	5.4	.1	.1	6,912	71.7	21.2	2.0	3.0	1.1	1.0		
Minnesota	3,837	85.5	8.4	.8	.7	3.6	.8	.2	.1	4,326	88.3	6.3	1.1	2.0	1.6	.7		
Mississippi	166	50.6	29.5	.6	5.4	4.8	7.8		1.2	840	65.4	21.4	.8	5.0	2.4	4.9		.1
Missouri	635	66.6	12.4	.3	1.9	12.8	6.0			3,753	83.7	9.2	1.6	3.0	1.5	1.0		
Montana	1,050	62.8	25.9	2.7	2.7	2.9	2.9		.1	967	80.7	9.5	1.4	3.3	2.7	2.4		
Nebraska	2,866	85.5	8.1	.8	.7	3.7	1.2			1,750	80.7	12.0	1.4	2.6	2.2	1.0		.1
Nevada	113	52.3	34.5	3.5	4.4	.9	3.5	.9		185	66.0	16.2	2.7	8.1	3.8	3.2		
New Hampshire	260	65.7	28.1	1.5	3.5	.8	.4			811	80.0	13.9	1.5	3.5	.5	.6		
New Jersey	328	55.5	34.5	.6	2.7	1.8	4.9			11,618	76.0	18.8	1.0	2.4	.9	.9		
New Mexico	214	40.6	24.3	1.4	4.2	15.0	14.0		.5	494	54.6	24.7	2.6	6.9	5.3	5.7	.2	

New York	4,072	53.2	36.3	1.0	3.2	4.3	1.9		1	20,481	69.3	23.2	.9	3.1	2.0	1.5		
North Carolina	618	59.6	25.4	.6	1.9	4.5	7.6	2	2	4,798	72.1	20.2	.5	2.4	2.4	2.3		1
North Dakota	2,704	76.1	9.9	.5	.6	10.1	2.8			1,208	86.7	6.1	.9	1.3	4.0	1.0		
Ohio	1,779	48.1	17.2	1.3	1.8	13.0	18.3	1	2	12,293	77.9	12.3	1.6	3.4	1.6	3.0	1	1
Oklahoma	1,218	50.9	22.9	2.0	2.0	7.9	13.9	2	2	2,112	59.7	27.7	2.8	3.2	2.3	4.3		
Oregon	946	53.5	34.6	3.3	2.3	1.9	4.1	2	1	1,896	61.6	23.7	3.2	5.4	2.4	3.6	1	
Pennsylvania	3,813	57.3	19.3	.7	1.9	7.1	13.0	1	6	18,768	80.3	10.1	.9	3.4	2.2	3.0		1
Rhode Island	34	61.8	35.3	2.9						703	83.1	10.3	1.4	3.8	.7	.7		
South Carolina	162	50.0	40.1		2.5	2.5	4.9			1,008	76.0	15.2	.4	5.0	1.8	1.6		
South Dakota	1,774	71.4	18.5	.9	1.3	5.5	2.4			695	78.6	11.7	1.1	2.7	3.6	2.3		
Tennessee	1,639	62.1	16.5	1.0	1.5	9.3	9.5		1	2,594	65.0	21.0	.8	3.5	4.6	5.0		1
Texas	1,061	58.3	22.8	1.4	2.0	7.1	8.2	1	1	7,196	63.7	28.1	2.0	4.3	1.5	2.4		
Utah	53	50.9	17.0		1.9	3.8	28.4			976	72.9	6.5	1.9	5.4	2.3	10.9	1	
Vermont	395	72.4	23.0	1.5	1.3	1.3	.8			708	69.6	20.6	1.9	5.8	1.4	.7		
Virginia	1,340	72.8	15.4	1.0	1.6	4.0	5.1		1	3,371	79.7	13.5	1.0	3.5	1.2	1.1		
Washington	868	55.3	30.2	2.0	3.8	3.2	5.2	2	1	2,832	73.3	11.4	2.4	4.0	4.0	4.8	1	
West Virginia	24	41.6	29.[illegible]			25.0	4.2			340	78.2	13.8	.9	4.7	1.2	1.2		
Wisconsin	3,487	76.6	11.[illegible]	.5	.8	8.1	2.6	1		3,394	86.7	6.6	1.2	2.5	1.4	1.6		
Wyoming	488	68.9	20.1	3.7	2.0	3.7	1.6			440	76.2	12.7	1.6	3.4	3.2	2.7		2
Total	50,234	66.4	18.6	1.1	1.7	[illegible]	5.[illegible]	1	1	174,793	74.5	16.5	1.4	3.3	1.8	2.4		1

TABLE 7.—*Sex and marital status of junior and senior high school teachers*

State	Junior high school									Senior high school								
	Number involved	Woman, single	Woman, married	Woman, divorced	Widow	Man, single	Man, married	Man, divorced	Widower	Number involved	Woman, single	Woman, married	Woman, divorced	Widow	Man, single	Man, married	Man, divorced	Widower
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Alabama	420	47.2	12.1	.....	1.4	17.2	22.1	.....	.....	880	61.9	7.6	1.0	1.6	13.9	13.8	.....	0.2
Arizona	115	55.7	7.8	2.6	3.5	11.3	19.1	.....	.....	272	52.2	4.4	2.2	2.2	9.6	28.7	0.4	.4
Arkansas	281	44.5	21.7	1.4	1.8	9.2	21.4	.....	.....	441	49.9	16.3	1.2	2.5	13.4	16.3	.2	.2
California	1,954	47.5	18.4	2.0	2.9	5.9	22.5	0.5	0.3	3,698	45.0	12.5	2.3	2.7	5.3	31.2	.5	.5
Colorado	354	53.9	16.7	2.8	3.4	6.5	16.4	.....	.3	771	52.7	8.2	2.1	1.9	10.8	23.8	.....	.5
Connecticut	466	68.4	11.2	.9	2.6	7.1	9.2	.4	.2	1,147	63.4	6.1	.4	1.8	10.7	17.2	.1	.3
Delaware	66	72.7	13.7	.....	1.5	3.0	9.1	.....	.....	140	55.0	14.3	.....	.....	9.3	20.7	.....	.7
District of Columbia	122	59.8	14.8	1.6	2.5	6.6	13.9	.8	.....	201	57.7	14.9	1.5	2.5	4.5	18.4	.....	.5
Florida	408	45.6	29.2	2.0	2.9	9.1	10.8	.2	.2	507	54.4	17.8	1.8	2.6	11.5	11.5	.....	.4
Georgia	234	53.0	12.8	1.3	4.7	6.9	20.5	.4	.4	410	62.2	7.1	.5	1.7	10.0	17.8	.....	.7
Idaho	93	51.6	9.7	1.1	1.1	15.0	20.4	1.1	.....	373	49.1	7.8	.8	1.1	15.5	24.7	.5	.5
Illinois	502	75.5	3.8	.4	3.2	6.2	10.7	.2	.....	4,521	57.0	6.1	.8	1.4	10.2	24.0	.1	.4
Indiana	917	58.4	7.4	1.5	2.5	8.3	21.4	.2	.3	3,952	48.2	7.9	.9	1.3	11.1	29.8	.2	.6
Iowa	939	76.8	4.6	1.2	2.6	5.8	8.9	.....	.1	2,122	64.4	4.4	.5	.8	13.6	16.1	.1	.1
Kansas	530	68.5	4.3	.9	2.5	8.9	14.9	.....	.....	1,565	60.6	4.2	.7	.9	12.4	21.4	.1	.3
Kentucky	440	68.4	5.0	1.4	3.6	9.3	11.8	.....	.5	945	54.4	10.9	.3	1.4	13.2	19.2	.4	.2
Louisiana	77	58.4	16.9	3.9	1.3	7.8	11.7	.....	.....	953	63.9	10.8	.5	1.4	11.5	11.6	.1	.2
Maine	116	55.2	20.7	1.7	1.7	7.8	12.9	.....	.....	626	54.7	15.6	.8	1.1	9.9	17.5	.....	.4
Maryland	332	69.0	11.2	1.2	1.2	9.6	7.5	.3	.....	738	52.9	6.2	.1	.7	16.7	22.6	.1	.7
Massachusetts	2,003	76.2	4.5	.6	2.9	7.1	8.4	.1	.2	2,992	62.8	2.8	.5	1.0	9.6	22.7	.1	.5
Michigan	2,375	55.2	12.3	1.6	1.9	9.9	18.8	.2	.1	3,862	52.3	8.2	1.0	.9	11.9	25.3	.2	.2
Minnesota	926	73.2	6.8	.8	2.2	6.9	10.0	.....	.1	1,556	65.9	2.3	.6	.4	17.9	12.7	.1	.1
Mississippi	119	60.5	15.1	.....	5.9	9.2	9.3	.....	.....	410	62.4	11.5	.5	1.7	12.2	11.7	.....	.....
Missouri	423	68.6	5.2	3.5	2.8	10.2	9.7	.....	.....	1,875	56.4	6.9	1.6	1.9	12.0	20.5	.3	.4
Montana	134	69.4	7.5	.7	.....	11.2	11.2	.....	.....	364	57.4	4.9	1.1	2.2	18.7	15.4	.3	.....
Nebraska	328	64.6	6.4	.9	3.7	12.2	12.2	.....	.....	1,100	64.6	5.2	.9	1.4	11.7	15.7	.2	.3
Nevada	25	64.0	.....	8.0	4.0	8.0	16.0	.....	.....	61	54.1	9.9	1.6	.....	14.8	18.0	.....	1.6
New Hampshire	142	74.7	4.2	1.4	4.2	11.3	2.8	.7	.7	401	64.8	6.0	.3	.7	11.2	17.0	.....	.....
New Jersey	1,485	62.2	11.5	.6	1.6	10.4	13.5	.1	.1	2,839	52.5	7.0	.5	1.0	11.8	26.7	.1	.4
New Mexico	80	60.0	13.7	2.5	1.3	12.5	10.0	.....	.....	212	52.4	10.8	.....	2.3	15.6	18.9	.....	.....

New York	3,597	61.5	14.3	1.0	3.1	6.3	13.5	.1	.2	6,650	58.8	9.1	.4	1.7	9.6	20.0	.1	.3
North Carolina	280	65.4	14.8	.4	1.4	10.0	11.0			1,540	55.9	10.1		1.0	21.1	11.8		.1
North Dakota	116	61.2	4.3	1.7	.9	19.8	12.1			536	53.9	2.8	.8	1.1	21.8	19.2	.2	.2
Ohio	2,730	62.1	5.5	.9	2.6	9.5	19.0	.2	.2	5,292	51.8	4.9	.5	1.2	13.4	27.6	.2	.4
Oklahoma	481	53.2	15.2	2.9	2.9	7.5	18.1	.2		1,609	48.7	12.4	1.3	1.6	10.7	24.7	.2	.4
Oregon	247	55.9	14.9	2.4	5.3	7.3	14.2			1,219	52.3	12.0	1.5	1.8	7.7	23.5	.5	.7
Pennsylvania	4,062	64.4	5.2	.6	2.2	11.5	15.7	.1	.3	6,465	52.7	3.0	.4	1.0	15.7	26.7	.2	.3
Rhode Island	149	71.1	4.0	1.4	4.0	6.7	12.8			224	62.5	1.3	.9	1.8	12.1	21.4		
South Carolina	65	69.2	10.8		4.6	9.2	6.2			426	61.8	9.9		2.8	13.6	11.7		.2
South Dakota	88	76.1	4.6	1.1	1.1	9.1	8.0			369	58.9	4.8	.3	.3	17.3	18.7	.3	.3
Tennessee	472	80.0	14.4	1.1	2.9	8.7	12.7		.2	627	51.7	13.2	.5	1.4	14.5	17.9	.2	.6
Texas	1,138	56.1	21.2	1.5	3.3	7.0	10.4	.4	.1	2,844	55.8	13.2	1.3	2.0	11.0	16.3	.3	.1
Utah	328	40.3	2.4	1.2	2.8	7.0	45.4	.3	.6	253	34.4	2.8	1.2	1.2	15.4	45.0		
Vermont	54	64.8	14.8		5.5	5.6	9.3			274	65.3	8.0		1.8	9.9	13.9	.7	.4
Virginia	455	73.6	10.6	.2	1.5	7.9	6.2			959	67.2	9.3	.3	2.6	11.3	9.1	.1	.1
Washington	535	53.5	8.4	1.8	2.8	12.7	20.2	.2	.4	1,629	56.5	5.2	.7	1.9	9.2	26.1	.2	.2
West Virginia	114	68.4	7.9	.9	3.6	9.6	9.7			138	52.9	5.8	2.9	2.2	12.3	23.9		
Wisconsin	637	67.3	3.6	.5	2.4	11.4	14.6	.2		2,188	59.6	2.7	.2	1.2	13.4	22.8		.1
Wyoming	63	69.8	3.2	1.6	3.2	11.1	11.1			274	55.4	2.2	1.5	.7	16.1	22.6	1.1	.4
Total	32,017	62.1	10.0	1.1	2.6	8.8	15.0	.2	.2	72,750	55.7	7.2	.8	1.4	12.0	22.4	.2	.3

Sex of teachers in European countries.—"The Yearbook of Education for 1933 (Yearbook of Education, 1933. Editor-in-chief—Lord Eustace Percy, M.P. Evans Bros., Ltd., Montague House, Russel Square, London) presents data in section 1, table 56, which are of interest in showing practice in foreign countries. In 1928 women constituted 35 percent of the primary school staff and 31 percent of the secondary staff in Norway. In 1927 in Germany only 25 percent of the primary school staff and 29 percent of the secondary staff were women. In 1928 in Czechoslovakia women constituted 26 percent of the elementary staff and 12 percent of the secondary. France in 1929 showed similar data of 65 and 17 percent, respectively. The percentages of women teachers for the United States for 1929 in the two divisions were 89 and 63. Of the 24 countries cited in the table, Czechoslovakia had the lowest percentage (26) of women in the primary schools and the United States the highest (89). Switzerland had the lowest percentage (11) of women in secondary schools and the United States the highest (63). The median percentage of women teachers in primary schools for 23 countries was 60 and the median percentage of women teachers in secondary schools was 33. European practice tends to disprove that teaching below college level is distinctly an occupation for women."

There are numerous opinions concerning the desirability of having more men teachers especially in the elementary schools. None of the data assembled in the Survey throws any light upon this issue. They merely present the situation as it existed in the several States in 1930–31. Conditions with respect to the number of men teachers are probably little changed since that time. Any significant change in the ratio of men teachers to women teachers in the United States will involve changes in a number of educational, social, and economic factors. The situation is so complicated that a few cities and some States might be able to work out plans for securing more men teachers if they desire to do so, but it is improbable that any marked change will occur within the next decade in the proportion of men and women teachers in this country.

Marital status of teachers.—During the period of the World War and also during the period of rapid educational expansion following the war an increasing number of married women entered teaching. Some school districts did not encourage the selection of married women as teachers or the retention of teachers who married. There was, however, no widespread question of the practice until the unemployment of many unmarried teachers brought the issue before the public. In order that the existing situation might be known the teachers were requested to indicate in item 13 of inquiry 1 (fig. 1) their marital status. The answers to this item are also reported by States for rural teachers, all other elementary teachers, junior high

school teachers, and senior high school teachers in tables 6 and 7. "The data in these tables show that in 1930–31 approximately 1 in every 6 elementary-school teachers, 1 in every 10 junior high school teachers, and 1 in every 14 senior high school teachers, was a married woman. Commencing with the elementary teacher in the 3-or-more-teacher school in the open country, as the size of the community increased the percentage of married women decreased (22.5 to 12.2) but advanced to 17.7 percent for elementary teachers in cities of more than 100,000 population. Tables 6 and 7 exhibit wide differences between States. Of Nebraska's 2,866 rural teachers who answered inquiry 1 in 1930–31 only 8.1 percent were married women. In contrast 47.5 percent of California's rural teachers were married women. Among all other elementary teachers in 1930–31, the percentage of married women teachers ranged from 5.7 in Kansas to 38.1 in Florida. Among junior high school teachers, the percentage of married women ranged from 2.4 in Utah to 29.2 in Florida. Married women constituted only 1.3 percent of the senior high school staff in Rhode Island but 17.8 percent in Florida."

Policies concerning employment of married teachers.—"In a study of policies concerning employment of married women as teachers in 1930–31 in 1,473 cities of more than 2,500 population and reported in Administrative Practices Affecting Classroom Teachers, National Education Association Research Bulletin, (vol. 10; nos. 1 and 2, January–March 1932), 76.6 percent of the cities were reported as giving a negative answer to the question, 'Are married women employed as new teachers?' In regard to policies concerning single women teachers who marry, 33.2 percent of 1,466 cities required an immediate resignation and 28.5 percent required a resignation at the end of the year; 37.1 percent permitted a continuance of teaching, and 1.2 percent left it optional with the board.

"In Indiana, New Jersey, Maryland, New York, Oregon, West Virginia, and the District of Columbia various decisions have been handed down by either courts, State boards of education, or chief school officials to the effect that marriage does not constitute a reasonable basis for dismissal. These decisions established a precedent where teachers are serving under permanent tenure by statutory enactment, that they are protected from local board rules which terminate contracts on account of marriage; in such States, however, boards through dismissal reservation clauses in their contracts may terminate the contracts of probationary teachers who marry. The anomaly may arise that a board may refuse to employ a married woman and yet after retaining a single woman under tenure cannot dismiss her when she marries. Since State codes are silent upon the subject of dismissal of married women teachers, apparently boards arbitrarily make such discriminatory rules, irrespective of the estab-

lished principle of common law that woman's rights to the fruits of her labor are established in the United States."

EXPERIENCE

Required experience.—A number of studies conducted under the auspices of the National Education Association have shown during recent years a marked tendency for city school systems to demand some teaching experience as a prerequisite to appointment as a teacher in these cities. The Research Bulletin, Administrative Practices Affecting Classroom Teachers, published by the National Education Association as its Research Bulletin for March 1932 (vol. X, nos. 1 and 2) showed that the following percentages of cities required teaching experience for newly appointed teachers in 1930–31: 58.5 percent of 1,470 cities having more than 2,500 population did not specify experience as a prerequisite for appointment as a teacher; 18 percent required 1 year of experience; 22.4 percent 2 years, and 1.1 percent more than 2 years. Forty-seven and three-tenths percent of 1,198 of these cities employing junior high school teachers required no experience; 19.3 percent required 1 year of experience; 30 percent, 2 years, and 3.4 percent more than 2 years. In 1,391 cities reporting experience requirements for senior high school teachers the corresponding percentages were 47.3, 17.7, 30.6, and 4.4. The extent to which experience is required as a prerequisite is in a measure an exploitation of the rural and smaller areas by the larger and wealthier urban districts since the experience must be gained largely in the smaller school systems.

The relative value of 1 or 2 years unsupervised experience in a situation different from the one which the teacher is to occupy in the city compared with the same period spent as a cadet or interne teacher in the city system under careful supervision has never been accurately determined. A number of leaders in the field of educational supervision would approve the second method as not only more efficient but probably just as economical so far as the city is concerned, not to mention the fact that it is obviously much more just to the rural and small school systems.

Experience of elementary and secondary teachers.—The experience of elementary and secondary teachers for the school year 1930–31 is presented in table 8. These data are presented by States and for communities of different sizes. The experience for each group of teachers is presented by means of the Q_1, median and Q_3 of each State's distribution. The number of cases is also given in each instance. As was true with the data on the age of teachers, there are some instances of rather wide differences between States for the teachers in any one group. However, in the main the similarity of medians is more striking than the diversity. The transiency of the rural teachers particu-

larly can be seen by the years of experience indicated for the first quartile of this group. This is represented by 2 years in more than half of the States which means that the least experienced quarter of the rural teachers in those States were teaching their first or second year. The median length of experience for this group is less than 5 years.

Casual inspection of the data in table 8 indicates an increase in median years of teaching experience with each increase in the size of the community groups. The data on experience of junior high school teachers and senior high school teachers confirm the observation made in connection with table 5 that the junior high school teachers as a group are more experienced in teaching than are the senior high school teachers. An example of conditions which were found in separate States (from the more detailed tables not given in the final report) is shown by some 1930–31 statistics from Wisconsin and Pennsylvania. In Wisconsin 722 rural teachers out of 3,553 were teaching their first year and 647 their second. Thus, nearly two-fifths of the rural teachers in Wisconsin were teaching their first or second year. In contrast to this, only 50 of the 1,187 elementary teachers reporting from cities of 10,000 to 99,999 population in the same State were teaching their first year and 56 their second year. Less than one-tenth of the teachers in these cities were as inexperienced as the two-fifths in the rural schools. The problem at the other extreme was presented from 6,027 returns from elementary teachers in cities of more than 100,000 population in Pennsylvania. Approximately 18 percent of these teachers had 30 or more years of teaching experience. The establishment of a satisfactory balance between young and inexperienced teachers with the older teachers approaching the period of retirement cannot be established until there is more regulation of the supply of teachers and until there is a better plan for retaining the services of successful experienced teachers in the rural and village schools.

TABLE 8.—*Total number of years educational experience of elementary, junior, and senior high school teachers, 1930–31*

State	Location of school															
	Rural (1- and 2-teacher school)				3 or more teacher school in open country				Village of less than 2,500 population				City of 2,500 to 9,999 population			
	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Alabama	3	5	9	1,042	3	6	9	848	5	7	11	1,008	5	8	12	415
Arizona	4	7	14	132	3	6	11	69	3	6	11	290	4	6	10	273
Arkansas	3	6	11	629	3	6	9	206	3	6	11	579	4	7	12	228
California	3	8	13	967	3	7	13	601	3	7	13	1,565	4	8	15	1,703
Colorado	2	4	8	928	3	5	9	154	3	6	10	735	6	8	14	45
Connecticut	2	4	10	270	3	5	12	21	3	6	13	640	4	8	15	638
Delaware	6	11	21	60	4	8	16	20	5	9	14	136	5	7	15	41
Florida	3	5	11	130	3	6	11	116	4	7	12	519	5	8	13	410
Georgia	3	5	10	174	3	5	11	217	3	6	11	462	5	8	13	286
Idaho	2	4	8	163	3	5	9	44	3	4	8	315	5	7	12	173
Illinois	3	5	9	4,833	3	7	12	126	4	8	13	1,057	5	9	16	504
Indiana	4	6	13	1,183	4	7	12	818	5	7	13	2,272	6	11	22	922
Iowa	2	4	6	5,128	2	4	7	257	3	6	9	2,308	5	9	16	671
Kansas	2	3	6	3,156	3	5	8	121	4	6	10	1,158	5	8	13	580
Kentucky	2	4	6	1,113	3	6	11	182	3	6	10	704	4	7	13	393
Louisiana	3	5	9	403	3	6	10	671	3	6	10	1,300	5	8	13	468
Maine	2	4	9	629	3	5	15	32	4	7	14	773	5	9	18	429
Maryland	3	5	9	519	4	7	13	122	4	7	15	840	6	11	21	186
Massachusetts	2	4	14	159	3	6	16	52	3	7	15	989	5	9	18	1,243
Michigan	2	4	8	2,707	4	6	10	319	4	6	10	1,496	4	7	12	998
Minnesota	2	4	7	3,892	3	5	7	154	3	5	8	1,869	5	8	13	663
Mississippi	3	6	10	205	3	5	9	302	4	7	12	376	5	8	17	88
Missouri	2	4	6	650	3	5	9	58	3	5	9	1,110	5	8	13	531
Montana	3	5	8	1,110	3	8	19	45	4	6	10	488	6	8	14	197
Nebraska	2	3	5	2,956	2	2	6	96	4	6	9	923	5	9	13	209
Nevada	2	6	13	135				3	5	9	15	108	4	7	10	65
New Hampshire	2	5	10	267				5	3	6	13	450	5	9	18	132
New Jersey	3	6	11	340	3	6	12	318	4	7	12	1,939	4	7	13	2,453
New Mexico	2	5	10	218	3	5	9	90	3	6	11	315	5	8	12	116
New York	3	6	13	4,157	4	8	14	398	4	9	16	3,106	5	10	17	1,858
North Carolina	3	6	10	669	3	6	9	1,607	4	7	11	2,057	5	8	13	730
North Dakota	2	3	5	2,747	3	4	6	137	4	5	9	960	7	10	14	91
Ohio	3	5	11	1,810	4	7	11	862	4	7	12	2,748	5	9	15	1,632
Oklahoma	2	4	7	1,263	2	5	7	353	3	5	8	795	4	7	11	440
Oregon	2	4	9	961	4	7	15	160	4	7	12	678	6	9	13	423
Pennsylvania	3	6	12	3,872	4	7	12	851	3	5	9	4,903	4	8	16	2,512
Rhode Island	3	8	15	41	7	12	22	11	6	13	21	187	4	9	17	108
South Carolina	4	7	13	164	3	6	10	222	4	7	12	379	5	8	15	212
South Dakota	2	4	7	1,800	2	5	8	68	4	6	10	423	7	9	14	87
Tennessee	3	5	8	1,676	3	5	9	84	4	7	11	1,107	4	7	16	439
Texas	2	4	8	1,061	2	4	7	612	3	6	9	2,029	4	7	12	1,455
Utah	2	4	7	68	2	5	9	92	3	5	9	554	3	6	10	209
Vermont	3	4	9	451	4	9	15	15	4	7	15	488	7	13	25	162
Virginia	3	5	9	1,377	4	6	10	727	4	7	11	1,200	6	8	13	466
Washington	2	5	10	905	3	6	11	268	4	6	10	1,308	4	7	13	389
West Virginia	2	4	7	29				9	3	5	7	92	4	7	13	33
Wisconsin	2	4	7	3,553	3	7	10	158	3	5	8	886	4	8	15	547
Wyoming	2	3	7	507	4	6	11	35	4	6	9	378	6	9	12	94
Total				61,209				13,549				50,973				26,907

TABLE 8.—*Total number of years educational experience of elementary, junior, and senior high school teachers, 1930–31*—Continued

State	Location of school—Continued															
	City of 10,000 to 99,999 population				City of more than 100,000 population				Junior high				Senior high			
	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases
1	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
Alabama	6	10	16	408	6	10	17	420	3	6	11	565	4	6	11	967
Arizona	4	9	15	290					4	7	13	137	4	7	12	326
Arkansas	6	11	16	248					4	7	13	314	3	6	11	503
California	6	11	18	2,473	9	14	21	2,977	5	10	17	2,585	6	11	18	4,951
Colorado	7	13	20	256	9	18	25	297	5	11	18	445	3	7	14	786
Connecticut	6	10	19	1,868	6	10	19	638	4	10	18	493	5	9	16	1,211
Delaware					7	16	26	103	3	9	23	81	5	8	13	175
District of Columbia					5	11	19	525	6	11	23	148	10	18	27	254
Florida	5	8	12	482	5	10	15	356	3	7	12	530	4	7	11	646
Georgia	6	10	16	449	6	12	17	483	5	9	14	274	4	7	14	563
Idaho	6	9	12	37					4	7	12	113	3	5	8	437
Illinois	5	10	17	2,600	6	15	27	266	5	10	17	714	5	8	15	4,729
Indiana	6	11	19	1,600	8	14	21	1,531	6	10	16	1,097	5	9	15	4,115
Iowa	8	12	20	1,200	13	20	29	212	5	10	17	989	3	5	10	2,673
Kansas	7	10	17	678	9	13	19	282	6	10	16	690	4	6	11	1,819
Kentucky	5	9	15	602	4	7	15	501	4	8	13	468	4	7	13	1,004
Louisiana	7	11	15	356	6	12	21	782	4	8	14	119	3	7	13	1,301
Maine	8	16	27	508					4	9	16	164	4	7	13	797
Maryland	4	8	17	264	5	9	23	1,039	5	10	19	384	3	7	14	703
Massachusetts	6	11	22	3,218	8	15	27	2,683	6	12	23	2,358	6	11	21	3,606
Michigan	5	9	15	2,193	5	8	15	2,054	5	8	15	2,422	4	7	13	4,050
Minnesota	7	12	19	407	10	15	22	1,324	7	12	20	959	3	7	14	2,476
Mississippi	5	9	16	236					3	6	11	153	3	6	10	492
Missouri	5	10	18	818	7	15	26	1,393	5	9	17	656	5	9	17	1,998
Montana	7	11	20	359					5	9	16	138	3	7	11	532
Nebraska	8	12	19	290	11	18	25	346	4	7	13	389	3	7	14	1,285
Nevada	8	12	25	34					3	6	10	40	3	6	9	101
New Hampshire	6	10	21	266					3	7	18	144	3	5	10	428
New Jersey	5	9	16	4,256	6	12	21	3,067	6	10	19	1,740	6	10	18	3,349
New Mexico	5	9	13	110					4	6	13	99	4	6	10	255
New York	6	12	19	3,885	5	10	19	12,374	7	14	22	3,697	5	9	18	8,665
North Carolina	5	9	15	818					4	7	11	366	3	5	9	1,721
North Dakota	8	10	17	94					4	7	11	126	3	5	8	600
Ohio	6	10	18	2,983	6	13	22	4,225	5	10	18	2,768	4	8	16	5,601
Oklahoma	5	8	14	320	7	11	18	363	4	8	14	497	4	7	12	1,125
Oregon	6	10	14	219	15	21	28	582	4	8	15	258	4	8	15	1,277
Pennsylvania	5	9	18	4,729	6	13	26	6,026	4	8	17	4,186	4	8	17	6,723
Rhode Island	7	16	27	339	5	11	21	188	4	8	17	183	6	10	19	276
South Carolina	6	11	19	347					4	7	12	82	3	7	11	513
South Dakota	6	10	14	162					4	8	12	117	3	5	8	431
Tennessee	5	9	16	182	5	11	19	965	5	9	15	558	4	8	14	915
Texas	5	9	14	1,589	6	11	18	1,813	5	8	13	1,283	4	7	12	3,343
Utah	4	9	15	47	4	8	15	172	4	8	14	377	4	8	14	420
Vermont	7	14	21	75					4	9	23	60	3	5	9	285
Virginia	6	10	17	654	5	9	17	418	4	9	15	513	3	6	12	1,362
Washington	7	10	16	549	10	16	25	886	5	8	15	538	4	8	15	1,893
West Virginia	6	11	18	353					5	8	16	118	6	10	14	161
Wisconsin	6	11	17	1,187	8	15	25	872	5	8	15	926	4	8	14	2,269
Wyoming	8	11	15	97					5	7	11	91	3	6	10	354
Total				45,143				50,163				36,067				84,556

Other factors affecting experience.—Other factors affecting the length of time that teachers remain in teaching will be discussed in connection with the personnel data presented in other chapters. The longer period of preservice training expected of secondary teachers, the higher salaries paid to secondary teachers which encourage elementary

teachers over a period of years to secure the additional training which makes the transfer to the secondary schools possible, the tendency to provide high minimum salaries which encourage the use of teaching as a temporary "stepping-stone" occupation, the relative availability of remunerative work in other occupations, the curtailment of special educational services, the reorganization of elementary and secondary curricula and the establishment of junior colleges—these and other factors have tended in recent years to shorten the period of actual teaching service, especially of elementary teachers, so that while it is considerably longer than prevailed immediately following the World War, it is not as long as it should be or as long as it could have been had some of these factors been handled more intelligently.

TABLE 9.—*Transiency of elementary teachers, 1930–31*

Location of teachers	Total	Percent of teachers having been employed in various numbers of different systems				
		1	2	3	4	5 or more
1	2	3	4	5	6	7
Open-country 1- and 2-teacher schools	61,557	45.8	23.0	13.1	7.4	10.7
Open-country 3-or-more-teacher schools	13,609	43.8	23.8	14.6	8.1	9.7
Villages of less than 2,500 population	51,294	35.0	26.9	17.4	9.9	10.8
Cities of 2,500 to 9,999 population	27,025	32.1	28.6	18.7	10.4	10.2
Cities of 10,000 to 99,999 population	45,289	37.2	26.5	17.5	9.8	9.0
Cities of more than 100,000 population	50,458	62.1	15.7	10.0	6.0	6.2

Transiency of elementary teachers.—"Stabilization or permanence of personnel may be considered a basic prerequisite of a profession. Adjustment to a community, acquaintance with its traditions, and knowledge of its social needs can come only through continued residence. The high rate of transiency among teachers in public-school systems in the past has been detrimental not only to educational planning but unquestionably has also been of signficance in lowering the professional status of teaching in the public mind. The data presented in tables 9 and 10 on transiency of elementary teachers indicate that the problem varies by States and by population areas. It will be noted in table 9 that in 1930–31 62.1 percent of the elementary teachers in cities of more than 100,000 population had been employed by only one school system but in villages with less than 2,500 population, 35 percent of the elementary teachers had been employed in one school system, and approximately 27 percent in two. In referring again to table 8 "Total number of years educational experience of elementary teachers 1930–31", the approximate median (median of medians) number of years' experience of elementary teachers in villages of less than 2,500 was 6 years and in cities of more than 100,000 population, 12 years. It is to be expected that superior working conditions, tenure laws, pension systems, higher salaries, and better social conditions in the larger cities tend to hold teachers for a longer period.

TABLE 10.—*Number of different school systems in which rural and elementary school teachers have taught, 1930–31*

State	Elementary teachers in 1- and 2-teacher schools in the open country											All other elementary-school teachers										
	Number involved	1	2	3	4	5	6	7	8	9	10 or more	Number involved	1	2	3	4	5	6	7	8	9	10 or more
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Alabama	1,047	55.3	22.4	10.3	5.2	2.7	1.5	0.4	1.1	0.6	0.5	3,115	39.3	25.6	17.1	8.5	4.7	2.3	1.2	0.4	0.3	0.6
Arizona	132	20.5	21.2	21.2	9.8	7.6	6.1	3.0	3.8	3.0	3.8	925	33.1	21.8	14.8	11.5	7.8	5.2	2.3	1.1	1.0	1.4
Arkansas	636	33.0	20.1	16.2	9.6	6.6	4.6	2.2	2.8	.8	4.1	1,272	32.3	24.8	18.6	11.4	4.7	3.8	1.3	1.4	.6	1.1
California	971	34.9	16.0	16.0	10.0	8.7	5.4	2.0	2.2	1.4	3.4	9,389	28.5	23.2	18.0	13.1	7.7	4.2	2.3	1.4	.8	.8
Colorado	929	32.2	22.7	16.3	10.1	5.6	4.5	2.4	2.4	.6	3.2	1,493	23.1	25.6	21.8	13.5	6.7	4.6	2.3	1.3	.4	.7
Connecticut	269	55.8	23.8	10.4	5.2	3.3	.4			.4	.7	3,837	51.6	26.8	11.9	5.2	2.3	1.0	.5	.4	.1	.2
Delaware	60	35.0	28.3	10.0	10.0	6.7	5.0	1.7	1.7		1.6	308	41.9	29.3	18.3	10.1	2.9	1.0	.6	.3	.6	
District of Columbia												528	77.5	13.4	5.1	2.1	1.1	.8				
Florida	130	45.3	18.5	10.0	7.8	6.9	1.5	5.4	1.5	.8	2.3	1,887	34.2	24.4	17.7	11.2	6.5	2.5	1.3	1.0	.3	.9
Georgia	176	47.3	25.6	11.9	6.8	3.4	1.7	1.1	.5		1.7	1,909	39.5	23.7	17.3	10.1	4.8	2.8	.8	.5	.2	.3
Idaho	163	32.5	25.8	17.2	8.0	7.4	1.2	1.8	1.2	1.2	3.7	571	21.9	27.1	23.1	13.3	6.0	3.3	2.3	.5	.7	1.8
Illinois	4,853	36.4	23.8	15.3	9.5	5.4	3.9	2.0	1.2	.8	1.7	4,570	34.0	27.0	17.8	10.5	5.3	2.7	1.2	.7	.4	.4
Indiana	1,186	49.8	25.5	12.0	6.5	2.7	1.8	.7	.6		.4	7,165	36.4	30.0	18.3	8.9	3.6	1.2	.9	.2	.2	.3
Iowa	5,147	46.5	26.3	14.1	6.3	2.9	1.7	.9	.5	.2	.6	4,657	20.8	30.7	24.0	12.8	6.2	2.6	1.1	.8	.3	.7
Kansas	3,168	42.6	27.4	15.0	7.1	3.4	1.9	1.2	.6	.3	.5	2,825	20.2	27.6	24.7	14.6	6.1	3.2	1.8	1.1	.2	.5
Kentucky	1,256	66.9	18.9	8.3	3.6	1.1	.7	.2	.2		.1	2,402	50.5	26.8	12.2	6.2	2.1	1.1	.4	.2	.1	.4
Louisiana	403	71.6	16.1	6.0	3.7	1.7	.2	.5			.2	3,598	61.2	18.6	10.4	5.5	2.6	1.0	.4	.3	.1	.2
Maine	631	53.6	19.9	10.6	7.0	3.6	1.7	1.1	.6	.6	1.3	1,747	39.8	25.0	15.5	8.7	4.4	2.6	1.4	1.1	.5	1.0
Maryland	521	80.0	13.8	3.8	1.2	.6	.2	.2	.2			2,486	79.2	14.7	4.1	.9	.5	.3	.1			.2
Massachusetts	160	59.4	18.1	9.4	6.9	1.2	2.5	1.9	.6			8,212	47.3	27.0	13.6	6.3	3.3	1.3	.6	.3	.2	.1
Michigan	2,714	41.3	23.3	14.7	8.9	5.2	2.9	1.6	1.0	.3	1.0	7,081	36.4	27.4	17.6	9.5	4.5	2.3	1.0	.6	.2	.5
Minnesota	3,896	46.4	23.2	12.6	7.5	4.6	2.2	1.5	.6	.5	.9	4,435	21.5	26.4	21.4	13.3	7.9	4.6	2.2	1.3	.6	.8
Mississippi	204	44.5	21.1	15.2	6.4	4.9	4.4	1.5	1.0		1.0	1,012	31.4	24.6	18.4	13.4	5.4	3.2	1.7	.5	.5	.9
Missouri	652	42.2	27.7	15.5	6.7	2.9	2.0	.5	.9	.5	1.1	3,923	46.1	22.5	15.8	7.9	3.9	1.9	.8	.4	.2	.5
Montana	1,114	28.3	20.6	17.1	11.1	8.2	4.3	2.3	2.5	1.8	3.8	1,094	14.7	21.8	22.7	18.4	10.8	4.9	3.1	1.8	.6	1.1
Nebraska	2,961	47.7	26.5	11.4	6.7	3.5	1.9	.9	.6	.2	.6	1,871	22.1	26.8	23.8	13.4	7.7	2.9	1.3	1.0	.6	.4
Nevada	135	31.9	17.8	15.6	8.9	9.6	4.4	2.2	3.0	2.2	4.4	209	15.3	19.1	21.0	20.1	13.9	6.2	1.0	2.9		.5
New Hampshire	269	44.6	26.4	13.4	7.8	3.7	1.9	.4	.7	.4	.7	858	41.0	29.4	14.2	7.8	3.6	2.3	.7	.6	.4	.6
New Jersey	340	48.2	25.9	13.2	4.4	3.2	2.4	1.2	.9		.6	12,060	55.4	23.3	11.3	5.7	2.3	1.1	.4	.2	.1	.2
New Mexico	219	50.7	19.2	9.6	8.2	2.3	5.4	.9	1.4		2.3	633	27.8	25.8	19.4	12.5	7.3	4.3	1.3	.9	.8	.9

TABLE 10.—*Number of different school systems in which rural and elementary school teachers have taught, 1930–31*—Continued

State	Elementary teachers in 1- and 2-teacher schools in the open country											All other elementary-school teachers										
	Number involved	1	2	3	4	5	6	7	8	9	10 or more	Number involved	1	2	3	4	5	6	7	8	9	10 or more
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
New York	4,165	39.7	19.6	11.2	9.5	7.1	4.5	2.8	2.3	1.1	2.2	21,752	58.5	17.0	10.8	6.5	3.5	1.8	0.8	0.5	0.2	0.4
North Carolina	672	45.7	22.0	14.0	7.0	4.8	3.3	1.0	1.0	.6	.7	5,230	35.3	25.3	17.9	11.0	5.2	2.8	1.1	.5	.3	.6
North Dakota	2,756	49.7	25.2	13.4	6.4	3.0	1.1	.4	.3	.2	.3	1,285	20.6	23.9	24.5	14.6	9.3	3.9	1.8	.5	.2	.7
Ohio	1,820	53.3	23.4	11.0	6.3	1.8	1.8	.9	.3	.3	.9	12,486	45.9	25.5	15.3	7.3	3.3	1.6	.6	.2	.1	.2
Oklahoma	1,273	36.9	24.3	17.0	9.3	5.0	2.5	1.3	1.3	.5	1.9	2,286	28.4	27.3	21.0	10.9	6.0	2.9	1.0	1.0	.4	1.0
Oregon	963	36.1	20.1	14.4	10.3	5.7	5.4	1.6	2.2	1.0	3.2	2,077	18.0	21.0	22.1	17.3	9.3	4.9	3.6	1.5	.9	.5
Pennsylvania	3,888	47.9	23.5	14.8	7.1	3.2	1.6	.8	.3	.2	.6	19,214	59.5	21.2	10.5	5.0	2.3	.8	.4	.1	.1	.2
Rhode Island	41	48.8	26.8	12.2	4.9		4.9		2.4			834	63.8	20.3	7.8	4.2	1.5	1.3	.5	.1	.4	.1
South Carolina	165	31.5	20.0	18.8	9.1	7.3	8.5	2.4	.6	.6	1.2	1,170	36.0	23.4	17.0	11.4	5.4	3.2	1.7	.8	.3	.8
South Dakota	1,805	39.9	22.0	16.5	9.0	5.4	2.5	1.3	1.3	.5	1.6	743	14.9	26.1	25.9	17.0	8.9	3.5	.8	1.5	.7	.7
Tennessee	1,689	71.3	16.2	6.3	2.9	1.1	1.0	.3	.4	.1	.4	3,563	51.1	27.3	12.0	5.0	2.4	.9	.6	.3	.1	.3
Texas	1,068	42.9	21.9	12.5	9.0	5.2	4.1	1.3	1.9	.5	.7	7,535	27.8	24.2	20.5	13.2	7.1	3.9	1.6	1.0	.3	.4
Utah	69	50.8	30.5	11.6	1.4	4.3			1.4			1,129	57.1	21.3	11.9	4.8	2.9	1.1	.8	.4	.1	.2
Vermont	452	47.2	23.7	12.6	7.5	4.6	2.0	1.1	.9	.2	.2	740	25.5	29.0	21.8	12.7	4.2	3.9	1.8	1.4		.1
Virginia	1,381	66.3	20.2	7.2	2.7	1.7	.7	.7	.1	.1	.3	3,547	50.0	25.4	13.7	6.2	2.4	1.3	.6	.2		.2
Washington	906	34.3	19.2	14.1	10.6	6.3	4.1	2.4	2.3	1.1	5.6	3,415	18.3	21.5	21.5	16.7	9.0	5.9	2.5	1.8	1.0	1.8
West Virginia	29	55.3	24.1	13.8	3.4			3.4				427	43.1	29.5	15.9	8.0	1.2	.9	.7	.7		
Wisconsin	3,566	47.2	24.7	13.0	7.1	3.9	2.0	.8	.8	.2	.3	3,596	32.9	26.6	18.0	11.6	5.1	2.9	1.4	.6	.5	.4
Wyoming	507	45.4	19.9	13.8	7.5	4.1	2.5	1.8	1.4	1.0	2.6	604	16.9	22.4	22.8	18.9	9.3	4.5	2.3	1.3	.3	1.3
Total	61,557	45.8	23.0	13.1	7.4	4.2	2.5	1.3	1.0	.5	1.2	187,675	43.1	23.8	15.4	8.8	4.4	2.2	1.0	.6	.3	.4

"The principle of tenure has been advocated among educators for the past decade, a strong argument being that teacher turn-over is reduced in States with tenure laws, thereby showing a stabilizing effect. There are other groups of schoolmen who are in opposition to tenure laws because of certain undesirable results said to accompany tenure laws. Among the advantages of tenure frequently cited, other than decreased turn-over and greater stability are: Protection of the teacher from petty political or personal attacks; relief to the teacher from worries over uncertainty of employment; higher quality of personnel secured due to increased attention to selection of teachers; and greater value of the teacher under tenure to the community because of longer period of service. Tenure of teachers meets opposition from those who feel that the weak and ineffective are protected by tenure; that the feeling of security offered by tenure makes teachers less cooperative and less ambitious to grow professionally; and that dismissals of teachers within the usual periods of probation are more pronounced.

"In the main, the factor contributing chiefly to teacher transiency is the salary consideration, which, of course, diminishes in importance as districts are more populous and more prosperous. A salary increment, secured either through local taxation or State subsidy, might be given in the areas where salaries are low as a means of reducing withdrawals. Unquestionably many teachers change because they secure more advantageous positions; just as many others change because of dissatisfaction with conditions other than salary. It is true that the person with initiative who has prepared for positions of greater responsibility may profit by changes, but in the case of the more passive teacher a change in position does not necessarily mean professional advancement."

Transiency of secondary teachers.—"In table 11 the data presented on transiency of secondary teachers revealed State differences as well as variation between junior and senior high school teachers. In comparing elementary and secondary teachers, the latter exceeded the former in number of positions held under different school systems. This was presumably due to the large number of secondary teachers who had their initial experience in elementary schools, acquired more education, and then secured a position in high school.

TABLE 11.—*Number of different school systems in which junior and senior high school teachers have taught, 1930–31*

State	Junior high school teachers											Senior high school teachers										
	Number involved	1	2	3	4	5	6	7	8	9	10 or more	Number involved	1	2	3	4	5	6	7	8	9	10 or more
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Alabama	566	35.5	26.9	14.3	11.0	5.3	2.8	2.3	1.1	0.5	0.3	972	33.1	26.3	18.9	9.5	5.5	3.6	2.0	0.7	0.2	0.2
Arizona	137	21.2	27.0	17.6	10.2	10.2	10.2	1.4	2.2			328	27.2	21.9	18.4	15.8	9.5	2.1	2.1	1.2	.9	.9
Arkansas	316	26.9	26.6	22.2	9.8	7.0	2.8	1.3	.9	.9	1.6	508	28.7	23.6	19.9	13.0	5.7	3.7	2.4	1.0	.2	1.8
California	2,553	30.5	21.1	17.7	13.4	8.3	4.4	2.0	1.1	.5	1.0	4,976	25.6	20.5	18.0	13.9	10.2	5.1	2.9	1.9	.8	1.1
Colorado	447	24.4	22.2	21.3	13.0	8.9	6.0	2.2	1.1	.2	.7	789	32.7	20.3	19.4	13.8	6.4	3.2	1.6	1.0	.8	.8
Connecticut	497	40.5	28.0	14.7	9.8	3.6	1.0	1.0	.8	.2	.4	1,214	24.4	28.8	23.2	11.1	7.0	3.1	1.4	.2	.5	.3
Delaware	51	42.0	30.8	17.3	4.9	2.5	2.5					175	31.4	29.2	13.7	13.7	1.1	4.6	1.7	.6		
District of Columbia	151	51.7	19.2	15.9	6.0	3.3	1.3	2.0			.6	256	37.8	21.1	13.7	13.3	7.4	3.1	2.0	.8	.4	.4
Florida	533	29.5	26.1	18.9	9.4	8.1	2.8	2.1	1.5	.1	1.5	648	27.9	22.7	20.1	14.1	5.2	4.2	2.0	2.3	.8	1.2
Georgia	273	25.3	26.8	21.6	11.7	7.3	4.0	2.2	.4		.7	567	26.8	26.1	20.4	10.9	9.0	3.7	1.4	1.1	.4	.2
Idaho	113	21.3	20.4	21.3	14.2	8.8	7.9	1.7	1.7	.9	1.8	439	31.2	27.9	18.2	9.4	6.8	3.6	1.1	1.1	.2	.5
Illinois	720	32.1	26.1	19.5	10.6	5.1	2.0	1.8	1.1	.3	.5	4,753	31.5	26.4	18.5	10.6	6.3	3.0	1.7	1.0	.3	.7
Indiana	1,109	26.8	28.9	23.0	11.0	5.8	3.0	.5	.4	.2	.4	4,124	26.8	25.3	20.2	12.6	7.0	4.0	2.1	1.0	.3	.7
Iowa	996	19.8	25.9	25.1	12.5	7.9	4.6	2.4	.9	.6	.8	2,678	30.2	29.2	19.7	10.0	5.5	2.8	1.5	.3	.4	.4
Kansas	696	19.1	27.7	24.7	14.7	6.6	4.0	1.6	.6	.4	.6	1,825	28.4	26.1	21.4	11.7	6.6	2.7	1.3	1.0	.3	.5
Kentucky	469	43.5	26.2	16.6	6.6	4.5	.9	1.1	.6			1,013	35.9	27.1	17.6	10.2	4.3	2.1	.9	.7	.3	.9
Louisiana	119	65.6	19.4	10.1	2.5	1.6		.8				1,302	47.1	23.7	13.8	7.8	2.6	2.7	1.2	.8	.1	.2
Maine	164	31.7	25.1	15.9	10.4	7.3	2.6	.6	1.2	2.4	1.8	797	33.8	27.5	16.1	11.4	4.8	1.9	2.1	.9	.6	1.4
Maryland	388	68.6	21.1	7.2	2.6		.5					794	56.4	22.2	11.1	3.9	2.7	1.1	.6			.4
Massachusetts	2,371	41.9	24.8	16.4	8.3	4.2	2.5	.9	.5	.3	.2	3,619	29.1	26.7	20.4	12.3	5.8	3.3	1.4	.4	.3	.3
Michigan	2,432	34.6	25.8	18.0	10.1	5.3	2.4	1.0	.8	.4	.8	4,060	35.9	26.8	15.6	10.0	5.8	3.6	1.8	.9	.3	.4
Minnesota	961	15.9	20.9	23.7	14.4	10.9	6.7	3.2	2.7	.5	1.1	2,440	31.6	23.5	18.5	11.2	7.2	3.8	2.0	1.0	.4	.8
Mississippi	153	35.9	27.5	14.4	7.8	6.5	3.3	2.0	2.0		.6	492	31.8	27.8	19.5	11.6	5.9	2.0	1.2	.2	.2	.2
Missouri	658	31.7	28.8	19.5	10.1	5.5	3.9	1.4	.6	.4	.1	2,010	28.3	23.4	20.3	14.5	7.1	4.0	1.9	1.3	.3	.9
Montana	134	20.9	20.2	13.5	14.9	12.7	9.0	2.2	2.2	3.7	.7	533	24.6	25.9	16.7	16.5	8.4	3.6	1.7	1.5	.2	.9
Nebraska	361	19.9	25.8	25.5	14.9	7.5	3.1	.8	1.1		1.4	1,290	27.1	23.5	20.6	12.5	7.3	4.0	2.2	1.4	.5	.9
Nevada	41	24.4	26.8	26.8	2.4	9.8	4.9	4.9				103	28.2	23.3	24.3	9.7	5.8	1.9	3.9			2.9
New Hampshire	145	41.4	27.5	11.0	7.6	6.2	2.1	2.1	.7	.7	.7	429	43.6	29.2	12.4	7.9	3.0	1.6	.5	.9	.7	.2
New Jersey	1,746	36.8	26.0	19.2	9.8	4.5	2.4	.9	.3		.1	3,353	27.0	25.7	20.1	12.9	7.4	3.4	1.8	1.0	.3	.4
New Mexico	99	26.3	19.2	30.4	12.1	4.0	3.0	4.0		1.0		255	19.2	28.7	27.1	11.8	7.4	2.7	.4	2.3	.4	

New York	3,517	47.4	20.7	14.3	8.2	4.9	2.2	1.3	.5	.2	.3	8,700	44.5	22.9	14.5	8.6	4.4	2.7	1.4	.5	.2	.3
North Carolina	306	32.8	27.0	18.6	10.9	6.3	2.5	1.1	.3		.5	1,724	38.3	24.5	18.1	9.6	.50	2.0	.9	.6	.5	.5
North Dakota	127	11.8	23.6	20.5	20.5	11.0	4.7	3.9	3.2	.8		604	31.4	27.6	16.7	10.8	6.0	3.5	1.5	1.2	.3	1.0
Ohio	2,778	40.4	24.9	16.8	8.7	5.6	2.0	.9	.4	.2	.2	5,813	35.2	25.6	18.0	10.5	5.2	2.6	1.4	.8	.3	.4
Oklahoma	499	24.1	21.8	23.5	14.8	7.4	5.0	1.0	.8	1.2	.4	1,182	22.0	25.1	22.8	14.0	7.6	3.6	1.4	1.1	.9	1.5
Oregon	260	21.2	22.7	19.2	9.6	10.4	6.5	5.0	1.9	.8	2.7	1,282	30.4	24.9	18.3	12.6	5.9	3.2	2.0	1.6	.3	.8
Pennsylvania	4,193	55.2	20.9	12.3	6.2	3.1	1.1	.6	.4	.1	.2	6,735	43.7	24.9	15.5	7.7	4.4	2.2	.8	.3	.2	.3
Rhode Island	183	55.8	25.1	9.8	7.7	1.1	.5					277	40.8	22.0	16.6	11.1	5.8	1.1	1.1	.4	.7	.4
South Carolina	82	25.6	25.6	26.9	9.8	7.3	2.4		1.2		1.2	514	36.6	28.7	15.3	8.8	4.3	2.3	1.2	1.4	.4	1.0
South Dakota	117	17.1	25.7	22.2	17.9	5.1	4.3	4.3	1.7		1.7	430	31.1	29.5	18.4	11.2	5.1	2.1	.9	.7	.5	.5
Tennessee	558	36.9	28.7	18.3	9.0	3.8	1.2	1.2	.7	.2		916	24.1	28.4	18.6	11.1	5.1	2.3	1.5	.7	.1	.1
Texas	1,292	24.9	25.7	21.1	13.2	6.9	4.4	4.6	1.2	.4	.6	3,360	23.5	24.9	20.3	13.9	8.5	3.9	2.1	1.1	.7	1.1
Utah	378	36.1	33.3	16.1	8.7	2.6	2.1	.5	.3		.3	420	32.2	28.6	23.1	9.3	4.1	.9	.7	.7	.2	.2
Vermont	60	30.0	26.6	21.7	5.0	10.0	1.7	1.7		3.3		296	40.6	31.9	10.9	7.7	3.9	2.4	.3	1.7	.3	.3
Virginia	514	42.6	31.9	14.4	6.2	3.1	1.4	.2	.2			1,766	40.8	27.2	15.9	8.7	3.6	1.8	.7	.8	.3	.2
Washington	543	18.6	24.1	22.5	12.5	9.4	5.9	2.4	1.8	1.1	1.7	1,808	25.9	24.7	18.6	12.9	8.3	3.5	3.0	1.3	.8	1.0
West Virginia	118	33.1	33.0	21.2	6.8	3.4	1.7		.8			161	30.4	28.0	18.7	9.3	6.8	3.7	2.5	.6		
Wisconsin	932	31.5	28.9	15.2	11.4	7.0	3.1	1.3	.9	.5	.2	2,275	30.2	28.5	18.5	10.9	6.7	3.8	1.8	1.0	.3	.3
Wyoming	91	9.9	30.7	19.8	22.0	9.9	4.4	3.3				354	26.8	24.9	18.7	11.9	8.2	4.5	1.4	2.0	.8	.8
Total	36,228	36.7	24.4	17.5	9.9	5.7	2.9	1.3	.8	.3	[illegible]	44,829	33.3	25.0	17.9	11.0	6.1	3.2	1.6	.9	.4	.6

"In a time of financial depression there is a natural tendency to hold a position rather than change to another system or seek a new position. As professional requirements increase there is less incentive for an individual to change to another type of work. Despite the decreases in salary of teachers so prevalent during the school years 1931–32, 1932–33, and budget cuts for 1933–34, teachers with positions have a tendency to retain them. Accordingly it is felt that the data presented in tables 9, 10, and 11 are hardly representative of the personnel for the school year 1933–34. Present indications point to a decrease in the amount of transiency of teachers at all levels."

SUMMARY

From the data presented in this chapter concerning the age, sex, marital status, experience, and transiency of teachers in public schools in the United States some generalizations are apparent.

1. In 1930–31 American public schools were taught predominantly by young, unmarried women with little teaching experience and that little obtained in two or more different school systems.
2. Marked differences in the items presented in this chapter were disclosed among the States but the differences among sections of the country, between urban and rural areas and among communities of different sizes were more significant than the differences among States.
3. Data presented on age, experience, and transiency of teachers indicate very conclusively that the rural schools have suffered a serious educational handicap because they have had to take young teachers for their first teaching experience and then were unable to retain the services of those teachers after they had gained their initial experience at the expense of the rural children.
4. Transiency and its resultant "turnover" among teachers was caused largely by teachers moving to positions in larger communities and from elementary schools to secondary schools.
5. The minimum age at which persons may be certificated to teach is so low in many States that both inadequate preparation and transiency are encouraged.
6. Seven-eighths of all rural teachers in 1930–31 were women. Nineteen-twentieths of all other elementary teachers, three-fourths of the junior high school, and nearly two-thirds of the senior high school teachers were women.
7. The fact that the medians for teaching experience were in nearly all instances very much closer to the first quartiles of the distributions of experience than to the third quartile indicates that there was a heavy loss of young teachers. This fact may also be taken as an indication that teaching is not considered by many of the young people entering it as a permanent career. To the

extent that teaching is regarded as a "stepping stone" or "stop-gap" occupation, its progress toward professional status is definitely retarded.

8. The fact that transiency among teachers was greatest in rural schools and small communities indicates the need for programs of equalization of educational opportunities, with special attention to the improvement of working conditions for teachers in rural and village schools.

CHAPTER III

EXTENT, SOURCE, AND NATURE OF THE EDUCATION OF TEACHERS[1]

EXTENT OF TEACHERS' EDUCATION

Increase in the amount of teachers' education.—There are today many criticisms directed toward the amount and quality of the education of our public-school teachers. The data presented in this chapter show, all too clearly, that much of the above-mentioned criticism is justified if teachers are expected to be as well educated as members of the professions of law, medicine, and the ministry. This expectation has not been a general one, however, and a very different view of the situation is obtained when the education of teachers of today is compared with the education of teachers in past periods of our history—some of them not so long past. In such comparisons it is soon obvious that while we still have much to accomplish we have made remarkable progress in the upgrading of American public-school teachers. This progress is more clearly presented in volume V, part 1 of the Survey report.[2] Even at the turn of the present century many States were admitting prospective teachers who had finished the eighth-grade work to 1- and 2-year courses in normal schools, the completion of which entitled them to some form of teacher certification. Less than a decade ago half of the States, representing all sections of the country, were preparing teachers in secondary schools. In 1933 there were only seven States with such courses. Facts similar to these, already presented in greater detail in other volumes of the Survey report, should be borne in mind when considering the data of this chapter.

The World War in a number of ways made the American people conscious of the inadequacies of the public schools and also aware of the important role which education has to play in the perpetuation of a democratic form of government. As a result of this awakened interest in education very rapid progress was made during the 5 or 6 years immediately following the War in the matter of increasing the amount of preparation of teachers—not only new teachers but those already in service. Several States passed laws setting a date—a few years in advance—by which all teachers would be required to have a specified minimum amount of educational preparation. The remarkable increase in the attendance of teachers in summer session during

[1] Quoted paragraphs not otherwise acknowledged in chapters II and III are from a manuscript prepared by Guy C. Gamble on the topics included in these chapters.

[2] Frazier, Ben W. The History of the Education of Teachers in the United States. U.S. Office of Education. Bulletin 1933, no. 10, National Survey of the Education of Teachers. Vol. V, pt. 1.

that period as well as the increased number of teachers who attended college on some form of leave of absence were direct results of the general desire of American school patrons to have better-prepared teachers for the schools and their willingness to support the schools in such a way as to secure that increased preparation.

Quantity not quality the measure.—During the period of this rapid upgrading of teachers much work was done by research students in education to establish methods by which the teaching merit of individual teachers could be established. While significant contributions were made [3] no acceptable means of evaluating the quality of a teacher's work was presented. It was therefore necessary, during these years, to evaluate the preparation of teachers in terms of such quantitative elements as number of years spent in college, degrees held, and years of teaching experience. Obviously no one would contend that "a year in college" is a constant quantity. It varies according to the individual, his previous preparation, his vocational interests, the college attended, the year in the college curriculum, the location of the college, the extra-class opportunities, the individual's social adjustments, and a host of other factors. Even with all these variables it was more of a constant, more acceptable to teachers and more understandable to patrons than any qualitative measure which was available at that time. This situation should also be kept in mind in interpreting the tables presented in this chapter.

Difference in standards for elementary and secondary teachers.—There exists at the present time a very definite distinction in the minds of American school patrons as to the amount of preparation needed by teachers of elementary and secondary schools. Since the period immediately following the World War it has been generally accepted that the desirable minimum of educational preparation for elementary teachers was 2 years beyond the completion of high school while the desirable minimum for secondary teachers was 4 years of college work. This double standard has persisted in spite of attempts to remove it.[4] A few cities have been operating upon the assumption that elementary teachers should be as adequately prepared, even though differently, as are secondary teachers. Data obtained by the National Education Association show that these cities are still very much in the minority.

One other element in the question of standards for the preparation of teachers was forcibly presented by Frank P. Bachman [5] in his

[3] Betts, Gilbert L. The Education of Teachers Evaluated Through the Measurement of Teaching Ability. U.S. Office of Education, Bulletin 1933, No. 10. National Survey of the Education of Teachers, vol. V, pt. II.

[4] Evenden, E. S. Teachers Salaries and Salary Schedules in the United States, 1918–19. Washington, D.C., National Education Association.

[5] Bachman, Frank P. Training and Certification of High-School Teachers. Nashville, Tenn., George Peabody College for Teachers, Field Studies No. 2, 1930.

—— Education and Certification of Elementary Teachers. Nashville, Tenn., George Peabody College for Teachers, Field Studies No. 5, 1933.

studies of certification practices in the several States. That element was the minimum level of preparation for teachers set by each State. Dr. Bachman contended that the lowest amount of preparation which would be accepted for certification in a State was in a very real sense the standard for that State because during periods when conditions were unsettled that was the standard which was enforced. Considering the fact that so many of the States have, in one way or another, permitted teachers to enter teaching at the completion of the high school or by means of examinations with even less than that much preparation the progress made during the 15 years following the World War is a source of encouragement to those interested in the professional preparation of teachers.

Highest level of training.—In the inquiry which was sent out by the National Survey of the Education of Teachers, every teacher was asked to indicate the highest level of his training (items 27–28 fig. 2). A summary of answers received arranged according to levels of training and size of communities is presented in table 12.

"Considering 2 years of college education as a standard for elementary-school teachers, table 12 reveals that of 248,593 elementary teachers who answered the question as to the highest level of their training, 46.2 percent had attained the standard; 27.6 percent had surpassed it, and 26.2 percent had fallen below. Considering 4 years of college work as a desirable standard for secondary teachers, 43.7 percent of the junior high school teachers and 58.1 percent of the senior high school teachers had reached the standard, 16.7 percent of the junior high school and 29 percent of the senior high school teachers exceeded the standard, and 39.6 percent of the junior high school and 12.9 percent of the senior high school teachers had not reached it. In comparing the training of elementary-school teachers by size of location, the following proportions of elementary teachers were below the standard: Open-country, 1- and 2-teacher schools, 61.8 percent; open-country 3- or more-teacher schools, 28.4 percent; villages of less than 2,500 population, 21 percent; cities of 2,500 to 9,999 population, 12.6 percent; cities, 10,000 to 99,999 population, 10.5 percent; and cities of more than 100,000 population, 9.2 percent."

The data in table 12 indicate clearly the double standard to which reference was previously made. If, for example, the same standard of 4 years beyond high school was accepted for elementary schools then by a strange coincidence the situation in both groups can be expressed by the fraction seven-eighths. For the elementary teachers, however, seven-eighths do not meet the standard (4 years of college work) while for the senior high school teachers seven-eighths do meet the standard.

TABLE 12—*Highest level of training of elementary teachers by location and of junior high school and senior high school teachers, school year 1930–31*

Location	Total number involved	Level of training															
		Non-graduate of elementary school	Graduate of elementary school only	1 year of high school	2 years of high school	3 years of high school	4 years of high school	6 to 12 weeks of college	Half year of college	1 year of college	2 years of college	3 years of college	4 years of college	1 year of graduate work	2 years of graduate work	3 years of graduate work	More than 3 years of graduate work
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Elementary teachers:																	
1- and 2-teacher schools, open country	61,299	0.1	0.6	0.4	1.0	1.1	9.0	9.9	6.1	33.6	28.7	6.0	3.0	0.4	0.1	0.1—	0.1—
3- or more-teacher schools, open country	13,550	.1—	.2	.2	.6	.6	2.7	3.4	2.6	17.9	47.0	13.4	10.2	.8	.2	.1—	.1—
Villages of less than 2,500 population	51,126	.1	.3	.2	.4	.6	2.5	2.4	2.1	12.4	54.0	15.7	8.4	.7	.2	.1—	.1—
Cities of 2,500 to 9,999 population	26,946	.1—	.1	.1—	.3	.5	2.3	1.3	1.1	6.9	55.1	18.8	12.2	1.2	.2	.1—	.1—
Cities of 10,000 to 99,999 population	45,278	.1—	.2	.1	.2	.5	2.5	1.0	.8	5.2	55.1	19.7	13.0	1.3	.3	.1	.1—
Cities of more than 10,000 population	50,394	.1—	.1	.1	.2	.5	2.1	.6	.5	5.1	47.0	21.8	16.9	3.3	1.1	.4	.3
Total elementary	248,593	.1—	.3	.2	.5	.7	4.0	3.6	2.4	14.5	46.2	15.5	10.2	1.3	.4	.1	.1
Junior high school	36,186	.1—	.2	.1	.2	.3	1.1	.6	.4	3.2	17.5	16.0	43.7	12.1	3.1	.8	.7
Senior high school	84,767	.1—	.1	.1	.1	.1	.5	.2	.2	1.1	4.4	6.1	58.1	20.2	5.9	1.5	1.4

Although the percentages are discouraging, especially among the elementary teachers with no more than high-school preparation, it should be remembered that many of these represent older teachers who entered teaching when standards of preparation were very much lower and who have, in the majority of cases, improved their preparation in connection with their work. Attention should not be given entirely to the low end of the distributions in table 12. There is ample ground for encouragement in the increasing numbers of teachers who have taken 1 or more years of graduate work in preparation for teaching. This is noticeable among elementary teachers in the larger cities and especially so among junior high school and senior high school teachers. Even more encouraging and significant is the percent of senior high school teachers who have had 2 or more years of graduate work—nearly a tenth of the total group.

"The appendix to this study, tables I to VIII, inclusive, presents data by States on the highest level of training attained by elementary teachers in various population areas and by junior and senior high school teachers. It is to be noted that States differ widely in their policies of teacher employment. Within individual States the standards for certification advance steadily from those for the rural teacher to those for the largest cities. Selecting Iowa as an example of difference within an individual State, 55 percent of the elementary teachers in 1- and 2-teacher schools responding to the inquiry had less than a half year of college; 28.4 percent, no college training whatsoever; and 26.8 percent, 4 years of high-school training only. It is to be noted that Iowa maintained a system of teacher training on the secondary level, the last half year of high school being devoted to teacher preparation for rural schools. In the 3-or-more-teacher schools in the open country, 1 in 6 of Iowa's elementary teachers had only secondary training. In villages of less than 2,500 population, 71.4 percent of the elementary teachers had reached or surpassed the standard of 2 years of college preparation. Corresponding data for larger cities are as follows: Cities of 2,500 to 9,999 population, 86.5 percent; cities of 10,000 to 99,999 population, 83.2 percent; and cities of 100,000 and more, 88.8 percent reaching or exceeding the standard of 2 years of preparation on the college level for elementary teachers. Such evidence indicates that Iowa would be justified in raising the standard to 3 years of collegiate training for new elementary teachers in all areas excepting the open country. For this rural area the standard minimal certificate requirement might be raised to at least 2 years of college preparation. This policy would assume a discontinuance of preparation of teachers in secondary schools."

The data presented in tables I to VIII, inclusive, of the appendix contain information of very great value to those responsible for the education of teachers in the several States. This information can be

used as a basis for determining State programs of certification and it can also be used for publicity purposes in campaigns to acquaint people with the educational conditions in their States and with the educational reforms which are needed. The distribution for each State has many diagnostic implications and in addition to these there are the many comparisons which may be made with neighboring States, with States in the same area and with States with similar industrial or agricultural problems. One or two examples of the conditions revealed in these tables may be cited from table I, appendix. In Arkansas 36.2 percent of the rural teachers had no more than 4 years of high-school education, while in Oklahoma only 3 percent had as little training as that. The four North Central States of Illinois, Michigan, Minnesota, and Wisconsin had 74.4 percent, 53.4 percent, 79.1 percent, and 85.4 percent of their rural teachers with less than 2 years' preparation beyond high school. In contrast to these the percentages of rural teachers with less than that amount of preparation in Arizona, Maryland, Utah, and Washington were 6.9, 14.3, 8.6, and 6.8, respectively.

At the other extreme Arizona, California, South Carolina, and West Virginia had respectively 26.4 percent, 19.5 percent, 33.4 percent, and 24.2 percent of their rural teachers with 4 or more years of college work compared with 1.3 percent, 0.8 percent, 1.3 percent, 1.3 percent, and 1.2 percent, respectively, for Connecticut, Florida, Maine, Nebraska, and North Dakota.

These States are scattered in location, different in their wealth and ability to support educational programs and yet some of the poorer ones excelled the wealthier ones in the standards maintained for rural schools. It seems to be clear that States can maintain higher standards once such standards are generally accepted as desirable.

DEGREES HELD BY PUBLIC-SCHOOL TEACHERS

Relation to extent of education.—The percentages of teachers actually holding bachelor's, master's, and doctor's degrees in 1930–31 are presented by States in table 13. Slight differences will be observed in the percentages of teachers reporting 4 years of college training and those reporting a bachelor's degree. This is because some students may procure a degree in 3 years by virtue of extra work, summer work, extra high-school credits, or merit credits while others may spend 4 years in a college and still not meet all of the requirements for a degree. These differences can be seen by comparing the percentages in column 2, table 13; and column 14, table I, appendix.

TABLE 13.—*Percentage of teachers possessing earned degrees, 1930–31*

State	Bachelor's degrees									Master's degrees									Doctor's degrees	
	Elementary teachers							Junior high	Senior high	Elementary teachers							Junior high	Senior high	Junior high	Senior high
	Rural	Open country	Village of less than 2,500	City of 2,500 to 9,999 population	City of 10,000 to 99,999 population	City of more than 100,000 population	Total elementary			Rural	Open country	Village of less than 2,500	City of 2,500 to 9,999 population	City of 10,000 to 99,999 population	City of more than 100,000 population	Total elementary				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Alabama	2.1	3.9	8.7	14.0	13.1	56.0	11.8	38.9	88.1	0.2	0.4	0.7	0.5	0.2	3.3	0.7	3.0	13.3		
Arizona	25.8	2.4	24.5	21.9	22.8		23.5	74.5	91.8	1.5	4.2	1.0	1.1	1.0		1.3	5.8	16.8		0.8
Arkansas	1.4	2.9	6.7	15.1	15.9		6.8	45.1	74.4	2		2	4			2	2.5	7.9		2
California	15.4	25.5	26.4	30.3	28.6	23.5	25.7	77.7	84.1	9	1.3	1.3	1.2	1.4	1.9	1.5	15.6	26.4	0.02	.6
Colorado	6.5	7.8	10.7	24.0	37.4	60.0	18.0	70.5	93.2	4		4	2.2	2.3	4.4	1.1	13.6	17.1		
Connecticut	1.1	14.7	1.6	2.5	1.6	2.8	1.9	35.5	81.2					4	3	2	4.0	16.6		.4
Delaware	8.3	20.0	7.4	7.3		7.8	8.2	39.0	85.1								2.4	13.1		1.1
District of Columbia						16.7	16.7	70.2	88.7						1.5	1.5	14.6	40.9		2.7
Florida	6.2	6.9	10.2	21.8	17.2	15.2	14.7	61.4	86.9	.8		4	2	6	3	4	3.2	10.5		.2
Georgia	4.0	10.6	12.4	15.6	17.0	22.7	15.3	70.8	85.2			2		1.5	3	9	20.4	20.5		.2
Idaho	4.3	11.4	7.0	4.6	8.1		6.1	33.3	96.1			3				1	4.4	8.7		
Illinois	1.7	7.1	4.8	5.4	10.0	18.2	5.1	44.6	87.3	.02		3	.2	3		1	2.8	13.1		.4
Indiana	3.2	5.1	3.4	8.3	13.8	26.2	10.3	68.5	89.0	.3			.2	2	1.6	4	6.3	13.5		.02
Iowa	1.1	3.1	4.2	9.2	10.7	26.0	4.1	49.1	85.0	.02		1	.3	.7	1.4	2	4.5	8.0	1	.24
Kansas	1.7	4.9	5.7	10.7	24.7	46.3	8.1	73.0	89.9					.7	1.4	2	6.6	18.0		.1
Kentucky	1.8	12.8	8.7	15.8	27.9	13.1	11.1	61.6	82.4		.5	.3	.3	.7	1.0	4	6.2	13.6		.3
Louisiana	3.5	7.7	10.0	12.8	23.9	11.6	10.8	60.5	88.2			.2		1.1	.9	.3	9.2	10.5		.1
Maine	.8		1.3	1.4	1.8		1.3	20.1	71.1							.04		4.5		
Maryland	1.7	1.6	2.9	3.7	4.2	3.9	3.2	48.7	82.8				.2		.8	.2	2.3	14.1	.3	.9
Massachusetts	2.5	5.8	2.8	2.8	2.6	5.9	3.7	36.8	77.4				.1	.2	1.0	.4	5.1	21.5		.6
Michigan	2.3	5.0	4.4	6.7	10.9	13.0	7.3	64.8	81.8	.1	.6	.2	.3	.5	.6	.4	7.0	13.7	.1	.3
Minnesota	.7	4.6	1.9	2.4	3.7	9.9	2.8	49.5	89.9	.1		.1			.3	.1	2.8	6.9		.04
Mississippi	5.4	16.4	29.4	31.9	35.7		23.5	67.3	87.4			.5				.2	1.3	5.7		
Missouri	2.3	12.1	8.4	18.2	29.7	23.8	17.2	72.2	89.7			.1	.4	.5	2.1	.8	8.2	16.3		.1
Montana	4.4	6.7	3.7	4.6	5.8		4.5	40.3	92.1	.2						1	2.2	7.5		

Nebraska	.7	1.0	5.1	14.9	22.1	22.5	5.0	48.2	85.5			.1		.7	2.0	2	4.4	9.1		
Nevada	13.4		23.6	30.8	22.6		20.6	75.6	98.1			1.8	1.5			.9	2.4	9.7		1.0
New Hampshire	2.6		1.6	3.0	1.9		2.0	28.2	78.1	.4						1	1.4	7.7		
New Jersey	2.1	4.7	5.1	6.1	5.8	4.7	5.4	50.5	81.3	.9		.3	.3	.4	.7	4	9.6	24.0	1	.8
New Mexico	4.6	7.7	12.7	19.7	36.4		14.1	61.6	93.7			1.0	3.4	1.8		1.1	3.0	12.2		
New York	2.6	4.7	5.5	6.5	6.3	21.5	12.8	42.8	80.3	.2	.2	.5	1.0	.7	3.0	1.7	7.7	20.6	.4	1.3
North Carolina	3.4	18.2	25.0	38.7	47.9		25.6	76.5	90.1	.1	.4	.6	.1	2.1		.6	5.5	7.6	.3	
North Dakota	1.0	3.7	3.2	13.2	11.6		2.1	33.1	87.1		.7			1.1		.05	.8	7.5		.3
Ohio	2.9	5.7	4.9	8.7	11.1	22.5	11.6	67.0	90.3	.2	.3	.1	.8	.3	1.3	.6	8.0	17.0	.1	.3
Oklahoma	4.6	14.8	10.5	21.4	38.1	88.3	20.8	73.9	86.7		.8	.5	1.4	1.2	6.6	1.2	10.8	12.2		
Oregon	2.4	6.8	5.6	4.9	7.3	15.8	6.6	40.0	90.2						.5	.1	1.5	10.0		.2
Pennsylvania	3.5	4.1	3.8	6.8	7.1	6.7	5.5	55.5	83.7	.3	.4	.2	.3	.5	.7	.4	6.5	19.4	1	1.1
Rhode Island	12.4		7.0	10.2	4.1	9.5	7.0	39.3	81.6			.5		.6	.5	.5	4.4	23.1		.7
South Carolina	30.9	39.3	59.2	71.7	55.9		53.5	87.8	91.5	1.8		.5	.5	3.7		1.4	7.3	12.8		.2
South Dakota	2.2	3.0	4.2	11.4	13.0		3.5	57.3	93.7	.1						.04	3.4	4.9		
Tennessee	3.0	7.2	10.9	11.1	16.8	21.8	10.0	54.8	86.8	.1		.4	.5	1.1	.4	.2	4.8	12.2		
Texas	4.6	10.0	14.6	20.5	25.0	41.1	21.5	68.1	83.0			.1	.8	1.1	1.9	.8	5.5	13.4	.2	.1
Utah	4.4	5.6	3.6	3.3	17.0	22.7	7.1	56.3	86.7				.5		.6	.2	2.6	9.0		
Vermont	2.4		1.6	2.1	1.3		2.1	36.7	82.2	.2						.1	1.7	8.6		
Virginia	3.8	7.8	7.7	13.6	15.3	10.0	8.4	59.6	78.1	.1	.7	.2		2	.2	.2	2.5	8.2	.2	
Washington	4.9	6.0	5.4	5.[illegible]	7.2	19.7	8.5	56.4	93.0	.2		.2		.4	1.6	.5	4.2	12.5		.1
West Virginia	10.4		3.1	12.1	9.4		9.0	57.6	91.9								5.1	26.7		.6
Wisconsin	.6	1.9	2.0	3.6	6.1	20.6	4.4	60.2	77.9	.03	.6		.2	.1	1.0	.2	4.5	11.7		.4
Wyoming	5.0		9.5	17.0	16.5		8.4	64.8	96.5			.3		1.0		.2	5.5	10.7		
Total	2.6	9.4	7.8	11.3	12.5	18.2	10.0	56.7	85.0	1	3	.3	4	6	1.6	6	6.9	15.5	1	4

Percentage with degrees.—From a brief inspection of table 13 it is evident that: (*a*) The usual variation among States existed; (*b*) the percentage of teachers with degrees increased with the size of the community; (*c*) the percentage of teachers with degrees increased from the elementary to the junior high school and from the junior high school to the senior high school; (*d*) there were relatively few elementary teachers with master's degrees and almost no teachers with doctor's degrees except in the senior high schools; and (*e*) there remained a large amount of upgrading to do before teaching could be compared with other professions in the preparation of its members.

Hundreds of statements corroborative of these generalizations can easily be obtained from the data in table 13.

The variation among States can be shown by comparing the number of rural teachers with a bachelor's degree in the different States. In 1930–31 more than a fourth of the rural teachers of Arizona and South Carolina had degrees while less than 1 percent of the rural teachers of Maine, Minnesota, Nebraska, and Wisconsin reported the possession of a bachelor's degree. Among junior high school teachers, California reported 77.7 percent and South Carolina 87.8 percent with a bachelor's degree, while New Hampshire and Maine reported 26.2 percent and 20.1 percent, respectively.

The totals for each size of community show very distinctly the selective effect of city size. The percent of elementary teachers with degrees increased from 2.6 percent in the rural schools to 18.2 percent in cities of more than 100,000 population. A few States showed irregularities in this matter but these were due to different numbers of cities of various sizes in those States.

The distinction between elementary and secondary teachers is evident in the percent of elementary teachers with a bachelor's degree and also the percent with the master's degree. Even though the percent of elementary teachers with a bachelor's degree varies, from South Carolina with 53.5 percent to 6 States with less than 3 percent, the figure for the country as a whole is only 10 percent, and 0.6 percent of the elementary teachers have the master's degree.

If not too discouraging, the very small percentages of senior high school teachers in the United States with the doctor's degree as given for 1930–31, in columns 19 and 20 of table 13, furnish very interesting and challenging comparisons with the preparation of teachers in the secondary schools of European countries as presented in volume V, part VIII.[9] Especially in France, Germany, and Sweden the teachers in the secondary schools have professional preparation equivalent in most respects to the doctor's degree in this country.

[9] Alexander, Thomas, and others. Comparative Practices in the Education of Teachers in European Countries. Office of Education, Bulletin 1933, no. 10, National Survey of the Education of Teachers, vol. V, pt. VIII.

Sources of degrees held.—In reporting the degree or degrees held, each teacher was requested to indicate the type of institution from which the degree was obtained. It was thought that the type of institution in which a teacher obtained his preparation for teaching would, to some extent, indicate the nature of his preparation and the extent to which the professional phases of the work were emphasized. Later studies of the curricula of different types of institutions revealed the fact that there was greater variation in the programs for educating teachers among the institutions of any one type than there was among the types. Even though this was true there are certain curriculum patterns and practices which are more frequently found in one type of institution than in others, and for this reason the sources of the earned degrees of public-school teachers is significant in the development of any State program for the education of teachers.

TABLE 14.—*Sources of earned degrees of teachers in American public schools, 1930–31*

Types of degrees and teachers	Total number answering	Total number with degrees	Percent with degrees	Source of earned degrees						
				State or city teachers college	Private teachers college	State college for women	City college or university	State university or land-grant college	Other State-supported college	Private college or university
1	2	3	4	5	6	7	8	9	10	11
BACHELOR'S DEGREE										
Elementary teachers in:										
1- and 2-teacher schools in open country	61,571	1,593	2.6	28.6	1.3	3.1	5.2	19.6	2.8	39.4
3 or more teacher schools in open country	13,617	1,277	9.4	21.6	1.8	10.2	5.3	14.3	3.8	43.0
Villages of less than 2,500 population	51,315	4,028	7.8	26.0	1.5	9.3	5.5	17.0	3.7	37.0
Cities of 2,500 to 9,999 population	27,034	3,187	11.8	24.4	1.7	9.9	7.5	17.8	2.1	36.6
Cities of 10,000 to 99,999 population	45,364	5,655	12.5	26.3	1.4	7.5	7.2	20.7	1.7	35.2
Cities of 100,000 population or more	50,498	9,210	18.2	19.7	1.5	1.7	27.9	14.8	1.0	33.4
Total elementary-school teachers	249,399	24,950	10.0	23.4	1.5	5.8	14.4	17.1	2.0	35.8
Junior high school teachers	36,251	20,552	56.7	18.5	*1.0	2.4	7.9	25.6	2.4	42.2
Senior high school teachers	84,882	72,136	85.0	12.3	.9	2.1	6.0	28.6	2.0	48.1
MASTER'S DEGREE										
Elementary teachers in:										
1- and 2-teacher schools in open country	61,571	74	.1	29.8	2.6	1.3	7.8	19.5	3.9	35.1
3 or more teacher schools in open country	13,617	39	.3	7.7	2.6	------	5.1	41.0	------	43.6
Villages of less than 2,500 population	51,315	129	.3	19.9	4.3	2.8	2.1	29.1	2.8	39.0
Cities of 2,500 to 9,999 population	27,034	115	.4	13.9	7.0	------	7.8	19.1	------	52.2
Cities of 10,000 to 99,999 population	45,364	261	.6	10.7	6.5	.4	7.7	26.4	2.7	45.6
Cities of 100,000 population or more	50,498	824	1.6	4.6	4.7	.5	14.8	13.0	.6	61.8
Total elementary-school teachers	249,399	1,442	.6	8.9	5.1	.7	11.2	18.4	1.3	54.4
Junior high school teachers	36,251	2,487	6.9	5.2	3.9	.2	8.1	29.7	1.3	51.6
Senior high school teachers	84,882	13,144	15.5	2.9	3.1	.2	5.9	32.6	1.2	54.1
DOCTOR'S DEGREE										
Junior high school teachers	36,251	36	.1	------	2.8	------	8.3	22.2	------	66.7
Senior high school teachers	84,882	359	.4	------	3.6	------	3.9	11.7	------	80.8

Table 14 gives a summary of some of the data in table 13 and also summarizes for communities of different sizes the types of institutions from which teachers (elementary, junior high school, and senior high school) earned their bachelor's, master's, and doctor's degrees. Table 14 shows the national situation more clearly than was possible in table 13. It indicates especially well the importance of the problem of preparing teachers for the rural and village schools because more than half of the teachers are in those schools and standards are so much lower.

"The composite picture of sources of degrees of elementary and secondary teachers presented in table 14 reveals that teacher education, while ordinarily characterized as a public function, operated as a joint enterprise of public and private institutions. The more detailed tables which constitute the bases for table 14 are to be found in tables IX, X, and XI of the appendix. Of 24,950 baccalaureate degrees held by elementary-school teachers, 37.3 percent were earned in private institutions. Of 20,552 baccalaureate degrees earned by junior high school teachers, 43.2 percent were earned in private institutions, and of 72,136 baccalaureate degrees earned by senior high school teachers, 49 percent were earned in private institutions. The master's degree appears to be more specifically a product of private colleges and universities, 59.5 percent of the elementary teachers' master's degrees, 55.5 percent of the junior high school teachers' master's degrees, and 57.2 percent of the senior high school teachers' master's degrees were earned at such institutions. Approximately 7 of every 10 doctorates of junior high school teachers and more than 8 of every 10 doctorates possessed by senior high school teachers were conferred by private institutions."

With the exception of the city colleges and universities in the larger cities the three dominant groups of institutions in the preparation of teachers were the State teachers colleges, the State universities and land-grant colleges, and the private colleges and universities. Nearly half of all public-school teachers with degrees have been prepared in private colleges and universities—decidedly more for each group of teachers than were prepared in any other type of institution.

The data presented by States on the sources of earned degrees in tables IX, X, and XI, appendix, supply many interesting comparisons and indicate more clearly than in other tables the extent to which States vary in their teacher-preparation programs. Table IX, appendix, reveals the result of the development of degree-granting teachers colleges in several of the Central States. More than 40 percent of the elementary teachers in Colorado, Kansas, Michigan, and Missouri received their degrees in State or city teachers colleges. In Rhode Island, 62.3 percent of the elementary teachers received their bachelor's degree from this source. Eighteen States had 40

percent or more of their elementary teachers holding bachelor's degrees from private colleges and universities. In 7 of these the number exceeded 50 percent.

Need for State programs of teacher education.—Tables IX, X, and XI, appendix, disclose the effect of existing institutions upon the supply of teachers with degrees. Some States do not have any separately organized State-supported teachers colleges; others have large numbers of private colleges and universities; New York, Ohio, and Pennsylvania each have several city-supported institutions; others have well-organized systems of junior colleges and most of the States have three or more normal schools or teachers colleges. The supply of teachers is affected in each State by the size, age, location, support, and curricula of the existing institutions.

Ample evidence is presented in tables IX, X, and XI, appendix, to convince those responsible for the education of teachers in the different States that each State presents a distinctly different problem and, furthermore, that as programs of teacher education are developed for any State it will be necessary to consider the present and potential teacher-training work of each existing institution of higher education in that State. The education of teachers in this country is now a matter of vital concern to a majority of the colleges and universities and future programs for improving the professional preparation of teachers will have to be effected through cooperative coordination and regulation.

NATURE OF THE EDUCATION OF TEACHERS

Fields of special preparation.—As indicated earlier, the type of institution from which a teacher obtains his degree gives an indication of the nature of his preparation. In order to obtain a more accurate index concerning the professional nature of the work taken each teacher was requested to indicate the number of semester-hours of undergraduate and graduate credit in "education" (defined as educational psychology, methods, practice teaching, etc.) and also the number of semester-hours of undergraduate and graduate credit in practice teaching. They were also asked whether the answer was made from an exact record. (See items 35 and 36, fig. 2.) As explained in chapter I, these questions were among those for which the answers were least satisfactory. However, by checking the answers for those which were reported from "exact records" it was possible to discard some of the most irregular and thus increase the accuracy of the answers used even though it left few cases for some of the distributions.

"Each elementary teacher was also expected to check on the inquiry form the specific level within the elementary-school system in which he did his teaching (item 21, fig. 1). These levels were indicated as the

1- and 2-teacher rural school, kindergarten or kindergarten-primary, intermediate, and upper elementary. Another question asked for information as to the field for which the teacher had taken most training; these fields were designated as rural school, kindergarten-primary, intermediate, upper elementary, junior high, senior high, junior college, and other (item 22, fig. 2). The data from item 22, presented in summarized form in table 15 were secured for elementary teachers on the levels mentioned, in the various population areas.

"Of 61,407 teachers in 1- and 2-teacher schools in the open country in 1930–31 only 63 out of each 100 teachers received most of their training in the field of the rural school. In every case regardless of whether the field was kindergarten-primary, intermediate, or upper elementary grades, there was a smaller proportion of teachers in the open country specifically prepared for his particular level than in any other population area."

TABLE 15.—*Fields for which rural, kindergarten-primary, intermediate, and upper elementary teachers received most training, school year 1930–31*

Type of teacher and location	Field of training								
	Total number involved	Rural	Kindergarten-primary	Intermediate	Upper elementary	Junior high	Senior high	Junior college	Other
1	2	3	4	5	6	7	8	10	11
Rural teachers	61,407	63.3	9.0	14.7	6.7	3.3	2.6	0.1	0.3
Kindergarten-primary:									
Open country	4,014	5.9	77.6	11.8	1.6	1.0	1.5	.1	.5
Villages of less than 2,500 population	16,005	2.4	83.2	10.1	1.5	.9	1.5	.1	.3
Cities of 2,500 to 9,999 population	10,456	.6	83.9	10.5	1.9	1.0	1.7	.1	.3
Cities of 10,000 to 99,999 population	17,549	.1	84.8	10.4	1.8	.9	1.6	.1	.3
Cities of 100,000 population or more	18,450	.1	80.1	13.0	3.1	1.0	2.2	.1	.4
Total kindergarten-primary teachers	66,474	1.2	82.5	11.1	2.1	1.0	1.7	.1	.4
Intermediate:									
Open country	4,933	7.7	7.5	70.2	6.0	3.7	4.2	.2	.5
Villages of less than 2,500 population	18,831	3.3	7.8	74.6	6.4	3.8	3.6	.2	.3
Cities of 2,500 to 9,999 population	11,044	1.0	7.6	75.6	6.6	4.8	4.0	.1	.3
Cities of 10,000 to 99,999 population	18,487	.4	8.1	75.8	6.6	4.4	4.2	.1	.4
Cities of 100,000 population or more	20,392	.1	6.0	78.6	7.6	2.9	4.3	.1	.4
Total intermediate teachers	73,687	1.6	7.3	75.9	6.8	3.8	4.1	.1	.4
Upper elementary:									
Open country	3,236	8.8	2.4	7.3	57.8	13.1	9.7	.4	.5
Villages of less than 2,500 population	11,670	3.3	2.0	8.9	61.7	14.8	8.5	.3	.5
Cities of 2,500 to 9,999 population	5,113	.4	2.5	9.0	62.2	14.6	10.8	.1	.4
Cities of 10,000 to 99,999 population	8,775	.3	2.7	10.0	64.5	12.9	8.7	.3	.6
Cities of 100,000 population or more	11,394	.1	2.2	11.1	69.9	9.3	6.7	.1	.6
Total upper elementary teachers	40,188	1.8	2.3	9.6	64.4	12.6	8.4	.3	.6
Grand total	241,756	17.2	27.6	31.5	15.0	4.4	3.8	.1	.4

The data indicated that, as the population increased, the elementary teachers employed appeared to be more specifically prepared for their particular positions. In considering the fields of training of the teacher in upper elementary grades (table 15) columns 6 and 7 should be added together because of the overlapping of the content of the curricula for "upper elementary teachers" and "junior high school teachers."

"At present in almost every State and due to the oversupply of teachers, it is practicable for administrators to select for a given position a person with the necessary preparation for that specific position. Adopting a page from scientific management of personnel, standard specifications can well be drawn up for every type of work in a school system. Minimum and desirable standards of specific preparation should be indicated. In filling a vacancy the employer should select the candidate who has at least the minimum specific preparation for the position. Sound administration advocates special certificates for special activities or functions. Analyses of teacher-education curricula indicate that in the field of the elementary grades, three different levels of certification might well be recognized: First, kindergarten or kindergarten-primary; second, intermediate grades; and, third, upper elementary grades (in regions where the 8—4 or similar plans obtain). Wise administration aims at securing a properly qualified individual for a given elementary level teaching position and protecting this position by the requirement of a specific certificate for the particular function or level of teaching.

"In the appendix, tables XII, XIII, and XIV appear as a part of the presentation of the basic data which compose table 15. In column 3 of table XII, appendix, the percents by States of rural teachers who received most of their training for the rural schools varies from 13 to 82.2 with a proportion of 63.3 for the country as a whole. In comparison, column 5 of table XIII, appendix, exhibits the fact that the percentages by States of intermediate grade teachers in cities of 10,000 to 99,999 who have secured most of their training in the field of intermediate grades range from 60.2 to 88.5, with 75.8 as a grand total proportion. Not only is the range more restricted but the grand total percentages reflect poor practice in the selection of personnel for the rural schools. In considering table XIV, appendix, as in table 15, columns 6 and 7 should be considered together because of overlapping of elementary grades and the junior high school."

Table 17 offers a severe indictment of the certification laws in the States which permit the employment of teachers in the rural schools who have prepared specifically for work in other school divisions. Tables XII, XIII, and XIV, appendix, show that every State in 1930–31 was offending to some degree in this matter. Several States since

1930–31 have revised their certification laws or regulations and the revisions are in the direction of greater restriction of certificates to specific fields.

Special preparation for secondary teaching.—"A study of the special preparation of secondary teachers was made by obtaining data on the amount of college credit secondary teachers earned in their 'principal' and 'next main' fields of teaching. (See items 39–37, inclusive, fig. 2.) Because of the influence of departmentalization and the prevalence of small high schools, data concerning the number of fields in which instruction was given was obtained for both junior high school and senior high school teachers. This study is presented in a later discussion. The generalization may be made that approximately 35 percent of the secondary school staff for the country as a whole teach only 1 field, 52 percent teach in 2 fields, and the remaining 13 percent in 3 or more fields. The median number of semester-hours of credit (of State medians) and the range of credit in each field of instruction of junior and senior high school teachers instructing in but one field, in the 'principal' field, and the 'next main' field of two or more fields of instruction is presented in table 16. Three of the six foundation tables upon which this composite is based are found in the appendix as tables XV, XVI, and XVII. The data in table 16 and in the appendix indicate a strong tendency for the instructor teaching in only one field to have more credit in that field than the teachers teaching that subject as the principal subject of instruction of two or more fields. Similarly the credit in the principal field, where instruction is given in two or more fields, is higher as a rule than for the next main field. To illustrate: In column 8 of table 16, the median (of State medians) number of semester-hours of credit in English held by senior high school teachers giving instruction only in English was 38, while the senior high school instructor teaching two or more fields had a median of 33 semester-hours of credit where English was the principal field and 24 where English was the next main field of teaching. It is to be noted also in the senior high school field that there was wide variation in the median amounts of credit possessed by teachers in the different fields (column 8 of table 16), ranging from the median of 27 semester-hours of credit in mathematics of the instructor teaching only mathematics to the 83 semester-hours' credit in agriculture of the instructor teaching only in that field. It will be noted also that art and drawing, home economics, music, health and physical education, and modern languages ranked high in the amount of work taken."

TABLE 16.—*Credit earned by secondary teachers in sole field, principal, and next main fields of teaching, 1930–31*

Fields of teaching	Junior high school				Senior high school			
	Number of cases[1]	State medians (semester-hours' credit)			Number of cases[1]	State medians (semester-hours' credit)		
		Low	Median	High		Low	Median	High
1	2	3	4	5	6	7	8	9
Agriculture and forestry:								
Sole field	91				279	61	83	97
Principal field	111				944	37	61	91
Next main field	93				388	16	28	46
Art and drawing:								
Sole field	423	32	50	81	415	40	60	82
Principal field	521	12	35	82	439	20	43	53
Next main field	375	8	15	23	462	13	18	28
Biological sciences:								
Sole field	81				493	28	41	51
Principal field	653	16	35	45	2,607	21	33	49
Next main field	816	11	23	31	3,470	17	21	29
Business and commerce:								
Sole field	264	31	35	55	2,692	15	38	61
Principal field	443	28	37	51	3,117	21	34	47
Next main field	248	11	15	24	698	11	20	32
Education and teacher training:								
Sole field	6				28			
Principal field	22				177	30	33	41
Next main field	474	23	30	30	1,122	25	30	44
English:								
Sole field	1,764	21	30	44	3,675	30	38	51
Principal field	3,926	11	27	39	9,432	24	33	43
Next main field	3,143	16	21	31	7,219	18	24	30
Classic languages:								
Sole field	95	26	29	29	631	26	37	50
Principal field	470	20	27	35	2,824	20	30	41
Next main field	590	18	24	35	3,094	15	23	34
Modern languages:								
Sole field	120	36	49	61	1,005	24	46	68
Principal field	411	28	38	48	2,700	25	37	54
Next main field	930	21	25	32	3,738	18	25	36
Health and physical education:								
Sole field	469	25	49	99	798	29	47	75
Principal field	886	10	20	55	1,543	11	34	61
Next main field	627	10	14	26	1,438	8	16	23
Home economics or household arts:								
Sole field	727	27	45	76	1,159	30	49	73
Principal field	765	26	41	67	2,406	14	44	53
Next main field	132	28	33	37	439	17	24	47
Physical sciences:								
Sole field	224	13	22	39	754	32	41	51
Principal field	850	17	28	37	3,180	25	36	52
Next main field	1,106	11	21	25	3,967	19	23	30
Mathematics:								
Sole field	1,223	10	17	26	1,991	17	27	37
Principal field	2,743	12	18	37	5,833	17	25	31
Next main field	1,438	10	15	21	4,133	13	18	25
Music:								
Sole field	353	17	52	68	386	47	61	83
Principal field	421	19	46	88	590	21	50	68
Next main field	301	9	19	34	556	17	23	43
History, sociology, and economics:								
Sole field	1,140	15	27	40	2,091	25	40	52
Principal field	2,653	18	28	39	5,622	25	34	48
Next main field	3,101	15	21	31	7,883	9	24	31
Trades and Industries and industrial arts:								
Sole field	749	14	38	62	1,112	26	41	55
Principal field	745	28	36	57	1,411	23	33	50
Next main field	197	9	18	32	495	13	21	30

[1] In the original tables, State medians were not computed for less than 10 cases. The totals given in this table however include the total number of responses from all States.

Data presented in table 16 and tables XV, XVI, and XVII, appendix, will be very useful to those especially interested in curricula for the education of teachers. These data supplement two other studies of curricula for teachers made in connection with the work of this Survey.[7] Dr. Rugg studied the curricula for the education of teachers in normal schools and teachers colleges and Dr. Peik made a similar study for colleges and universities. Curricula for the education of teachers were studied from a number of angles but two studies are more closely related to the data in this chapter than the others. The first obtained from an analysis of the catalogs of about 60 institutions, selected as representative of better practices in the education of teachers, the curriculum patterns in those institutions as prescribed for teachers preparing for different types of positions. The second study analyzed the courses actually taken by nearly 4,000 prospective teachers graduating from selected institutions and presented the picture of the work taken in high school and in college. The data for this analysis were obtained from the transcripts of students' permanent record cards. The pictures presented in volume III represent conditions which are better than the average for the country as a whole, but even with the slight differences due to selection the data summarized in table 16 support the conclusions from the other studies. English, history, mathematics, science, and languages represent the 5 fields in which most of the teachers are teaching, just as they represent the 5 fields in which most of the work is taken in high schools. The special fields are not adequately represented so far as numbers of teachers are concerned but the preparation of the teachers of those fields indicates the same extreme amounts of concentration which were observed by both Dr. Rugg and Dr. Peik. Comparisons of the median amounts of preparation of teachers of agriculture, art, and music as given in table 16 with the medians in English, languages, and mathematics showed the same relative emphases which were being given in the institutions selected for special study as representative of better practices in the education of teachers.

Credits in education and practice teaching.—"In an institution preparing prospective teachers, not only is the student expected to gain knowledge but also to learn how to impart that knowledge to others. To attain the latter aim, institutions for the education of teachers present courses such as educational psychology, methods, observation, practice teaching, and similar offerings. In most cases, these are specific offerings but in some situations the subject matter and methodology may be integrated, as professionalized subject matter. Education for a vocation or profession involves not only the acquiring of attitudes and certain ranges of knowledge but also of skills in the application of

[7] Rugg, Earle U. and Peik, W. E. Teacher-Education Curricula. Office of Education, Bulletin 1933, no. 10, National Survey of the Education of Teachers, vol. III, pts. I, II, and III.

this information to specific situations. Modern medicine and surgery demand initial clinical experience; the shop and testing laboratory add practical training to the scientific knowledge of the engineer. Preservice education of teachers calls for development of techniques, best acquired under actual conditions and the young novice in teaching requires observation and practice teaching under skilled supervision.

"The Survey presents in tables 17 to 19, inclusive, data pertaining to the credit secured by elementary and secondary teachers in 'education' and 'practice teaching.' In the first table of this group it will be noted that of 75,347 senior high school teachers responding to the question concerning the amount of credit in 'education', less than 1 percent gave the answer 'no credit.' The middle 50 percent of the group with credit in education ranged between 22 and 26 semester-hours, the median (of medians) being 24. Although there was a range of 17 to 30 semester-hours, the limited spread of the middle 50 percent and the medians indicate a tendency to take about one-fifth of the college work for teacher preparation in the field of education. A study of certification requirements for secondary teachers revealed that 26 States required 18 to 24 semester-hours of work in 'education'—which fact is of assistance in explaining the amount taken by teachers responding to the inquiry. The standards of the various accrediting associations (e.g., the North Central Association requires that all new teachers of academic subjects shall have 15 semester-hours in education—1930–31) similarly emphasize the need for professional training. In the same table (17) it is to be noted that only 61,563 senior high school teachers responded to the inquiry on credit in 'practice teaching.' Of this number, approximately 1 in every 4 had no such credit. Only 2 States had medians less than 5 semester-hours and only 3 more than 6 semester-hours, showing the concentration around 5 to 6 hours of credit in practice teaching as a standard for secondary teachers.

"In a comparison of the amount of credit in education possessed by elementary teachers having 4 years of college work (table 18, column 4) with that possessed by senior high school teachers (table 17, column 7), in all cases the State medians of the former exceeded those of the latter. This is chiefly due to the fact that the majority of elementary-school teachers are products of teachers colleges and normal schools where such courses are emphasized. The secondary teacher on the other hand is a product of other types of colleges, both public and private, and the professional requirements are not as strongly emphasized. In many cases the median amounts of credit in practice teaching were also higher."

TABLE 17.—*Semester-hours credit in education and practice teaching of senior high school teachers, 1950–51*

State	Education							Practice teaching						
	Total number of cases	No credit		Total number with credit	Q_1	Median	Q_3	Total number of cases	No credit		Total number with credit	Q_1	Median	Q_3
		Number	Percent						Number	Percent				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Alabama	598	3	....	595	19	25	33	764	107	14	657	4	6	7
Arizona	296	3	1	293	22	28	37	256	46	18	210	4	6	9
Arkansas	466	....	....	466	18	24	31	367	57	16	310	5	6	9
California	4,200	43	1	4,157	20	27	37	3,690	727	20	2,963	5	6	8
Colorado	738	3	....	735	23	30	39	663	85	13	578	5	6	9
Connecticut	1,045	27	3	1,018	10	18	33	714	322	45	392	3	6	15
Delaware	161	1	1	160	17	23	30	133	31	23	102	4	5	7
Dist. of Columbia	211	6	3	205	13	24	37	170	67	39	103	4	7	17
Florida	597	4	1	593	17	23	30	430	141	32	289	3	5	7
Georgia	506	7	1	499	16	22	29	293	88	30	205	3	5	7
Idaho	413	1	....	412	18	23	30	341	101	30	240	4	6	8
Illinois	4,391	18	....	4,373	17	23	30	3,440	1,001	29	2,439	4	6	10
Indiana	3,840	3	....	3,837	20	25	34	3,266	763	23	2,503	3	4	6
Iowa	2,511	3	....	2,508	19	23	29	1,929	582	30	1,347	3	5	8
Kansas	1,705	1	....	1,704	19	23	29	1,371	422	31	949	3	5	7
Kentucky	910	5	1	905	19	25	32	685	164	24	521	4	5	7
Louisiana	1,088	9	1	1,079	14	21	31	846	175	21	671	4	6	10
Maine	644	28	4	616	9	14	22	396	232	59	164	3	6	11
Maryland	694	11	2	683	18	24	36	548	113	21	435	3	5	9
Massachusetts	2,838	137	5	2,701	9	16	29	2,012	968	48	1,044	3	6	15
Michigan	3,730	9	....	3,721	17	22	28	3,372	529	16	2,843	4	6	8
Minnesota	2,346	11	1	2,335	17	22	29	2,035	271	13	1,764	3	5	8
Mississippi	450	2	....	448	18	23	29	263	87	33	176	3	5	7
Missouri	1,867	12	1	1,855	23	28	35	1,598	230	14	1,368	4	6	7
Montana	601	1	....	500	18	23	31	431	63	15	368	3	5	7
Nebraska	1,182	2	....	1,180	20	25	31	1,016	178	18	838	3	5	7
Nevada	96	....	....	96	19	24	31	90	12	13	78	4	6	7
New Hampshire	373	14	4	359	13	20	35	270	100	37	170	4	12	19
New Jersey	2,886	40	1	2,846	18	27	44	2,274	663	29	1,611	4	6	15
New Mexico	241	1	....	240	20	26	34	204	43	21	161	4	6	8
New York	7,298	118	2	7,180	16	24	43	5,794	2,032	35	3,762	4	6	13
North Carolina	1,556	2	....	1,556	19	24	30	1,019	333	33	686	3	5	7
North Dakota	557	2	....	555	20	24	31	517	51	10	466	3	5	8
Ohio	5,217	16	....	5,201	24	29	38	4,575	796	17	3,779	4	6	8
Oklahoma	1,040	1	....	1,039	20	26	31	966	92	10	874	5	6	9
Oregon	1,145	5	....	1,140	17	23	29	901	223	25	678	4	5	7
Pennsylvania	5,885	77	1	5,808	19	26	37	5,122	887	17	4,235	5	6	11
Rhode Island	229	5	2	224	11	20	33	154	66	43	88	4	6	16
South Carolina	450	2	....	448	14	20	27	298	127	43	171	3	5	7
South Dakota	401	....	....	401	17	22	27	354	72	20	282	3	5	8
Tennessee	798	2	....	796	20	26	34	530	144	27	386	3	5	7
Texas	3,014	12	....	3,002	18	25	33	2,442	515	21	1,927	3	5	6
Utah	371	....	....	371	24	30	40	335	36	11	299	6	9	12
Vermont	252	5	2	247	13	17	24	184	61	33	123	2	3	6
Virginia	1,139	13	1	1,126	13	21	29	789	257	33	532	4	6	10
Washington	1,693	10	1	1,683	18	24	32	1,387	342	25	1,045	3	5	7
West Virginia	156	....	....	156	22	27	35	122	13	15	119	3	5	7
Wisconsin	2,080	9	....	2,071	17	23	30	1,676	281	15	1,595	4	6	10
Wyoming	338	....	....	338	21	27	34	312	47	15	265	4	6	10
Total	75,347	694	1	74,653	....	....	....	61,563	14,743	24	46,820	....	....	....

TABLE 18.—*Semester-hours credit in education and practice teaching of elementary-school teachers having 4 years of college work, 1930–31*

State	Education				Practice teaching						
	Total number with credit	Q_1	Median	Q_3	Total number of cases	No credit		Total number with credit	Q_1	Median	Q_3
						Number	Percent				
1	2	3	4	5	6	7	8	9	10	11	12
Alabama	425	20	27	38	360	40	11	320	4	6	10
Arizona	184	22	30	40	173	17	10	156	5	7	11
Arkansas	119	18	25	37	100	20	20	80	4	6	9
California	1,922	25	33	47	1,781	110	6	1,671	6	9	13
Colorado	305	20	40	54	277	18	7	259	5	6	10
Connecticut	74	18	51	61	59	11	19	48	7	13	19
Delaware	27	22	28	47	26	3	12	23	5	6	12
District of Columbia	76	19	28	55	57	3	5	54	6	11	19
Florida	245	17	24	34	187	51	27	136	4	5	7
Georgia	281	18	25	39	181	38	21	143	4	6	13
Idaho	34	18	22	30	21	5	24	16	4	6	11
Illinois	374	18	24	33	302	63	21	239	4	7	10
Indiana	639	25	34	47	693	122	18	571	5	7	12
Iowa	317	21	28	39	261	52	20	209	4	7	11
Kansas	376	22	28	37	334	58	18	286	4	6	8
Kentucky	366	22	29	38	290	42	15	248	4	6	8
Louisiana	379	15	22	34	308	45	15	261	4	6	10
Maine	20	13	23	61	12	8	67	4			
Maryland	98	23	42	61	65	5	8	60	4	7	19
Massachusetts	254	17	29	61	196	21	11	175	7	19	19
Michigan	564	20	27	39	519	19	4	500	5	7	10
Minnesota	170	22	35	58	150	13	9	137	6	10	16
Mississippi	240	20	27	38	166	42	25	126	4	7	12
Missouri	713	26	32	46	633	51	8	582	5	7	10
Montana	55	22	29	40	49	7	14	42	4	6	10
Nebraska	178	25	32	43	153	16	11	137	4	6	9
Nevada	39	21	27	36	36	1	3	35	5	7	10
New Hampshire	15	21	36	49	11	3	27	8			
New Jersey	573	26	37	61	452	46	10	406	5	14	19
New Mexico	92	21	28	38	72	18	25	54	4	6	9
New York	2,370	25	61	61	1,834	266	15	1,568	5	19	19
North Carolina	1,478	21	27	37	993	221	22	772	3	5	8
North Dakota	53	21	27	39	50	5	10	45	5	7	12
Ohio	1,284	27	37	57	1,181	70	6	1,111	5	8	12
Oklahoma	568	22	29	38	529	31	6	498	5	6	9
Oregon	153	28	38	56	134	2	2	132	6	9	13
Pennsylvania	1,188	23	36	61	997	41	4	956	6	10	19
Rhode Island	45	24	39	61	37	4	11	33	6	18	19
South Carolina	523	17	23	30	323	81	25	242	3	5	8
South Dakota	49	21	28	38	42	5	12	37	4	7	11
Tennessee	404	19	27	36	277	92	33	185	3	5	7
Texas	1,649	21	28	38	1,382	139	10	1,243	3	5	7
Utah	75	27	37	51	69	3	4	66	7	10	12
Vermont	16	19	27	38	13	3	23	10	5	7	16
Virginia	322	17	25	39	275	59	22	216	5	7	11
Washington	245	21	31	44	202	16	8	186	5	7	12
West Virginia	45	21	27	34	42	4	10	38	4	6	8
Wisconsin	249	23	31	42	228	6	3	222	5	9	13
Wyoming	58	25	32	42	52	6	12	46	5	7	11
Total	20,116				16,574	2,002		14,572			

TABLE 19.—*Semester-hours credit in practice teaching of senior high school teachers having 4 years of college work in teachers colleges and other colleges or universities, 1930–31*

State	Teachers colleges							Other colleges or universities						
	Total number of cases	No credit		With credit				Total number of cases	No credit		With credit			
		Number	Percent	Number	Q_1	Median	Q_3		Number	Percent	Number	Q_1	Median	Q_3
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Alabama	29	2	7	27	5	7	10	412	57	14	355	3	5	7
Arizona	30			30	5	7	11	108	26	24	82	4	5	7
Arkansas	59			59	6	9	12	142	30	21	112	4	6	7
California	112	7	6	105	6	9	13	443	114	26	329	4	6	9
Colorado	114	1	1	113	5	8	11	255	27	11	228	5	6	7
Connecticut	37	8	22	29	4	6	19	343	196	57	148	3	4	7
Delaware	2			2				74	14	19	60	4	5	7
District of Columbia	6			6				24	9	38	15	3	8	14
Florida	44	6	14	38	4	5	6	212	81	38	131	3	4	6
Georgia	26			26	3	6	12	98	60	61	38	3	5	7
Idaho	30	9	30	21	5	7	10	198	68	34	130	3	5	7
Illinois	353	17	5	336	6	9	11	1,376	527	38	849	3	5	6
Indiana	668	100	15	568	4	5	7	1,340	346	20	994	2	3	5
Iowa	246	10	4	236	6	8	11	934	372	40	562	2	4	6
Kansas	326	20	6	306	5	6	7	320	253	49	267	2	4	6
Kentucky	120	5	4	115	5	6	7	231	73	32	158	3	5	6
Louisiana	232	10	4	222	4	6	10	319	99	31	220	3	5	7
Maine	26	13	50	13	2	4	7	212	168	79	44	2	4	7
Maryland	34	4	12	30	4	6	10	272	40	15	232	3	5	8
Massachusetts	144	29	20	115	4	7	13	786	523	67	263	3	4	7
Michigan	566	9	2	557	5	6	10	1,073	270	25	803	3	5	6
Minnesota	81	5	6	76	6	8	11	1,238	156	13	1,082	3	5	7
Mississippi	26	2	8	23	5	6	7	147	62	42	85	3	4	6
Missouri	473	6	1	467	5	6	7	326	90	28	236	3	5	6
Montana	20			20	6	8	12	263	32	12	231	3	5	
Nebraska	155	2	1	153	4	6	9	432	92	21	340	2	3	5
Nevada	5			5				46	5	11	41	5	6	7
New Hampshire	43			43	5	16	19	140	71	51	69	3	8	16
New Jersey	138	11	8	127	5	7	16	818	256	31	562	3	5	10
New Mexico	37	1	3	36	5	7	10	71	24	34	47	3	5	6
New York	653	52	8	601	4	6	7	2,020	982	49	1,038	3	4	7
North Carolina	198	22	11	176	4	6	10	542	213	39	329	3	4	6
North Dakota	55			55	7	10	13	275	28	10	247	3	5	6
Ohio	429	23	5	406	5	6	9	2,163	348	16	1,815	4	5	7
Oklahoma	193	3	2	190	6	7	10	273	40	15	233	4	5	7
Oregon	12	2	17	10	5	6	10	583	143	25	440	4	5	7
Pennsylvania	377	7	2	370	6	10	15	2,195	291	13	1,904	4	6	7
Rhode Island	2			2				53	32	60	21	3	5	9
South Carolina	71	10	14	61	3	5	6	142	71	50	71	3	5	7
South Dakota	39			39	6	9	12	210	55	26	155	3	4	6
Tennessee	90	10	11	80	4	5	7	201	63	31	138	3	5	7
Texas	412	6	2	406	4	5	7	856	186	22	670	3	4	6
Utah	26	2	8	23	5	8	11	150	17	11	133	6	9	11
Vermont	9	2	22	7				135	50	37	85	2	3	4
Virginia	175	10	6	165	5	7	11	298	156	52	142	4	5	7
Washington	41	7	17	34	3	5	6	685	191	28	494	3	4	6
West Virginia								58	5	9	53	3	5	6
Wisconsin	242	4	2	238	7	10	12	647	150	23	497	2	4	6
Wyoming	40			40	6	8	11	154	25	16	129	4	6	9
Total	7,254	437	6	6,817				24,393	7,066	29	17,327			

Comparison between teachers colleges and other colleges and universities.—"Table 19 presents a comparison of State ranges of credit in practice teaching of senior high school teachers divided into two groups; the first group had 4 years in teachers colleges and the second

group, 4 years in other types of colleges or universities. It will be noted that the credit for practice teaching in the teachers-college group was uniformly higher than for the other institutions. A similar study comparing the credit in education of these same two groups indicated that the median amount of credit in education obtained by 7,825 senior high school teachers with 4 years of work in teachers colleges was 27 semester-hours and of 30,291 senior high school teachers with 4 years of preparation in other types of colleges and universities, 22 semester-hours. Similar data for junior high school teachers were fairly comparable to those for senior high school teachers."

State differences in amount of education and practice teaching.—There is an interesting and unusual degree of agreement among the States in the amount of work taken by teachers in education and practice teaching. Table 17 shows that high-school teachers in 37 of the States had median amounts of credit in education of between 22 and 28 semester-hours, and that in 44 of the States their median amounts of credit in practice teaching were either 5 or 6 semester-hours. In spite of this uniformity there were 2 States with medians of as little as 14 and 16 semester-hours in education and 2 with medians of as much as 30 semester-hours. These medians were larger than the third quartiles for several of the States.

The situation was much more variable among the States for elementary teachers having 4 years of college work. The median amount of credit in education varied from 57, 61, and 59 semester-hours in New Jersey, New York, and Rhode Island, respectively, to 4 States with medians of 24 semester-hours or less. The variability was even more noticeable in the matter of practice teaching—the range of median semester-hours being from 19 to 5.

Table 19 shows, as was previously mentioned, that senior high school teachers who graduated from teachers colleges took more work in practice teaching than those who graduated from other colleges and universities. It also shows that there was much greater variation in the amount of practice teaching obtained in the teachers colleges than among the other colleges. The data in this table would indicate that the presence of a number of well-established teachers colleges in a State would tend to increase slightly the median number of semester-hours in education and practice teaching of the teachers in that State, and that the absence of such teachers colleges or the predominance of liberal arts colleges in the training of teachers would have the opposite effect.

SUMMARY

1. Even though remarkable progress was made following the World War in increasing the amount of education of teachers, two-thirds of the public-school teachers of the United States did not have 4 years of college education when the Survey data were collected in 1930–31.
2. A distinctly lower standard for elementary teachers was very generally accepted. The difference amounted to approximately 2 years—the difference between completion of junior college and senior college. Some States still issue certificates valid in rural and elementary schools to students who have just completed high-school courses.
3. Individual States exhibited wide variations in all of the elements of teacher education presented in this chapter, viz, amount of education, degrees held, sources of degrees, amount of work in education and practice teaching. Obviously improvements in standards will have to be made by individual States.
4. The larger communities obtained the teachers with the highest level of preparation, the largest proportion of teachers with bachelor's degrees and also the largest proportion of those with advanced or graduate degrees.
5. Only a relatively small number of teachers in secondary schools had master's degrees (about 7 percent in the junior high school and 15.4 percent in the senior high school). Less than half of 1 percent of the senior high school teachers had doctor's degrees. Preparation comparable to that for the doctor's degree is the typical preparation for secondary teachers in some of the European countries.
6. Privately controlled and supported colleges and universities have granted more degrees to teachers than any other group of institutions. This was particularly true for the master's degrees and doctor's degrees. State and municipally supported teachers colleges have so recently entered the degree-granting field that the number of teachers with degrees from such institutions is still small. Twenty-three and a half percent of the elementary, 18.5 percent of the junior high school and 12.3 percent of the senior high school teachers reporting bachelor's degrees in 1930–31 had obtained them from State or city teachers colleges.
7. State certification laws and regulations in nearly all of the States made it possible in 1930–31 for a teacher to prepare for teaching in one school division and then accept a position to teach in a different division. This practice encourages a general education for teachers with a minimum of preservice professional preparation—the remainder left to be obtained largely at the

expense of the children during the teacher's first years of teaching. Data from the Survey indicate all too clearly that the rural schools and the children in the rural schools are the ones that suffer most from these practices.

8. American teachers spent from one-fifth to one-fourth of their college period in courses in the fields of education, psychology, methods, and practice teaching. Even though this item was more uniform among the States than many other items there were still State variations from 60 semester-hours (one-half of the college period) to 15 semester-hours (one-eighth of the college period)—a variation of 4 to 1.
9. Elementary teachers took much more work in education and practice teaching than did secondary teachers and there were also greater variations in practice.
10. Graduates of teachers colleges have had more work in education and especially in practice teaching than have the graduates of other types of institutions.
11. The status of American public-school teachers in 1930–31 with regard to the extent of their educational preparation and the professional nature of the preparation indicate that there remains a large problem of preservice and inservice upgrading before teaching can be thought of as having attained the status of a profession.

CHAPTER IV

SUBJECTS TAUGHT BY HIGH-SCHOOL TEACHERS

Curriculum patterns for high-school teachers.—How many different subjects should a high-school teacher be prepared to teach? Should the subjects be closely related? What is the minimum amount of college work which may be accepted as satisfactory preparation in various subjects? Should prospective high-school teachers have a major and 1 minor, a major and 2 minors, 2 majors, or 3 minors? Such questions as these have for many years confronted those constructing curricula for teachers, especially high-school teachers. Solutions have been proposed, studies of the work of teachers in the field have been made, and a few curricula have been modified, but practice remains relatively unchanged. The traditional plan of having each college student select a field of major emphasis with a "first minor" and in a small proportion of cases a "second minor" remains the predominant pattern for curriculum organization for the colleges and universities and has been wholeheartedly accepted by the teachers colleges as they became degree-granting institutions and began to place more emphasis upon the education of high-school teachers.

Several reasons can be advanced to explain why this important curriculum problem has not been solved. In the first place, a majority of high-school teachers begin their high-school teaching in small high schools and because of that fact are much more likely to be asked to teach in two or more fields. In the second place, even small high schools offer several curricula with elective privileges for the students. This results in small classes and a great range of courses to be taught. In the third place, as high-school teachers move from one position to another it is improbable that they will find exactly the same combination of subjects to teach. As a result they frequently find themselves with an additional subject for which their predecessor was adequately prepared but in which they have had little or no work either in high school or college.

The two most persistent problems in connection with the curricula for secondary teachers are: How many subjects should a high-school teacher be prepared to teach, and what combinations of subjects are most desirable? The National Survey of the Education of Teachers in its inquiry sent to all teachers attempted to obtain some data on both of these questions (items 39 to 47, fig. 2).

Number of subjects taught.—Each teacher in junior and senior high school was asked to indicate the number of different fields in a list of 15 major fields of secondary-school instruction in which he gave instruction during the year for which data were gathered, 1930–31. The 15 fields were: Agriculture and forestry; art and drawing; biological science; business and commerce; education and teacher training; English; classic languages; modern languages; health and physical education; home economics or household arts; physical science; mathematics; music; history, sociology, economics; trades and industries and industrial arts; and "subjects not listed." The answers to that question in terms of the fields just listed are tabulated by States for junior high school and senior high school teachers in table 20. Answers were received from 34,257 junior high school teachers, 37 percent of whom were teaching in 1 field, 51 percent in 2 fields, 8.1 percent in 3 fields, 2.8 percent in 4 fields, and 1.1 percent in 5 or more fields. Similarly for 82,627 senior high school teachers 34.3 percent were teaching in 1 field, 52.6 percent in 2, 9.4 percent in 3, 2.8 percent in 4, and 0.9 percent in 5 or more. Taken together it may be said that for secondary teachers in the United States in 1930–31, one-third were teaching in only 1 field, slightly more than half in 2 fields, and one-eighth in 3 or more fields.

These data and similar results from State studies of this problem have been interpreted to mean that relatively few secondary teachers are required to teach in more than two fields. This interpretation has been used to justify a curriculum pattern with a major and a minor required of each prospective high-school teacher. This interpretation neglects to take into account two other important items—namely, that a large majority of the teachers teaching in 3 or more fields are the young and inexperienced teachers and that many of the teachers who are now teaching in only 1 or 2 fields were required to teach 3 or more fields when they began teaching. In moving from smaller to larger schools it was possible in many instances to concentrate on 1 or 2 teaching fields. The data from this study were not tabulated to show what proportion of high-school teachers taught in only one field during their first year's experience. The data were tabulated, however, to show the distribution of the number of subjects taught by junior and senior high school teachers in relation to the size of the schools as shown by the number of teachers in the building. These relationships are shown in table 21. Some generalizations were evident from the data in this table. Junior high school teachers were required to teach more subjects than senior high school teachers, almost half of them teaching four or more subjects. Seven-eighths of the senior high school teachers taught only 1 or 2 subjects. The percentage of the teachers, both in junior and senior high schools, who taught in only one field increases steadily with the size of the school.

TABLE 20.—*Number of different fields in which junior and senior high school teachers give instruction, 1930–31*

State	Junior high						Senior high					
	Total number of cases	1 field	2 fields	3 fields	4 fields	5 fields or more	Total number of cases	1 field	2 fields	3 fields	4 fields	5 fields or more
1	2	3	4	5	6	7	8	9	10	11	12	13
Alabama	526	14.1	46.4	17.5	11.4	10.6	959	30.9	49.9	11.3	6.0	1.9
Arizona	132	29.5	58.3	7.6	2.3	2.3	313	31.6	57.6	8.0	2.2	.6
Arkansas	295	22.8	56.9	11.5	7.1	1.7	491	25.3	59.0	10.8	4.1	.8
California	2,471	36.7	54.6	7.1	1.4	.2	4,823	41.2	49.6	6.8	1.8	.6
Colorado	412	33.3	51.4	9.5	2.2	3.6	774	28.0	49.6	14.7	5.8	1.9
Connecticut	474	52.7	39.5	4.9	2.5	.4	1,192	50.0	43.4	5.0	1.5	.1
Delaware	75	42.7	46.7	9.3	1.3	------	173	31.2	54.9	11.0	2.3	.6
District of Columbia	148	33.8	58.7	5.4	1.4	[illegible]	248	49.7	42.7	4.8	2.8	------
Florida	506	28.3	52.4	12.8	4.7	1.8	628	22.3	59.6	11.3	4.1	2.7
Georgia	256	33.6	46.9	10.2	7.0	2.3	964	31.4	52.7	13.2	1.8	.9
Idaho	100	22.0	60.0	10.0	6.0	2.0	425	22.8	51.8	17.6	5.6	2.1
Illinois	673	40.9	51.3	5.2	1.9	.7	4,631	30.4	58.2	8.8	2.1	.5
Indiana	1,055	23.4	61.1	11.5	3.1	.9	4,044	26.4	57.8	12.1	3.2	.5
Iowa	927	33.7	53.4	9.9	2.4	.6	2,622	24.6	55.3	12.5	5.8	1.8
Kansas	655	33.1	56.0	9.0	1.4	.5	1,768	26.6	56.9	11.9	3.5	1.1
Kentucky	428	40.2	47.5	7.7	2.3	2.3	977	27.0	59.0	10.3	2.9	.8
Louisiana	97	36.1	43.2	15.5	2.1	3.1	1,206	22.5	61.2	12.2	3.0	1.1
Maine	153	39.8	45.1	9.2	3.3	2.6	785	36.5	46.5	12.4	3.8	.8
Maryland	375	41.6	53.1	3.7	1.3	.3	773	34.7	54.4	8.4	2.1	.4
Massachusetts	2,258	37.6	48.1	10.3	3.2	.8	3,564	51.2	41.4	5.7	1.3	.4
Michigan	2,327	33.8	55.7	7.6	2.4	.5	3,975	32.5	56.3	8.9	1.8	.5
Minnesota	880	41.8	49.3	5.7	2.2	1.0	2,422	28.7	54.8	11.3	4.0	1.2
Mississippi	148	23.0	55.4	15.5	3.4	2.7	481	29.7	55.6	10.4	3.3	1.0
Missouri	635	22.7	64.2	6.8	4.6	1.7	1,972	22.6	59.3	12.5	4.7	.9
Montana	122	36.9	41.8	12.3	7.4	1.6	522	28.4	52.9	13.0	3.4	2.3
Nebraska	325	19.7	55.4	12.0	7.1	5.8	1,248	21.7	54.7	15.3	6.1	2.2
Nevada	36	22.2	58.4	8.3	11.1	------	100	11.0	67.0	10.0	7.0	5.0
New Hampshire	138	26.1	52.2	10.1	8.7	2.9	414	28.0	52.9	14.5	3.4	1.2
New Jersey	1,645	45.2	47.7	5.2	1.2	.7	3,284	47.9	45.9	4.8	1.2	.2
New Mexico	91	16.5	58.2	16.5	4.4	4.4	248	16.9	67.4	10.5	3.2	2.0
New York	3,551	49.1	43.8	5.5	1.3	.3	8,522	53.6	41.3	4.2	.8	.1
North Carolina	332	29.8	56.1	10.5	3.6	------	1,661	19.7	66.2	11.5	2.3	.3
North Dakota	113	28.3	44.3	8.8	11.5	7.1	553	12.4	47.3	18.4	13.2	8.7
Ohio	2,646	38.5	51.4	8.0	1.7	.4	5,481	31.1	52.5	11.0	4.1	1.3
Oklahoma	472	28.8	56.8	9.1	4.0	1.3	1,110	20.5	62.8	13.1	3.0	.6
Oregon	243	35.4	55.6	7.4	.4	1.2	1,246	30.5	53.0	10.4	4.3	1.8
Pennsylvania	3,986	43.6	47.5	6.5	1.9	.5	6,577	35.9	52.1	8.8	2.5	.7
Rhode Island	177	53.1	35.0	6.8	2.3	2.8	270	46.2	45.2	5.6	2.6	.4
South Carolina	77	35.1	50.6	11.7	2.6	------	497	30.6	51.9	14.1	2.6	.8
South Dakota	103	22.3	63.1	11.7	1.9	1.0	426	21.7	50.9	18.3	7.7	1.4
Tennessee	518	25.5	46.7	10.8	11.8	5.2	870	25.9	55.7	11.7	5.3	1.4
Texas	1,204	35.5	54.3	7.1	2.2	.9	3,263	31.2	57.5	8.3	2.1	.9
Utah	365	20.0	58.2	14.2	6.0	1.6	412	31.8	52.6	11.2	3.2	1.2
Vermont	47	27.7	40.4	21.3	8.5	2.1	232	26.6	48.2	15.2	5.0	5.0
Virginia	474	35.2	50.5	8.0	4.0	2.3	1,272	21.7	59.9	12.3	4.9	1.2
Washington	515	25.6	56.7	12.2	4.9	.6	1,842	27.9	53.4	13.4	3.9	1.4
West Virginia	112	25.9	65.1	5.4	1.8	1.8	159	28.9	63.6	6.3	.6	.6
Wisconsin	865	37.9	52.3	6.0	2.5	1.3	2,192	37.5	54.8	5.8	1.2	.7
Wyoming	85	21.2	48.2	14.1	11.8	4.7	346	28.4	52.4	12.4	7.5	4.3
Total	34,257	37.0	51.0	8.1	2.8	1.1	82,627	34.3	52.6	9.4	2.8	.9

Other studies and general observation of those placing secondary teachers would indicate that the majority of beginning high-school teachers have to give instruction in three or more subjects. This condition would justify the prospective high-school teacher in securing at least a minimum preparation in three teaching fields.

TABLE 21.—*Relation of size of secondary staff to the number of fields in which faculty members give instruction*

Number of fields in which instructors teach	Number of teachers of same type in the building					Total	
	3 or 4	5 to 9	10 to 24	25 to 99	100 or more	Percent	Number involved
1	2	3	4	5	6	7	8
Junior high school:							
1 subject	33.9	29.6	35.4	42.5	48.1	37.8	11,509
2 subjects	46.8	53.0	53.9	50.2	45.2	51.0	15,502
3 subjects	10.4	12.0	8.4	5.9	5.9	7.9	2,388
4 subjects	6.0	4.1	2.3	1.4	.4	2.4	745
5 subjects	1.8	.9	----	----	.4	.6	163
6 or more subjects	1.1	.4	----	----	----	.3	101
Number involved	3,088	4,411	8,130	14,330	509	----	30,468
Percent of total	9.9	14.5	26.8	47.1	1.7	----	----
Senior high school:							
1 subject	19.0	20.3	29.4	42.4	51.7	33.3	24,947
2 subjects	54.1	57.9	53.7	52.2	43.8	54.3	40,669
3 subjects	17.2	15.5	9.3	4.4	3.6	9.0	6,757
4 subjects	7.2	4.9	2.1	.8	.6	2.6	1,963
5 subjects	1.8	1.1	.4	.1	.2	.6	416
6 or more subjects	.7	.3	.1	.1	.1	.2	145
Number involved	7,444	15,348	18,273	26,199	7,632	----	74,896
Percent of total	9.9	20.5	24.4	35.0	10.2	----	----

Variation among States.—Inspection of any column in table 20 reveals the same divergence in State practice as has been shown in previous tables in this part of the Survey. Among the junior high school teachers teaching in only one field the percentage varied from 14.1 percent in Alabama to 53.1 percent in Rhode Island. At the other extreme the number of junior high school teachers teaching in three or more different fields varied from 39.5 percent in Alabama to 5.3 in Maryland. Since most of the difficulties connected with this problem are caused by the number of teachers who teach 3, 4, and 5 or more different subjects it is helpful to know that in 1930–31, Alabama, Arkansas, Louisiana, Mississippi, Montana, Nebraska, New Hampshire, New Mexico, North Dakota, Tennessee, Utah, Vermont, and Wyoming all had 20 percent or more of their junior high school teachers teaching three or more subjects. California, Connecticut, District of Columbia, Illinois, Maryland, Minnesota, New Jersey, New York, Oregon, Pennsylvania, West Virginia, and Wisconsin all had less than 10 percent of their junior high school teachers teaching in three or more different fields.

The variations were fully as great for the senior high school teachers. The ranges were in fact quite similar as were the conditions regarding the percentages of senior high school teachers teaching in three or more fields. Colorado, Idaho, Nebraska, Nevada, North Dakota, South Dakota, Vermont, and Wyoming in 1930–31 had more than 20 percent of their senior high school teachers teaching three or more subjects, while California, Connecticut, District of Columbia, Massachusetts, New Jersey, New York, Rhode Island, West Virginia, and Wisconsin had less than 10 percent.

These comparisons for both junior and senior high schools show distinctly that the problem of the number of different subjects taught

is very directly affected by the density of population of a State—the extent of its urbanization with the larger high schools in the cities and the opportunities for concentration of teaching fields. The problem is also affected by the extent to which a State has developed its high-school program (the percent of boys and girls of high-school age who go to high school) and also by the extent to which a program of consolidation of the smaller high schools has been put into effect. In some instances the number of small high schools is a result of State limitation in ability to support extensive programs of secondary education.

Subject combinations taught by high-school teachers.—The second most pressing problem in the preparation of high-school teachers is the selection of the most desirable combinations of subjects for which to prepare teachers. Should the choice be in terms of the relationship between the fields, e.g., should prospective teachers of English select an ancient or a modern language for a second subject? Should the choice of a second field be made in order to open to the teacher a new and unrelated field in which, however, he has a personal interest, e.g., a mathematics major who desires to minor in fine arts? Should the choice of teaching combinations of subjects be made in terms of the demands of the field as indicated by the number of students registered for different courses in the types of schools to which the prospective teachers will go for their initial teaching experience? Other bases of selection could be listed, each reflecting to some degree different theories for the education of secondary teachers or different attitudes toward the curricula of secondary schools.

It was impossible for the Survey to evaluate these different practices and theories. It was possible, however, to assemble data which would present actual conditions with respect to teaching combinations in the high schools. Table 20 showed that 37 percent of the junior high school teachers and 34.3 percent of the senior high school teachers in 1930–31 were teaching in only one field. Table XV, appendix, listed for each subject-matter field the number of senior high school teachers teaching that field only and the number of semester-hours of college credit earned in each field. From the data in table XV, appendix, the percentage of all senior high school teachers teaching in only one field who were teaching in each of the teaching fields were computed. These percentages were: Agriculture and forestry, 1.6; art and drawing, 2.4; biological science, 2.8; business and commerce, 15.4; education and teacher training, 0.02; English, 21; classic languages, 3.6; modern language, 5.7; health and physical education, 4.6; home economics or household arts, 6.6; physical science, 4.3; mathematics, 11.4; music, 2.2; history, sociology, and economics, 11.9; and trades and industries and industrial arts, 6.4. These percentages or similar percentages computed from table XV, appendix, for individual States should be considered in the development of any State program for determining

the number of high-school teachers needed in any field for that State. The numbers teaching in only one field, however, represent merely a part of the picture. There remain the numbers teaching in each field as 1 of 2 or more teaching fields. These groups, including as they do nearly two-thirds of the secondary teachers, include individuals teaching almost every conceivable combination of the subjects taught in high schools. Some combinations are more logical and occur more frequently than others. The knowledge of what such combinations are should be of service to all persons responsible for guiding prospective teachers in their choice of fields of specialization. The combinations of the main teaching field and of the second, or "next main" teaching field for teachers teaching in two or more fields in 1930–31 are presented for junior high school teachers in table 22 and for senior high school teachers in table 23. Both of these tables will repay careful study by anyone interested in this problem. Each table contains material for the general student advisor, which will assist in providing the necessary overview of the whole problem, and each table contains data of desided significance to the teachers and advisors in each of the teaching fields. It is not necessary or desirable to make a detailed analysis of these two tables. A few of the more important and interesting relationships will be indicated merely as suggestions of the kind of information available in them.

TABLE 22.—*Major and minor teaching combinations of junior high school teachers instructing in 2 or more fields, school year 1930–31*

Major teaching field	Total number involved	Minor teaching field														
		Agriculture and forestry	Art and drawing	Biological sciences	Business and commerce	Education and teacher training	English	Classic languages	Modern languages	Health and physical education	Home economics or household arts	Physical sciences	Mathematics	Music	History, sociology, economics	Trades and industries and industrial arts
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Agriculture and forestry	199	----	3.1	18.2	4.6	3.6	17.7	0.5	----	9.3	2.0	7.3	11.4	1.0	16.1	5.2
Art and drawing	793	0.8	----	2.3	2.0	3.8	31.5	1.0	3.4	6.0	3.1	2.5	8.6	9.2	12.4	13.4
Biological sciences	912	3.6	.7	----	1.0	2.1	16.3	1.3	2.4	7.2	1.6	31.5	15.9	1.2	15.1	.3
Business and commerce	688	.3	2.2	1.2	----	3.3	23.0	2.5	3.3	3.3	1.3	3.1	30.3	1.9	23.4	.9
Education and teacher training	55	----	5.5	7.3	----	----	20.0	3.6	3.6	11.0	3.6	----	12.7	----	25.4	7.3
English	5,174	.4	2.7	3.2	1.5	3.3	----	3.5	11.5	5.2	1.4	3.6	13.8	3.7	40.6	.6
Classic languages	614	----	.3	2.6	.6	.5	42.2	----	21.3	.6	.3	2.3	13.3	.6	16.1	----
Modern languages	527	----	1.7	1.9	1.7	2.3	42.3	13.5	----	1.5	.2	2.5	9.3	2.8	19.5	.8
Health and physical education	1,200	1.8	2.1	12.6	2.5	4.0	17.5	.7	2.1	----	2.1	11.2	11.5	2.0	25.3	5.2
Home economics or household arts	1,932	.3	7.5	17.1	1.1	5.2	22.9	.2	1.6	9.5	----	16.3	4.0	1.7	9.8	1.8
Physical sciences	1,087	1.7	1.2	18.5	2.2	1.7	13.2	1.0	1.7	6.8	.7	----	27.8	1.6	21.0	1.1
Mathematics	3,644	.3	2.1	5.2	5.2	2.6	24.5	3.8	4.0	5.2	.9	14.8	----	2.5	27.3	1.6
Music	590	.2	9.1	1.4	1.9	5.1	39.3	1.7	5.9	4.9	.3	2.7	9.7	----	16.1	1.7
History, sociology, economics	1,666	.4	2.3	3.2	2.1	3.3	50.4	3.3	5.5	4.6	.9	7.1	13.3	2.2	----	1.4
Trades and industries and industrial arts	226	3.6	19.9	4.3	1.5	4.2	4.5	----	1.2	12.6	1.1	9.9	22.0	1.3	13.9	----
Total	19,111	.8	3.4	5.6	2.3	3.2	19.3	4.0	6.0	5.4	1.2	8.5	11.8	2.7	24.0	1.8

TABLE 23.—*Major and minor teaching combinations of senior high school teachers instructing in 2 or more fields, school year 1930–31*

Major teaching field	Total number involved	Minor teaching field: Agriculture and forestry	Art and drawing	Biological sciences	Business and commerce	Education and teacher training	English	Classic languages	Modern languages	Health and physical education	Home economics or household arts	Physical sciences	Mathematics	Music	History, sociology, economics	Trades and industries and industrial arts
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Agriculture and forestry	1,299	....	0.9	38.9	2.5	4.5	3.3	0.4	....	6.9	0.2	17.6	7.2	0.6	8.4	8.6
Art and drawing	754	1.8	....	2.7	1.2	5.0	14.6	.9	3.1	3.8	6.6	3.3	10.7	7.7	7.8	31.3
Biological sciences	3,443	4.1	.6	....	1.5	2.1	11.2	1.2	3.2	7.1	2.2	36.2	14.3	.6	14.6	1.1
Business and commerce	4,159	.4	.6	3.2	....	3.9	24.0	2.5	5.8	4.5	1.9	2.9	14.8	2.2	32.1	1.2
Education and teacher training	261	.8	1.5	2.3	1.9	....	27.6	7.7	3.4	2.3	3.4	3.1	12.3	1.5	31.4	.8
English	11,199	.2	.6	3.8	1.9	3.3	....	17.7	19.6	2.4	2.1	2.0	6.7	2.9	36.5	.3
Classic languages	3,470	....	.1	1.9	.7	.7	34.4	....	28.6	.6	.8	1.6	11.3	.8	18.2	.1
Modern languages	3,419	.1	.5	1.9	1.7	1.3	38.9	23.5	....	1.3	.5	1.7	8.1	1.6	18.7	.2
Health and physical education	2,012	2.5	.9	16.4	3.4	4.4	12.4	.8	2.6	....	1.6	10.0	12.0	1.0	28.7	5.3
Home economics or household arts	3,117	.2	5.4	23.7	1.6	4.0	19.7	1.2	2.4	7.2	....	17.4	4.2	1.2	10.7	1.1
Physical sciences	3,852	2.0	.3	30.2	1.3	1.6	3.7	1.0	1.6	3.9	.9	....	41.1	1.0	9.2	2.2
Mathematics	6,841	1.0	.7	8.2	3.8	2.6	13.9	7.5	6.7	4.2	.7	28.2	....	1.1	19.4	2.0
Music	749	.4	8.8	2.8	2.5	4.4	32.7	3.9	6.8	3.7	2.0	4.1	6.8	....	20.2	.9
History, sociology, economics	6,424	.5	.8	5.5	4.1	4.0	45.0	3.4	3.9	4.4	.7	5.2	10.3	1.2	....	.7
Trades and industries and industrial arts	1,769	6.4	17.7	3.3	2.1	4.2	3.3	.1	.5	11.4	.6	13.3	23.5	1.2	11.9	....
Total	52,768	1.0	1.6	8.5	2.2	3.0	17.6	7.8	9.2	3.9	1.4	9.9	11.0	1.6	19.6	1.7

Teaching combinations of subjects in junior high school.—Table 22 indicates that of the junior high school teachers who taught agriculture and forestry as their main field, 18.2 percent taught biological sciences, 17.7 percent English, 9.3 percent health and physical education, 7.3 percent physical sciences, and 16.1 percent history, sociology, and economics as their second or "next main" teaching fields. The biological sciences are the most closely related to agriculture and forestry and yet almost as many of these teachers had English or history as a second subject as had biology. The distribution of second subjects for teachers of agriculture was more scattered than for teachers of some of the other subjects. This was due in part to the fact that in many high schools there was not enough work offered in agriculture to occupy the entire teaching time of a teacher and he was therefore used to "fill in" wherever there was an extra class to be taught. In the case of the teachers of fine arts the combinations were more clearly marked. More than half of the junior high school teachers of fine arts had as their second teaching subject English or mathematics or history. Not only are these three fields ones in which a large majority of junior high school students take work, but they are subjects whose content is related in many ways to the field of fine arts. Nearly a third of the teachers whose main teaching field was biology taught the physical sciences as a second field.

More than half of the junior high school teachers whose main teaching field was business and commerce most frequently taught either English or mathematics as their second subject. Similar specific relationships can be noted for the other subjects.

Two or three general observations can also be drawn from table 22. In 1930–31 in the junior high school, history and English were outstandingly the most frequently taught second subjects, due without doubt to the fact that so many teachers had been required to take English and history both in high school and college that they were considered capable of teaching one or more classes in those subjects when needed. On the other hand, the fields requiring extensive special instruction, such as agriculture, the languages (classic and modern), health and physical education, home economics, and industrial arts were found as second teaching subjects in relatively few cases. The same was true of subjects like art and music in which a special ability or degree of skill is required of the teachers.

From table 22 can also be drawn the subject combinations which occur in two-fifths or more of the cases. Such combinations were: English and history, classic language and English, modern language and English, music and English, and history and English.

Teaching combinations in the senior high school.—Inspection of the data in table 23 reveals that the relationships in subject matter play a much more important role in determining teaching combinations in the senior high schools than was true of the junior high schools. Senior high school teachers of agriculture and forestry in two-fifths of the cases taught biological science as their second teaching field with the physical sciences ranking next as a second subject. This is in sharp contrast to the situation found for the junior high school teachers, for whom English and history were each almost as frequently taught as second subjects as was biology. Table 23 also shows that fine arts and industrial arts were taught by the same teachers in 31.3 percent of the cases and that a similar relationship (36.2 percent) existed for the biological sciences and the physical sciences. The relationship was marked among the four subjects of English, history, classic language, and modern language.

The same conditions about which general observations were made for the junior high school appear to have existed in the senior high school teaching combinations except that they were somewhat less marked. History, English, and mathematics were clearly the three fields most frequently combined with each other and with other subjects as second teaching subjects and the so-called "special subjects" and the fine arts and music were infrequently used as second teaching fields.

Number of teachers in each field.—The percentages given in tables 22 and 23 may be misleading unless those who use them remember

that the number of teachers in each group varies—that the percentages are not comparable so far as total number of teachers is concerned. For example, the percent of senior high school teachers of agriculture who also taught history was the same as the percent of history teachers who taught classical languages, and yet the actual number of teachers in the history-classical language combination is approximately five times the number in the agriculture-history combination. A further check on this element of table 23 may be made from the totals in tables XVI and XVII, appendix.

Teaching load in clock-hours per week.—One other element which enters into this picture is the teaching load in terms of the number of clock-hours of teaching per week. The data on this question from the National Survey of the Education of Teachers are presented in table 24. Some interesting conclusions may be drawn from the comparisons between the teaching load of junior and senior high school teachers. Junior high school teachers taught more clock-hours per week than did senior high school teachers. There was relatively little relationship between size of community and the teaching load of secondary teachers. While the median load for both junior high school and senior high school teachers fell in the step 25–29 clock-hours, there were more teachers in both groups teaching more than 30 clock-hours per week than there were teaching fewer than 25 clock-hours. The secondary teachers teaching fewer than 15 clock-hours per week were obviously part-time teachers, teaching principals, or teachers with some work in the elementary schools. With approximately one-third of the secondary teachers teaching 30 or more clock-hours per week, it is clear that many of these teachers were carrying a teaching load too heavy to permit efficient work.

TABLE 24.—*Teaching load of junior and senior high school teachers distributed by varying population areas*

School located in	Teaching load, clock-hours per week						
	1-9	10-14	15-19	20-24	25-29	30-34	More than 35
1	2	3	4	5	6	7	8
Junior high school:							
Open country	3.9	0.3	4.9	17.7	33.1	33.3	6.8
Villages of less than 2,500 population	6.4	1.0	7.2	17.9	27.6	31.8	8.1
Cities of 2,500 to 9,999 population	5.8	1.0	5.8	18.5	34.0	28.5	6.4
Cities of 10,000 to 99,999 population	4.3	.7	4.8	19.8	36.0	28.6	5.8
Cities of 100,000 population or more	2.9	.6	4.7	20.2	32.7	31.1	7.8
Total	4.2	.7	5.1	19.6	33.7	29.9	6.8
Senior high school:							
Open country	3.9	1.6	10.3	24.4	31.0	24.8	4.5
Villages of less than 2,500 population	5.1	1.4	11.5	25.9	26.3	23.7	6.1
Cities of 2,500 to 9,999 population	5.2	1.5	9.6	21.7	32.6	22.4	7.0
Cities of 10,000 to 99,999 population	4.2	1.8	11.3	22.7	33.0	21.5	5.5
Cities of 100,000 population or more	4.0	2.8	18.9	17.7	22.9	27.3	6.4
Total	4.5	1.9	12.2	22.2	28.0	24.1	6.1

SUMMARY

1. So many secondary teachers are required to teach 2 or more subjects, especially when they begin teaching, that they should prepare to teach in 2 or 3 teaching fields.
2. The probability that a secondary teacher will teach in only one field increases with the size of the school and the size of the community in which he works.
3. Prospective teachers in secondary schools should select the combinations of subjects which they expect to teach in the light of the teaching combinations which exist in the areas in which they are expecting to work, and also in terms of the probable number of teachers who will be needed in each field.
4. Junior high school teachers taught more subjects than senior high school teachers and there was less relationship among the subjects taught by junior high school teachers than among those taught by senior high school teachers.
5. While the median teaching load for secondary teachers was between 25 and 29 clock-hours per week, the fact that one-third of all secondary teachers were teaching more than 30 clock-hours per week, indicated the strong probability that many of these teachers were carrying teaching loads inconsistent with effective instruction.

CHAPTER V

SUPPLY AND DEMAND STUDIES

GENERAL SITUATION IN THE UNITED STATES

Changing status of supply and demand.—It is easy to discover in studying the history of education in the United States that there have been recurring periods of "shortage" and of "surplus" in the supply of teachers available for work in the American public schools. These periods bear a rough reciprocal relationship to the past sequences of periods of "prosperity" and of "depression"—when times were good there were not enough teachers and when times were bad there were too many teachers. Instead of being a mere coincidence this relationship presents one of the fundamental difficulties in making teaching a profession and in successfully controlling the supply and demand of teachers. It shows that teaching has been held in such low public esteem and has been rewarded on such a meager basis that many teachers desert the work whenever they can earn more money in some other line of work and that they, as well as others, turn to teaching when other work is either not available or is less remunerative. Teaching in this way has been subjected to a series of personnel disturbances—periods of excessive turnover—in which it was forced to adjust to the loss of many of its best teachers or else to adjust to the destructive competition of large numbers of teachers without positions.

The last two of these upsets are quite fresh in the minds of most teachers. During and immediately following the World War there was a serious shortage of teachers. So serious was the shortage then that teachers were frequently recruited from among boys and girls part way through their high-school courses. Temporary certificates were issued freely and little attempt was made in many places to maintain standards. As one county superintendent said in talking about his methods of issuing temporary certificates to teachers, "Of course, I cannot maintain standards. It's all I can do to maintain schools."

In less than 10 years the situation was completely reversed. The oversupply of teachers with certificates permitting them to teach was troubling the school authorities of nearly every State. To be sure, some of the oversupply was caused by teachers with less than the desired amount of training who had, in many instances, been urged to enter teaching but a few years before in order to "save the schools" and who were loathe, now that the schools were saved, to relinquish

their positions to others even though the others were better prepared for the work. Toward the close of the last decade there were many communities in which numerous classrooms were "presided over" by inadequately prepared teachers while adequately prepared teachers were unemployed in the same communities and either working at some occupation other than teaching or living at home or with relatives and exhausting any available savings. Not only did this anomalous situation exist but the presence of the large numbers of unemployed teachers did much to destroy the professional morale of those who were employed.

Oversupply of teachers in 1929.—This was the situation frequently reported, especially from the larger cities during the school year 1928–29 and very generally reported in 1929–30. Stories were current that some of the larger cities had enough unemployed teachers available to supply all needs for new teachers for the next 10 years without any new teachers being prepared. Some States reported unemployed teachers in numbers equal to a third of the total teaching force in the State. Whenever it was possible to secure reliable data upon those estimates of the number of unemployed teachers they were found to be exaggerations—overstatements caused by failure to give proper consideration to a number of factors. Some of these factors should be listed in order that any future computations may make proper allowance for them.

(*a*) Many of the unemployed teachers were inadequately prepared and should never have received teachers' certificates. It is unwise to include such teachers, either employed or unemployed, in computation of unemployment unless an allowance is made for that proportion of them who will bring their preparation up to the approved minimum within a reasonable period of time.

(*b*) It is inaccurate to assume, if the number of unemployed teachers is, for example, 10 times the number of new teachers needed last year, that the surplus constitutes a supply for the next 10 years. There is no assurance that the number of new teachers needed will remain constant, over a 10-year period, nor that all the teachers who were unemployed will remain available until they are needed during the 10-year period. Some may die, others get married, still others find satisfactory employment in other lines of work and those who are available after an 8- or 9-year wait will be out-of-date and out-of-practice so far as their teaching ability is concerned.

(*c*) Many of the so-called "unemployed" teachers who are listed in the totals available are teachers who at the time are teaching some place but who are frequent applicants for more desirable positions. These applications or the keeping of the names of these teachers upon "waiting lists" gives a false impression of

the number of teachers available. It is possible for an employed teacher to be included in the "available lists" of several school systems and yet he could not be employed in any of them without leaving a vacancy in the school where he is teaching.

(*d*) Conditions are not comparable between the larger cities and the rural and village situations. Many teachers are unwilling to accept positions in smaller places preferring to remain unemployed or employed at some temporary work while they wait their turn for employment in the larger city—usually their home city.

(*e*) Many of the teachers included in the estimated numbers of unemployed are specialists or are prepared to teach certain grades or certain subjects and not prepared to accept other positions. It is obviously inaccurate to include such persons in a single total. An extreme case will illustrate this. There may be 500 unemployed teachers in a city and none of them qualified to teach in a nursery school or French in a high school.

If allowance could have been made for some or all of the foregoing factors in the estimates of the oversupplies of teachers which have been made since 1929–30 the numbers would have been greatly reduced. The principal reason why these allowances were not made is because it was and still is almost impossible to secure accurate data upon any of the elements mentioned. Registrations with employment agencies or city waiting lists even if available would have to be checked name by name in order to eliminate duplicates. Lists of certificates issued are equally unsatisfactory because of the practice of having certificates approved and registered in several States in which a teacher hopes to secure employment. The number of applicants for any educational vacancy for reasons already given is also a much "padded" list.

The foregoing explanations should not be interpreted as an attempt to prove that there has been no oversupply of teachers since 1929. They are intended to indicate only that the condition was often exaggerated, not intentionally but because essential data were not available. There was most assuredly an oversupply of teachers holding valid certificates for teaching and in most cities and some States there was also an oversupply of teachers who had the approved minimum of professional preparation. In organizing the work of the Survey such an oversupply was assumed and it was decided that no special studies would be undertaken to discover the exact nature and extent of the oversupply. This decision was reached because of the very costly and time-consuming work required to locate the unemployed teachers and also because it would be of little value to those responsible for the education of teachers to know merely the number of unem-

ployed teachers. A few thousand more or less would make no difference in determining what measures are needed to correct the situation unless it was possible to know the preparation of the unemployed teachers, when the preparation was obtained, its extent, nature and field of specialization, the teacher's experience, his success record, his present attitude toward teaching and the present condition of his health. The time and resources at the disposal of the Survey would not have been adequate for this task. It was therefore assumed that there was a serious teacher surplus and that something should be done to reduce it, to prevent it from increasing, and, if possible, to prevent future recurrences of it.

Supply and demand studies of individual States.—Attempts to study the supply of and the demand for teachers have been made at irregular intervals by cities, States, and educational organizations. Since the present surplus began to be noticeable and disturbing several States have sponsored one or more studies of their teaching personnel with the hope that a better adjustment between supply and demand could be effected. These studies have in each case thrown considerable light upon the conditions in the State studied and have also furnished suggestions for other similar studies, but the data presented and the recommendations have been confined entirely to the situation in the States studied.

Many of these State studies made important contributions to the methods of studying the problems of supply and demand for teachers and should be consulted by those responsible for the development of programs for the education of teachers in any State. An annotated list of many of these State studies is given in volume I.[1] Those listed below [2] are selected because they represent distinctly different types of approach to the problem or because they present useful summaries or bibliographies. These and other studies have been consulted by the Survey staff in order to discover the extent to which the returns of the National Survey of the Education of Teachers are representative samples of those States in which the State studies had obtained larger percentages of returns. When a State study is available it should be used in connection with the returns from the National Survey in

[1] Betts, Gilbert L., Frazier, Benjamin W., and Gamble, Guy C. Selected Bibliography on the Education of Teachers. Office of Education, Bulletin 1933, no. 10, National Survey of the Education of Teachers, vol. 1.

[2] Buckingham, B. R. Supply and Demand in Teacher Training. Columbus, Ohio. Ohio State University, 1926. Bureau of Research Monograph No. 4.

Eliassen, R. H., and Anderson, Earl W. The Supply of Teachers and the Demand. Educational Research Bulletin, vol. IX, no. 16. Columbus, Ohio. Ohio State University, Nov. 5, 1930. (Summary and bibliography.)

Hubbard, Frank. Teacher Demand and Supply. Research Bulletin of the National Education Association, vol. IX, no. 5, November 1931. Extensive bibliography.

Overn, A. V. Indices of Supply and Demand of Teachers in Minnesota. Minneapolis, Minn., University of Minnesota Press, 1932.

Peterson, E. T., Lindquist, E. F., Jeep, H. A., and Price, M. P. Teacher Supply and Demand in Iowa. Iowa City, University of Iowa Studies in Education, vol. VII, no. 2, June 15, 1932.

making proposals for teacher education programs in that State. If the State studies were made for the same year as the National Survey they should be used to check the data presented in this report. If the data for the State studies were obtained either before or after 1930–31 (the date when the National Survey data were obtained) the data from the two studies should be used to establish trends within that State.

Supply and demand data obtained by the National Survey of the Education of Teachers.—In the data blank sent by the National Survey of the Education of Teachers to all teachers and professional workers in the public-school systems two sets of questions were inserted in order to procure data upon the principal reasons for the demand for new teachers and upon the principal sources of the supply of new teachers. Every teacher who was new to his position in 1930–31 was asked to supply the information requested in the two following questionnaire items:

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ANSWER THIS IF YOU WERE NOT EMPLOYED IN THE PRESENT SCHOOL SYSTEM LAST YEAR (1929–30)

The one reason that explained the *demand* for your services this school year 1930–31

0 Predecessor died.
1 Predecessor retired.
2 Predecessor entered college.
3 Predecessor married.
4 Predecessor left to teach somewhere else in the State.
5 Predecessor left to teach in another State.
6 Predecessor entered another profession or occupation.
7 Predecessor left on leave of absence, illness, etc.
8 Hold newly created position.
9 Other----------

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ANSWER THIS IF YOU WERE NOT EMPLOYED IN PRESENT SCHOOL SYSTEM LAST YEAR (1929–30)

Where were you last year?

0 College or university in same State.
1 Teacher-training class, normal school or teachers college in same State.
2 Another school system in same State.
3 College or university in another State.
4 Teacher-training class, normal school, or teachers college in another State.
5 Another school system in another State.
6 A position other than in educational work.
7 Leave of absence.
8 Return to teaching, having some occupation other than education the past year.
9 Other ----------

Following the policy of making significant data from the Survey available as soon as possible the three tables which summarized the data from this study by States and for elementary teachers, junior high school teachers, and senior high school teachers were published in the January, February, and March issues of School Life for 1932. The tables and some of the interpretative material are included in this chapter because it belongs here as a matter of record and also because it represents one of the most important contributions to this section of the Survey and to the study of the difficult and pressing problem of adjusting the supply of teachers to the demands for new teachers. Table 25 gives the data by States on the supply of and demand for elementary teachers in the United States, 1930–31. In order to use correctly this table and the other tables dealing with this topic two terms should be defined and two cautions expressed. The two terms are "new teacher" and "mobility ratio." A "new teacher" as used in this study is defined by items 37 and 38 of the Inquiry No. 1 as "a teacher who was not employed in the present school system last year (1929–30)." The data were gathered in 1930–31. The "mobility ratio" is the ratio of the number of "new teachers" in a State to the total number of teachers in that State. If a State had 10,000 elementary teachers and 2,000 of them were "new teachers" the mobility ratio would be 2,000:10,000 or 1:5 which can be read as "1 of every 5 elementary teachers was new."

The first caution which should be expressed is that the percentages given in the body of these tables are percentages of the "new teachers" and not percentages of the total group of teachers in the State. This presents no difficulty when the situation for only one State is under consideration. It may be confusing when comparisons between two States are attempted. An illustration will indicate the difficulty. State "A" has a mobility ratio of 1–2 and shows that 10 percent of the predecessors left to enter college. Another State "B" also shows 10 percent of the predecessors left to enter college but its mobility ratio is 1–4. Instead of having the same proportion of their teachers entering college as might be suggested by each State having 10 percent listed in the table, State "A" has twice as large a percentage entering college as does State "B." State "A" according to its "mobility ratio" has 50 percent of its teachers "new" and 10 percent of those, or 5 percent of the total group, entered college. State "B", on the other hand, had 25 percent of its teachers "new" and 10 percent of those, or 2.5 percent of the total group, entered college. An actual case from table 25 will serve as an additional illustration. Column 7 shows that approximately 6.5 percent of the new teachers in both Tennessee and South Dakota replaced teachers who resumed college work. In Tennessee, the ratio between "new" teachers and the total number of elementary teachers was 1:6.12, the corresponding

TABLE 25.—*A picture of demand for and supply of elementary school teachers in the United States, 1930–31*

State	Total number elementary teachers involved	Total number new elementary teachers	Ratio of mobility-entry in column 3 divided by entry in column 2-ratio of new teachers to total	Reasons for demand for new elementary teachers by percent: Predecessor died	Predecessor retired	Predecessor entered college	Predecessor married	Predecessor left to teach elsewhere in the State	Predecessor left to teach in another State	Predecessor entered another occupation or profession
1	2	3	4	5	6	7	8	9	10	11
Alabama	4,163	780	1- 5.34	0.8	8.1	4.6	12.1	46.5	2.5	6
Arizona	1,057	304	1- 3.48	1.3	4	3.6	21.1	29	5.9	4
Arkansas	1,930	527	1- 3.66	.2	8.2	7.4	10.3	40.2	1.7	7.6
California	10,365	1,598	1- 6.49	.9	6.6	2.7	12.3	40.2	1.2	3.7
Colorado	2,422	926	1- 2.42	1	6.8	7.7	15.9	44.3	3.7	7.6
Connecticut	4,111	419	1- 9.81	.7	4.3	1.4	13.4	40.8	9.3	5
Delaware	368	62	1- 5.93		4.8	3.2	17.8	38.8	11.3	4.8
District of Columbia	528	33	1-16.00	9.1	3	9.1	12.1	18.2	3	3
Florida	2,017	375	1- 5.38	1.3	7.5	3.2	12.3	38.1	5.6	5.1
Georgia	2,065	354	1- 5.89	1.2	7.3	1.3	16.2	33.5	3.1	7.3
Idaho	736	294	1- 2.5	1.4	6	8.2	15.3	37.1	12	6
Illinois	9,428	2,275	1- 4.14	.7	6.4	6.4	16.3	49.2	2.7	6.8
Indiana	8,352	1,159	1- 7.21	.9	5.8	2.4	19	46.8	1.6	4.7
Iowa	9,805	3,229	1- 3.04	.2	6.2	7.3	21.1	45.3	2.2	7.6
Kansas	5,994	2,139	1- 2.8	.4	5.1	8.9	19	45.3	2.1	8.1
Kentucky	3,666	576	1- 6.36	.7	9	7.2	16	37	1.4	7.2
Louisiana	4,002	577	1-6.93	1.6	5.4	4.5	19.1	39.5	2.3	5
Maine	2,379	502	1-4.74	1	8.4	5.6	11.6	41	3.4	11.2
Maryland	2,982	276	1-10.8	.6	5.1	.3	17.8	35.2	4	5.1
Massachusetts	8,381	631	1-13.28	1.6	4.3	.8	20.8	38	3.3	3

State	Predecessor left on leave of absence, illness, etc.	Hold newly created position	Other reasons creating demand	Sources of supply meeting demand for new teachers by percent: College or university in same State	Normal school or teachers college in same State	Another school system in same State	College or university in another State	Normal school or teachers college in another State	Another school system in another State	A position other than educational work	Leave of absence	Return to teaching, having some occupation other than education the past year	Other sources of supply
1	12	13	14	15	16	17	18	19	20	21	22	23	24
Alabama	2.8	11.5	5.1	8.1	28.5	40.7	2.7	1	2.2	5.3	1.3	6	4.2
Arizona	5.6	13.7	11.8	11.2	8.6	32.3	8.6	2	15.5	6.5	2	9.1	4.2
Arkansas	2.4	15.9	6.1	15.6	9.1	46.9	2.6	2.1	5.7	6.8	1.5	4.9	4.8
California	7.7	16.1	8.6	18.4	20	36.9	1.3	.3	3	3.0	4.1	6.9	6.1
Colorado	2.9	4.5	5.6	15.1	16.9	41.6	3.3	1.8	6.6	4.9	.5	5.7	3.6
Connecticut	5	12.9	7.2	.5	42.2	29.1	1.7	7.4	8.6	2.1	.9	2.9	4.6
Delaware	3.2	11.3	4.8	8.1	6.4	35.5	13	8.1	21	1.5			6.4
District of Columbia	24.3	12.1	6.1	3	54.6		6		12.2	3	15.2		6
Florida	5.9	13.6	7.4	19.1	4.2	39	5	1	6	6	2.2	9	8.5
Georgia	7.1	15	9	14	11	40	2.5	1.2	7.6	8.5	1.4	8.2	5.6
Idaho	3	5	6	14	29	35	3	3	8	2.1	.8	2.1	3
Illinois	2.6	4.1	4.8	12.7	22.7	43	2.5	1.1	3	5	1.2	5.7	3.1
Indiana	4.1	7.8	6.9	7	18.9	48.3	1.2	1.2	4.8	5.3	2.4	7.2	3.7
Iowa	1.9	2.9	5.3	11.9	13	49.1	1.7	1.6	2.7	7.8	.4	4.5	7.3
Kansas	2.3	4.3	4.5	13.3	15	46.9	1.4	.5	2.5	5.7	.6	4.4	6.7
Kentucky	3.3	10	8.2	21	26	31	2.7	1.3	2.9	5.6	1	4.2	4.3
Louisiana	3.6	12.7	6.3	16.5	32.6	28.8	2.1	.4	2.4	5.4	1.2	5.8	4.8
Maine	4.2	6.5	7.1	2.2	37.7	35.5	.6	2.2	2.6	4.4	1.2	6.5	7.1
Maryland	6.5	18.5	6.9	2.2	58.3	18.9	1.8	4.4	2.5	2.5	2.2	2.5	4.7
Massachusetts	5.1	15.4	7.7	3.3	27.3	31.7	1.3	2.2	17.8	3.3	.8	3.3	9

Michigan	9,799	2,229	1-4.4	1	6.2	15.1	14.9	41.2	1.8	5.2	3	6.8	4.8	6.9	27.3	30	1.1	1.4	1.7	3.3	1.2	4.9	3.2
Minnesota	8,335	2,589	1-3.22	.4	4	7.9	16.5	52	4.6	5.9	2.2	3.1	3.4	3.4	36	48.2	.4	1.1	3.3	2.5	.5	2.8	1.5
Mississippi	1,222	332	1-3.68	.6	11.5	6.3	11.8	41.6	1.3	10.9	2.7	7.2	6.2	20.8	6.3	45.2	2.7	1.2	3	8.5	...	7.2	5.1
Missouri	4,577	948	1-4.83	.6	4.4	8.8	17.7	37.5	4.9	7.7	2.4	3.8	7.2	19.4	10.3	41.5	2	.7	4.4	4.2	.7	4.8	3
Montana	2,209	926	1-2.38	.2	4.3	7.1	13.6	45.8	9.3	6.9	2.5	5.2	5.1	3.5	19.6	45.4	2.7	5.4	11.8	3	.3	6.1	2.2
Nebraska	4,834	1,887	1-2.56	.3	5.9	9.3	20.6	42.8	2.5	8	2.3	3.4	4.9	12.4	31.1	45.6	.7	.9	2.4	6.3	.6	3.4	6.6
Nevada	347	139	1-2.5	...	3.6	5	22.3	25.9	10.8	5.8	2.9	15.1	8.6	10.1	9.4	30.2	3.6	2.9	22.3	8.5	2.2	5.8	5
New Hampshire	1,131	244	1-4.63	...	7	3.7	16.4	36.9	15.2	7.4	2.5	5.5	4.4	.8	41	31.2	1.6	3.7	8.6	2.9	.8	5.3	4.1
New Jersey	12,412	1,240	1-10.01	1.1	7.7	1.5	15.4	30.5	4.6	4.4	6.1	20.4	3.3	1.7	33.5	26.3	3.3	2.9	11.9	5.1	1	5.1	9.2
New Mexico	853	255	1-3.34	.8	6.7	3.5	10.6	33.3	7.5	3.2	2.7	18.8	7.9	12.6	6.7	29.8	7.5	3.5	14.5	9	.3	8.5	7.1
New York	25,929	3,450	1-7.51	1.4	7.1	6.4	10.1	35.1	1.4	6.5	10.2	13.3	8.5	3	40	31.1	.8	1.7	2.6	7.5	2.3	5.2	5.8
North Carolina	5,911	1,281	1-4.8	.7	7.6	3.2	13.4	39.5	4.1	7.2	3.5	14.7	6.1	15.7	15	41.8	2.8	1.3	3.2	5.3	1.2	6.1	4.6
North Dakota	4,047	1,880	1-2.15	.3	4.7	9.5	14.6	48.6	5.5	6.4	1.6	3.9	4.9	5.5	27	46.4	1.2	1.2	5.1	4.2	.4	3.9	5.1
Ohio	14,321	2,100	1-6.81	1.2	5.7	5.5	20	38.5	1.4	5	3.4	10.5	8.8	23.1	20	36.7	2.9	1.6	2.8	3.2	1.1	5	3.6
Oklahoma	3,559	1,160	1-3.06	.6	7.5	6.9	13.6	43.1	4.1	3.6	2	8	5.6	20.7	15	42.4	2.2	1	3.1	6.2	1	5.8	2.6
Oregon	3,040	825	1-3.68	1.1	10	8.3	13.3	38.3	4	8	4.3	5	7.7	2.3	36.4	42	.7	2.1	5.6	4.1	.4	4	2.4
Pennsylvania	23,161	3,168	1-7.31	1	4	3.7	21.9	42.3	1.9	5.6	3	9.1	7.5	6.8	37.8	35.6	.6	.6	1.9	4.9	.8	5.2	5.8
Rhode Island	875	56	1-15.62	...	1.7	3.5	14.3	42.9	5.4	1.7	7.2	9	14.3	5.3	51.8	16	3.5	7.2	5.3	3.5	1.9	1.9	3.6
South Carolina	1,339	245	1-5.46	1.1	6.1	2.1	21.2	30	3.1	11	6	15.1	4.3	25.7	6.1	30.5	.5	3	9.8	6.1	2	4.1	4.2
South Dakota	2,549	1,151	1-2.21	.2	5.5	6.5	13.1	53.3	3.2	7.5	1.9	4.2	4.6	8.6	18.8	50.3	2	1.7	4.8	3.7	.8	6.3	3
Tennessee	5,252	858	1-6.12	.7	5.5	6.6	11.4	41	3.1	6.1	3.1	14.5	8	29.2	12.6	30.1	3.2	1	4.8	5.2	1.7	4.7	7.5
Texas	8,605	2,133	1-4.03	.5	6.3	5.8	12.7	37.7	1.2	6	2.4	21	6.4	24.6	9.3	44.3	1.4	.5	2.6	6.3	1.2	5.4	4.4
Utah	1,198	257	1-4.66	.8	4.7	5.5	20.3	41.6	3.5	6.2	1.9	9	6.5	37	14.8	29.2	1.2	.4	5.8	3.1	.4	5.8	2.3
Vermont	1,193	292	1-4.08	1	7.9	3.1	13	44.2	7.5	7.2	4.8	5.5	5.8	3.4	29.8	36.7	1	3.8	6.5	5.1	1.7	7.9	4.1
Virginia	4,938	847	1-5.82	.2	3.6	4.7	19.8	42.1	2.8	6.4	3.1	11.7	5.6	13.4	32.3	31.5	3.5	1.3	5	4	.6	4.5	3.9
Washington	4,321	1,126	1-3.83	.5	5.8	5.3	16.6	44.5	4.6	6.6	2.8	6.1	7.2	3.8	30	30.7	1.3	1.4	9.3	4.8	1.1	5.7	2.9
West Virginia	460	40	1-11.5	...	2.5	2.5	22.5	30	7.5	5	...	22.5	7.5	15	32.5	20	12.5	...	7.5	5	...	...	7.5
Wisconsin	7,163	2,031	1-3.52	.7	6.6	6.1	20.[illegible]	45.6	2.3	7.4	3.6	4	3.2	3.4	30.7	46.5	.6	.7	3.1	2.4	.5	3.5	2.6
Wyoming	1,111	456	1-2.43	.7	5.9	8.1	17.8	36	7.5	7.9	2.4	8.1	5.6	8.3	14.5	33.1	6.6	2.4	17.5	4.6	.5	6.6	5.9
Total	249,462	51,131	1-4.87	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

EXPLANATION

[1] A "new" teacher is, for the purposes of this study, defined as one "who was not employed in present school system last year (1929-30)."

This table should be read as follows: There were 4,163 elementary teachers in Alabama who answered Inquiry No. 1; there were 780 of these who had not taught in their present positions during last year (1929-30); there was 1 "new" elementary teacher in every 5.34 elementary teachers; 3/10 of 1 percent of the "new" elementary teachers were occupying positions in which the predecessor died; 8.1 percent had positions from which the predecessors retired, and so on for the other percents.

figure for South Dakota being 1 : 2.21. In South Dakota 2.94 percent of the total number of teachers represented replacement of elementary teachers who resumed their college work (6.5 percent x 1/2.21). In Tennessee the equivalent figure was 1.06 percent (6.5 x 1/6.12). Whenever interstate comparisons are made from these tables the percentages should be multiplied by their State "mobility ratios" in order to make them comparable. The second caution is that for a few States from which the returns were relatively low the number of "new" teachers in some of the classifications was too small to produce percentages which were reliable. In some instances the groups were so small that percentages were not computed. Since the number of returns is given in each table it is possible to check this item which is more troublesome for the junior high school group (because of the smaller numbers involved) than for the others.

Demand for and supply of elementary teachers in the United States, 1930–31.—Table 25 shows that of the 249,462 elementary teachers who returned answers to the questions, 51,131 were "new" to their positions, i.e., teaching for the first time in the particular positions held during 1930–31. This gives a "mobility ratio" of 1 to 4.87 for the country as a whole, which means that approximately 1 in every 5 elementary teachers in the United States was "new" to his position in 1930–31. There was, however, a wide range in this matter among the States, varying from 1 "new" teacher in every 16 in the District of Columbia and Rhode Island to 1 in every 2 in the Dakotas. This is obviously a contrast between urban and rural conditions and will be found to exist in each State. The data contained in table 25 as well as those contained in the tables for junior and senior high school teachers will be very serviceable in State studies since they give conditions within each State and also give the basis for comparisons with neighbor States, with States in the same area, with States of the same industrial development, with States of the same size or the same population and with States of the same relative wealth. A few samples of the kinds of facts which may be extracted from these tables will be given and then some general conclusions which are involved in the final recommendations of the Survey will be listed.

Table 25 shows that in some States the percentage of elementary teachers retiring was more than four times as large as in others. Of what significance would this be to prospective teachers?

Column 8, giving the number of "predecessors" who married, shows that in 11 States a fifth or more of the places vacated by elementary teachers the previous year had been held by teachers who married and left teaching. There seems to have been no consistent relationship between such factors as location, wealth, or urbanization of States and the percentage of "predecessors" who married and left teaching. For example, Alabama, California, Connecticut, District

of Columbia, Florida, Maine, Mississippi, Montana, North Carolina, Oklahoma, Oregon, South Dakota, Texas, and Vermont all had about the same percentage of vacancies due to teachers marrying and leaving the schools. There is, however, the factor to be considered that in many instances teachers marry and do not leave teaching. The percentages in the table do not measure the number of teachers who married—merely the percentage of vacancies caused by teachers who married and left teaching.

There is also the factor of variation in the percentages of teachers who were new as indicated by the "mobility ratio." The manner in which the "mobility ratios" affected these percentages can be seen by comparing Iowa and Pennsylvania. Iowa returns showed about the same percentage of elementary teachers marrying as did those from Pennsylvania, but Iowa also had more than twice as many vacancies per given number of teachers as Pennsylvania. In other words, the vacancies filled in 1930–31 due to marriage of Iowa elementary teachers who left teaching were approximately 7 percent (21.1 percent x 1/3.04) of the total elementary group; in Pennsylvania it was but 3 percent (21.9 percent x 1/7.31).

The two columns showing the number of predecessors who left to teach elsewhere in the same State and in other States suggest many problems. Forty-two and two-tenths percent of the vacancies among elementary teachers occurred because teachers took other positions in the same States. It is quite evident from an inspection of these figures that one cause for a high rate of "mobility" was the number of elementary teachers who moved within the State. These were often moves from rural schools to villages and from villages to larger cities and are more noticeable in States having larger percentages of teachers in the open country. A relatively small percentage of elementary teachers left one State to teach in another. Delaware, Idaho, Nevada, and New Hampshire were the only States in which as many as 10 percent of the elementary teachers who left their positions at the end of the school year, 1929–30, did so to accept positions in other States.

Small percentages of elementary teachers left teaching for other occupations in most of the States. The transfer to other professions and occupations for the country as a whole was only 6.5 percent. Even smaller percentages left on leaves of absence or because of illness—the percentage for the entire country was only 3.6. It is significant that there was a slightly larger percentage of vacancies caused by leaves of absence among elementary teachers than among high-school teachers. The high-school percentage for this item was 3.5.

The differences among States in the matter of the number of "newly created positions" are also of interest to prospective teachers. Eleven States had 5 percent or less of their "new" teachers holding

newly created positions, while 10 States had from 3 to 4 times that percentage. When these figures are checked against the "mobility ratios", the percentages of newly created positions for Texas and New Jersey were about the same and yet the percentage of "new" teachers was 25 for Texas and 10 for New Jersey. On the basis of these returns 1 in 20 of the elementary positions in Texas was newly created and 1 in 50 in New Jersey.

The second part of table 25 deals with what the "new" elementary teachers were doing in 1929–30. This gives an idea of the sources from which these teachers came. Columns 15, 18, and 19 show the percentages of "new" elementary teachers who were in higher educational institutions the previous year. The percentage of "new" elementary teachers in colleges and universities during the preceding year varied from 37 percent in Utah to one-half of 1 percent in Connecticut. The percentages of elementary teachers coming from normal schools or teachers colleges within the individual State varied from more than 50 percent in the District of Columbia and Maryland to less than 10 percent in 9 States. Only 1.7 percent of the "new" elementary teachers attended colleges or universities in other States and even fewer (1.4 percent) attended normal schools or teachers colleges in other States.

The most important source of supply for new teachers was from other school systems within the same State. This about balanced the loss of those who left to teach elsewhere in the same State and was undoubtedly the result of differences in salary schedules and in the desirability of different teaching positions. Not many new elementary teachers came from other States although in 10 States 1 or more out of every 10 were teaching the previous year in another State.

The number of new elementary teachers who came from positions outside school work were in a majority of the States fewer than the number who left teaching to enter another occupation or profession. There was, however, a distinct influx of teachers who returned to teaching after having been for a time in some other occupation. When these returning teachers (5.1 percent) are added to the number who entered from other occupations (5 percent) the total exceeds those who left teaching for other occupations or professions (6.5 percent).

These statements are but suggestions of those which will appear to any individual who studies the data in terms of a real interest in a particular State.

The demand for and supply of junior high school teachers.—Table 26 presents the supply and demand situation for junior high school teachers in 1930–31 as revealed by the answers from 36,251 teachers in junior high schools. The data are presented by States. Since 5,381 of these teachers were "new" teachers this total group had a

"mobility ratio" of 1:6.73. There was less shifting of positions among junior high school teachers than was found among elementary teachers and also less than among high-school teachers. Expressed in percentages the returns indicate that in 1930–31, 20 percent of the elementary teachers, 15 percent of the junior high school teachers, and 20 percent of the senior high school teachers were "new." As was explained in connection with the table for elementary teachers, the differences in the proportion of teachers who were "new" in the several States make very significant differences in the interpretation of this table. For example, 30 out of 100 of the junior high school teachers reporting from Alabama were "new", whereas only 9 out of every 100 were "new" in New York. The percentages given in this table for these two States are based, therefore, upon 30 percent of Alabama's junior high school teachers and upon only 9 percent of the total junior high school group for New York.

On the basis of the answers returned, New York had the fewest "new" junior high school teachers per 100 and North Dakota with 35 in each 100 had the most. When an analysis is made of why the "predecessors" of these "new" teachers left, it gives a picture of the causes of the vacancies which "demanded" new teachers.

Only 3.6 percent of the "predecessors" of these "new" junior high school teachers retired or left because of illness. This is the same percentage that was found for the high-school teachers and three-fifths of that found for the elementary group.

Six and one-tenth percent of the "predecessors" of these teachers entered college. To the extent that the teachers who answered were typical this would mean that 6.1 percent of 1–6.73 (mobility ratio), or 0.9 of 1 percent, of the junior high school teachers left to enter colleges of various kinds at the close of 1929–30. In this connection it is interesting that in practically all the States which had the largest percentages of junior high school teachers going to college there were also high "mobility ratios."

The percentage of "predecessors" who left to teach another school in the same State was only 28 for the junior high school teachers of the entire country. Corresponding percentages were 42.2 for the elementary teachers and 33.3 for the high-school teachers. Even though a smaller percentage of junior high school teachers as a total group moved to other schools within the same States, individual States varied in this respect, from Alabama with 48.8 percent to Connecticut with 8.4 percent. When these are expressed in terms of the total State groups of junior high school teachers, it means that about 15 in every 100 moved to other positions within Alabama and only 1 in 100 in Connecticut.

TABLE 26.—*A picture of demand for and supply of junior high school teachers in the United States, 1930–31*

State	Total number junior high school teachers involved	Total number new junior high school teachers	Ratio of mobility—entry in column 3 divided by entry in column 3—ratio of new teachers to total	Reasons for demand for new junior high school teachers by percent												Sources of supply meeting demand for new teachers by percent														
				Predecessor died	Predecessor retired	Predecessor entered college	Predecessor married	Predecessor left to teach elsewhere in the State	Predecessor left to teach in another State	Predecessor entered another occupation or profession	Predecessor left on leave of absence, illness, etc.	Hold newly created position	Other reasons creating demand	College or university in same State	Normal school or teachers college in same State	Another school system in same State	College or university in another State	Normal school or teachers college in another State	Another school system in another State	A position other than educational work	Leave of absence	Return to teaching, having some occupation other than educational the past year	Other sources of supply
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Alabama	506	170	1–3.33	0.6	4.7	8.8	5.9	48.8	5.9	8.2	1.2	14.1	1.8	20	13.7	44.2	2.9	0.5	4.7	6.4	1.1	4.7	1.8
Arizona	137	43	1–3.26		2.4	11.3	16.7	21.4	16.7	7.1	2.4	26.2	7.1	16.7	14.3	14.3	16.7		28.6	4.6		2.3	2.3
Arkansas	317	80	1–3.96	3.8	2.5	3.7	6.2	23.7	7.5	15	1.2	22.3	6.3	20	8.7	27.6	8.7	3	10	5		2.7	4
California	2,556	299	1–8.55	2	2.3	3.7	7.7	21.1	1.7	4	3.4	26.1	12	27.8	7.7	26.5	3	12.2	6.7	4		2.7	2.7
Colorado	447	74	1–6.04	2.7	8.1	8.5	12.2	27	10.8	9.4	6.8	8.1	5.4	19	6.7	26.5				8.1		5.1	2.7
Connecticut	498	89	1–6.44		1.7	5.1	10.2	8.4	28.8	8.5	1.7	27.1	8.5	20	2.3	10.2	3.3		11.9	10.2	1.7	6.7	4.1
Delaware	83	17	1–4.82				17.6		35.3	11.8		29.4	5.9			29.4	17.7		5.8	11.7		5.8	
District of Columbia	151	17	1–6.65			11.8			5.9	17.6	5.9	23.5	17.7	11.8		23.6	22.2		5.8	17.7			5.8
Florida	533	121	1–4.07	.8	2.5	4.6	6.9	29.4	6.9	9.9	2.5	13	9.9	22	.7	5.8		1.5	9.2	17.7	2.8		5.8
Georgia	274	70	1–3.91		4.3	5.7	20	24.3	10	9.9	2.9	20	4.3	20	5.7	27.1	10.7		14.3	53.4	2.8	4.3	2.9
Idaho	114	30	1–2.92		2.6	12.8	7.7	23.1	17.9	5.1	2.6	15.4	12.8	12.8	12.8	25.8	10.3		23.1	7.7		2.6	2.6
Illinois	720	110	1–6.54		.9	3.7	20.9	27.3	8.2	4.5	1.8	22.7	10	27.3	10	26.3	5.4		10.9	7.3		2.7	4.5
Indiana	1,100	171	1–6.43		2.9	5.3	12.9	23.3	10.5	7	6.4	13.5	4.7	33.3	7.6	33.3	6.4		12.3	5.3		2.7	4.7
Iowa	991	201	1–5.93		2.5	11.4	16.4	20.3	8.5	9.5	5.9	10.9	6.4	25.3	7.6	25.3	2.5		12.4	2.5		2.5	2.5
Kansas	696	101	1–6.88	.8	4.9	6.9	24.8	22.8	2	11.9	3.9	4.9	6.9	28.8	10.9	41.6	4.9	1.5	6.9	3.9	1	2	3
Kentucky	499	69	1–6.80	2.9	7.2	1.5	8.7	26.1	4.3	10.1	7.2	26.1	4.4	28.2	14.5	21.8	11.6		8.7	7.2	1.4	2.9	5.7
Louisiana	119	14	1–8.50				14.3	28.7		14.3	7.1	21.4	7.2	7.1	28.6	21.4	7.1			28.5			
Maine	164	28	1–5.85		2.8	13.9	3.6	10.4	3.3	5.6	5.6	10.4	19.4	13.9	19.5	25.6	8.3	2.7	5.6	11.2	5.6	5.6	2.7
Maryland	288	48	1–6.00	6.2	6.2	2.1	10.4	16.7	8.3	4.2	10.4	21.3	4.2	29.2	16.7	25.1	4.1	4.1	8.3	4.1		4.1	4.1
Massachusetts	2,371	217	1–10.93	1.4	3.2	2.8	18	20.4	7.4	6.1	6	13.4	5.8	11.6	14.7	31.8	6	1.4	5.8	6.9	.9	3.2	6

Michigan	2,432	331	1-7.35	.6	5.4	9.1	15.4	26.9	6.1	4.8	2.7	23.3	5.7	22.1	23.6	21.1	6	1	4.2	4.2	.6	3.9	3.3
Minnesota	961	122	1-7.28		2.3	8.2	15.1	28.8	11.4	6.1	6.8	14.4	6.8	15.9	10.6	43.2	6.8	1.5	13.7	3.8		3	1.5
Mississippi	153	48	1-3.19		8.3	4.2	25	27.1	2.1	12.5	2.1	12.5	6.2	29.2	4.1	39.6	4.2		12.5	10.2			4.2
Missouri	609	110	1-5.99	.9	1.8	3.7	9.1	32.7	13.6	10	2.7	14.6	10.9	28.4	11.8	30	10.9	2.7	5.5	3.6			5.5
Montana	134	30	1-8.43		2.5	12.8	10.3	23.1	28.2	2.6	2.6	12.8	5.1	10.3		23.1	18.1	2.5	38.5	2.5	2.5		2.5
Nebraska	361	97	1-3.72	1	2.1	17.5	16.5	32	3.1	9.3	3.1	8.2	7.2	23	13.5	41.3	3.1	.1	2	2		3.1	1
Nevada	41	11	1-3.73		9.1	9.1		45.5	9.1	9.1		18.1		18.2		27.2	18.2		18.2				18.2
New Hampshire	145	40	1-3.62		5	2.5	30	20	20	2.5	5	12.5	2.5	7.5	40	15	5	5	17.5	5			5
New Jersey	1,746	194	1-9.00	.5	2.6	2.6	12.4	19.6	13.9	7.2	7.2	25.8	8.2	5.6	8.2	19.6	18.6	6.7	29.3	5.6	1.6	1.6	6.2
New Mexico	99	31	1-3.19		6.5		25.8	25.8	16.1	3.2	6.5	9.6	6.5	25.8	3.2	25.8	19.4	6.4	13	3.2		3.2	
New York	3,718	334	1-11.13	.9	2.4	1.5	9.6	27.8	4.8	4.5	7.5	32.9	8.1	16.2	16.2	31.7	4.5	2.1	7.8	7.8	1.2	3.9	8.6
North Carolina	305	92	1-3.98		9.2	6.5	13	30.4	8.7	9.8		27.2	2.2	27.2	6.5	33.1	7.6	4.3	7.6	2.2		2.2	4.3
North Dakota	127	44	1-2.88			15.9	9.1	18.2	18.2	13.6	6.8	11.4	6.8	11.3	25.1	38.7	2.2	13.7	6.8		2.2		
Ohio	2,781	377	1-7.38	1.6	4	3.7	17.5	23.1	2.6	6.6	4.5	29.2	7.2	22.6	2.9	35.3	7.9	1.9	6.9	4	1.9	4.2	2.4
Oklahoma	499	106	1-4.71		9.4	10.4	10.4	25.5	3.8	16	4.7	9.4	9.4	20.3	8.5	34.1	5.6	.9	7.5	6.6		4.9	5.6
Oregon	260	57	1-4.56		3.5	8.8	17.5	31.6	8.8	12.3	1.7	10.5	5.3	24.6	14.1	26.9	7		5.2	3.5	1.7	3.5	3.5
Pennsylvania	4,202	476	1-8.83	1.7	2.9	4.4	15.9	24.6	3.6	5.3	4.2	29	8.4	27.1	13.7	27.5	8.8	.8	5.3	8	1.4	2.1	5.3
Rhode Island	183	26	1-7.04		7.7		11.5	26.9	3.8	15.4	3.9	26.9	3.9	7.7	23.1	11.5	7.7		3.8	15.4		7.7	23.1
South Carolina	82	20	1-4.10			5	10	40	10	10		20	5	25	5	15	10		10	10		15	10
South Dakota	117	27	1-4.33		7.4	18.6	14.8	11.1	14.8	14.8		11.1	7.4	11.2		33.3	14.9	3.7	29.6			7.3	
Tennessee	556	88	1-6.34		4.5	5.7	8	33	1.1	2.3	1.1	34.1	10.2	23.9	11.4	30.8	5.7	4.5	4.5	3.4	1.1	2.3	3.4
Texas	1,292	228	1-5.67	.9	3.1	7.9	8.3	27.7	5.2	5.3	6.6	17.1	7.9	25.9	7.4	46.5	3.1	.4	4.8	3.1	.4	5.3	3.1
Utah	378	83	1-4.55		7.2	6	15.7	23.9	8.4	12.1	2.4	12.1	7.2	45.8	3.6	26.6	2.4	1.2	8.4	4.8		4.8	2.4
Vermont	60	17	1-3.53				11.8	35.2	11.8	11.8		11.8	17.6	5.9	11.8	29.5	17.7	5.8	17.7	5.8		5.8	
Virginia	515	81	1-6.36	1.2	2.5	4.9	22.2	24.7	8.6	12.4	3.7	13.6	6.2	34.5	12.4	19.8	6.1	3.7	14.9	3.7	1.2	1.2	2.5
Washington	543	120	1-4.52		4.2	8.3	12.5	27.5	9.2	3.3	5	21.7	8.3	20.8	13.3	34.2	1.7		19.2	6.7		3.3	.8
West Virginia	118	17	1-6.94			11.8	11.8	35.3	5.8	5.8	5.9	11.8	11.8	35.3	5.9	29.5	17.7		5.8			5.8	
Wisconsin	952	163	1-5.72	.6	2.5	9.2	16	26.3	9.8	7.4	3.7	19	5.5	18.9	18.5	29.5	9.2	.6	12.9	4.3	.6	1.8	3.7
Wyoming	91	27	1-3.37		3.7	7.4	25.9	29.7	7.4	7.4	3.7	7.4	7.4	7.4		7.4	22.2	3.7	40.7	11.2		7.4	
Total	36,251	5,381	1-6.73																				

EXPLANATION

A "new" teacher is, for the purposes of this study, defined as one "who was not employed in present school system last year (1929–30)."

This table should be read as follows: There were 506 junior high school teachers in Alabama who answered Inquiry No. 1; there were 170 of them who had not taught in their present positions during last year (1929–30); there was 1 "new" junior high school teacher in every 3.33 junior high school teachers; six-tenths of 1 percent of the "new" junior high school teachers were occupying positions in which the predecessor died; four and seven-tenths percent had positions from which the predecessor retired, and so on for the other percents.

Column 10 shows that a larger percentage of junior high school teachers accepted positions in other States than did elementary teachers. The percentages on this were 7.6 for all junior high school teachers and 3.2 for elementary teachers.

Evidence that junior high schools were increasing in size and number in 1930–31 is given in column 13, showing the percentages of "new" junior high school teachers holding newly created positions. This was 20.8 percent of all "new" teachers and is comparable to 8.8 percent for elementary teachers and 16.2 percent for high-school teachers. In other words, approximately 20 percent of all "new" junior high school teachers and 3 percent of all junior high school teachers in 1930–31 held newly created positions. There was in this factor, as in all others, wide variation among States, which when compared with "mobility ratios" gave some interesting contrasts. Most of the States with high percentages of "new" junior high school teachers who held newly created positions also had low mobility ratios and are populous States with large cities. On the other hand, many of the States which had small percentages of newly created positions for junior high school teachers are more sparsely populated with fewer large cities.

As was also true for both elementary and high-school teachers, about one-third of the "new" junior high school teachers in 1930–31 came from higher educational institutions within the several States. An interesting reversal occurred, however, between the percentages from colleges and universities and from normal schools and teachers colleges when elementary and junior high school teachers were compared. Twice as many of the "new" junior high school teachers were recruited from the colleges and universities within the States as from the normal schools and teachers colleges within the States. The situation was reversed for elementary teachers.

About 1 of every 3 "new" junior high school teachers was drawn from other school systems within the same States and 1 in 10 from school systems in other States. Two-fifths of the "new" teachers in this field were therefore transfers from other teaching positions.

The percentages of "new" junior high school teachers who were on leave of absence the previous year; who returned to teaching, having been in some other work; and who came from other sources were all significant because of their smallness.

Interesting as the percentages in this table may have proved to be, the reader is cautioned against attaching too much significance to any single percentage for a State. The purpose was to show the total picture of demand for and supply of junior high school teachers as well as could be done by this analysis.

The demand for and supply of senior high school teachers.—The elements causing demand for senior high school teachers in the United

States in 1930–31 and the principal sources of supply for such teachers as revealed by the answers from 84,882 teachers are presented in table 27. Seventeen thousand three hundred and sixty-seven of these were "new" teachers which made a "mobility ratio" of 1–4.88. This is approximately the same as was found for the elementary teachers and more than for the junior high school teachers. The mobility ratios for high-school teachers spread over much the same range as did those for elementary teachers. The District of Columbia had only 1 "new" high-school teacher in each 16 teachers while Idaho, Mississippi, Nevada, North Dakota, South Dakota, and Wyoming all had mobility ratios of more than 1–3, indicating that in those States more than a third of the high-school teachers were "new" in 1930–31. These ratios are affected by density of population, extent of urbanization, and elements which made one State a more desirable place in which to teach than other States.

The comments which can be made about the data in table 27 are similar to those given for junior high school teachers. The actual figures, of course, differ in each case but the same type of information and the same type of comparisons may be made. A few facts from the table will be mentioned because they are somewhat at variance with the conditions shown for the other two groups of teachers. There was more moving of senior high school teachers to other States than was true for either elementary or junior high school teachers. There were eight States in which larger percentages of "predecessors" left "to teach in another State" than "to teach in the same State" and several others in which the percentages were nearly equal. Four of the eight States were in New England. The percentage of senior high school "predecessors" who left to teach elsewhere in the same State was 33.3 for the entire country but varied widely among States ranging from 48.6 percent of the "new" teachers in Mississippi to 6.2 percent in the District of Columbia and 10.7 percent in Delaware. Column 13, table 27, supplies some interesting comparisons on the percentage of "new" teachers who were holding newly created positions—positions which represented educational expansion due to increase in the high-school enrollments, the addition of new services, the decreasing of the size of classes, reorganizations of school systems, or other such causes. New Jersey had 33.8 percent of its "new" senior high school teachers holding newly created positions in 1930–31. Because the "mobility ratio" for New Jersey is 1–6.67 the 33.8 percent is not as high a percentage of the total senior high school teaching force as is, for example, the 17.5 percent of New Mexico—the next State in the list—with a mobility ratio of 1–3.19. Even with full allowance for the differences in the mobility ratios there is evidence in table 27 to indicate that in 1930–31 the high schools of several of the States were expanding very slightly in teaching personnel.

TABLE 27.—*A picture of demand for and supply of senior-high school teachers in the United States 1930–31*

State	Total number senior high school teachers involved	Total number new senior high school teachers	Ratio of mobility—entry in column 3 divided by entry in column 2 ratio of new teachers to total	Reasons for demand for new senior high school teachers by percents										Sources of supply meeting demand for new teachers by percents									
				Predecessor died	Predecessor retired	Predecessor entered college	Predecessor married	Predecessor left to teach elsewhere in the State	Predecessor left to teach in another State	Predecessor entered another profession or occupation	Predecessor left on leave of absence, illness, etc.	Hold a newly created position	Miscellaneous reasons	College or university in same State	Normal school or teachers college in same State	Another school system in the same State	College or university in another State	Normal school or teachers college in another State	A school system in another State	A position other than in educational work	Leave of absence	Return to teaching having other work the preceding year	Miscellaneous sources
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Alabama	972	239	1–4.07	0.4	2.5	6.3	8.4	45.2	6.3	7.9	3.8	16.3	2.9	31.8	1.3	38.1	7.1	1.6	8.4	4.6	0.8	2.5	3.8
Arizona	328	71	1–4.62	1.4	8.5	7.1	14.1	19.7	16.9	7	2.8	15.5	7	19.7	4.2	17	18.3	2.8	22.5	5.7	1.4	4.2	4.2
Arkansas	508	161	1–3.16	.....	3.1	9.3	4.4	29.8	9.3	8.7	2	27.8	5.6	24.2	10.6	34.8	5.6	1.9	11.2	3.7	.....	6.2	1.8
California	4,978	672	1–7.41	1	4	1.9	6.7	33.3	1.6	5.8	10.9	24.9	9.4	34.2	4	29.6	3.4	.5	7.8	6.5	3	5.2	5.8
Colorado	789	235	1–3.74	1.7	5.9	7.7	19.2	33.2	8.5	7.2	3.4	7.7	5.5	26	11.9	25.5	8.9	1.7	14.9	2.6	1.7	4.7	2.1
Connecticut	1,216	214	1–5.76	.9	4.3	1.4	13.3	17.1	21.8	4.2	5.3	27	4.7	4.7	.9	15.7	25.6	4.7	31.3	7.6	.5	4.3	4.7
Delaware	175	28	1–6.25	.....	.....	10.7	7.2	10.7	25	25	.....	17.8	3.6	21.4	.....	10.7	35.8	.....	21.4	7.1	.....	.....	3.6
District of Columbia	257	16	1–16.06	.....	12.5	.....	12.5	6.2	12.5	18.8	.....	31.3	6.2	.....	.....	19	19	.....	31	12.4	.....	12.4	6.2
Florida	649	180	1–3.60	1.7	5	3.9	9.5	39.4	10	7.2	4.5	10	8.8	15	2.2	40.6	10	1.7	11.7	7.8	.5	5.5	5
Georgia	567	142	1–3.99	.....	3.5	4.2	16.2	32.4	7.7	9.2	2.1	15.5	9.2	27.5	6.3	33.8	8.5	.7	11.3	2.8	1.4	2.8	4.9
Idaho	439	171	1–2.57	.6	2.3	7	13.5	25.7	21.6	13.5	1.2	7	7.6	19.9	.6	27.5	20.5	.6	15.2	6.4	.6	3.5	5.2
Illinois	4,754	880	1–5.40	.8	3.1	8.6	15.5	27.3	8.2	10.8	3.9	16	5.8	27	7	26.4	8.1	2	13.3	7.5	.9	3.7	4.1
Indiana	4,124	769	1–5.36	1.4	3	5.7	11.6	41.9	7.8	7.6	3.1	14.3	3.6	23.3	10.2	44.7	2.6	.3	7	3.6	.8	4.2	2.8
Iowa	2,679	818	1–3.27	.....	4.2	7.9	16.5	37.8	9.1	10.5	1.8	7.7	4.5	34.8	5.9	36	4.5	1.3	7.8	4.1	.6	3.4	1.6
Kansas	1,826	488	1–3.74	.6	5.1	8.2	16.8	29.7	10.1	12.9	2.7	9.4	4.5	35.9	7.8	34.6	5.1	.4	8.2	3.1	.2	2	2.7
Kentucky	1,013	222	1–4.56	1.4	7.2	11.7	10.4	30.6	9.9	6.3	2.2	16.7	3.6	30.2	8.1	25.7	9.5	1.3	12.6	6.8	.4	1.8	3.6
Louisiana	1,305	306	1–4.26	1	4.9	3.6	14	39.2	7.2	12.4	1.6	12.8	3.3	29.1	11.1	36.6	4.9	.6	3.9	5.6	.3	5.6	2.3
Maine	797	171	1–4.66	.6	7.6	6.4	[illegible]	22.8	22.2	8.2	5.8	8.8	5.3	27.5	6.4	28.1	10.5	1.1	10	6.4	.....	5.9	4.1
Maryland	797	169	1–4.71	1.2	2.9	4.1	[illegible]	21.3	13.6	10.7	3	26.6	4.2	37.3	.6	11.8	16.6	2.9	16	7.1	.....	2.4	5.3
Massachusetts	3,622	429	1–8.44	1.8	3.3	1.2	[illegible]	32.2	11.4	6.3	3.7	19.8	4	19.6	5.8	35.2	6.7	.9	19.4	6.1	.5	1.6	4.2

Michigan	4,060	709	1-5.73	1.1	3.2	9.9	14.1	30.2	7.2	8.9	4.7	14.4	6.3	28	20	22.7	7.1	1.5	7.5	5.9	1.5	2.7	3.1	
Minnesota	2,484	604	1-4.11	.6	1	4.1	12.7	38.8	12.9	11.6	3.2	9.6	5.5	35.8	2.3	31.6	6	1.5	10.9	5.3	.5	3.1	3	
Mississippi	492	173	1-2.84	------	4.1	4.6	12.1	48.6	6.9	10.4	1.2	10.4	1.7	26.6	7	38.7	5.8	1.1	10.4	3.5	1.1	4.1	1.7	
Missouri	2,010	485	1-4.14	.6	5.4	6	12.4	32.6	13.2	8.4	2.2	13.2	6	27.7	9.7	37.2	4.3	.8	7.8	4.5	.8	3.5	3.7	
Montana	533	170	1-3.13	.6	2.3	6.5	9.4	25.3	19.4	11.8	4.1	14.1	6.5	20.6	------	27.7	19.4	.6	23.5	3.5	------	4.1	.6	
Nebraska	1,290	353	1-3.65	.6	2.5	9.1	14.7	35.4	10.8	10.5	2.8	9.1	4.5	38	8.8	31.5	6.5	.5	6.8	3.1	.3	2.8	1.7	
Nevada	103	44	1-2.34	------	4.6	2.2	9.1	43.2	20.5	2.2	4.6	11.4	2.2	22.7	4.5	20.5	11.4	------	22.7	9.1	------	6.8	2.3	
New Hampshire	429	112	1-3.83	.9	1.8	3.6	20.6	14.3	31.3	7.1	9.8	7.1	3.5	12.5	17.9	19.7	16.1	4.4	20.6	1.8	.9	3.5	2.6	
New Jersey	3,358	503	1-6.67	1.4	2.8	1.2	10.3	18.1	14.3	6.7	5.6	33.8	5.8	8.9	5	20.9	18.3	3	30	5.1	.2	4.6	4	
New Mexico	255	80	1-3.19	------	5	8.7	5	25	28.8	6.3	3.7	17.5	5	17.5	1.2	21.3	12.5	5	28.8	5	1.2	6.3	1.2	
New York	8,703	1,227	1-7.09	.6	2.7	1.5	12	31.1	5.7	4.7	5.5	28.5	7.7	27.3	10.8	30	5.6	.3	9.7	7.3	.7	3.4	4.6	
North Carolina	1,724	512	1-3.37	.2	4.3	3.7	10	45.9	7.4	.10	2.9	12.3	3.3	33.2	4.1	37.9	7.2	1.8	6.1	3.5	.2	2.7	3.3	
North Dakota	604	220	1-2.74	------	3.1	7.3	10.5	32.7	20.5	11.8	2.3	8.2	3.6	24.5	7.7	28.7	13.6	.5	14.1	5	------	2.7	3.2	
Ohio	5,616	987	1-5.69	.9	3.1	5.9	13.2	38.6	5.4	9.4	1.8	15.7	6	41.2	3.9	32	4.8	.8	6.4	4.9	.8	2.9	2.3	
Oklahoma	1,132	354	1-3.20	.3	6.2	7.9	9.3	41.2	3.2	12.2	1.4	9.3	4	26.3	11.6	39.6	5.9	1.1	6.5	2.8	.3	3.7	2.2	
Oregon	1,282	303	1-4.23	1.3	2.6	4.3	14.2	34.3	9.6	11.2	3.6	11.9	7	41	------	30	8.3	.3	9.2	5.3	.3	4.3	1.3	
Pennsylvania	6,752	1,172	1-5.76	1.3	2.4	3.9	10.5	34.4	8.4	8.2	2.4	22.9	5.6	34.6	10.5	29.3	7.7	.6	6.4	5.1	.9	2	2.9	
Rhode Island	277	21	1-13.19	------	4.8	4.8	------	14.3	28.5	14.3	4.8	14.3	14.2	19	------	14.3	23.9	------	33.4	------	------	4.7	4.7	
South Carolina	515	119	1-4.33	------	2.5	.8	14.3	31.1	21	9.3	2.5	16.8	1.7	32.8	4.2	28.6	7.5	.8	11.8	4.2	------	6.7	3.4	
South Dakota	431	144	1-2.99	------	2.8	4.8	18.1	25	25.7	5.5	2.8	11.8	3.5	25.7	6.9	28.5	17.4	.7	16	2.7	------	1.4	.7	
Tennessee	916	207	1-4.42	------	3.4	8.2	8.2	32.4	12.6	7.7	1.4	18.4	7.7	33.3	7.2	31.9	6.8	1	6.3	4.8	.5	3.4	4.8	
Texas	3,360	873	1-3.85	.2	6.2	5.7	11.4	41.6	3.3	9.4	2.1	15.2	4.9	28	6.9	47	2.3	.3	4.5	4.5	.5	3.4	2.6	
Utah	420	85	1-4.94	------	1.2	10.6	17.7	34.1	5.9	21.2	3.5	5.8	------	33	------	29.4	3.5	------	17.7	8.2	1.2	3.5	3.5	
Vermont	286	94	1-3.04	------	2.1	3.2	14.9	22.3	27.7	10.7	4.3	7.4	7.4	25.6	------	18.1	16	8.5	13.8	7.4	------	6.3	4.3	
Virginia	1,366	312	1-4.38	.9	4.8	9.6	13.5	31.4	6.4	12.2	3.5	13.8	3.9	31.1	9.9	26.2	7.4	1.6	10.6	3.2	.6	5.2	4.2	
Washington	1,898	448	1-4.24	.7	2.2	4.5	16.7	33.9	12.3	12.5	2.5	8.7	6	38.2	.2	27.5	7.1	.7	12.1	6.4	.9	3.3	3.6	
West Virginia	161	32	1-5.03	6.3	9.4	3.1	18.7	15.6	12.5	9.4	6.3	15.6	3.1	28	------	25	9.4	3.1	12.5	6.3	------	6.3	9.4	
Wisconsin	2,276	515	1-4.42	.6	2.7	8	14.2	30.1	9.1	8.3	4.7	16.9	5.4	22.1	11.5	31.9	9.3	1.3	11.5	4.5	.8	2.1	5	
Wyoming	354	131	1-2.70	------	2.2	6.8	13	12.2	31.3	16.1	.7	10	7.7	15.3	------	14.5	19.9	3.8	32.9	7.6	------	3.8	2.2	
Total	84,882	17,367	1-4.88	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	

EXPLANATION

A "new" teacher is, for the purposes of this study, defined as "one who was not employed in present school system last year (1929–30)."

This table should be read as follows: There were 972 senior high school teachers who answered Inquiry No. 1; there were 239 senior high school teachers in Alabama who had not taught in their present positions during last year (1929–30); there was one "new" teacher for every 4.07 senior high school teachers; 0.4 percent of the "new" teachers were occupying positions in which the predecessors died; 2.5 percent had positions from which predecessors retired; and so on for the other percentages.

TABLE 28.—*Demand for and supply of teachers in the American public schools, 1930–31*

Demand for and supply of new teachers	Elementary teachers							Junior high school teachers	Senior high school teachers
	Open-country 1- and 2-teacher schools	Open-country 3- or more-teacher schools	Villages of less than 2,500 population	Cities of 2,500 to 9,999 population	Cities of 10,000 to 99,999 population	Cities of 100,000 and more population	Total elementary teachers		
1	2	3	4	5	6	7	8	9	10
1. Total number responding to question	59,454	13,237	50,281	26,703	44,900	50,043	244,618	36,251	84,882
2. Total number new teachers	23,652	3,418	12,886	4,187	4,503	2,485	51,131	5,381	17,367
3. Ratio of new teachers to total	1–2.5	1–3.9	1–3.9	1–6.4	1–10.0	1–20.2	1–4.8	1–6.7	1–4.9
REASONS CREATING DEMAND, BY PERCENTAGES[1]									
4. Predecessor died	0.5	1.0	0.6	1.0	1.4	2.0	0.7	1.0	0.8
5. Predecessor retired	6.4	7.2	6.0	5.5	4.5	3.7	6.0	3.6	3.6
6. Predecessor entered college	8.0	5.9	6.2	4.3	3.4	1.2	6.4	6.1	5.5
7. Predecessor married	13.7	14.3	17.4	22.3	25.3	12.9	16.4	13.6	12.7
8. Predecessor left to teach somewhere else in the State	51.1	42.8	41.3	29.4	21.6	20.3	42.2	28.0	33.3
9. Predecessor left to teach in another State	2.1	2.1	4.5	5.2	4.6	1.7	3.2	7.6	9.8
10. Predecessor entered another profession or occupation	7.9	5.9	6.5	5.4	3.3	1.6	6.5	7.2	9.1
11. Predecessor left on leave of absence, illness, etc	2.3	2.6	2.9	4.6	5.9	15.8	3.6	4.6	3.5
12. Hold newly created position	3.3	12.5	9.3	15.5	19.5	23.9	8.8	20.8	16.2
13. Other reasons creating demand	4.7	5.7	5.3	6.8	10.5	16.9	6.2	7.5	5.5
SOURCES OF SUPPLY, BY PERCENTAGES[1]									
14. College or university in same State	8.8	15.1	12.5	12.4	12.3	13.7	11.0	23.0	29.1
15. Teacher-training class, normal school, or teachers college in same State	27.5	22.1	23.2	22.2	23.3	23.0	25.0	11.1	7.2
16. Another school system in same State	42.2	40.5	43.0	40.9	35.6	20.4	40.5	31.8	31.4
17. College or university in another State	1.2	1.4	1.7	3.0	3.4	2.6	1.7	7.5	7.6
18. Teacher-training class, normal school, or teachers college in another State	1.2	1.3	1.5	1.8	2.0	1.5	1.4	1.8	1.2
19. Another school system in another State	2.1	3.2	5.2	7.9	10.8	6.0	4.4	10.4	10.7
20. A position other than in educational work	5.7	5.7	4.1	2.7	2.6	10.2	5.0	5.5	5.2
21. Leave of absence	.7	.7	.7	1.1	1.6	6.2	1.1	1.2	.7
22. Return to teaching, having some occupation other than education the past year	5.7	5.4	4.9	3.8	3.3	4.2	5.1	3.6	3.5
23. Other sources of supply	4.9	4.6	3.2	4.2	5.1	12.2	4.8	4.1	3.4

[1] Percentage of new teachers.

The data in table 27 concerned with the sources of supply—the record of where the "new" teachers were the preceding year—

revealed that 45.1 percent were in higher educational institutions. Four-fifths of those were attending colleges, universities or teachers colleges within the same States. Even though this would indicate that most of the States were very self-sufficient so far as educating their own senior high school teachers was concerned, there were 10 States in which more than 20 percent of their new senior high school teachers attended colleges, universities, or teachers colleges in other States during the preceding year. There were 4 States in which that percentage was less than 5.

Next in importance to colleges, universities, and teachers colleges as sources of supply for "new" senior high school teachers was "other school systems" which supplied 42 percent of the "new" teachers in 1930–31—three-fourths of them coming from other school systems in the same State. One other comment on the data in this table should be made. In 1930–31 the senor high school teaching group lost 9.1 percent of its membership to other professions or other occupations which was slightly more than it gained from the two sources—"A position other than education" and "Return to teaching having other work the preceding year."

Table 28 presents the summary percentages for the United States as a whole on the reasons for the demand and the sources of supply for "new" public-school teachers in 1930–31 as given by States in tables 25, 26, and 27. This summary is included for the convenience of those who desire to make computations on a national basis. Columns 8, 9, and 10 are especially useful for such purposes.

Effect of size of community upon supply and demand.—Some of the elements affecting both supply and demand for new teachers are strongly influenced by the size of the community in which the schools are located. This fact is very convincingly shown in table 28. Because of the larger numbers of elementary teachers available that group was distributed according to community size. In the first place the "mobility ratio" decreased from 1–2.5 in rural schools to 1–20.2 in cities of more than 100,000 population. In other words, 2 out of every 5 rural teachers in 1930–31 were "new" to the position compared to only 1 in every 20 in the larger cities.

Detailed data by States for rural schools and for cities from 10,000 to 99,999 were included as tables XVIII and XIX in the appendix. These will serve to show the wide variation among States which table 28 does not show. For example, even though the mobility for rural teachers for the entire country is 1–2.5, table XVIII, appendix, shows that there were 9 States in which the ratio was more than 1–2, 9 States in which more than half of the rural teachers in 1930–31 were "new." This transiency is one of the most troublesome problems in connection with rural school education.

This appears again in the percentages of "predecessors" who left to teach elsewhere. The percentages diminish regularly as the communities grow larger and the diminution is even greater when these percents are multiplied by the mobility ratios. It is also indicated in table 28 that the rural schools took many more of their new teachers from normal schools, teachers colleges, colleges, and universities than did the larger communities. For example, the rural schools in 1930–31, obtained 27.5 percent of their "new" teachers from teacher-training classes, normal schools, or teachers colleges in the same States. This was 11 percent of the total rural school group (27.5 percent × 1/2.5). At the same time cities of from 10,000 to 99,999 inhabitants took only 2.3 percent (23.3 percent × 1/10) of their teachers from that source.

Other indications of demand.—For the individual interested in estimating the present demand for new teachers in any State the data presented in this chapter will supply numerous suggestions and for several of the factors will supply percentages which probably have changed little since 1930–31. Many of the tables used in this part give the number of cases, though the table is one of percentages, and so give the relative number of teachers in different classifications. For example, table 2 gives not only the relative number of teachers and other professional workers (53 classifications) employed in the United States in 1930–31 but also distributes these by the school divisions (nursery school, kindergarten, elementary, junior high school, senior high school, junior college, evening school, city, county, State). The numbers in the body of this table combined with the two sets of totals make possible many estimates concerning the probable needs in specific fields of educational work. While some of the fields in which there were but few cases could not be used for predictive purposes for a single State most of the larger groups would represent conditions for individual States more accurately than the estimates which are usually made the basis for predictions of needs. Table 3 furnishes another example of the aforementioned point. Even though table 3 deals with the ages of teachers it also gives, by States, the number of teachers in the rural schools and for elementary teachers the number in communities of different sizes. In this way it is possible to secure distributions of teachers upon most of the items included in Inquiry 1 (fig. 1 and 2). It was not possible in this report to give distributions of all the items by States. The number of such tables needed would have been prohibitively expensive.

Teachers' salaries and supply and demand.—There is little question that the salaries paid teachers exert a powerful influence upon both the demand for new teachers and the supply of new teachers. As teachers' salaries are raised (either actually or relatively in comparison with other occupations open to teachers and prospective teachers) the demand is decreased (employed teachers stay longer) and the

supply is increased (more recruits decide to be teachers). By decreasing the demand and at the same time increasing the supply the maladjustment is accelerated and the inevitable surplus mounts from two causes instead of one. The period following the World War was one of steadily increasing salaries for teachers—more so perhaps for teachers than for other groups of workers, who had already secured substantial salary advancements during the war. The delayed increases brought teachers' salaries in 1928–29 and 1929–30 to a point where teachers were generally being paid more than they had ever been paid before—actually as well as in purchasing power. To be sure, the same statement could also be made for many other groups at that period and it must be remembered that previous to the World War teachers had been very poorly paid so that this statement should not be interpreted as implying that teachers were overpaid or even that they were paid enough. It is evident, however, that the effect of a 10-year period of increasing salaries for teachers with its double-action effect on oversupply would be the accumulation of a tremendous surplus of teachers. The astonishing thing is that this surplus was not discovered before it was by more people. The two reasons it was not were that there was a shortage of teachers immediately following the World War which took some time to overcome and that the widespread expansion in educational services absorbed the overproduction for several years. Had this situation been realized sooner than it was and been given Nation-wide publicity the surplus might have been held back to some extent at least. Explanations and retrospective wishes do not alter the fact that there is the surplus of teachers today and that some public officials are attempting to correct the situation by drastically lowering salaries, expecting that the demand will thereby be increased (by the good teachers forced into other work) and the supply decreased (by making teaching less attractive, unfortunately to the more capable prospective recruits). This is not a satisfactory solution to the problem because it works in every way to decrease the efficiency of the school system as well as to decrease the surplus. The wiser plan would have been to hold teachers' salaries where they were, realizing that they were not high compared with other professions, select the best of the present oversupply and limit the number, and select the quality of the new recruits to be prepared for teaching.

Since 1918–19 the research division of the National Education Association has rendered an excellent service to American teachers by making salary data available every 2 years. For that reason it was decided not to study salaries of teachers in connection with the National Survey. Only two questions were included in the inquiry sent to teachers (items 23–25, figure 1). The salaries reported were tabulated by States, for men and women, and for the elementary

teachers according to the size of the community. The tabulations are on file in the United States Office of Education in Washington. Four of the salary tables are included as tables XX, XXI, XXII, and XXIII in the appendix. The salary data for rural teachers, elementary teachers in cities of 10,000 to 99,999 population, junior high school teachers and senior high school teachers were selected because the groups were large and represent the rural and urban differences as well as the difference between elementary and secondary teachers.

Some of the generalizations previously shown in salary studies and supported by the Survey data are:

(*a*) That salaries increased as the size of the community increased.
(*b*) That teachers in 1- and 2-teacher rural schools received less than teachers in consolidated schools.
(*c*) That men teachers received on the average $100 to $200 more than women teachers in the elementary school and from $200 to $300 more in secondary schools.
(*d*) That senior high school teachers received higher salaries than junior high school teachers and that junior high school teachers received higher salaries than elementary teachers.
(*e*) About half of the schools were operated for 9 months and the remainder for 10 months. A few rural schools were open only 7 months and a negligible number for only 6. Eight months was the typical term for rural schools.
(*f*) There was extreme variability among the States in the median salaries paid teachers.

Tables XX to XXIII, inclusive, appendix are included in the final report more as a matter of record of the salaries paid in 1930–31 than because of the contribution they make to the solution of supply and demand problems. As has been suggested and as will be explained at a later point in the report the proper handling of teachers' salaries in the future will have much to do with the control of any State program for teacher education.

Estimates of supply and demand.—Because of the difficulties previously mentioned no attempt was made in connection with the National Survey of the Education of Teachers to obtain an accurate count of the number of teachers unemployed in 1930–31, the year for which data were gathered on the teaching personnel. Any State or city desiring such a count can obtain it but only at considerable expense of time and effort. A knowledge of the total number of unemployed teachers in any school unit will be of small value unless the school system is obligated to place all of them as openings occur. Most American school systems have satisfactory records of available teachers even though the lists contain duplicates as was pointed out in the earlier discussion of this topic. It has therefore been assumed that school executives have frequently been made aware of the oversupply of teachers and that they have on their lists of applicants teachers whom they will want to employ whenever appropriate positions are open. It is also assumed that as soon as conditions

warrant it, State, city, and county superintendents of schools will reduce the size of classes, add new services, restore suspended services and in other ways increase the general efficiency of the schools. All of these changes and restorations will call for more teachers and will help to reduce the number of adequately prepared unemployed teachers. It must also be assumed that institutions which prepare teachers will, however, not continue to do so at the same rate or the advantage gained by reducing the unemployment of teachers will be but temporary and school superintendents will be in the awkward position of having to select recently prepared teachers and ignore unemployed teachers with equal but not so recent training or else employ teachers who obtained their preparation several years before and who have spent the intervening years waiting for a position. Either solution works an injustice upon some individuals and the second would also be unfortunate for the schools—forced as they would be to select teachers whose preparation is somewhat out-moded at the time they begin to teach.

State offices of education and all agencies in a State which are responsible for the preparation of teachers will be compelled to estimate in the most accurate manner possible the rate at which qualified unemployed teachers may be absorbed into the schools and what is even more important, the number of teachers for each school division and for each subject or type of work, who will be needed over a period extending at least 10 years into the future. Such predictions of future needs cannot be made except on the basis of statistics covering recent years which may be used to indicate the direction and rate of increase or decrease. The data for the States as presented in the survey will assist in establishing points for the year 1930–31 or will serve as a check on the accuracy of the points established by State statistics for that year. Survey data should be useful in this way for such items as: The number of public-school workers other than teachers, the size of schools, age of teachers, median years of teaching experience, highest level of education, work in education and practice teaching, subjects taught by high-school teachers, and teaching load.

Another use of these data in the formulation of predictions can be shown by the following calculations for the State of Alabama. The conditions described are of course for the school year 1930–31 and State educational officials will have to know in what ways conditions have changed and make the necessary allowances. Table 1 shows that Alabama returns were 41.5 percent of the inquiries sent to that State. The figures given in table 25, therefore, represent a satisfactory sample. If the sample is inadequate it is probably more representative of the better teachers in Alabama than of the poorer. In 1930–31 in Alabama 780 of the 4,163 elementary teachers who

answered inquiry 1 were "new" to their positions. This is 18.7 percent of the total elementary teachers' returns. The sum of the percentages for Alabama in columns 15, 16, 18, 19, 21, 22, 23, and 24 is 57.1 percent. This sum may be considered as the maximum percent of additional "new" teachers needed that year by Alabama, but the "new" teachers were only 18.7 percent of the total. Therefore, 57.1 percent of 18.7 percent, or 10.7 percent of the elementary teaching force in Alabama, was the number of "additional new" teachers employed in 1930–31. If conditions had remained approximately constant, Alabama, on the foregoing basis, would have needed for 1931–32 "additional new" elementary teachers in numbers approximately equivalent to 10.7 percent of the total elementary teaching group for that State. This number would not have included teachers employed in other school systems in 1930–31. The 10.7 percent would have been sufficient on the basis of 1930–31 conditions to provide "new" teachers for all the teachers who during 1930–31 died, retired, went to college, married and left teaching, entered another occupation, were absent because of illness or leave of absence, or left teaching for any other reason, and in addition it would have provided teachers for the newly created positions due to growth in school population or the introduction of new forms of educational service.

An interesting thing about this calculation is that it shows the number of "new" teachers needed from the teachers colleges, colleges, and universities to be considerably less than is usually claimed. For example, in Alabama 40.3 percent of the "new" elementary teachers were in higher educational institutions the preceding year. Therefore, only 40.3 percent of the needed "new" elementary teachers (18.7 percent) were obtained in Alabama in 1930–31 from higher educational institutions. For that year 7.5 percent (40.3 percent of 18.7 percent) of the elementary teaching group of the State could have been used as a basis for computing the number of recruits for teaching needed from normal schools, teachers colleges, colleges, and universities.

Overestimates on the number of new teachers needed.—Part of the present surplus of teachers is undoubtedly due to overestimates on the part of those responsible for the preparation of programs for the education of teachers. Statements were made during and immediately following the World War that the average "teaching life" of American teachers was between 4 and 5 years. The statements were probably true at that time and especially so for the rural areas and the smaller cities. The damage was done when the ratios of 1–4 and 1–5 were used to estimate the number of new teachers needed each year in the years following the World War, for example, in 1923, or 1927. Conditions changed so rapidly following 1920 that the ratio of 1–5

for new additional teachers needed has been a constantly increasing exaggeration since that date.

If the "new" teachers who were teaching in other school systems the preceding year are excluded (they represent educational "turnover" but not a demand for additional teachers) the data presented in table 28 if used for the country as a whole in the same way as for Alabama in the preceding illustration indicate that for the year 1930–31 the "additional new" elementary teachers needed were 11.5 percent of the total group of elementary teachers and that similar percentages for the junior and senior high-school teachers were 8.7 and 11.8 percent. *Approximately three-fourths of these "additional new" teachers were in higher educational institutions the preceding year.*

If the assumption is made that the returns for the country as a whole were from about half of the teachers the foregoing percentages of the total numbers responding as shown in table 28 would produce the estimates of "additional new" teachers needed for the elementary schools as 56,262, for the junior high schools as 6,286, and for the senior high schools as 20,032. (Example of computation—11.5 percent of 244,618 elementary teachers multiplied by 2 equals 56,262.) In round numbers and allowing for the possibility that the percentages might have been slightly larger had returns been received from all teachers, the public schools in 1930–31 probably absorbed fewer than 85,000 additional new teachers. Since teachers constitute 91.3 percent of the total group as reported in table 2 it appears that in 1930–31 the need for "additional new" teachers was approximately one-tenth of the total teaching group. The use of this ratio would produce an estimate of only half as many teachers as would be obtained by the one-fifth previously mentioned. Another method of computing the number of "additional new" teachers used in 1930–31 was illustrated by Dr. Peik in volume III, part 1, chapter II, of the Survey report. By the method used and with the additional data from the Office of Education statistics it was estimated on the basis of the conditions in 1930–31 that 78,603 new teachers were needed from the higher educational institutions. This is 9.2 percent of the 854,263 public-school teachers used as a base for his calculations.

On the basis of Dr. Peik's estimate of 78,603 "new" teachers needed from higher educational institutions or on the basis of the 63,750 (three-fourths of the 85,000 additional new teachers who were in higher educational institutions the preceding year) estimated from the data in table 28, it is clear that normal schools, teachers colleges, junior colleges, colleges, and universities are preparing from 60 to 75 percent too many teachers each year. In 1930–31 normal schools and teachers colleges "graduated" from courses entitling the students to some form of teaching certificate about 50,000 students, and colleges and universities, more than 60,000 who expected to teach

(46 percent of the graduates plus those who entered teaching after completing only 1, 2, or 3 years in college). Another 10,000 prospective teachers at least were prepared in city normal schools and teachers colleges, county normal schools, private normal schools and teachers colleges, and high-school teacher-training classes. A total of 120,000 new recruits from higher educational institutions in 1929–30 is probably a conservative estimate and in 1930–31 somewhere between the two estimates given above—perhaps 70,000 of them—were placed leaving 50,000 to be added to the surplus of teachers. Again the reader must be reminded that not all of the 120,000 were satisfactorily prepared, but they were equipped to obtain teaching positions and, unfortunately for American schools, many of the teachers with the least preparation were the ones selected for positions.

Other checks, such as the median of State medians on total years of experience for all groups of teachers when weighted for the number of teachers in each group give, a result of nearly 9 years of teaching experience. This is a very rough measure of one-ninth of the total teaching group for the new teachers needed for replacement. This fraction is made larger than it is in reality because the populous urban States have higher median years of experience than more rural States with small populations, and yet the larger numbers of teachers involved are not proportionately weighted in using the medians.

As has already been stated, the data for 1930–31 cannot be used as the basis for predictions in 1934–35. They can be used as one point for establishing trends but the calculations given have been included primarily to show that most of the recent estimates of the number of teachers needed have been decidedly overestimates and to remind those responsible for making such estimates that even those for 1930–31 are in all probability now too high if for no other reasons than that the surplus has accumulated since then and can supply much of the need for several years and also the length of teacher tenure has increased since that date.

SUMMARY OF SUPPLY AND DEMAND STUDIES

1. Maladjustments in the supply and demand of teachers have occurred at irregular intervals—usually in relation to periods of economic maladjustment.
2. A serious teacher shortage during and immediately following the World War was changed to an equally serious surplus within a decade.
3. Many of the unemployed teachers in 1929–30 were inadequately prepared but held valid certificates to teach. Even if such teachers were not included, most States had an oversupply of teachers in 1930–31 for the schools as then organized.

4. Because of the difficulties of securing accurate and complete data on the unemployed teachers, no attempt to do so on a national basis was made by the Survey. The difficulties listed in connection with obtaining a usable list of unemployed teachers will assist any persons responsible for the development of such a list for a city or State.
5. Several valuable supply and demand studies have been made by individual States and the results used in the preparation of programs for the education of teachers in those States.
6. From the analysis of the supply of and demand for teachers in the United States in 1930–31 made from the data supplied in answer to Inquiry 1 the following general statements may be made:
   (*a*) Conditions of supply and demand for teachers vary so widely among States that a general statement for the country as a whole is of little value. There were some similarities among rural States or among industrial highly urbanized States and yet even adjacent States differed radically upon some factors in the supply and demand tables.
   (*b*) Between two-fifths and one-half of the so-called "turnover" among teachers was caused by teachers moving from one position to another. This produces "turnover" but does not affect either supply or demand.
   (*c*) The demand for new teachers is less and the supply very much greater in urban areas than in rural.
   (*d*) The types of institutions from which teachers are obtained vary greatly from State to State.
   (*e*) The education of teachers in the United States is not confined to any one type of educational institution. In 1930–31 the normal schools and teachers colleges prepared a little more than half of the public-school teachers—the colleges and universities the remainder.
   (*f*) Rural schools were compelled to operate with a teaching personnel 40 percent of which was "new" each year.
   (*g*) Junior high school teachers were a more experienced and more stable group than either elementary or senior high school teachers.
7. Many of the tables included in part I contain distributions of the number of answers received which will enable persons working with this material to obtain number distributions as well as percentage distributions for many of the items included in inquiry 1 (figs. 1 and 2).

8. The distribution of salaries paid teachers in 1930–31 tended to corroborate the findings of salary studies conducted by the National Education Association, Division of Educational Research.
9. Teachers' salaries were undoubtedly important factors in the present oversupply of certificated teachers. Salary schedules are so intimately connected with the control of the supply of and demand for teachers that schedules of teacher payment must be considered in the development of every State program for the education of teachers.
10. Estimates of the number of "additional new" teachers needed each year have generally been much too high—often 100 percent too high. These overestimates have encouraged States and institutions to prepare many more teachers than could be placed.
11. In 1930–31 about three-fourths of the "additional new" teachers needed were obtained from higher educational institutions.
12. Supply and demand conditions for teachers depend upon and can be materially affected by the standards of school service accepted by any unit responsible for the maintenance of a public-school system. Class size, amount of supervision, special teachers, provision and supervision of extraclass activities, more professional preparation, leaves of absences for teachers, and many other similar factors are involved in estimating the number of teachers needed and the restrictions upon the number to be educated.

CHAPTER VI

RECOMMENDATIONS [1]

RAISING THE PROFESSIONAL QUALIFICATIONS OF PUBLIC SCHOOL TEACHERS

The data presented in chapters I, II, and III of this part show conditions with respect to the educational preparation of America's teachers which prevailed in 1930–31. While there is reason to believe that some of these conditions have improved since then, there are others which have become worse. In most respects conditions have not changed enough in the 3 years since the data were collected to invalidate the conclusions or to remove the necessity for taking steps to remedy undesirable conditions found to exist at that time.

Without repeating data previously reported and summarized in the first three chapters, it is clear that the educational level of the preparation of American public-school teachers is much below that of other professions and below that of teachers in other countries. It is also much lower in some States than in others, in the rural areas than in the urban, and in the elementary schools than in the secondary.

Conditions revealed in the Survey suggest the following recommendations for raising of the standards of educational preparation of teachers:

1. The rate at which the level of educational preparation of teachers has been increased since the World War, the increased desirability of teaching as an occupation, and the present oversupply of teachers all combine to make it possible for the States to take immediate steps to raise the level of the educational preparation of their teachers. The large numbers of teachers (two-thirds of the total group) who have less than a college education make such an increase in standards desirable.
   (*a*) All high-school training classes, county normal schools, and 1-year curricula in institutions preparing teachers should be abandoned.

[1] Recommendations made in this and other sections of the Survey report represent the judgment of the Survey staff member responsible for the sections. In many cases the recommendations were discussed at Survey staff meetings and many were also presented and discussed before the board of consultants. The recommendations do not represent official opinions of the United States Office of Education or of the Federal Government.

(*b*) Every State which has not already done so should make 2 years above high school its minimum requirement for the preservice preparation of all new elementary teachers and should set the goal of 4 or more years above high school at some date in the near future—to be determined in each State by its general educational and economic conditions and the amount of upgrading needed.

(*c*) Teachers in rural schools should be as well prepared (in point of time required for preservice preparation) as teachers in urban schools.

(*d*) Teachers in kindergarten and elementary schools should be as well prepared (in point of time required for preservice preparation) as teachers in secondary schools. This recommendation implies that the standards for kindergarten and elementary teachers should be increased and not that secondary standards should be lowered.

(*e*) Teachers in secondary schools should be upgraded to a minimum of 1 year of graduate work. This standard has already been generally accepted for the staff members of junior colleges.

2. Teachers and other workers in public-school systems should be more definitely prepared for specific positions and prevented, by certification and the accrediting of institutions, from accepting any position for which they have not had the prescribed special preparation.
3. More emphasis should be placed upon the acquisition during the pre-service period of preparation of that minimum degree of skill in teaching which is considered essential for a propitious start as a teacher.
4. State and National campaigns of education should be conducted to encourage school-board members to select new teachers upon the basis of scholarship, special professional preparation, experience, and merit, rather than upon such bases as local residence, willingness to accept lower salaries, and similar factors.
5. States should provide professional incentives for teachers to continue their services in the same school systems.
6. School systems should use administrative devices which will make it possible for teachers in service whose education is below the approved standard to upgrade themselves without undue hardships—physically, financially, or professionally. Devices which can be used toward this end are: Sabbatical leaves of absence, relief from nonteaching duties while studying, employing relief and substitute teachers who carry part or all of the teacher's

work while he is taking additional school work, use of cadet teachers to provide selected teachers time for study, and salary increments for additional preparation.

7. State programs for the equalization of educational opportunities and for the more equitable distribution of the support of public education should include the teacher's preparation as one of the elements in the basic formula upon which the program is based. Provision should be made so that the school districts will be encouraged by the State to select teachers with more nearly adequate preparation.

RECOMMENDATIONS ON TEACHER SUPPLY AND DEMAND

There is at present an oversupply of teachers which is Nation-wide in scope. If all unemployed teachers holding valid certificates and desiring teaching positions are considered, there is a very pronounced oversupply. If only unemployed teachers with at least 2 years of preparation above the completion of high school are considered, there is still an oversupply of such teachers in most of the States, although if the schools were staffed more nearly adequately the oversupply of acceptably prepared teachers could be absorbed in many of the States. Even with conditions as they now are with respect to the oversupply of teachers, the higher educational institutions of the country are adding to the oversupply at the rate of approximately 50,000 teachers a year.

Present conditions of increased loads for the teachers employed and rapidly increasing numbers of unemployed teachers cannot be allowed to continue without the imminent risk of complete professional demoralization of the teaching staffs with resultant deterioration of the service of the public schools.

Conditions are propitious for the elevation of standards for teachers but changes will have to be made on the basis of the ultimate welfare of the total educational service and not upon the basis of short-sighted sentimental or economic policies.

REDUCTION OF THE OVERSUPPLY OF TEACHERS

1. State boards of education should pass regulations setting minimum standards for the several school divisions and, if possible, invalidate the certificates of all unemployed teachers whose preparation is less than the prescribed minimum. All employed teachers whose preparation was completed since 1929 and who do not have the minimum amount of preparation should be allowed a period of 3 or 4 years in which to obtain the training necessary to meet the minimum standards.
2. Temporary but renewable certificates based on less than the minimum amount of preparation should not be renewed until the holder has made up his deficiency in preparation.

3. Authorities charged with the responsibility of selecting teachers should be relieved from any obligation to select graduates who completed their work 1 or more years ago and who have not been employed as teachers unless they are the best persons available at the time and for the salary offered. In other words, priority of graduation should be abolished as a sole basis for selecting teachers, especially in areas immediately tributary to specific institutions. This recommendation, if followed, would at once reduce the available supply of teachers and introduce more certainly the element of merit into the operation of the law of supply and demand.
4. The present oversupply of adequately prepared teachers should be reduced by gradually but systematically reducing the size of public-school classes and by increasing the number of special services which make for more efficient schools.
5. Educational opportunities should be extended to a number of groups not now generally included in the public-school system, such as kindergartens, nursery schools, foreign groups, and adult groups interested in education for vocational advancement, vocational rehabilitation, or for avocational purposes. Such extensions of service would call for many new teachers.
6. One essential step which must be taken by all of the States to reduce the oversupply of teachers is to curtail the present "overproduction" of teachers. This can be done by restricting the number of teachers educated and certificated each year to approximately the number needed to provide for the necessary replacements, growth in the school population, and new educational services plus a small surplus for unexpected demands. Some of the ways in which the number of teachers educated each year can be reduced are suggested for the consideration of those responsible in the States for the development and administration of State programs for the education of teachers.
   (*a*) Each State should establish its standards for the satisfactory preparation of teachers for the different kinds of positions and in the light of those standards establish, after inspection of the institutions, an accredited list of institutions for the preparations of teachers for each kind of position. The preparation and attitude of the faculty members and available facilities for practice and demonstration work should be determining factors rather than the age, size, wealth, or location of the institution.
   (*b*) After the State school officials responsible for teacher education have determined the number of new teachers needed they should allocate the maximum number who

will be certificated from each of the approved or accredited institutions and the number who will be certificated from other States. The quotas allocated to individual institutions should be raised or lowered in terms of any changes in the total demand. Whenever it is possible to determine it with reasonable accuracy the quotas should be changed in terms of the relative merit of the graduates of one institution in comparison with those of other institutions. Such a policy would tend to increase at once the standards for admission to courses for teachers and to encourage a much more rigorous selection of capable students during the preservice period of education.

(*c*) Prospective teachers who meet accepted standards of preparation in approved institutions should be certificated to teach only in positions for which they were prepared. Unless such restricted certificates are issued there can be no satisfactory control of the supply of new teachers.

(*d*) The institutions in a State which have been approved for the education of teachers should cooperate in developing and enforcing a program of increasingly rigorous selective admission of students to curricula for teachers. Such a program should include the use of as many measures of personality, scholastic aptitude, health, and general ability as possible. Until an easily administered, valid, and reliable predictive test of teaching merit is devised, the use of several measures will provide a better basis for selection than dependence upon high-school grades, position in the graduating class, or similar measures which have been used. The program of selective admission should aim to secure the following results: Diversion from teacher curricula of the less capable applicants; encouragement to enter teaching for some of the more capable students who have hitherto been more inclined toward other professions; attraction to teaching of students from the types of homes which offer more than average cultural opportunities in such matters as books, good music, travel, correct speech, and good manners; and the selection of young men and women who possess the personality traits which are usually found in the leaders of any community.

Adjustment of supply and demand in teaching.—The problem of adjusting the supply of teachers to the demand is more complicated than just reducing the

present oversupply of teachers, which in itself presents enough difficulties. The satisfactory adjustment of the supply to the demand must not only reduce the present unemployment of qualified teachers but it must also create additional demands for teachers and for new forms of educational service. It must make sure that adequately prepared teachers and specialists are available in sufficient numbers and at the appropriate times to meet those demands, and that too many teachers are not prepared for any of the school divisions or teaching subjects. Some recommendations for solving the adjustment of supply and demand in addition to those already presented are included for the consideration of State and institutional officials responsible for bringing about this adjustment.

7. State educational authorities in cooperation with the presidents of institutions for the preparation of teachers should be held responsible for developing long-term teacher-education programs extending at all times a minimum of 10 years into the future. Such programs must provide for the control of both the supply and the demand elements—one cannot be controlled without the other. Such long-term plans should be based upon a continuing survey of the teaching personnel and educational services of the State and should reveal significant trends in the attainment of the goals included in the State program. The data from these continuing surveys should be made available as promptly as possible to prospective teachers and to institutions in which they are prepared. If the several States in cooperation with the Office of Education in Washington could agree upon the forms in which these data should be collected and reported it would add greatly to the value of the data and make possible interstate and interarea comparisons which are not usually possible with State educational statistics.

8. As the educational systems of the States are at present organized the most effective method for controlling the supply of teachers is by means of certification. State educational officers in conference with and in cooperation with representatives of those who prepare teachers and those who employ and supervise them should set up State programs of teacher certification which would both establish standards and control the supply. Some of the recommendations for State programs of teacher certification which will assist in the accomplishment of both of these ends are presented.

   (*a*) Teachers' certificates should be issued only by State authorities and should name specifically the type of teaching position for which the holder has received the approved

amount and kind of preparation. A teacher's certificate should be revoked if he accepts a position for which he is not certificated and the school district employing the teacher should be penalized in such a way as to deter effectively such a practice. Each certificate should also state the period for which it is valid and the conditions under which it may be renewed. The rural schools of the several States would be immediate beneficiaries of such a policy and it would also make the control of teacher supply much more accurate.

(*b*) State certificates should be issued for the larger divisions of the schools and for the larger related groups of subjects. For example, certificates should be issued for the following divisions: Rural, kindergarten-primary, elementary, and secondary (junior and senior high schools). Certificates for junior and senior high school teachers should specify the areas or subjects in which the teacher has had the required preparation and for which the certificate is valid. Certificates should be issued for supervisors and administrative officers who have made the special preparation required for such work.

(*c*) Administrators of high schools should be encouraged and when practical required to arrange teaching programs, especially in the smaller schools, in such a way that certain agreed-upon combinations of subjects may be taught by one teacher. If such combinations, based upon either related subject matter or the number of students taking the subjects, were accepted by the high-school principals of a State it would be possible to prepare a teacher more nearly adequately in 2 or even 3 fields in which he was reasonably certain to teach than under present conditions when he tries to get at least a smattering of training in many fields because he realizes that he may be asked to teach 3 or 4 or even 5 subjects and in almost every conceivable combination.

(*d*) Life certificates should not be issued and holders of permanent certificates should be expected to give evidence at specified intervals, e.g., 5 years, that they are continuing their professional advancement. This requirement may be satisfied in a great many "agreed-upon ways", such as travel, additional education, work on National, State, or local committees, preparation of syllabi, text material, theses, conducting educational experiments and other services to the school or community.

(e) Certification requirements for teachers in positions of different types and at different school levels should be so stated that teachers will: (1) Have at least a satisfactory minimum of professional preparation for the work to be done; (2) Be unable to secure a certificate except at the completion of a unified curriculum (e.g. at the close of a 2-year curriculum but not when half way through a 4-year curriculum); (3) Be required to remain in teaching in order to maintain the validity of certificates; (4) Be able to transfer from one certification group to another by meeting the additional requirements for the new certificate. (The additional requirements should include additional professional preparation or demonstrated evidence of ability to do the new work.)

(f) As previously indicated certificates should be issued only to the extent of allocated quotas in order to adjust the supply to the demand. There should of course be some allowance made for the unexpected in the demands for teachers and for the fact that employing school officers should always have some freedom of choice in selecting teachers who will fit into the position which is vacant. It has been estimated by a number of students of this problem that a surplus of 5 percent or less in any of the fields would provide for such choices and also for a desirable amount of competition for placement which would keep teachers professionally alert.

(g) All first certificates should be for a limited period and renewals should be made only upon evidence of demonstrated ability to do successfully the work for which each certificate was issued.

(h) A health certificate should be required before any certificate to teach is issued or renewed.

9. Effective adjustment of supply and demand in a State requires the cooperation of the public, private, and endowed institutions as well as all teacher-employing agencies. While the State can exercise control over the supply of teachers by means of State certification, it cannot do so without arousing a great deal of dissatisfaction and opposition unless the program of State control can be promoted with the approval of the majority of the private institutions as well as those which receive public support.

Such programs of control should be based upon the realization that the welfare of the children of a State is of greater importance than the temporary advancement of individual institutions. They should also be based upon the realization that the restric-

tion upon the number of students admitted to courses for teachers does not mean the restriction of higher educational opportunities for the boys and girls in that area to any greater degree than the restriction of entrance to medical schools has meant the restriction or curtailment of opportunities for a general higher education. In other words these proposals do not necessarily mean the abandonment of institutions but may mean a change in purpose for some of them. There is also little doubt that the present educational programs of higher education in many States could be carried on as successfully and more economically if some of the smaller schools (public and private) were consolidated and some of the poorly located ones moved or abandoned.

One other suggestion in connection with putting any or all of these recommendations into effect is that it should be done gradually and in terms of a long-term plan. Only in this way can serious injustices to individuals and groups of individuals be avoided. Teachers in service should have sufficient time in which to meet new requirements without prohibitive sacrifices. Experienced teachers who entered when standards of preparation were distinctly lower should be given special concessions. Programs for the preparation of teachers should be reduced but by no means stopped entirely. There should be no gap, not even for a year, in which no newly prepared recruits are received into teaching.

These recommendations have been suggested or supported by the study of the teaching personnel in the United States in 1930–31 and by Survey staff discussions. Few States would want to adopt all of them and many States could not adopt some of them without revoking some of their existing laws. Since the Survey showed in so many ways that education in this country is still largely a State responsibility and also that the States differ very widely in their educational programs it is improbable that any program for the control of the supply and demand of teachers would fit equally well the needs of any two States. It is therefore hoped that the proposed recommendations will be used as a check-list of suggestions and that State programs for education will incorporate (with the necessary adaptations) as many of them as possible in what must be a Nation-wide attempt to correct the present maladjustment of supply and demand and to raise the level of the education of American teachers.

PART II. STUDENT PERSONNEL—PROSPECTIVE TEACHERS [1]

The Social, National, and Occupational Backgrounds of Undergraduate Students in Accredited 4-Year State Teachers Colleges and in Accredited 4-Year Private Liberal Arts Colleges

CHAPTER I

INTRODUCTION AND SCOPE OF THE STUDY

The study which is reported here compares undergraduate students in certain accredited 4-year State teachers colleges with undergraduate students in certain accredited 4-year private liberal arts colleges in regard to selected elements in their social, national, and occupational backgrounds. Certain persistent assumptions seem to prevail in current opinion, even among educators, which presuppose more favorable backgrounds for students in private liberal arts colleges than for students in State teachers colleges. Some of these assumptions are that teachers-college students come generally from the homes of laborers, tradesmen, and small shopkeepers, while liberal arts students come from the homes of business and professional men; that the former constitute in large part a group of first-generation Americans, while the latter represent largely native stock; and that the parents of the former have not had secondary school and college education, while the latter come from families in which such education is traditional. It is into such assumptions as these that this study seeks to inquire.

The area covered by the North Central Association of Secondary Schools and Colleges was selected for this study because this accrediting agency has exercised a decidedly constructive influence on both teachers colleges and liberal arts colleges since its organization in 1895, and because its area represents adequate diversity in industrial activities, national types, and social groups. An analysis was made of the accredited 4-year State teachers colleges and the accredited 4-year private liberal arts colleges in this area with respect to the following factors: Dates of organization,[2] enrollments,[3] prevailing

[1] This study was made by Prof. Harold G. Blue, head of the department of sociology, Colorado State Teachers College, Greeley, Colo.

[2] Hurt, H. W. The College Blue Book. Chicago, Ill., The College Blue Book. 1923. vol. I, p. 18-265.

[3] Foster, Emery M. Statistics of Teachers Colleges and Normal Schools, 1929-30. ch. 5, vol. 2. Biennial Survey of Education in the United States, 1928-30. Washington, U.S. Government Printing Office. 1932. 78 p. (Office of Education, Bulletin, 1931, no. 20.)

—— Statistics of Universities, Colleges, and Professional Schools. ch. 4, vol. 2. Biennial Survey of Education, 1929-30. Washington, U.S. Government Printing Office, 1932. 285 p. (Office of Education, Bulletin, 1931, no. 20.)

industrial types in immediate surroundings,[4] and significant national groups in the immediate surroundings.[5] In the selection of institutions to participate in this study, an attempt was made to secure essential variation with respect to these factors. On this basis, 9 State teachers colleges and 8 private liberal arts colleges were chosen. Table 1 shows the total undergraduate enrollments in these institutions and the number and percentage of students participating in the study.

TABLE 1.— *Teachers colleges and liberal arts colleges participating in this study*

Location of institutions by States	Undergraduate enrollment	Blanks returned	
		Number	Percent of enrollment
1	2	3	4
Teachers colleges:			
1. Indiana	1,133	814	71.84
2. Colorado	1,532	1,270	82.90
3. Iowa	1,515	1,392	91.88
4. Michigan	1,970	1,641	83.30
5. Missouri	1,276	984	77.12
6. Wisconsin	1,419	308	21.71
7. Wisconsin	693	537	77.49
8. Minnesota	1,094	743	67.92
9. Illinois	859	763	88.82
Total	11,491	8,452	73.55
Liberal arts colleges:			
1. Michigan	607	525	86.49
2. Colorado	538	407	75.65
3. Indiana	449	256	57.02
4. Iowa	669	538	80.42
5. Wisconsin	655	501	76.49
6. Ohio	2,080	1,419	68.22
7. Illinois	450	260	57.78
8. Kansas	667	522	78.26
Total	6,115	4,428	72.41
Grand total	17,606	12,880	73.16

A special questionnaire was constructed and copies were forwarded to the institutions during the first week in January 1933; the final returns were received February 27, 1933. The questionnaire consisted of 50 major items calling for data pertaining to age, sex, classification, academic and professional goals, marital status, religious affiliation, family relationships, educational status and backgrounds, birthplace, home location, types of communities, national status and backgrounds, vocational purposes, and occupational backgrounds. Several major items were subdivided to the extent that a total of 176 items constituted the questionnaire. The questionnaire is reproduced in figure 1.

[4] United States Bureau of the Census. Gainful Workers by Occupation and Industry. Washington, U.S. Government Printing Office. Fifteenth Census of the United States, ch. 7, vol. 5, 1930.

[5] Ibid. Color or Race, Nativity, and Parentage. ch. 2, vol. 2, 1930.

(FIGURE 1.—Student personnel inquiry form.)

[Page 1]

NATIONAL SURVEY OF THE EDUCATION OF TEACHERS

UNITED STATES DEPARTMENT OF THE INTERIOR, OFFICE OF EDUCATION

WASHINGTON, D.C.

The study with which this blank deals is a descriptive and comparative investigation of the undergraduate students in standardized and fully accredited 4-year teachers colleges and 4-year liberal arts colleges of the North Central Association of Colleges and Secondary Schools.

The returns from this inquiry will be treated confidentially and impersonally. In no case will the identification of any student appear in published or unpublished reports.

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FOLLOW INSTRUCTIONS CAREFULLY

1. Place a check (✓) or supply words or numbers in the proper places. Each will be understood as indicating your reply.
2. Be as accurate as you possibly can.
3. Write or check legibly.

QUESTIONNAIRE

1. Write your name _____
2. What college are you now attending? _____
3. What is your present home address or post-office address? City or town or village _____
State _____ Foreign country _____
4. Check what you are: Male _____ Female _____
5. Give your age at your nearest birthday: _____ years old.
6. Check what you are: Freshman _____ Sophomore _____ Junior _____ Senior _____ Graduate or unclassified or special _____
7. Are you now definitely working toward a bachelor's degree to be granted you upon your completion of a 4-year course in college, i.e., bachelor of arts, bachelor of science, A.B. in education, or B.S. in education? Check: Yes _____ No _____

8. What field of work, occupation, vocation, or profession are you now definitely preparing yourself for: e.g., social service, banking, law, dentistry, accounting, nursing, medicine, engineering, homemaking, teaching, or any other? Be very specific .....

9. How old were you in years when you first entered college to begin your college work? ..... years old.

10. How many times since you first entered college to take up college work have you actually had to drop your college work and withdraw from college? Check: None ..... Once ..... Twice ..... Three times ..... Four or more times .....

11. If your college career has been interrupted one or more times, state precisely and specifically: (a) What the causes of the interruptions were .....

(b) What the work activities or kinds of employment were in which you were engaged during your absences from college .....

12. How many years elapsed between your graduation from high school and your first entrance into college? None ..... 1 year ..... 2 years ..... 3 years ..... 4 years ..... 5 years ..... 6 years ..... 7 years ..... 8 years ..... 9 or more years .....

13. If 1 or more years elapsed as indicated in the question just above, state specifically and precisely what you did during the elapsed time: .....

14. If you have ever taught school, check to show how many years you were employed as a teacher: Less than a year ..... 1 year ..... 2 years ..... 3 years ..... 4 years ..... 5 years ..... 6 years ..... 7 years ..... 8 years ..... 9 or more years .....

15. Are you married or have you been married? Check: Yes ..... No .....

16. If you are married or have been married, did your marriage take place before you first entered college? Check: Yes ..... No .....

17. If you are a parent, how many children have you? ..... children.

18. Of what church (denomination) are you a member? Check none or enter the name: None ..... Name of denomination .....

19. Indicate the one chief source of funds to help you meet your college expenses this year—Check: Parents ..... Borrowings ..... Personal savings ..... Relatives not parents ..... Scholarships or fellowships ..... Earnings while attending college .....

20. How many different colleges (institutions above the high school) have you attended besides the one you are now attending? Check: None ..... 1 ..... 2 ..... 3 ..... 4 ..... 5 or more .....

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21. Beginning with your oldest brother or sister, what numbered child are you, i.e., are you the 1st, 3rd, 5th, 8th, or what child of your parents? I am the ..... child.

22. Check two places to indicate the kind of community in which, first, your present home is and, second; your birthplace was:

	Home	Birthplace
a. Farm or ranch	( )	( )
b. Village less than 1,000	( )	( )
c. Town from 1,000 to 2,500	( )	( )
d. City from 2,500 to 10,000	( )	( )
e. City from 10,000 to 25,000	( )	( )
f. City from 25,000 to 50,000	( )	( )
g. City from 50,000 to 100,000	( )	( )
h. City from 100,000 to 250,000	( )	( )
i. City from 250,000 to 500,000	( )	( )
j. City of more than 500,000	( )	( )

23. Indicate exactly where you were born: In or near the village or town or city of ....., in the State of ....., or, if you were not born in the United States, in the foreign country of .....

24. Indicate how many years your home has been in each of the following types of communities:

	Years
a. Farm or ranch	.....
b. Village less than 1,000	.....
c. Town from 1,000 to 2,500	.....
d. City from 2,500 to 10,000	.....
e. City from 10,000 to 25,000	.....
f. City from 25,000 to 50,000	.....
g. City from 50,000 to 100,000	.....
h. City from 100,000 to 250,000	.....
i. City from 250,000 to 500,000	.....
j. City more than 500,000	.....
Give the total number years	.....

NOTE.—The total number of years should equal your age in years.

25. Check the following to indicate how far your present home is from the college you are now attending. Please understand that the number of miles refers to the distance you must travel to go from your home to college.

a. Less than 5 miles	( )
b. More than 5 miles and less than 15	( )
c. More than 15 and less than 30	( )
d. More than 30 and less than 50	( )
e. More than 50 and less than 80	( )
f. More than 80 and less than 120	( )
g. More than 120 and less than 175	( )
h. More than 175 and less than 250	( )
i. More than 250 and less than 350	( )
j. More than 350 and less than 500	( )
k. More than 500 and less than 700	( )
l. More than 700 and less than 1,000	( )
m. More than 1,000 miles	( )

26. Check the following to indicate the types of communities in which you attended, first, elementary school, and, second, high school:

	Elementary school	*High school*
a. Farm or rural community	( )	( )
b. Village less than 1,000	( )	( )
c. Town from 1,000 to 2,500	( )	( )
d. City from 2,500 to 10,000	( )	( )
e. City from 10,000 to 25,000	( )	( )
f. City from 25,000 to 50,000	( )	( )
g. City from 50,000 to 100,000	( )	( )
h. City from 100,000 to 250,000	( )	( )
i. City from 250,000 to 500,000	( )	( )
j. City more than 500,000	( )	( )

This is about your brothers and sisters.

27. How many brothers living? Older than you ----- Younger than you -----

28. How many sisters living? Older than you ------ Younger than you ------

29. How many brothers and sisters are married? Brothers ------ Sisters ------

30. How many brothers and sisters are dead? Brothers ------ Sisters ------

31. How many brothers and sisters attended or are now attending the college which you are now attending? Brothers ------ Sisters ------

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32. Indicate the number of brothers and sisters who:	*Brothers*	*Sisters*
a. Have graduated from college	( )	( )
b. Are now attending college	( )	( )
c. Are adults and have never studied beyond high school	( )	( )
d. Are now attending high school	( )	( )
e. Are adults and have never studied beyond the elementary school	( )	( )
f. Are now attending the elementary school	( )	( )
g. Are too young to go to school	( )	( )

This is about your own father and his parents

33. Was your father's father born outside the borders of the United States? Check: Yes----- No----- a. If your answer is "yes", indicate where ----------

34. Was your father's mother born outside the borders of the United States? Check: Yes------ No------ a. If your answer is "yes", indicate where ---------- ----------

35. Is your father living? Check: Yes------ No------

36. Where was your father born? If in the United States, name the State ---------- If outside the United States, indicate where or in what country----------

37. Of what descent is or was your father, i.e., German, Irish, French, Norwegian, or what descent?----------

38. What is or was, if he is now retired or deceased, your father's trade or profession or principal occupation, i.e., the particular work by which he was known in his community? Be very specific: ----------

39. Was your father graduated from high school? Check: Yes_____ No____

40. Was your father graduated from college? Check: Yes_____ No_____

a. If your answer is "yes", give the name and location of the college:

Name_____ City_____

State_____, or foreign country_____

41. Of what church (denomination) is or was, if he is now deceased, your father a member? Check none or enter the name of the denomination: None _____ Name of denomination_____

This is about your own mother and her parents.

42. Was your mother's father born outside the borders of the United States? Check: Yes_____ No_____ a. If your answer is "yes", indicate where _____

43. Was your mother's mother born outside the borders of the United States? Check: Yes_____ No_____ a. If your answer is "yes", indicate where _____

44. Is your mother living? Check: Yes_____ No_____

45. Where was your mother born? If in the United States, name the State _____ If outside the United States, indicate where or in what country_____

46. Of what descent is or was your mother, i.e., German, Irish, French, Norwegian, or what descent?_____

47. If your mother has or had, in case she is now retired or deceased, a trade or profession or principal occupation which she follows or followed quite apart from housekeeping or homemaking, state very specifically what it is or was _____

48. Was your mother graduated from high school? Check: Yes_____ No _____

49. Was your mother graduated from college? Check: Yes_____ No_____

a. If your answer is "yes", give the name and location of the college:

Name_____ City_____

State_____, or foreign country_____

50. Of what church (denomination) is or was, if she is now deceased, your mother a member? Check none or enter the name of the denomination: None _____ Name of denomination_____

CHAPTER II

PERSONNEL DATA ABOUT THE STUDENT GROUPS

Sex.—Women outnumbered men among the 8,452 students of the teachers colleges participating in the study, the ratio being approximately 3 to 2. Of the 4,428 liberal arts college students, however, 51.06 percent were men and 48.94 percent were women. The traditional teacher-preparation institution in America was one in which women greatly outnumbered men, but in recent years increasing numbers of men have chosen education as the field of their careers.

Age.—The mean age of the teachers-college students was 20.63 years and that of the liberal arts college students, 20.04. This difference is not significant. However, the former showed more variation in age, ranging from 15 to 58 with a standard deviation from the mean of 3.16. The age range of the latter was 16 to 40 with a standard deviation from the mean of 2.06. These data point to greater homogeneity of the liberal arts students in the matter of age, and a significant extension to higher age-levels in the teachers-college group. The median age of the 12,880 students of both groups was 20.42 years and the standard deviation was 2.85.

Classification.—In the distribution of students among the 4 undergraduate classes, as shown in table 2, there is no significant disparity between the 2 groups. In the sophomore group the teachers-college students maintain a higher percent, 30.98 percent as against 27.37 percent for the liberal-arts students. The higher proportion of sophomores among teachers-college students may be accounted for by the number of students who left college to teach at the end of their freshman year and later returned to obtain additional training in order to secure a more desirable certificate. It is shown elsewhere in this report that one fifth of the teachers-college students, and only one eleventh of the liberal arts college students had from 1 to 4 interruptions in their college careers; 39.66 percent of the teachers-college students who left college temporarily engaged in teaching.

Academic goal.—There is an appreciable discrepancy between the two groups of students in the matter of seeking the bachelor's degree. Of the teachers-college students, 5,922, or 71.48 percent, reported that they were working toward the degree, as compared with 3,881 liberal arts college students, or 89.55 percent. While this discrepancy is significant, it is undoubtedly influenced by the larger number of students in teachers colleges who expect to take only a 2-year curriculum and teach for a few years in rural or elementary schools

TABLE 2.—*Class membership of 12,880 students in 9 teachers colleges and 8 liberal-arts colleges in the North Central Association, January 1933*

Class membership	9 teachers colleges		8 liberal-arts colleges		Total	
	Number	Percent [1]	Number	Percent [1]	Number	Percent [1]
1	2	3	4	5	6	7
Freshmen	3,014	35.67	1,649	37.28	4,663	36.22
Sophomores	2,618	30.98	1,210	27.37	3,828	29.74
Juniors	1,579	18.69	832	18.81	2,411	18.73
Seniors	1,239	14.66	732	16.55	1,971	15.31
No reply	2		5		7	

[1] The base number used in computing percentages was the total less the number not replying.

Marital status:—Students in teachers colleges tended to enter marriage before or during their college period to a greater degree than students in liberal arts colleges. Of the teachers-college students, 4.21 percent were married or had been married, and only 1.45 percent of the liberal arts college students were married or had been married. The wider range in age of teachers-college students may account in part for the difference in marital status. Their ages ranged from 15 to 58 as compared with an age range of 16 to 40 for liberal arts college students. Of the married students, 31 percent of those in the teachers-college group and 34.69 percent of those in the liberal arts group were married before they entered college. There were 138 parents (1.63 percent) among the 8,452 teachers-college students; of the 4,428 liberal arts college students, 15 (0.34 percent) were parents. The mean number of children of parents in the former group was 1.42; of the latter, 1.47.

Religion.—The fathers of the 12,880 students participating in this study showed a greater tendency than the mothers to have no direct religious membership. Of the teachers-college group, 19.41 percent of the fathers and only 6.97 percent of the mothers, and of the liberal arts college group 17.24 percent of the fathers and 6.11 percent of the mothers were reported to have no religious affiliation. One student in 6 of the 12,880 students of both types of institutions professed no church membership—16.53 percent of the teachers-college group and 15.63 percent of the liberal arts college group. No report on this item was made by 162 students.

For the institutions selected the Methodist denomination leads by a considerable margin in the matter of membership of all fathers, mothers, and students, the percentages being 22.39, 25.84, and 25.09. The proportions were practically the same in the two groups, i.e., from one-fifth to one-fourth of the fathers, mothers, and students were members of the Methodist Church. The Presbyterian denomination registered 10.29 percent of the teachers-college students and 17.40 percent of the liberal arts college students. The proportions reported

for fathers and for mothers were approximately the same in the two groups. The Catholic Church varied most in registrants, with 10.86 percent of teachers-college students and 6 percent of liberal arts college students. Approximately 75 percent of all the fathers, mothers, and students were reported as affiliated with the following denominations: Methodist, Presbyterian, Catholic, Lutheran, Congregational, Baptist, Christian, and Episcopal, in the order named. Students, in the main, followed their parents in the matter of church membership. There was no significant difference between the two types of colleges on this point. The percentages reported are also influenced by the regional distribution of the religious groups.

Broken homes, indicated by the death of either parent, appeared in practically the same proportion in the two types of colleges. Of the teachers-college students, 13.28 percent reported that their fathers were dead and 9.64 percent reported that their mothers were dead; of the liberal arts college students, 11.91 percent reported that their fathers were dead and 7.93 percent reported that their mothers were dead.

Family.—Concerning the order of birth, 46.55 percent of the liberal arts college students and 38.36 percent of the teachers-college students were the first-born. It will be remembered that the mean age of the former group was 20.04 years and that of the latter 20.63 years. It may, therefore, be assumed that the parents of liberal arts college students were, on the whole, younger than those of teachers-college students. This fact is indicated also by the standard deviation of 2.06 in the distribution of the ages of the liberal arts students as compared with a standard deviation of 3.16 for the teachers-college students. In an order ascending from first-born to last-born, the mean number was 2.08 for liberal arts students and 2.61 for teachers-college students. One and three-fifths percent of the teachers-college students were located in the order from the ninth to the thirteenth child; only 0.48 of 1 per cent of the liberal arts students held this order.

Family size represents a real difference between the two groups of students. Table 3 reveals that the liberal arts students came consistently from smaller families. A higher percentage of the teachers-college students reported brothers and sisters. The differences between the percentages in the two groups of students are significant. It will be recalled that the sexes were almost at parity in the liberal arts colleges, while women outnumbered men at the approximate ratio of 3 to 2 in the teachers colleges. Both groups of students had a slightly larger percentage of brothers than sisters. The percentage of students who had married sisters was higher than the precentage who had married brothers in each group.

A few students in both types of institutions reported from 4 to 8 brothers older, brothers younger, sisters older, and sisters younger.

The percentages for the teachers-college students on these four items, in the order named, were 2.87, 2.16, 3.02, and 1.72; the corresponding percentages for the liberal arts college students were 1.25, 0.78, 1.28, and 0.79.

TABLE 3.—*Classification of 12,880 students in 9 liberal arts colleges and 8 teachers colleges in the North Central Association, January 1933, according to family relationships*

Classification	9 teachers colleges		8 liberal arts colleges	
	Number	Percent	Number	Percent
1	2	3	4	5
Students whose fathers were dead	1,115	13.28	523	11.91
Students whose mothers were dead	810	9.64	347	7.93
Students having living brothers older than they	3,557	42.08	1,589	34.76
Students having living brothers younger than they	3,703	43.81	1,543	34.85
Students having living sisters older than they	3,490	41.29	1,471	33.22
Students having living sisters younger than they	3,581	42.37	1,494	33.74
Number of students having brothers dead	1,523	18.02	571	12.90
Number of students having sisters dead	1,276	15.10	450	10.16
Number of students having brothers married	1,961	23.20	645	14.57
Number of students having sisters married	2,302	27.34	736	16.62

CHAPTER III

COLLEGE CAREER DATA ABOUT STUDENTS AND THEIR FAMILIES

Although the distributions of ages show a wider age-spread and a higher mean for the teachers-college students, there was little difference in the mean ages at the time of entering college.

Age at college entrance.—The mean age of the teachers-college students at the time of college entrance was 18.27 years and that of the liberal arts students, 17.99 years. The difference of 0.28 years in the mean ages at college entrance increased to a difference of 0.59 years in the actual mean ages of the students supplying these data. This increase in the difference is accounted for, in large part, by the fact that 20.06 percent of the students in teachers colleges had interruptions in their college careers, as compared with 9.19 percent of the students in liberal arts colleges. The college-entrance age of the former students ranged from 14 to 47 with a standard deviation of 1.83 from the mean; that of the liberal arts students, 14 to 40 with a standard deviation of 1.37. In the teachers-college group, 1.34 percent of the students began their college careers after they had reached the age of 24. Only two-fifths of 1 percent of the liberal arts college students entered college after that age.

The data show a general tendency to enter college immediately after graduation from high school. This tendency was slightly greater in the liberal arts group. The percentages were 75.11 (T.C.)[1] and 82.77 (L.A.).[2] The mean number of years elapsing between graduation from high school and entrance in college was 0.52 for the teachers-college students and 0.31 for the liberal arts students. The standard deviations were 1.29 (T.C.) and 0.89 (L.A.). Of the teachers-college students, 330 or 3.9 percent, reported an elapsed number of years ranging from 4 to 9; of the liberal arts students, 67, or 1.5 percent, reported this range. An interim of at least 1 year between high-school graduation and college entrance was reported by a smaller proportion of liberal arts students than teachers-college students; the percentages were 24.21 (T.C.) and 17.07 (L.A.).

Other activities.—What were the activities of the 2,446 teachers-college students and 756 liberal arts college students who did not enter college immediately upon being graduated from high school? Teaching in the public schools was reported by 26.48 percent (T.C.) and

[1] "T.C." refers to teachers-college students.
[2] "L.A." refers to liberal arts college students.

3.04 percent (L.A.); home duties, 10.8 percent (T.C.) and 6.08 percent (L.A.); studying in high school, 7.57 percent (T.C.) and 12.7 percent (L.A.); travel, 1.71 percent (T.C.) and 2.91 percent (L.A.); and all sorts of jobs, with clerking in stores the major employment, 53.44 percent (T.C.) and 75.27 percent (L.A.). The only essential difference between the two groups of students in the matter of these work activities is that more than one-fourth of the teachers-college students taught in the public schools, while only about 3 percent of the liberal arts students engaged in teaching.

Interrupted college attendance.—Financial difficulties, preventing continuance in college accounted for practically one-half of all the interruptions in college careers for both groups as reported by the students. The percentages were 49.82 (T.C.) and 53.38 (L.A.). The desire to launch upon their work as teachers was reported as the reason for one-fifth of the interruptions of the teachers-college students; this cause is negligible in the case of the liberal arts students. Illness caused 14 percent of the interruptions of the former group and 22.31 percent of those of the latter. About one-half of 1 percent of the temporary withdrawals of both groups of students was due to dissatisfaction with college work. Poor scholarship, 2.21 percent (T C.) and 8.52 percent (L.A.), and marriage, 2.51 percent (T.C.) and 1 percent (L.A.), were offered as reasons for 117 cases of interruption in college work. Two-thirds of all interruptions (both groups) were due to financial troubles and sickness. These data explain six-eighths of the interruptions in the case of liberal arts students and five-eighths of the interruptions in the case of teachers-college students. Aside from the fact that 37.5 percent of the latter and 5.51 percent of the former taught in public schools during the interruptions in their college careers, the remainder, 1,045 students, or 62.5 percent (T.C.) and 389 students, or 94.49 percent (L.A.), worked at various kinds of jobs, with clerking in stores the chief type of employment. Concerning the work activities of the 2,071 students during their nonattendance at college, the only real difference between the two groups was in the matter of the greater tendency of teachers-college students to engage in public-school teaching as compared with liberal arts college students. This, of course, should be expected.

Financing college costs.—The liberal arts students were the more fortunate in the matter of meeting the costs of attending college. The parents of 67.39 percent of them provided sufficient funds, as compared with 56.53 percent of the teachers-college students. The latter group had a greater advantage in the use of personal savings, 13.8 percent indicating such financing as against only 6.48 percent of the liberal arts students. This significant margin with respect to savings is accounted for by the greater percentage of teachers-college students who engaged in teaching before entering college and during the intervals when they withdrew from college. About the same

proportion in the two groups used borrowed money to meet college costs, the percentages being 8.81 (T.C.) and 8.19 (L.A.). Of the teachers-college students, 12.59 percent and of the liberal arts students, 10.26 percent met expenses by earning money while attending college. With respect to scholarships and fellowships as the chief sources of funds, the teachers-college students did not fare as well as the other group. Only 1.43 percent of the teachers-college students as compared with 3.04 percent of the liberal arts college students held scholarships or fellowships.

Teaching.—Very few liberal arts students engaged in public-school teaching before or during their college education. This is in decided contrast with the marked tendency of teachers-college students. Only 1.6 percent of the 4,428 students in liberal arts colleges had taught in public schools and 41.23 percent of these taught for less than 1 year. In the teachers-college group, 964, or 11.4 percent, had taught in public schools, and approximately 36 percent of them had taught from 4 to 9 years.

Teachers-college students showed a more pronounced tendency than liberal arts college students to attend more than one college. A part of this tendency may have been due to moving up from 2-year normal schools to 4-year teachers colleges or to changing from liberal arts colleges to teachers colleges because of a change in vocational plans. This difference in mobility again points to a greater homogeneity of the student groups in liberal arts colleges: 15.96 percent had attended from 2 to 5 different colleges, as compared with 21.08 percent of the teachers-college students.

Selection of college.—The data on the various members of the family who had attended the same college as the students participating in this study showed that the two groups were about equal with respect to brothers attending the same college, 10.01 (T.C.) and 11.68 (L.A.); and that the proportion of students whose sisters were attending or had attended the same college was larger in the teachers-college group—19.73 (T.C.) and 13.35 (L.A.).

Liberal arts students had a slightly greater tendency than the teachers-college students to attend the college from which their fathers were graduated. Of the 1,272 teachers-college students whose fathers were college graduates, 9.3 percent reported that they were attending the institutions from which their fathers graduated. Of the 1,144 liberal arts students whose fathers were college graduates, 11.65 percent reported that they were attending the institutions from which their fathers graduated.

The proportion of students who were attending the institutions from which their mothers were graduated was larger in the teachers-college group than in the liberal arts groups; and in both groups the proportion of students whose mothers were graduates of the institution was larger than the proportion whose fathers were graduates

of the institution the students were attending. The percentages for the mothers were 33.22 (T.C.) and 18.16 (L.A.).

Educational background of families.—An analysis of the educational backgrounds of the 12,880 students shows an unmistakable advantage in favor of the liberal arts group. In general, the liberal arts students came from homes representing a greater extent of secondary school and college education.

In both groups of students the mothers exceeded the fathers in the number with high-school education, while the fathers exceeded the mothers in the number with college education. The fathers of 36.88 percent of the teachers-college students were high-school graduates and the fathers of 15.73 percent were college graduates. The fathers of 56.71 percent of the liberal arts students were high-school graduates and the fathers of 27.04 percent were college graduates. The mothers of 42.27 of the teachers-college students were high-school graduates and the mothers of 11.89 percent were college graduates. The mothers of 62.22 percent of the liberal arts students were high-school graduates and the mothers of 18.41 percent were college graduates. These differences in the education of parents are conclusive in pointing out the background advantage of liberal arts college students.

There are no significant differences between the two groups of students in the data concerning brothers and sisters who had been graduated from college, who were attending college, who were attending high school, who were in the elementary school, and who were too young to go to school. With the exception of brothers and sisters in college, the percentages of the teachers-college group on these items were a trifle larger than those of the liberal arts group; a difference of 0.66 for brothers and 0.78 for sisters.

Significant differences appear in the data on adult brothers and sisters whose education did not extend beyond the high school and adult brothers and sisters whose education did not extend beyond the elementary school. Of the teachers-college students, 20.24 percent had brothers whose education closed with high-school graduation and 15.57 percent had sisters whose education was similarly limited. Of the liberal arts students 11.09 percent had brothers and 10.03 percent had sisters who had not finished high school. Of the teachers-college students, 5.37 percent had brothers whose education terminated with the completion of the elementary school and 3.51 percent had sisters whose education extended no further. The respective percentages for the liberal arts college students were 1.81 and 1.17. As in the case of differences in the post-elementary education of fathers and mothers, these margins in the precollege education of adult brothers and sisters point definitely to the advantage of liberal arts college students in the matter of the educational backgrounds of the family.

CHAPTER IV

RESIDENTIAL AND PRECOLLEGE EDUCATIONAL DATA ABOUT STUDENTS

Migration.—The students participating in this study did not show any pronounced migratory tendencies in selecting a college. In general, they attended colleges in the States in which their homes were located. Teachers-college students revealed the tendency to attend college near home in a degree greater than liberal arts college students. Of the teachers-college group, 96.98 percent of the students attended colleges in their home States; of the liberal arts group 85.92 percent of the students attended colleges in their home States. It is possible that the nonresident tuition fee exacted by most State teachers colleges was a slight deterrent to migrating beyond the borders of the State. Such factors as State tradition and loyalty and the desire to move directly and easily from the teachers college into the public-school system of the State undoubtedly acted as greater deterrents. The denominational character that was formerly influential in the administrative practices of the private liberal arts colleges was provided by religious organizations which transcended the border lines of States. The attractive power of the liberal arts college was felt beyond the State lines of the State in which it was located. Three out of every 22 of the 4,428 students in the liberal arts colleges came from other States. Only about 1 out of every 30 of the 8,452 students in the teachers colleges came from other States.

Foreign countries were not significantly represented among the students. The liberal arts colleges reported a total of 18 foreign students, or 0.41 percent. Of the total teachers-college group, 6 students, or 0.075 percent, came from foreign countries. Canada, Philippine Islands, Argentina, China, Mexico, Denmark, Hawaii, Iraq, Japan, Korea, and Siam were represented.

Distance from home.—Teachers-college students, in the main, traveled shorter distances than liberal arts college students to attend college. Eighty percent of the former and 62 percent of the latter lived within 120 miles of the colleges they attended. The homes of 23.5 percent of each group were within 5 miles. The homes of 55 percent of the teachers-college students and 42 percent of the liberal arts students were within 50 miles, and the homes of 17.5 percent of the teachers-college students and 31.7 percent of the liberal arts students were within 120 to 500 miles. Only 2 percent of the teachers-

college group lived more than 500 miles from college, and 71.5 percent of these were within 1,000 miles. Of the liberal arts college group, 6.31 percent lived more than 500 miles from college and of these students 61.5 percent lived no farther from college than 1,000 miles. The mean number of miles traveled by the teachers-college students to attend college was 42; that of the liberal arts students, 78.

From the standpoint of whatever similarities a common geography can contribute, the teachers-college students represented a more homogeneous group than the liberal arts college students. Whatever provincial tendency a common geography can impose should affect the teachers-college group to a greater extent than the liberal arts college group. The territory upon which the liberal arts colleges draw for their students, as revealed in this investigation, is measured by much greater distances than is that of the teachers colleges.

Nationality.—The majority of students in both types of institutions were born in the United States. Of the 8,350 teachers-college students (98.8 percent of the entire group) who reported their place of birth, 98.63 percent were born in the United States; of the 4,357 liberal arts college students (98.4 percent of the entire group) who reported, 98.19 percent were born in the United States. Of the teachers-college students 114, or 1.37 percent, were foreign born and 79, or 1.81 percent, of the liberal arts college students were foreign born. Twenty foreign countries were mentioned as the birthplaces of the 114 foreign-born teachers-college students; and 28 as the birthplaces of the 79 foreign-born liberal arts college students. Thirty-five foreign countries were reported for the total group, with Canada, England, Philippine Islands, Russia, Poland, Germany, Scotland, China, and Rumania having the largest frequencies in the order named and contributing 82.9 percent of the foreign-born cases.

Teachers-college students were born in villages with a median population of 935. Liberal arts college students were born in urban communities with a median population of 8,784. A trifle more than one-third of the 8,364 teachers-college students who reported the type of community in which they were born, were born on farms or ranches; only one-seventh of the 4,352 liberal arts college students who reported were born on farms or ranches. Of the teachers-college students, 61.49 percent and of the liberal arts students, 37.4 percent were born in communities having a population no larger than 2,500. Communities of 2,500 to 25,000 were the birthplaces of 16.17 percent of the teachers-college students and 22.47 percent of the liberal arts students. Cities from 25,000 to 100,000 were the birthplaces of 12.3 percent of the teachers-college students and 19.83 percent of the liberal arts college students. One-fifth of the liberal arts students were born in cities having a population of more than 100,000; only one-tenth of the teachers-college students were born in cities of that size.

Size of home community.—When it is remembered that 61.49 percent of the teachers-college students were born in communities having a population no larger than 2,500 and that the homes of 55 percent of them were within 50 miles of the colleges they attended, the village and small-town backgrounds which tend to produce a form of provincialism which is more clearly marked in the teachers-college students than in the liberal arts college students. This experience background of prospective teachers assumes different degrees of importance in terms of the type of community in which they teach.

The situation had changed, however, by the time these students reached adulthood. Both groups of students had moved into more populous communities. At the time this inquiry was made the teachers-college students were living in towns with a median population of 2,925 and the liberal arts students were living in cities with a median population of 18,500.

Despite these changes the farm or ranch remained the home of one-fourth of the teachers-college students and a trifle less than one-tenth of the liberal arts college students. Of the teachers-college students, 49.23 percent were living in communities no larger than 2,500; 23.42 percent in communities of 2,500 to 25,000; 18.62 percent in cities of 25,000 to 100,000; and 8.73 percent in cities of more than 100,000. The corresponding percentages for the liberal arts students were: 27.29, 26.13, 28.48, and 18.10.

A comparison of these data with the data relative to the birthplaces in communities of various sizes reveals that, in the migrations of students from birthplaces to present homes, the percentages increased in both groups with respect to communities ranging in size from 2,500 to 100,000, and decreased with respect to communities larger than 100,000 and smaller than 2,500. The movement was from villages and large cities to cities of average size. The teachers-college students showed a greater tendency than the liberal arts students to move from villages, and the liberal arts students showed a greater tendency to move from large cities.

Elementary schools attended.—Teachers-college students attended elementary school in small towns with a median population of 1,760; liberal arts college students, in small cities with a median population of 9,479. The data show a tendency on the part of teachers-college students to attend elementary school in communities larger than those in which they were born. This tendency was less marked among the liberal arts college students. The rural schools ranked highest (28.92 percent) as the kind of elementary school attended by teachers-college students. One-half of the teachers-college students and only one-fourth of the liberal arts students attended elementary school in communities of less than 1,000. Only one-tenth of the teachers-college students attended elementary school in cities of more than 100,000,

while two-tenths of the liberal arts college students attended elementary school in such cities. Communities ranging in population from 2,500 to 10,000 provided the elementary school in which the greatest number of the liberal arts students (1 out of every 5) received their elementary schooling. Both the rural community and the village (less than 1,000) ranked lower than the city of 25,000 to 50,000 population in providing elementary schooling for the latter group.

High schools attended.—Liberal arts college students went to high school in cities with a median population of 20,106; teachers-college students, in small cities with a median population of 4,540. One out of every four teachers-college students went to high school in villages of less than 1,000; only 1 in 10 liberal arts college students attended such high schools. The village high school ranks highest in attendance by teachers-college students. The percentage of students in each group who attended high school in cities of more than 100,000 was approximately the same as the percentage of students who attended elementary school in such cities. The rural community high school attracted few students in each group, the number of teachers-college students slightly exceeding the number of liberal arts students.

The precollege educational backgrounds of the teachers-college students were small town, village, and rural; those of the liberal arts students were urban. This educational difference emphasizes the differences between the two groups in birthplaces and present homes.

Summary.—Table 4 summarizes the data of both groups of students with reference to the number of years of residence in various types of communities ranging in size from rural to large urban. Nearly one-half of the teachers-college group and a little more than one-fifth of the liberal arts college reported having lived on farms. About seven-eighths of the former and two-fifths of the latter have lived in communities having a population of less than 1,000. The margins of difference between the groups are not significant with reference to residence in communities ranging in population from 1,000 to 50,000. There are significant differences, however, when residence is related to cities of 50,000 or more. More than half of the liberal arts college students but only one-third of the teachers-college students have lived in such urban centers. One-sixth of the liberal arts college students and one-tenth of the teachers-college students lived at some time in cities of a half million or more.

TABLE 4.—*Number of years 12,831 students [1] enrolled in 9 liberal arts colleges and 8 teachers colleges in the North Central Association, January 1933, had resided in each of various types of communities*

Type of community	9 teachers colleges				8 liberal arts colleges				Total			
	Number of students reporting residence	Percent of total group	Mean number of years of residence for those reporting residence	Mean number of years of residence for the total group	Number of students reporting residence	Percent of total group	Mean number of years of residence for those reporting residence	Mean number of years of residence for the total group	Numbers of students reporting residence	Percent of total group	Mean number of years of residence for those reporting residence	Mean number of years of residence for the total group
1	2	3	4	5	6	7	8	9	10	11	12	13
City of more than 500,000	972	10.30	10.56	1.22	740	16.85	11.48	1.94	1,712	13.34	10.96	1.46
City, 250,000–500,000	590	6.99	9.02	.63	395	9.00	9.36	.84	985	7.68	9.16	.70
City, 100,000–249,999	414	4.91	7.45	.37	417	9.50	11.11	1.06	831	6.48	9.29	.60
City, 50,000–99,999	939	11.13	9.07	1.01	794	18.08	11.42	2.06	1,733	13.51	10.14	1.37
City, 25,000–49,999	1,506	17.85	11.34	2.02	1,023	23.30	11.57	2.70	2,529	19.71	11.43	2.25
City, 10,000–24,999	1,393	16.50	9.50	1.57	691	15.74	10.26	1.61	2,084	16.24	9.76	1.58
City, 2,500–9,999	2,085	24.70	9.66	2.39	1,246	28.38	11.77	3.34	3,331	25.96	10.45	2.71
Town, 1,000–2,499	1,911	22.64	9.94	2.25	921	20.97	9.81	2.06	2,832	22.07	9.89	2.18
Village of less than 1,000	2,639	31.27	10.81	3.38	816	18.58	9.47	1.76	3,455	26.93	10.49	2.83
Farm or ranch	3,997	47.36	13.66	6.47	979	22.30	11.15	2.49	4,976	38.78	13.17	5.11
Total	16,446	.....	.....	[2] 21.31	8,022	.....	.....	[2] 19.86	24,468	.....	.....	[2] 20.79
Mean number of types of communities reported per person	1.95				1.83				[2] 1.91			

[1] Of the total of 12,880 question blanks filled out, 12 from the teachers colleges and 37 from the liberal arts colleges contained no usable response to this item.

[2] The discrepancies between these figures and those which show a mean age of 20.63 for the teachers-college students, 20.04 for the liberal arts college students, and 20.42 for the total group are probably due in part to inconsistencies in the filling out of the question blanks; in part, to mathematical inaccuracies introduced by carrying out all computations correct to 2 decimal places only; in part, to the fact that the numbers of students neglecting to reply to items 5 and 24 were different; and, in part, to errors in tabulating the data.

A study of the mean number of years during which students lived in communities of different sizes reveals differences similar to those noted in the consideration of types of communities in which residence was established at one time or another. Those liberal arts college students who reported having lived on farms and in villages and small towns lived in each community for shorter periods of time as measured by the mean number of years. It may be said that on the average the liberal arts college student lived in urban communities from one and one-half to three times as long as the teachers-college student, and the teachers-college student lived about twice as long as the liberal arts student in the village and about two and one-half times as long on the farm.

There is an indication of a somewhat greater mobility on the part of teachers-college students when the mean number of types of communities per person is considered. The difference in means is slight, however, and may not be statistically significant.

CHAPTER V

NATIONAL AND OCCUPATIONAL BACKGROUNDS OF STUDENTS' FAMILIES

Grandparents.—Native stock was predominant in the parental backgrounds of all the students, the proportion being slightly greater in the liberal arts group. From seven-tenths to three-fourths of the four grandparents of the liberal arts students and from five-eights to two-thirds of the grandparents of the teachers-college students were born in the United States. Among the native-born grandparents, the paternal grandmothers comprised the highest percentage in both groups of students and the maternal grandfathers, the lowest.

Germany led by decisive margins in both groups as the birthplace of the one or more foreign-born grandparents, the percentage for teachers-college students ranging from 10 to 12; and for liberal arts college students, from 8 to 9. England, Sweden, Ireland, Canada, Norway, Scotland, and Denmark, ranking in the order named, were the lands of nativity of from 15 to 17 percent of the grandparents of the teachers-college students, and from 11 to 13 percent of those of the liberal arts students. The significance of the United States, Canada, and northwestern European countries as the native lands of the grandparents is revealed and the two groups of students are shown to be similar in the matter of antecedents. Of the remaining foreign countries designated as the birthplaces of grandparents, Russia and Poland led in both groups with percentages ranging from 0.35 to 1.15. These percentages, obviously, would differ slightly in other areas of the country.

Parents.—The United States was the native country of the vast majority of the fathers and mothers of the students of both groups. Among the teachers-college students, 84.36 percent of the fathers and 87.19 percent of the mothers were born in the United States; among the liberal arts college students, 88.86 percent of the fathers and 91.51 percent of the mothers. Germany was reported as the birthplace of 3.43 percent of the fathers and 2.35 percent of the mothers of teachers-college students, and of 2.02 percent of the fathers and 1.21 percent of the mothers of liberal arts college students. Canada, Sweden, and England, ranking in the order named, were the native lands of 4.93 percent of the fathers and 3.9 percent of the mothers of the teachers-college students, and of 4.16 percent of the

fathers and 2.96 percent of the mothers of the liberal arts college students.

The United States, Germany, Canada, Sweden, and England were the lands of nativity of 93 percent of the parents of the teachers college students, and 95 percent of those of the liberal arts students. Next in rank were Russia and Poland for the teachers-college group, and Russia and Italy for the liberal arts group. The percentage in each case was less than 1.

National descent.—German descent was reported oftenest for fathers of the students in both groups and mothers of the students in the teachers-college group. English descent was reported oftenest for mothers of liberal arts students. German, English, Irish, Scotch, Swedish, Dutch, Norwegian, Welsh, and Danish, represent the descent, in the order given, of the fathers and mothers of 93 percent of the teachers-college students and 95 percent of the liberal arts students. The differences between teachers-college students and liberal arts college students in nativity and descent are too small to be significant.

Occupation of fathers.—The occupations of the parents of prospective teachers are of interest because they indicate certain economic and social background conditions. To discover these, the following question appeared in the questionnaire:

> What is or was, if he is now retired or deceased, your father's trade or profession or principal occupation, i.e., the particular work by which he is or was known in his community?

An analysis of the responses to this question resulted in a list of 429 different occupations indicated by the teachers-college students and 257 by the liberal arts college students. In making a workable classification of these occupations, a modification of Counts' classification of parental occupations [1] seemed to be the most effective scheme. The modification was necessary because this study made no inquiry in the matter of ownership of business. Consequently, the seventh group, artisan-proprietors, in Counts' list, was eliminated and such occupations were classified under miscellaneous trades. The following classifications were used:

1. *Proprietors.*—Merchants, dealers, landlords, owners, manufacturers, bankers, brokers, hotel owners, wholesalers, jobbers, lumbermen, undertakers, and others.
2. *Professional.*—Ministers, lawyers, teachers, doctors, authors, actors, musicians, engineers, inventors, nurses, dentists, editors, painters, librarians, social workers, and others.
3. *Managerial.*—Inspectors, foremen, managers, superintendents, public officials, private officials, contractors, corporation agents, commissioners, trustees, and others.
4. *Commercial.*—Buyers, clerks in merchandising houses, salesmen, real estate and insurance agents, commercial travelers, and others.

[1] Counts, George S. The Selective Character of American Secondary Education. Chicago, Ill., The University of Chicago, May 1922. (Supplementary educational monographs, no. 19.)

5. *Clerical.*—Bookkeepers, clerks not in merchandising establishments, auditors, accountants, stenographers, cashiers, canvassers, collectors, and others.

6. *Agricultural.*—Farmers, ranchers, stock and poultry raisers, breeders, gardeners, fruit growers, dairymen, plantation owners and workers, and others.

7. *Building trades.*—Carpenters, painters, plumbers, lathers, electricians, plasterers, roofers, masons, cabinetmakers, paperhangers, and others.

8. *Machine trades.*—Machinists, molders, toolmakers, tinsmiths, patternmakers, draftsmen, stationary engineers and firemen, drillers, blacksmiths, furnace workers, and others.

9. *Printing trades.*—Linotypers, engravers, lithographers, printers, typesetters, pressmen, bookbinders, and others.

10. *Miscellaneous trades.*—(*a*) Food: Bakers, butchers, buttermakers, creamery workers, candymakers, cheesemakers, canners. (*b*) Mechanical: Cobblers, coopers, cutters, bottlers, tilemakers, weavers, watchmakers, papermakers, harnessmakers, furriers, glassmakers. (*c*) Others: Cigarmakers, leather workers, mattress makers, coppersmiths, and others.

11. *Transportation and communication.*—Engineers, firemen, brakemen, conductors, teamsters, truck drivers, chauffeurs, bus operators, motormen, flagmen, radio men, telephone and telegraph men, mail carriers, taxi drivers, draymen, yardmen, mariners, and others.

12. *Protective service.*—Policemen, firemen, marshals, detectives, watchmen, guards, soldiers, sailors, constables, wardens, and others.

13. *Personal service.*—Custodians, keepers, barbers, cooks, ushers, waiters, launderers, sextons, porters, stewards, janitors, cleaners, waiters, guides, bath operators, beauticians, shoe shiners, and others.

14. *Extractive* (not agricultural).—Miners, fishermen, lumber workers, and others.

15. *Common labor.*—Street and road workers, factory hands, shovelers, diggers, sweepers, and others.

TABLE 5.—*Occupations of the fathers of 12,715 students in 9 teachers colleges and 8 liberal arts colleges in the North Central Association* [1]

Occupation	Number of occupations		Teachers colleges		Liberal arts colleges		All students	
	T.C.	L.A.	Number	Percent	Number	Percent	Number	Percent
1	2	3	4	5	6	7	8	9
1. Proprietary	41	32	1,143	13.7	879	20.1	2,022	15.9
2. Professional	48	37	992	11.9	967	22.1	1,959	15.4
3. Managerial	105	51	689	8.2	478	10.9	1,167	9.2
4. Commercial	17	10	652	7.8	424	9.7	1,076	8.5
5. Clerical	27	17	228	2.7	210	4.8	438	3.4
6. Agricultural	16	11	2,633	31.6	572	13.1	3,205	25.2
7. Building	20	12	401	4.8	146	3.4	547	4.3
8. Machine	44	28	414	5.0	200	4.6	614	4.8
9. Printing	7	6	44	.5	43	.9	87	.6
10. Miscellaneous	32	16	183	2.2	88	2.0	271	2.2
11. Transportation and communication	24	15	413	5.0	173	3.9	586	4.6
12. Protective	17	9	91	1.1	37	.9	128	1.1
13. Personal	19	12	152	1.8	60	1.4	212	1.7
14. Extractive	3	1	91	1.1	16	.4	107	.8
15. Common	9	5	217	2.6	79	1.8	296	2.3
Total	429	257	8,343	100	4,372	100	12,715	101

[1] 56 liberal arts college students and 109 teachers-college students did not reply. Percentages are based on the total number of students who did reply in each type of college.

Table 5 shows the number and percentage of the occupations of the fathers in each of the 15 classes of occupations, and the number of different occupations reported in each class of occupations. Only 1.28 percent of the 8,452 teachers-college students and 1.26 percent of the 4,428 liberal arts students failed to indicate the occupations of their fathers. It will be noticed that the fathers of a little more than half of the liberal arts students had occupations in the proprietary, professional, and managerial groups, as compared with only a third of the teachers-college students. Nearly one-third of the teachers-college students had fathers whose occupations were agricultural, as compared with one-eighth of the liberal arts group. In the clerical group of occupations were more fathers of liberal arts students than of teachers-college students. The differences between the two groups of students were very slight with respect to parental occupations listed under machine, printing, miscellaneous, transportation and communication, protective, personal, extractive, and common labor. These eight groups of occupations were represented by approximately one-fifth of the teachers-college students and one-sixth of the liberal arts students. The differences are a little larger in the percentages of fathers in the managerial, commercial, clerical, and building-trades groups, with the teachers-college students drawing slightly more from the building trades alone. In every 44 students of the total group, 8 teachers-college students and 11 liberal arts students had fathers in the managerial, commercial, and clerical occupations. The common-labor group ranked eleventh in the occupations reported by the liberal arts college students, and tenth in those reported by teachers-college students. The clerical group was almost at parity with the common-labor group in the teachers-college group.

Agriculture was the single occupational group with the largest representation among the fathers of teachers-college students. The proprietary and the professional groups ranked next in the order given but considerably below the agricultural group. The professional group had the largest representation among the fathers of liberal arts college students with the proprietary group next. The proprietary, professional, managerial, commercial, clerical, and agricultural groups were represented among the fathers of three-fourths of the teachers-college students and four-fifths of the liberal arts students.

The most noticeable differences between the two groups of students in the matter of occupational backgrounds are that the teachers-college students draw much more heavily from the agricultural group and much less heavily from the proprietary and the professional groups. There were no outstanding differences with respect to the remainder of the occupational groups.

Occupation of mothers.—Too frequently inquiries into the occupational backgrounds of college students fail to take into consideration

the occupational activities of mothers, who, quite apart from the accepted duties of wives and mothers, carry on a trade or profession or principal occupation. It was felt that this study should make such an inquiry, and to this end the following question appeared in the questionnaire:

> If your mother has, or had in case she is now retired or deceased, a trade or profession or principal occupation which she follows or followed quite apart from housekeeping or homemaking, state very specifically what it is or was.

Of the teachers-college students, 1,948, or 23 percent, reported that their mothers were or had been engaged in 108 different occupations apart from the distinctive occupation of homemaking or housekeeping. Of the liberal arts college students, 1,038, or 23.4 percent, reported that their mothers were associated with 87 different occupations. Thus, almost one-fourth of the students in each group came from homes in which the mothers were known in their communities by some occupation outside the home.

These occupations were classified in a manner similar to that in which the occupations of the fathers were classified. Based on the highest total frequency, the rank order, beginning with the highest, of the group of occupations is as follows:

Occupation group:	Teachers college [1] (percent)	Liberal arts [2] (percent)
Professional	58.82	64.35
Clerical	11.60	14.45
Miscellaneous trades	9.95	6.93
Commercial	6.51	6.54
Proprietary	3.74	2.40
Personal	5.44	3.17
Agricultural	1.95	0.28
Managerial	1.12	1.34
Common labor	.46	.09
Building trades	.10	.19
Printing trades	.10	-----
Machine trades	.05	-----

Out of every 40 of the mothers of the teachers-college students who were employed outside the home, 32 were in occupations classified as proprietary, professional, commercial, and clerical; out of every 40 of the employed mothers of the liberal arts students, 35 were in occupations so classified. The number of mothers employed in the agricultural, miscellaneous trades, personal service, and common labor occupations was greater among the teachers-college students than among the liberal arts college students. The ratio, based upon the percentages, was approximately 5 to 3.

Not many mothers were managers or forewomen, and only a very few held political offices. Teaching and sewing were the fields in which the most mothers of the teachers-college students were employed, with nursing, stenography, and canvassing next in the order named. Teaching and nursing were the occupations of most of the

[1] The mothers of 1,948 teachers-college students were engaged in the occupations classified.
[2] The mothers of 1,038 liberal-arts students were engaged in the occupations classified.

employed mothers of the liberal arts students, with stenography, sewing, and private secretaryship next in the order named.

If a comparative analysis is made of the data applicable to what Counts terms the nonlabor groups,[4] that is, the proprietary, professional, managerial, and commercial groups, the ratio between the employed mothers of the teachers-college students and those of liberal arts students is approximately 14 to 15. If a similar analysis is made of all other groups, i.e., the labor groups, the ratio between the two groups of mothers is approximately 6 to 5. While these margins are small, they point, nevertheless, to a consistent difference between the two groups of students concerned in this study. That difference indicates a somewhat less favorable background for the teachers-college student. The small margins offer some indication that, on the basis of the kinds of occupations in which employed mothers were engaged, the two groups of students were not highly divergent, and that what was once assumed to be a decisive difference between the two types of institutions is slowly disappearing.

Occupational choices of students.—It would seem to be a valid assumption that students in such technical and specialized institutions as teachers colleges are preparing themselves for teaching in some one of its many aspects. The nature of the institution itself would seem to warrant such an assumption. However, teachers-college students were not found to be entirely homogeneous in the matter of vocational objectives. They mentioned 103 different occupations as their ultimate objectives. Such diversity in occupational ambition is important to those directing the educational programs of these professional schools.

There was more diversity in the occupational choices of liberal arts college students, but not so much as was expected. These students listed 116 different occupations. In the data from the 4,096 liberal arts students who indicated vocational objectives, there was listed a different occupation for about every 35 students. In the data from 8,312 teachers-college students who indicated vocational objectives, there was listed a different occupation for about every 75 students. If consideration is given only to those students in each group who did not plan to enter the profession of teaching, a different vocational choice is found for about every 11 teachers-college students and every 20 liberal arts college students. The choice of teaching as an occupation was prominent in both groups.

It will be noted that larger proportions of teachers-college students were more certain about their occupational objectives than was true for the liberal arts college students. This, of course, should be expected.

[4] See footnote 1, p. 134.

Students in liberal arts colleges are frequently undecided about occupations and often defer their choices until their senior year in college or later.

Approximately 6 of every 7 teachers-college students and 3 of every 7 liberal arts college students planned to enter teaching. These figures are significant because (1) they indicate the presence of many students in the teachers colleges who do not plan to enter the specific vocation for which such institutions are specifically designed to prepare students, and (2) they indicate the presence of a great number of students in the liberal arts colleges who do plan to enter a specific vocation for which many of the institutions do not offer specific preparation. The number of nonprofessional students in teachers colleges demands the consideration of those who feel it is desirable that the technical character and purposes of teachers colleges be preserved.

Prospective teachers in liberal arts colleges.—It is, indeed, significant that almost half of the liberal arts students specified teaching as their occupational objective. There is revealed in this fact an unmistakable drift on the part of these liberal arts institutions towards the technical and specialized task of preparing students for the field of teaching. This is a marked departure from the original organization and purposes of these institutions. If the tendency continues, the time is not far distant when such colleges will need to be looked upon as being essentially institutions for the preparation of teachers.

Law, engineering, medicine, banking, ministry, business and commerce, dentistry, accounting, industrial chemistry, and journalism were the occupational choices of as many as one-tenth of the teachers-college students and only one-third of the liberal arts college students. Here again the data indicate fundamental changes in both types of institutions.

CHAPTER VI

SUMMARY AND RECOMMENDATIONS

SUMMARY

Data in this study were obtained from 8,452 teachers-college students and 4,428 liberal arts college students enrolled in 9 accredited 4-year State teachers colleges and 8 accredited 4-year private liberal arts colleges of the North Central Association of Colleges and Secondary Schools. Of these 12,880 students, 5,692 were men and 7,188 were women.

The following significant contrasts were revealed in the comparison of students in the teachers colleges and students in the private liberal arts colleges:

1. The teachers-college students were approximately 7 months older than the liberal arts college students.
2. They were approximately 3 months older at the time of entering college.
3. They had a wider age-range.
4. Interruptions in their college careers were more numerous.
5. They did not show as much unanimity in the matter of seeking the bachelor's degree.
6. More of them had married.
7. They had a slightly greater tendency to maintain no specific religious affiliation.
8. More of them came from homes broken by the death of a parent.
9. Fewer of them were the first-born child.
10. They came from larger families.
11. More of them had older and younger brothers and sisters.
12. They showed less tendency to enter college immediately after graduation from high school.
13. They showed a decidedly greater tendency to engage in teaching prior to entering college as well as between entrance and graduation.
14. They were more handicapped by the lack of financial aid from parents during their college careers.
15. Fewer scholarships and fellowships were available to them.
16. They showed a greater tendency to attend more than one institution.
17. Family college traditions had greater weight with them in the selection of a college.

18. More of them came from homes in which the parents had not been graduated from high school and college.
19. More of them came from homes in which brothers and sisters had not gone farther in their education than the elementary school or the high school.
20. They showed a greater tendency to attend college within their home States; and they thus traveled much shorter distances to attend college.
21. More of them were born in rural and village communities.
22. They showed a greater migratory tendency from birthplaces to present homes.
23. They showed a greater tendency to live on farms and in villages and small towns.
24. They attended elementary school and high school in very much smaller communities.
25. They evidenced greater mobility in the matter of having lived in communities of various sizes.
26. They were only slightly lower in the percentage of native-born grandparents and native-born parents.
27. They decidedly outranked the students of the liberal arts colleges in having fathers whose occupations are agricultural.
28. They were significantly outranked by the students of the liberal arts colleges in having fewer fathers whose occupations were in the nonlabor groups.
29. They were more certain in their occupational objective.

RECOMMENDATIONS

The problem which the prospective teacher presents to the college he attends is fundamentally curricular. The student brings it with him when he presents himself for matriculation. The problem has its roots centered deeply in the backgrounds and the personal life of the student. The data with which this study deals reveal unmistakable differences in the educational, social, and economic backgrounds of of prospective teachers. They reveal a marked provincialism in the personal life-experiences of the matriculant.

The task of institutions engaged in the preparation of teachers is manifold. First, the college needs to determine what elements of curriculum content in the form of liberalizing and culturalizing experiences and activities need to be incorporated within an enriched all-college curriculum to meet the problem presented by the student. This important aspect of the major problem will need to be predicated upon a clearer definition than is now available as to the cultural, social, and personal equipment of the individual when he is ready to embark upon his career as a teacher.

Second, the college needs to develop reliable measures and practices with which to explore the backgrounds and the life-experiences of the prospective teacher with the end in view to discover his insufficiencies. This phase of the problem will need to proceed upon a thoroughly refined program of testing and counseling.

Third, the college needs to make available to the student such liberalizing and culturalizing and personalizing experiences and activities in the all-college curriculum as will remedy the insufficiencies discovered in the life of the student. This phase of the problem will need the advantage of flexible administration to the end that the opportunity for self-enrichment through participation may be adequately individualized.

Finally, the college needs to recognize the principles that its obligation to the student is not definable merely in terms of subject-matter and that the curriculum in its real meaning goes beyond the limitations set by traditional subject-matter. Many developmental experiences may be secured by students through college welfare and extracurricular activities, discussed in volume V, part IV. This phase of the problem will need to be based upon a philosophy that recognizes the whole life of the student as the concern of the college to the end that the ultimate teacher may become equipped with such social, cultural, and personal characteristics as the profession of teaching requires.

Another important problem is revealed in the fact that almost half of the students in the liberal arts colleges are looking toward the field of teaching as their occupational objective. Within all constructive thinking and planning for the improvement of teacher education either in State or Nation, the liberal arts college should certainly have a definite place. Its place in a state-wide or nation-wide program of teacher education should not mean the limitation or checking of its possibilities for the education of teachers; rather, it should mean the strengthening and the improvement of its teacher-education program within the larger unified program throughout either State or Nation. It should not be omitted; rather, it should be integrated within the whole task of teacher education.

PART III. STAFF PERSONNEL IN INSTITUTIONS OF HIGHER EDUCATION

CHAPTER I

PURPOSE AND SCOPE OF THE STUDY

Relation of the staff to the product of a professional school.—Although there is almost no satisfactory evidence to show that the education and experience of a college faculty has a direct bearing upon the quality and effectiveness of the graduates, there are few persons who will question the existence of such a relationship. The relationship seems to be even more obvious for professional schools, graduates of which are expected to possess not only the information required of members of the profession, but also a necessary modicum of professional skills and techniques required in successful professional practice. In such institutions, it has been considered essential to select staff members who had the scholarly command of the teaching fields required of college and university teachers and who had in addition either successful experience in the profession or a sympathetic understanding of the problems which confront members of the profession. The value of pertinent experience or of sympathetic understanding is clearly conceded in the schools which are distinctly professional. The case is not so clear for the general foundational work on the preprofessional level. There the emphasis is more upon breadth of informational contacts and upon mastery of subject-matter fields, rather than upon professional applications of the material being studied. The need for professional preparation and experience on the part of the faculty is quite clear in institutions preparing doctors, ministers, lawyers, engineers, and dentists. The need for such special preparation and experience for the faculties of institutions preparing teachers is neither so obvious nor so generally accepted. This is due to a number of causes some of which should be mentioned at this time since they present some of the reasons for this study of faculty members.

In the first place, teaching has not attained, in the thinking of the average citizen, the status of a profession. As long as it is generally thought that any well-informed person can teach, there is little reason for insisting that faculty members should themselves have taught or have made a special study of teaching. The original assumption implies that there are no special skills or techniques which teachers need.

In the second place, the minimum amount of education considered necessary for teachers has been so low that the period of preparation for teachers has remained until recently on the high-school and junior-college level. As a direct result of this, the professional preparation of teachers has had to be given during the same period as their general and foundational education. It was therefore necessary to cut short—very short—the general education of prospective teachers in order to give them their special preparation for teaching or to give them their general education and neglect entirely their special preparation or else attempt to do both at the same time. These three alternatives have each had their conscientious advocates and have been the dividing points for both theories and practices in the education of teachers in the United States.

In the third place, the preparation of teachers has not been taken very seriously by many persons interested in public education because the teaching group, especially in the rural and elementary schools, has been so transient. It seemed unreasonable to spend 4 or more years in the professional preparation of teachers whose average teaching life was no longer than the period of preparation. Improvement in the economic status of teaching and the increased amount of preparation which has resulted since the World War have greatly increased the average length of a teacher's service. While teaching is still handicapped by being considered a short-period occupation, this factor is not as important as it was before 1920.

In the fourth place, the differences in standards of preparation which have been established and maintained between elementary and secondary teachers, between urban and rural teachers, between one area and another, between one State and an adjacent State, and between one school district and an adjacent district, have tended to confirm the impression that there was no minimum or standard amount or kind of preparation for teachers.

Scope of the study of staff members.—In order to have a more accurate picture of the total situation for the education of teachers it was decided to study the faculties of all types of higher educational institutions as well as the curricula for teachers, the practice-school facilities, the summer sessions, the programs for the in-service education of teachers, and the other phases of their preparation which affect the work of teachers.

As was stated at the beginning of this chapter, there is no conclusive evidence that the staff of a college determines the quality of its work. It was believed, however, that along with comparisons on the items just mentioned it was desirable to know how the different types of institutions compared in such matters as the educational preparation of the faculty members, their experience in public-school teaching, their institutional service loads, their educational productivity and

their work and professional recognition on various National, State, and local organizations. These comparisons may not explain different practices as listed in other sections of the Survey but they may throw additional light upon them or help to support a conclusion or explain more fully a difference. In order to make possible these comparisons an inquiry blank was addressed to the faculty members of all cooperating institutions asking for certain data about preparation, teaching load, and other items. This data blank is reproduced as figure 1, pages 145–152. Frequent reference to the figure in connection with the tables presented in this part will make many of the tables self-explanatory and save unnecessary descriptions.

FIGURE 1.—Staff personnel inquiry form.

UNITED STATES DEPARTMENT OF THE INTERIOR,
OFFICE OF EDUCATION,
Washington, November 25, 1931.

To members of college and university staffs.

The status of staffs of colleges and universities is most intimately associated with the preparation of teachers for American schools. Institutions of higher learning, public and private, large and small, denominational and nondenominational, all have a unique contribution to offer in solving the many problems of teacher education.

The president of your institution has consented to cooperate with the National Survey of the Education of Teachers in an inquiry addressed to collegiate staffs, instructional and administrative. The questions are relatively few in number, readily answerable, and have been carefully selected with due regard to their relevancy to the problems being attacked. The identity of neither the individual nor the institution will appear since individual returns are merged in group studies.

Since this inquiry is a phase of the National Survey of the Education of Teachers, participation on the part of those members of the instructional staff having classes attended by prospective teachers or teachers in service is especially requested. The increasing attention of the public, the press, and research investigators to issues of contemporary higher education evinces the importance of its problems. Your response to the inquiry will provide additional facts upon which to base solutions.

Cordially yours,

Commissioner of Education.

THE NATIONAL SURVEY OF THE EDUCATION OF TEACHERS

Directions.—On the following pages two types of questions are found. One type is answered by inserting the information requested in the space provided at the left of the question. The other type is answered by encircling the one code number to the left of the item which best represents your response to the question asked, e.g., in 7–8, Classification of Your Institution: (00) State university or land-grant college.

Use preferably a red or soft pencil. Draw the circle neatly around the one code number representing your response. Please answer every question which pertains to your type of service. On completion, give your inquiry to the designated collector. Your prompt cooperation will be appreciated.

(Your last name)		(Your first name)
(Name of institution)	(Post office address)	(State)

Name may be omitted if considered desirable

[Page 2]

7–8

CLASSIFICATION OF YOUR INSTITUTION

00 State university or land-grant college.
01 State woman's college.
02 State teachers college or normal school.
03 State junior college.
04 Municipal university or college.
05 Municipal teachers college.
06 Municipal junior college.
07 Denominational university or college.
08 Private nondenominational university or college.
09 Denominational junior college.
10 Nondenominational junior college.
11 Private teachers college.
12 Other type of college.....

9

RACIAL CLASSIFICATION OF STUDENT BODY

0 Primarily or exclusively white students.
1 Primarily or exclusively Negro students.

10

MAXIMUM LENGTH OF CURRICULA PRESENTED WHICH PROSPECTIVE TEACHERS MAY TAKE

0 One year undergraduate.
1 Two years undergraduate.
2 Three years undergraduate.
3 Four years undergraduate.
4 One year graduate.
5 Two years graduate.
6 Three or more years graduate.

11

COLLEGE ENROLLMENT AS AT NOVEMBER 1, 1931

(Exclude extension and correspondent students)

0 Less than 250 students.
1 250–499 students.
2 500–749 students.
3 750–999 students.
4 1,000–1,499 students.
5 1,500–2,499 students.
6 2,500–4,999 students.
7 5,000–9,999 students.
8 10,000 and over.

12

ACADEMIC RANK

0 Professor.
1 Associate professor.
2 Assistant professor.
3 Instructor.
4 Assistant.
5 Lecturer.
6 Other (specify).....

13

FOR PART-TIME EMPLOYEE ONLY

(If you are employed part time, check percent of full-time salary which you receive)

0 Less than 20.
1 20–25.

2 26–50.
3 51–75.
4 76–80.
5 81–100.

14–15

YOUR CHIEF FUNCTION

(Mark only one)

00 Business manager.
01 Bursar.
02 Dean of the college.
03 Dean of men.
04 Dean of women.
05 Director of athletics.
06 Director of extension.
07 Director of health service.
08 Director of instruction.
09 Director of placement.
10 Director of research.
11 Director of student social affairs.
12 Director of training schools.
13 Editor of publications.
14 Elementary school principal, practice school.
15 Head of department.
16 High school principal, practice school.
17 Librarian.
18 President.
19 Registrar.
20 Superintendent of buildings and grounds.
21 Teaching staff (college or university).
22 Teaching staff of practice-demonstration school (supervisor, critic, or room teacher).
23 Vice president.
24 Other (specify)----------

16

YOUR RACE

0 White.
1 Negro.
2 Indian.
3 Other.

17

MARITAL STATUS

0 Single.
1 Married.
2 Divorced.
3 Widow—Widower.

18

YOUR AGE

(As at nearest birthday)

0 Less than 20.
1 20–24.
2 25–29.
3 30–34.
4 35–39.
5 40–44.
6 45–49.
7 50–54.
8 55–64.
9 64 and over.

19–20

DEPARTMENT IN WHICH INSTRUCTION IS GIVEN

(In case of instruction in two or more departments, indicate the one to which you devote the major part of your time)

00 Agriculture.
01 Art and drawing.
02 Biological sciences.
03 Business and commerce.
04 Chemistry.
05 Economics.
06 Education.
07 English.
08 Geography.
09 Health.
10 History—civics.
11 Home economics—household arts.
12 Industrial arts.
13 Languages, classical.
14 Languages, modern.
15 Library science.
16 Mathematics.
17 Music.
18 Philosophy—ethics.
19 Physical education.
20 Physics.
21 Psychology.
22 Sociology.
23 Trades—industries.
24 Other (specify)----------

21

---------- In how many of the above departments do you offer instruction this term or semester?

22

---------- If you give instruction in two or more of above departments, insert percent of instructional time devoted to the department which you checked in 19–20.

23

SEX

0 Man.
1 Woman.

24

PROVISIONS FOR OLD AGE

(Encircle more than one number if necessary)

0 No systematic provision for old age.
1 Contribute to pension or retirement fund.
2 Carry old-age insurance, etc.
3 Personal savings and investments.

25

HIGHEST LEVEL OF YOUR TRAINING

0 Less than high-school graduate.
1 High-school graduate.
2 Less than one year of college work.
3 One year of college or normal school.
4 Two years of college or normal school.
5 Three years of college or normal school.
6 Four years of college or normal school.
7 One year of graduate work.
8 Two years of graduate work.
9 Three or more years of graduate work.

[Page 3]

26

SOURCE OF EARNED BACHELOR'S DEGREE

(In case of two similar degrees, select the source where you had the most residential work)

0 State university or land-grant college.
1 State womans college.
2 State teachers college.
3 Municipal college or university.
4 Municipal teachers college.
5 Denominational college or university.
6 Private nondenominational college or university.
7 Private teachers college.
8 Foreign college or university.
9 Other type----------

27

SOURCE OF EARNED MASTER'S DEGREE

0 State university or land-grant college.
1 State womans college.
2 State teachers college.
3 Municipal college or university.
4 Municipal teachers college
5 Denominational college or university.
6 Private nondenominational college or university.
7 Private teachers college.
8 Foreign college or university.
9 Other type----------

28

SOURCE OF EARNED DOCTOR'S DEGREE

0 State university or land-grant college.
1 Municipal college or university.
2 Denominational college or university.
3 Private nondenominational college or university.
4 Private teachers college.
5 Foreign college or university.
6 Other type----------

29

HIGHEST HONORARY DEGREE

0 No honorary degree.
1 Baccalaureate, honorary.
2 Master's degree, honorary.
3 Doctorate, honorary.

30

CHECK DEGREE OR DEGREES EARNED IN INSTITUTION IN WHICH YOU ARE NOW EMPLOYED

0 No degree from this institution.
1 Bachelor's degree.
2 Master's degree.
3 Doctorate degree.
4 Bachelor and master's.
5 Bachelor and doctorate.
6 Master's and doctorate.
7 Bachelor, master's and doctorate.

31

TOTAL YEARS EMPLOYED BY THIS INSTITUTION

(Count present year 1931-32 as one)

0 One.
1 Two.
2 Three to five.
3 Six to ten.
4 Eleven to fifteen.
5 Sixteen to thirty.
6 Thirty-one or over.

32

TOTAL YEARS EXPERIENCE ON OTHER COLLEGE OR UNIVERSITY STAFFS

0 No college experience elsewhere.
1 One.
2 Two.
3 Three to five.
4 Six to ten.
5 Eleven to fifteen.
6 Sixteen to thirty.
7 Thirty-one or over.

33

TOTAL YEARS EXPERIENCE IN ELEMENTARY SCHOOL AS TEACHER, PRINCIPAL, OR SUPERVISOR

0 None.
1 One to three.
2 Four to five.
3 Six to ten.
4 Eleven to twenty.
5 Over twenty.

34

TOTAL YEARS EXPERIENCE IN SECONDARY SCHOOL AS TEACHER, PRINCIPAL, OR SUPERVISOR

0 None.
1 One to three.
2 Four to five.
3 Six to ten.
4 Eleven to twenty.
5 Over twenty.

35

TOTAL YEARS EXPERIENCE AS SCHOOL SUPERINTENDENT OR ASSISTANT SUPERINTENDENT

0 None.
1 One to three.
2 Four to five.
3 Six to ten.
4 Eleven to twenty.
5 Over twenty.

36

GRAND TOTAL YEARS EDUCATIONAL EXPERIENCE

(Sum of items 31 to 35, inclusive)

0 One.
1 Two.
2 Three to five.
3 Six to ten.
4 Eleven to fifteen.
5 Sixteen to thirty.
6 Thirty-one to forty.
7 Forty-one or over.

37

TOTAL YEARS EXPERIENCE IN ANY OCCUPATION OR PROFESSION, IN BUSINESS, COMMERCE, ETC., DIRECTLY OR INDIRECTLY RELATED TO YOUR PRESENT FIELD OF ENDEAVOR

0 None.
1 One to three.
2 Four to five.
3 Six to ten.
4 Eleven to twenty.
5 Over twenty.
Give name of such activity.....

38

RATE OF PROMOTION

0 Entered this institution with present academic rank.
1 Required one year for change from previous status to present rank.
2 Required two years for change.
3 Required three years for change.
4 Required four to five years for change.
5 Required six to ten years for change.
6 Required eleven to fifteen years for change.
7 Required more than fifteen years.

39–40

..... Give your institutional salary for year 1930–31, excluding amount derived from extension teaching unless a part of your contractual salary. Include the estimated value of any perquisites to salary such as house, living expenses, etc.

41

NUMBER OF MONTHS EMPLOYMENT BY INSTITUTION FOR WHICH ABOVE 1930–31 SALARY WAS PAID

0 Not employed in present institution.
1 One to six months, inclusive.
2 Seven months.
3 Eight months.
4 Nine months.
5 Ten months.
6 Eleven months.
7 Twelve months.

42–43

..... Give your institutional salary for year 1931–32, excluding amount derived from extension teaching, unless a part of your contractual salary. Include the estimated value of any perquisites to salary such as house, living expenses, etc.

44

NUMBER OF MONTHS EMPLOYMENT BY INSTITUTION FOR WHICH ABOVE 1931–32 SALARY IS PAID

0 One to six months, inclusive.
1 Seven months.
2 Eight months.
3 Nine months.
4 Ten months.
5 Eleven months.
6 Twelve months.

45

TEACHING LOAD—CLOCK HOURS PER WEEK DURING PRESENT SCHOOL YEAR 1931–32

(Consider period 50 to 60 minutes as one clock hour)

0 I do not teach.
1 1–9 clock hours.
2 10–14 clock hours.
3 15 clock hours.
4 16 clock hours.
5 17–19 clock hours.
6 20–24 clock hours.
7 25–29 clock hours.
8 30–34 clock hours.
9 35 clock hours and over.

[Page 4]

46–47

TEACHING LOAD

---------- student program unit. (Multiply number of students in each section you now teach by number of credits each section carries. Add these products.)
Unit of college credit at this institution is called ----------
This equals ------ hours per wk. for ------ wks.
For college year 1931–32, estimate the average hours of time per week which you devote as a full time employee to the following institutional responsibilities.

48

RESIDENTIAL COLLEGE INSTRUCTION, NONLABORATORY, ETC.

0 I do not give nonlaboratory instruction.
1 1–4.
2 5–9.
3 10–14.
4 15–19.
5 20–24.
6 25 and over.

49

RESIDENTIAL COLLEGE INSTRUCTION—LABORATORY, STUDIO, GYM, SHOP, ETC.

0 I do not give laboratory instruction.
1 1–4.
2 5–9.
3 10–14.
4 15–19.
5 20–24.
6 25 and over.

50

RESIDENTIAL INSTRUCTION, PRACTICE SCHOOL PUPILS

0 I do not teach practice school pupils.
1 1–4.
2 5–9.
3 10–14.
4 15–19.
5 20–24.
6 25 and over.

51

EXTENSION TEACHING

0 I do no extension teaching.
1 1–4.
2 5–9.
3 10–14.
4 15–19.
5 20–24.
6 25 and over.

52

PREPARATION FOR INSTRUCTION, PAPER WORK, ETC.

0 I make no preparation for instruction.
1 1–4.
2 5–9.
3 10–14.
4 15–19.
5 20–24.
6 25 and over.

53

SERVE AS COLLEGE REPRESENTATIVE TO PUBLIC

0 No public contacts as representative.
1 1–4.
2 5–9.
3 10–14.
4 15 and over.

54

REGULARLY DELEGATED ADMINISTRATIVE RESPONSIBILITIES

0 I have no administrative responsibilities.
1 1–4.
2 5–9.
3 10–14.
4 15–19.
5 20–24.
6 25–29.
7 30–34.
8 35–40.
9 Over 40.

55

RESEARCH

0 I do no research.
1 1–4.

2 5–9.
3 10–14.
4 15–19.
5 20–24.
6 25 and over.

56

OTHER INSTITUTIONAL RESPONSIBILITIES (CONFERENCES, COMMITTEE WORK, TRAVEL, ETC.)

0 I do not have such responsibilities.
1 1–4.
2 5–9.
3 10–14.
4 15–19.
5 20–24.
6 25 and over.

57–58

——Sum of above hours devoted to institutional responsibilities (48–56, inc.)

59

SABBATICAL LEAVE OF ABSENCE

0 Institution does not grant sabbatical leave.
1 Did not take last sabbatical leave.
2 Took last sabbatical leave and traveled abroad.
3 Traveled in United States.
4 Studied for advanced degree abroad.
5 Studied for advanced degree in United States.
6 Taught at another institution.
7 Wrote a book.
8 Other (specify)_____

60–61

_____ Average size of classes at junior college level (courses designed for first two years of undergraduate work) which you teach this term. Average is found as follows: Add number of students in all the sections of the given type and divide by the number of sections of that type.

62–63

_____ Average size of classes at senior college level (courses designed for last two years of undergraduate work) which you teach this term.

64–65

_____ Average size of classes at graduate level (courses designed for students who have completed undergraduate work) which you teach this term.

66

BOOKS PUBLISHED SINCE JULY 1926
(Include only books, bulletins, monographs, etc.)

0 None.
1 One.
2 Two or three.
3 Four or five.
4 More than five.

67

ARTICLES PUBLISHED IN MAGAZINES OF NATIONAL SCOPE SINCE JULY 1926

0 None.
1 One to three.
2 Four to nine.
3 Ten to nineteen.
4 Twenty or more.

68–69

EXTRA COLLEGE ACTIVITIES SINCE JULY 1926

(Encircle more than one number if necessary)

00 Elected member of national honorary professional association of your particular field.
01 Participated in State or city survey.
02 Member of national or State committee (professional).
03 Member of national or State committee (civic, fraternal, social).
04 Office in State civic, etc., organization.
05 Office in State professional organization.
06 Office in national civic, etc., organization.
07 Office in national professional organization.
08 Consultant for city system or institution.
09 Won honorary citation or recognition for scholarly, artistic, or other accomplishment from a government or from a professional or civic organization.
10 Editor of magazine or journal.
11 Other (specify) _____
12 Did not participate in above activities.

FOR DEPARTMENTAL HEADS ONLY

(70 to 78 inclusive)

70–71

_____ Number of separate college courses given by your department for college year ending June 1931.
(Exclusive of summer session)

72-73-74

..... Number of college seniors majoring in your department during college year 1930–31.

75-76-77

..... Number of college seniors minoring in your department during college year 1930–31.

78

..... Number of staff members in your department.

(Count yourself as one.) Include all part-time service in above

As is obvious from the form of the data blank as shown in figure 1 the questions were pre-coded to facilitate transferring the answers to Hollerith cards as was done in inquiry 1 (figs. 1 and 2, pt. I). This saves much time in tabulating large numbers of replies and it also makes the replies much more comparable among types of institutions than would be true if individuals were privileged to supply their own answers. On the other hand, tabulations are restricted by the form in which the data were secured. For example, once the data were transferred to Hollerith cards it was not possible to make any other groupings of institutions than those provided for in items 7–8 without going back to the blanks which gave the name and location of the institution. This would have required tabulating from the original blanks which was much slower and more costly than by the tabulating machines. An illustration of this limitation was the inability in some of the tables to separate the universities from the land-grant colleges or the normal schools from the teachers colleges.

Number of replies received.—Six hundred and thirty-seven institutions returned staff inquiry blanks, 604 in time to be used in the first tabulations. The number of institutions of each classification and the maximum length of curriculum prospective teachers may take are presented in table 1. Comparisons of the totals in this table with those given for the United States in table 1, part III, volume V of the survey report show that the normal schools and teachers colleges are more fully represented in the returns than some of the other groups and that the junior colleges are probably least well represented. The larger groups are represented by enough institutions to present a reliable picture of the conditions studied. Since one of the principal reasons for making this study of college faculties was to make comparisons among groups of institutions most of the tabulations will keep the groups separated. In this way the fact that one group is more fully represented than other groups will not exert any undue influence upon the interpretations of the tables. The unequal representation of the groups is the reason why central tendency measures for the total of all groups were often not computed.

TABLE 1.—*Classification of institutions participating in personnel study by type and maximum length of curricula presented, 1931–32*

Maximum length of curricula presented	Classification of institution													
	State university or land-grant college	State woman's college	State teachers college or normal school	State junior college	Municipal university or college	Municipal teachers college	Municipal junior college	Denominational university or college	Private nondenominational university or college	Denominational junior college	Nondenominational junior college	Private teachers college	Other type of college	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 year, undergraduate						1	1							2
2 years, undergraduate			10	12			47	1	1	31	6	1		108
3 years, undergraduate			18			5		2		2		7		34
4 years, undergraduate	6	4	108	3	3	6		182	40			3	3	354
1 year, graduate	21	4	10		1	3		15	14					71
2 years, graduate	5							4				1		10
3 or more years, graduate	23		1		1			2	12					44
Total	55	8	144	15	5	15	48	194	67	33	6	11	3	604

Size of institutions responding.—The distributions of institutions included in this study according to type and college enrollment are given in table 2. To the extent that the institutions included represent an adequate sample for the country it is clear that the majority of higher educational institutions (55 percent) had in 1931 fewer than 500 college students. One-fourth of the institutions had fewer than 250 college students. The distributions in this table are significant because it is obvious that the smaller institutions are limited in the range of curricula for teachers which can be offered without greatly increased costs or inferior quality of work.

TABLE 2.—*Classification of institutions participating in personnel study by type and college enrollment, 1931–32*

College enrollment	Classification of institution													
	State university or land-grant college	State woman's college	State teachers college or normal school	State junior college	Municipal university or college	Municipal teachers college	Municipal junior college	Denominational university or college	Private nondenominational university or college	Denominational junior college	Nondenominational junior college	Private teachers college	Other type of college	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Fewer than 250	1		14	4		4	21	21	5	23	5	11	1	150
250–499	2		27	7		4	17	24	12	10	1			184
500–749	2		17	3	1	3	6	20	15				1	107
750–999	4	3	23	1		1	1	6	5				1	45
1,000–1,499	10	2	12		1	2	2	6	5					40
1,500–2,499	14	3	10			1		3	4					35
2,500–4,999	14		1		1		1	4	4					25
5,000–9,999	7				1				4					12
10,000 and more	1				1			1	3					6
Total	55	8	144	15	5	15	48	194	67	33	6	11	3	604

Chief function of the staff members.—A third measure of the representativeness of the replies used in the staff study is given in table 3. The 21,742 replies are distributed according to the type of institution and the chief function of those who replied. The replies were least representative for some of the administrative officers, many of whom did not consider themselves as directly concerned with the education of teachers. In most respects the distributions in table 3 are quite satisfactory and the number of cases sufficient to represent adequately the instructional and supervisory groups.

TABLE 3.—*Summarization of responses to college and university personnel inquiry, 1931–32*

Chief function	Classification of institution												
	State university or land-grant college	State woman's college	State teachers college or normal school	State junior college	Municipal university or college	Municipal teachers college	Municipal junior college	Denominational university or college	Private nondenominational university or college	Denominational junior college	Nondenominational junior college	Private teachers college	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Business manager	7	3	20	2				25	7	2			66
Bursar	4	1	9	2				15	5	4			40
Dean of the college	110	6	61	10	7	8	25	104	61	17	4	2	410
Dean of men	15		36	3		1	1	25	9	4	1		96
Dean of women	24	5	104	4	2	4	8	68	21	4	2		246
Director of athletics	20	4	114	11	1	3	17	90	28	6	2	2	308
Director of extension	21	1	20					4	3				59
Director of health service	15	2	53		2	2	2	12	11	1			100
Director of instruction	13	3	27	1	1	2	4	7	5			3	66
Director of placement	6	2	18				1	6	12				45
Director of research	45	1	11			1		1	30				89
Director of student social affairs		1	5	1				3	2				12
Director of training schools	16	6	114	1	1	2	2	17	7	4		3	173
Editor of publications	4		12	1		1	1	3	5	1			28
Elementary school principal, practice school	2	1	50			5	1	2	3			2	66
Head of department	735	118	922	74	32	54	108	1,051	428	77	15	6	3,640
High-school principal, practice school	12		40					7	4				63
Librarian	25	17	214	5		8	12	73	20	8	1	1	393
President	9	3	72	3	1	9	6	70	13	14	1	5	206
Registrar	11	5	64	5	2	3	7	58	19	4		2	180
Superintendent of buildings and grounds	3		6	1				5	3				18
Teaching staff (college or university)	3,674	470	3,084	189	166	339	685	2,409	1,801	155	67	81	12,869
Teaching staff of practice-demonstration school (supervisor, critic, or room teacher)	211	90	1,896	9	3	90	10	75	124	7	3	30	2,248
Vice president	2	2	8			7		10	2	1		1	33
Others	92	4	78	2	1	12	9	41	44	1		4	288
Total	5,007	745	6,748	294	219	545	799	4,181	2,676	310	76	142	21,742

This table supplies a wealth of factual material about the different groups of institutions. For example, nearly three-fourths of the practice and demonstration teachers—supervisors, critics, and room teachers—were in the normal schools and teachers colleges—a group with less than a third of the total teaching group. The different groups showed distinct differences in the relatively large number of

deans of the college and the relatively small number of deans of men, directors of instruction, and directors of placement. Two-thirds of the directors of training schools were in the normal schools and teachers colleges. The ratio of heads of departments to teaching members also varied with the types of institution. In the smaller colleges and junior colleges many of the smaller departments had only one instructor who was also designated head of the department and therefore included in that classification. It is also of interest to note that there were returns from 100 directors of health service and from 89 directors of research—2 fields which have received only recent recognition as fields for special emphasis and which could therefore only recently be listed as "chief functions" for staff members.

Subjects taught by instructional staff members.—A fourth measure of the personnel in the staff study is found in the distributions of instructional staffs by type of institution and by instructional departments given in table 4. The data in this table give numerous rough estimates of the relative emphasis given to different fields of instruction by the institutions of each type and by the total group. English was clearly the field of greatest emphasis for the total group, followed in order by the social studies (history, economics, and sociology), education, physical sciences (chemistry and physics), modern language, biological sciences, and mathematics. These seven fields stayed at the top of most of the distributions but the order was changed in several groups. Education ranked next to English in the normal schools and teachers colleges but was fourth in the universities and land-grant colleges, eighth in the State colleges for women, and fifth in the denominational colleges and universities. Table 4 also shows the greater emphasis placed upon some of the special fields in different groups of institutions. Agriculture was, as would be expected, given most emphasis in the university and land-grant college group. Art and drawing, on the other hand, received relatively more emphasis in the normal schools and teachers colleges than in any of the other groups. The denominational colleges and universities gave more attention to classical language than did the other groups. Comparisons similar to the above can very easily be obtained from table 4 by anyone interested in a group of institutions or in a field of instruction.

A separate distribution of heads of departments for the instructional fields by types of institution gave little information beyond that given in table 4 and was not included in the final report.

TABLE 4.—*Distribution by departments of members of instructional staff in various types of colleges and universities, 1931–32*

Department	Classification of institution												
	State university or land-grant college	State woman's college	State teachers college or normal school	State junior college	Municipal university or college	Municipal teachers college	Municipal junior college	Denominational university or college	Private nondenominational university or college	Denominational junior college	Nondenominational junior college	Private teachers college	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Agriculture	281	2	27	10	----	----	----	2	2	1	----	----	305
Art and drawing	63	19	141	2	3	17	11	21	39	----	2	1	319
Biological sciences	250	28	177	13	9	23	36	123	122	9	3	2	805
Business and commerce	135	11	107	5	3	1	34	63	52	5	2	----	418
Chemistry	222	21	105	8	17	4	45	145	92	10	3	----	672
Economics	166	6	38	3	5	1	16	75	71	2	1	----	384
Education	252	23	340	6	23	63	10	174	169	10	----	7	1,077
English	433	78	506	24	20	61	84	337	227	22	9	3	1,806
Geography	61	5	112	1	----	19	6	16	17	2	----	----	239
Health	8	6	32	1	----	19	3	3	7	----	1	1	81
History-civics	168	31	246	9	13	20	50	143	115	14	2	1	812
Home economics-household arts	135	54	134	11	1	3	8	60	60	5	3	----	474
Industrial arts	24	3	97	2	----	10	3	2	8	----	----	1	150
Languages:													
Classical	44	4	36	2	6	----	5	112	50	2	2	----	263
Modern	240	47	111	11	14	6	63	268	171	22	5	----	958
Library science	4	4	8	----	----	1	----	1	8	----	----	----	26
Mathematics	213	10	148	10	15	15	48	125	71	10	2	----	667
Music	63	49	208	8	2	11	17	146	65	17	5	----	391
Philosophy-ethics	30	2	3	1	3	----	3	135	48	3	1	----	229
Physical education	121	30	209	4	4	17	17	59	80	----	3	3	547
Physics	111	5	50	3	4	2	22	75	57	2	----	----	331
Psychology	77	15	77	2	3	23	11	45	49	2	1	1	306
Sociology	49	10	40	2	4	8	5	47	45	2	----	----	212
Trades and industries	16	----	2	3	----	----	----	1	2	----	----	----	24
Other-Bible	----	1	----	----	----	----	----	20	14	2	----	----	37
Total [1]	3,146	464	2,956	141	149	324	497	2,208	1,641	142	45	20	11,733

[1] Difference between totals and those in table 3 due to elimination of part-time instructors and teachers in some fields clearly not connected with teacher education such as law, engineering, pharmacy, and architecture.

Conclusion on scope and representativeness.—The data presented in tables 1 to 4 warrant the statement that the returns from the staff inquiry were adequate both in the number of institutions and the number of staff members to give a satisfactory and representative picture of faculty personnel in the higher educational institutions in the United States in 1931–32. *Unless otherwise specified, the data in chapters I to VI, inclusive, do not include the faculties of the practice schools. These are discussed in chapter VII.*

Policy of presentation of staff personnel data.—As previously stated, the principal purpose in making this study of the faculties of institutions in which teachers are prepared was to supply additional comparative data about the different groups of institutions with the expectation that the data obtained would clarify, substantiate, or modify conclusions and recommendations from other Survey studies concerning the place of these institutions in the education of teachers. Because the data requested were necessarily quantitative rather than

qualitative, care will be taken not to attach too much weight to any differences which appear. The material in this part of the Survey should be thought of as largely supplementary in nature. It may suggest many questions and problems concerning the education of teachers but it will provide answers to almost none of them. Because of these limitations, the data will be presented in the following chapters with a minimum of interpretative comment. Some tables, the meaning and significance of which are obvious will be included without any comment. In a few cases the attention of the reader will be called to certain facts in the tables to which later reference will be made which have a bearing upon recommendations made in other sections of the Survey report. The danger of giving undue emphasis to conditions which are thus singled out for special comment is fully realized and will as far as possible be avoided. On the other hand, an extended and detailed discussion of each table is also subject to the danger of biased treatment and overemphasis. Such extended treatments are also tedious reading for those familiar with the field of higher education who can and will go directly to the tables for their data and their interpretations. Those unfamiliar with the field of higher education would obtain neither familiarity with nor interest in the problems of staff personnel from extended discussions of the tables. A final reason for the omission of unnecessary discussion is the saving in printing costs which will allow a wider distribution of the report.

CHAPTER II

ACADEMIC RANK, AGE, SEX, MARITAL STATUS, AND PROVISION FOR OLD AGE

Academic rank of staff members.—The distribution of the teaching staffs of 8 types of institutions according to the number and percent of the faculty holding each academic rank for the academic year 1931–32 is given in table 5. Intergroup comparisons should make allowance for the fact that many of the junior colleges do not use the full range of academic ranks nor do most of the normal schools and some of the teachers colleges. In some of the institutions in these groups all of the teachers are called instructors. This accounts for some at least of the larger percentage of instructors in those two groups. The heavy percentage of full professors in the denominational universities and colleges was probably caused by the number of smaller institutions in that group. In these smaller colleges a number of the departments have only one teacher who is usually a full professor and head of the department. This table provides evidence to refute the statements sometimes made that the major part of the instruction in colleges is given by instructors and assistants.

TABLE 5.—*Academic rank of staff members in various types of colleges in 1931–32*

Academic rank	State university or land-grant college		State woman's college		State teachers college		Municipal university or college		Municipal teachers college		Municipal junior college		Denominational university or college		Private nondenominational university or college	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Professor	1,418	37.3	162	28.2	965	31.5	51	29.1	89	38.9	63	11.4	726	56.7	809	40.3
Associate professor	713	18.7	95	16.6	454	14.8	48	27.4	15	6.6	8	1.4	283	9.3	284	14.2
Assistant professor	879	23.1	173	30.1	469	15.3	49	28.0	28	12.2	1	.2	462	15.2	478	23.8
Instructor	761	20.0	140	24.4	1,151	37.5	25	14.3	91	39.7	481	86.6	555	18.2	410	20.4
Assistant	19	.5	4	.7	22	.7	1	.6	5	2.2	1	.2	16	.5	14	.7
Lecturer	9	.2	----	----	----	----	1	.6	----	----	----	----	1	----	13	.5
Other	7	.2	----	----	4	.2	----	----	1	.4	1	.2	4	.1	1	----
Total, cases	3,806	----	574	----	3,065	----	175	----	229	----	555	----	3,047	----	2,009	----

Age of faculty members of institutions of higher education.—The median age and the first and third quartiles of the age distributions for the faculty members of the different types of institutions are given in table 6. The noticeable things in this table are the similarities not alone for the medians but for the ranges of the middle 50 percent. The junior college instructors were somewhat younger than the other groups and instructors in municipal institutions—universities, colleges, and teachers colleges were the oldest groups.

TABLE 6.—*Ages of members of teaching staffs of colleges and universities, 1931–32*

Type of institution	Total number of cases involved	Age		
		Q_1	Median	Q_3
1	2	3	4	5
State university or land-grant college	3,839	32.8	39.7	48.5
State woman's college	580	31.1	37.5	44.8
State teachers college or normal school	3,866	33.4	40.6	48.8
State junior college	208	31.1	37.0	43.6
Municipal university or college	179	34.9	44.2	54.6
Municipal teachers college	368	39.9	46.2	53.8
Municipal junior college	598	31.8	37.7	43.9
Denominational university or college	3,239	32.0	39.1	48.3
Private nondenominational university or college	2,056	33.3	40.7	50.4
Denominational junior college	217	29.7	36.1	43.6
Nondenominational junior college	59	28.5	35.7	40.2

An analysis of the more detailed tables from which the data for this table were obtained showed very extreme ranges in age of college teachers, some below 20 and many "64 and over." The variations in the matter of the age of the faculty members was very much greater among institutions in each of the groups than it was among the groups. In each group institutions were found with poor age distributions—nearly all of the faculty very young in some cases and the majority nearing the retiring age in others. A somewhat uniform distribution of faculty age over the range from 25 to 65 can be considered indicative of the existence of a program for faculty replacement.

Sex and marital status of the faculties of institutions of higher education.—The marital status of faculty members of higher educational institutions of different types is presented for women in table 7 and for men in table 8. These tables indicate that the percentages of men and women who were single and married were about reversed. Approximately 90 percent of the women staff members were single and approximately 85 percent of the men were married. These two tables also indicate that with the exception of the State woman's colleges and the municipal teachers colleges the men outnumbered the women on the faculties. The numbers were nearly equal in the State normal schools and teachers colleges and in the municipal

junior colleges. The groups of institutions including universities as well as colleges were staffed more largely by men—a ratio of nearly 3 to 1.

TABLE 7.—*Marital status of members of teaching staffs of colleges and universities, 1931–32*

Type of institution	Women				
	Total number involved	Single	Married	Divorced	Widow
1	2	3	4	5	6
State university or land-grant college	684	83.2	10.1	1.6	5.1
State woman's college	438	92.0	4.8	.7	2.5
State teachers college or normal school	1,885	88.1	7.5	1.1	3.3
Municipal university or college	27	81.5	11.1	----------	7.4
Municipal teachers college	273	86.8	10.6	.7	1.9
Municipal junior college	293	84.7	9.9	2.0	3.4
Denominational university or college	1,073	87.1	8.7	.5	3.7
Private nondenominational university or college	772	86.7	9.8	.8	2.7

TABLE 8.—*Marital status of members of teaching staffs of colleges and universities, 1931–32*

Type of institution	Men				
	Total number involved	Single	Married	Divorced	Widower
1	2	3	4	5	6
State university or land-grant college	3,155	14.2	84.1	0.5	1.2
State woman's college	141	14.2	83.7	.7	1.4
State teachers college or normal school	1,983	11.7	86.3	.4	1.6
Municipal university or college	151	11.3	86.1	----------	2.6
Municipal teachers college	101	10.9	88.1	----------	1.0
Municipal junior college	308	18.5	80.5	.7	.3
Denominational university or college	2,168	23.3	75.0	.2	1.5
Private nondenominational university or college	1,280	14.7	82.7	.8	1.8

Provision for old age.—As a check upon the adequacy of salaries for college staffs and as an index of the economic conditions under which the faculty members of these institutions worked the four questions of item 24 (figure 1) were asked. The answers to these questions from each type of institution are shown in table 9. The percentages in this table indicate very clearly that there was much less systematic provision for retirement and for the care of old age among college teachers than is ordinarily supposed. From the percentages in column 4, the proportions of faculty members contributing to some pension or retirement fund, it appears that nearly 4 staff members out of 5 were either making no provision for their old age or were doing it as individuals through contributions to group insurance or through personal savings. This condition is without doubt one of the principal reasons,

aided and abetted by the recent economic upset, why so many college teachers were teaching after they reached the age of 65—the usual age set for retirement.

TABLE 9.—*Provisions for old age by members of teaching staffs of colleges and universities*

Type of institution	Total number involved	Percentages			
		No systematic provision for old age	Contribute to pension or retirement fund	Carry old-age insurance, etc.	Personal savings and investments
1	2	3	4	5	6
State university or land-grant college	5,056	11.7	18.3	25.9	47.1
State woman's college	738	9.3	3.3	29.4	58.0
State teachers college or normal school	7,667	3.9	24.2	25.2	46.7
Municipal university or college	257	2.3	36.6	19.1	42.0
Municipal teachers college	584	.5	57.9	12.1	29.5
Municipal junior college	915	5.3	36.8	22.7	35.2
Denominational university or college	3,845	19.3	13.2	22.4	45.1
Private nondenominational university or college	2,798	9.4	27.6	21.1	41.9

SUMMARY

1. Some of the variations in the percentage of faculty members holding different academic rank are due to the fact that some institutions do not use all academic ranks.
2. More than half of the total group of staff members held the rank of professor or associate professor. Slightly more than a fourth (27 percent) of the faculty members were instructors. This percentage would have been lower if the institutions in which all of the faculty are called instructors had been omitted.
3. There seems little justification for the impression that a disproportionate amount of college instruction is done by instructors and assistants.
4. The faculties of higher educational institutions were composed of mature persons, in most cases well distributed over the age range from 25 to 65.
5. About three-eighths of the faculty members of higher educational institutions were women and less than 10 percent of these were married.
6. About 85 percent of the men on the faculties of higher educational institutions were married.
7. Provision for retirement and for the old-age period of faculty members of higher educational institutions in the United States was less than is commonly thought. Nearly four-fifths of the faculty members in 1931–32 were teaching in situations in which they were individually responsible for any provision which was made for their period of retirement.

CHAPTER III

EDUCATION AND TEACHING EXPERIENCE OF FACULTIES

Highest level of education.—In item 25 of the Inquiry Blank (figure 1, page 148) staff members were asked to indicate the highest level of their training. The distributions of their answers are given in table 10 according to the type of institution in which they taught and in table 11 according to the size of the institution in which they taught. Two cautions should be given for interpreting the data in tables 10 and 11. The first is that the years of education do not necessarily mean the possession of the degrees which usually accompany the completion of certain periods of education. In other words, not all of those who reported "4 years of college or normal school" will have bachelor's degrees nor will all those who reported having "3 or more years of graduate work" have earned doctor's degrees. Comparisons of the percentages in these tables with those of tables 12, 13, and 14 will show this difference.

TABLE 10.—*Highest level of training of members of teaching staffs of colleges and universities, 1931–32*

Type of institution	Total number involved	Less than high-school graduate	High-school graduate	Less than 1 year of college work	1 year of college or normal school	2 years of college or normal school	3 years of college or normal school	4 years of college or normal school	1 year of graduate work	2 years of graduate work	3 or more years of graduate work
1	2	3	4	5	6	7	8	9	10	11	12
State university or land-grant college	3,897	0.1	0.3	.....	0.1	0.2	0.2	5.8	18.6	18.7	56.0
State woman's college	579	.....	.3	.....	.3	1.4	1.2	10.6	28.5	24.9	32.8
State teachers college or normal school	3,866	.1	.1	0.1	.1	1.1	1.6	12.1	38.3	21.3	25.2
State junior college	208	.....	.....	.....	.5	1.9	1.0	11.5	38.0	26.0	21.1
Municipal university or college	179	.....	.....	.6	.....	1.1	.....	5.0	8.9	15.1	69.3
Municipal teachers college	373	.....	.....	.8	.5	1.6	5.6	11.8	23.1	17.2	39.4
Municipal junior college	599	.....	.....	.....	.2	.2	1.2	7.1	40.0	34.6	16.7
Denominational university or college	3,230	.1	.2	.1	.1	.3	.6	7.8	20.1	20.9	49.8
Private nondenominational university or college	2,048	.....	.4	.....	.3	.6	.7	6.6	14.6	14.6	62.2
Denominational junior college	217	.....	.9	.5	.5	1.8	.5	11.5	42.4	23.0	18.9
Nondenominational junior college	57	.....	1.7	.....	.....	1.7	.....	8.8	40.4	28.1	19.3

TABLE 11.—*Highest level of education by percentages of members of instructional staffs in colleges and universities of various sizes, 1931–32*

College enrollment	Total responses	Highest level of education									
		Less than high-school graduate	High-school graduate	Less than 1 year of college	1 year of college	2 years of college	3 years of college	4 years of college	1 year of graduate work	2 years of graduate work	3 or more years of graduate work
1	2	3	4	5	6	7	8	9	10	11	12
Fewer than 250	1,196		0.2		0.3	0.7	1.9	11.2	34.1	22.3	29.3
250 to 499	2,708	0.1	.3	0.3	.2	.9	1.2	9.3	27.0	22.4	38.6
500 to 749	2,685		.1	.2	.1	.8	1.2	9.8	27.9	20.8	38.9
750 to 999	1,532	.1	.1		.2	.6	.8	9.9	31.9	19.9	36.5
1,000 to 1,499	1,715		.3	.1	.2	.9	1.2	9.7	27.2	21.0	39.4
1,500 to 2,499	2,097	.1				.4	.5	7.4	24.1	20.6	46.9
2,500 to 4,999	1,768	.1	.3	.1	.2	.2	.4	5.8	18.4	20.8	53.7
5,000 to 9,999	955	.1	.2		.5	.3	.6	4.9	12.1	11.1	70.2
10,000 and more	563					.7		4.1	11.7	13.0	70.5
Total responses: Number	15,219	11	33	17	30	98	144	1,296	3,852	3,075	6,663
Percent		0.1	0.2	0.1	0.2	0.6	1.0	8.5	25.3	20.2	43.8

The second caution concerns a limitation referred to in chapter I, namely, that some of the groups would have shown the present situation somewhat more clearly had more classifications been made and had the State universities and land-grant colleges been listed separately as well as the normal schools and the teachers colleges. This was, however, not done so that due allowance will have to be made in the interpretations. By adding columns 11 and 12 in table 10 the percentages of the instructional staffs with 2 or more years of graduate work is obtained. These ranged from 42 percent to 84 percent. In table 11 in which the highest level of education of the instructional staffs are distributed by the size of the institutions, a very noticeable relationship seems to have existed. Referring again to the percentages of faculty members with 2 or more years of graduate work, the very small institutions showed fewer faculty members with that much education. There was relatively little difference among the size groups of institutions having from 500 to 1,500 students and no increase in percentage after the enrollment reached 10,000 students.

A distribution of the highest level of education of the instructional staff members by geographical areas showed no significant differences. The percentage of faculty members with 2 or more years of graduate work varied only from 57.1 percent in the Mountain States to 65.7 percent in the Pacific Coast States.

Sources of earned degrees of faculty members.—In asking faculty members of higher educational institutions to report the types of institutions from which they took their degrees (items 26–30, fig. 1, p. 148) it was assumed that the information might supply a picture of the

educational background of those staff members and that it might serve as a rough indication of their attitude toward higher education and the education of teachers. It is realized that professional attitudes are formed by experience and by work in professional schools as well as by a number of other factors such as professional organizations, readings, and work on special educational projects. Nevertheless, the data presented in tables 12 to 14 on the sources of education of the faculty members who are preparing teachers in this country present some interesting conditions. Table 12 presents the sources of the earned bachelor's degrees of the members of the teaching staffs of higher educational institutions distributed for each type of institution by the type of institution from which the degrees were obtained. Table 12 shows that the State universities and land-grant colleges, the denominational colleges and universities, and the private nondenominational colleges and universities were the three groups of institutions in which the large majority of faculty members obtained their undergraduate education. This would indicate that the faculties of the institutions in which teachers were being prepared in 1931–32 were composed predominantly of the graduates of liberal arts colleges—either separately organized or as parts of universities. Table 12 also shows that there has been a strong tendency to recruit college teachers from institutions of the same type as the one in which they are employed to teach. Thus 54 percent of the staff members of State universities and land-grant colleges received their bachelor's degrees in State universities and land-grant colleges. The tendency was most marked among the denominational colleges and universities in which group 61.2 percent of the faculty were graduates of similar institutions.

TABLE 12.—*Source of earned bachelor's degrees of members of teaching staffs of colleges and universities, 1931–32*

Type of institution	Total number involved	Percentages by type of institution									
		State university or land-grant college	State woman's college	State teachers college	Municipal college or university	Municipal teachers college	Denominational college or university	Private nondenominational college or university	Private teachers college	Foreign college or university	Other type
1	2	3	4	5	6	7	8	9	10	11	12
State university or land-grant college	3,766	54.0	0.2	3.1	0.8	.....	18.6	19.5	0.8	2.3	0.7
State woman's college	544	29.0	16.2	3.7	1.3	.....	23.7	20.8	2.2	.7	2.4
State teachers college or normal school	3,675	32.8	1.0	17.2	1.1	0.2	19.9	20.6	5.3	.6	1.3
State junior college	200	46.0	3.5	8.0	.5	.....	25.0	12.0	2.0	1.0	2.0
Municipal university or college	174	25.3	.....	.6	24.7	.....	19.6	26.4	.....	2.3	1.1
Municipal teachers college	333	16.2	.....	2.9	6.3	5.1	9.6	49.0	7.8	.....	2.1
Municipal junior college	584	43.5	1.2	8.7	1.2	.....	20.7	17.7	.....	.7	.3
Denominational university or college	3,137	16.8	.6	1.8	.8	.1	61.2	14.5	.7	2.6	.9
Private nondenominational university or college	1,982	18.9	.1	1.8	1.1	.....	18.3	54.2	.9	4.2	.5
Denominational junior college	205	29.3	.5	9.3	1.0	.....	50.7	5.8	1.0	1.0	1.4
Nondenominational junior college	54	25.9	.....	9.2	1.9	.....	24.1	29.6	7.4	.....	1.9

This table should be read: Of the 3,766 members of the teaching staffs of State universities and land-grant colleges reporting to the Survey in 1931–32, 54 percent of them obtained their bachelor's degrees from State universities and land-grant colleges, 0.2 percent from State woman's colleges, 3.1 percent from State teachers colleges, etc.

TABLE 13.—*Source of earned master's degrees by percentages of members of instructional staffs in colleges and universities of various sizes, 1931–32*

College enrollment	Source of earned master's degrees										
	Total	State university or land-grant college	State woman's college	State teachers college or normal school	Municipal university or college	Municipal teachers college	Denominational university or college	Private nondenominational university or college	Private teachers college	Foreign college or university	Other types of college
1	2	3	4	5	6	7	8	9	10	11	12
Fewer than 250	340	44.7	----	1.0	1.9	0.5	22.3	24.0	3.7	0.8	1.1
250–499	2,035	38.5	0.1	.9	2.4	.2	15.1	35.5	4.8	1.8	.7
500–749	1,926	35.2	----	.7	1.6	.2	12.8	41.8	5.2	1.6	.9
750–999	1,142	37.6	----	.9	1.4	.4	7.4	41.2	8.9	1.1	1.1
1,000–1,499	1,270	46.5	----	1.3	1.7	.3	11.3	34.1	3.3	.7	.8
1,500–2,499	1,632	49.8	.2	.7	1.3	.3	7.5	34.2	3.6	1.5	.9
2,500–4,999	1,380	57.4	----	.1	.7	.1	7.0	31.7	1.5	1.4	.1
5,000–9,999	719	51.1	----	.1	.6	----	5.8	37.0	2.5	2.6	.3
10,000 and more	431	39.4	----	.5	1.2	----	5.6	47.3	2.3	3.2	.5
Total responses:											
Number	11,375	5,000	5	82	174	27	1,256	4,098	479	172	88
Percent	----	44.3	----	.7	1.5	.2	11.0	36.0	4.1	1.5	.7

TABLE 14.—*Source of earned doctor's degrees by percentages of members of instructional staffs in colleges and universities of various sizes, 1931–32*

College enrollment	Source of earned doctor's degrees							
	Total	State university or land-grant college	Municipal university or college	Denominational university or college	Private nondenominational university or college	Private teachers college	Foreign university or college	Other types of college
1	2	3	4	5	6	7	8	9
Fewer than 250	186	41.4	.....	19.9	31.7	1.6	3.8	1.6
250–499	643	35.9	2.0	10.4	42.8	1.4	6.1	1.4
500–749	599	34.9	.5	10.7	45.4	1.5	6.5	.5
750–999	362	30.7	.6	6.4	54.0	2.9	4.1	.3
1,000–1,499	462	30.6	.....	14.5	37.7	1.3	5.2	1.7
1,500–2,499	726	46.1	1.0	4.0	42.0	1.4	4.8	.7
2,500–4,999	720	43.1	.7	3.1	46.8	.8	4.4	1.1
5,000–9,999	560	41.6	.9	5.2	44.6	1.6	6.1	.....
10,000 and more	327	28.7	.6	2.1	62.5	1.5	6.1	1.5
Total responses: Number	4,585	1,773	37	345	2,072	71	245	42
Percent	.....	38.6	.8	7.5	45.2	1.6	5.4	.9

Sources of master's and doctor's degrees.—In tables 13 and 14 the types of institutions from which master's and doctor's degrees were obtained by the faculty members of higher educational institutions in 1931–32 are distributed according to the college enrollment of the institutions in which they taught. Four-fifths of the master's degrees were obtained from two groups of institutions—State universities and land-grant colleges and private nondenominational colleges and universities. There was a slight tendency for the larger institutions to select more of their staff members with master's degrees from private nondenominational colleges and universities and fewer from the denominational colleges and universities. This tendency was decidedly more marked in (table 14) the case of teachers with doctor's degrees. The private nondenominational colleges and universities granted more of the doctor's degrees held by faculty members in 1931–32 than any other group.

Comparison of the number of doctor's degrees reported in table 14 with the data in table 11 will show the differences between years of graduate study and earned degrees. For example, in table 11, 29.3 percent of 1,196, or 348 instructors in colleges with fewer than 250 students, reported 3 or more years of graduate study. Only 186, or 54 percent, of these reported having earned doctor's degrees. This does not indicate inaccuracies in reporting but merely shows that a large amount of graduate work done by the members of the instructional staffs of these institutions did not result in earned graduate degrees. Other comparisons of this kind show that the larger institutions tended to have larger percentages of their faculties whose graduate work has resulted in graduate degrees.

Honorary degrees of staff members.—The answers to the questions (item 29, fig. 1, p. 148) on honorary degrees revealed little information of any value except that approximately 95 percent of the instructional staff members of these institutions had no honorary degrees and that there were nearly as many honorary master's degrees held as doctor's degrees. The number of honorary bachelor's degrees was only one-fourth as large as the number of either the master's or the doctor's.

Degrees from institutions of present employment.—A measure of academic inbreeding was attempted by asking faculty members to indicate the extent to which their education was obtained from the institutions in which they were employed in 1931–32. The answers to these questions (item 30, fig. 1, p. 148) are given in table 15 for seven of the larger groups of institutions. The total picture showed a situation quite contrary to the popular conception. The data in column 3, table 15, indicate that in 1931–32 no group of institutions had more than 31 percent of its instructional staff with any degree from the institution in which they were teaching, while one of the groups had as few as 6.4 percent of the faculty educated in the institutions in which they were teaching.

TABLE 15.—*Degree or degrees earned in institution of present employment by members of teaching staffs of colleges and universities, 1931–32*

Type of institution	Total number involved	Percentages of degrees							
		No degree from this institution	Bachelor's	Master's	Doctorate	Bachelor's and master's	Bachelor's and doctorate	Master's and doctorate	Bachelor's, master's and doctorate
1	2	3	4	5	6	7	8	9	10
State university or land-grant college	3,841	69.3	10.1	6.9	2.3	7.6	0.3	1.2	2.3
State woman's college	881	85.2	13.1	.8	.....	.7	.....	.....	.2
State teachers college or normal school	3,874	88.3	10.9	.5	.....	.3	.....	.....	.....
Municipal university or college	179	72.1	20.6	1.1	1.1	3.4	.....	1.1	.6
Municipal teachers college	376	93.6	5.6	.3	.....	.5	.....	.....	.....
Denominational university or college	3,226	69.5	22.1	1.5	.6	4.0	.2	.5	.6
Private nondenominational university or college	2,057	74.1	11.5	2.7	2.9	4.7	.7	1.9	1.5

Teaching experience of faculty members.—In order to present the experiential equipment of faculty members of institutions in which teachers were being educated in 1931–32 questions to faculty members were inserted in the inquiry to cover teaching experience in the institutions in which they were then employed, in other colleges or universities, in public schools—both elementary and secondary, as administrative officers in public schools and in other occupations or professions related to the work they were then performing. The answers to

these questions (items 31–37, fig. 1, p. 148) are given in tables 16 to 22. Here again the distributions are made in terms of the different types of institutions and showed in several instances that teaching experience in the public schools was much more prominent in the professional equipment of the faculties of some groups of institutions than of others.

Experience in present institution.—The number of years faculty members had been employed in the institutions in which they were teaching in 1931–32 is indicated by the median and first and third quartiles of the distributions as shown in table 16 for each of the 11 types of institutions. The medians of the larger groups would indicate a median of about 7 years of teaching experience in the institutions in which they were then employed. State universities and land-grant colleges and the municipal institutions had the longest periods of service as shown by the medians and also by the third quartiles which indicate for the municipal university and college group a very wide spread with a fourth of the staff members having had fewer than 3.8 years' service in the institutions and a fourth having had more than 22.5 years.

TABLE 16.—*Total years spent in institution of present employment by members of teaching staffs of colleges and universities, 1931–32*

Type of institution	Total number involved	Years		
		Q_1	Median	Q_3
1	2	3	4	5
State university or land-grant college	3,844	4.2	8.1	14.2
State woman's college	581	3.7	6.1	10.3
State teachers college or normal school	3,875	3.7	6.9	12.3
State junior college	209	2.8	5.0	8.4
Municipal university or college	179	3.8	8.6	22.5
Municipal teachers college	376	4.3	8.8	15.5
Municipal junior college	602	2.9	5.3	9.4
Denominational university or college	3,241	3.3	6.0	10.8
Private nondenominational university or college	2,058	3.8	7.4	13.2
Denominational junior college	219	2.8	5.1	8.8
Nondenominational junior college	60	2.7	5.0	11.0

A tabulation of the years college teachers have been employed in the institution of present employment when distributed according to the size of the institution (college enrollment) showed a steady increase in the length of the period from the smaller institutions to the larger. Staff members in institutions with fewer than 250 students had a median length of service of 5.2 years in the institutions then employing them. This increased to 9 for the largest institutions.

Experience in other colleges and universities.—The college teaching experience in other colleges and universities of the instructional staffs is given in table 17. The data in this table should be studied with those of table 16 for the central tendencies regarding the teaching experience on the college level of college teachers

TABLE 17.—*Total years experience on other staffs of members of teaching staffs of colleges and universities, 1931–32*

Type of institution	Total number with experience elsewhere	Years			No college experience elsewhere	
		Q_1	Median	Q_3	Number	Percent
1	2	3	4	5	6	7
State university or land-grant college	2,568	2.4	4.5	8.0	1,278	33.2
State woman's college	362	2.4	4.5	8.4	219	37.7
State teachers college or normal school	2,046	2.1	3.9	6.9	1,829	47.2
State junior college	102	2.4	3.7	7.4	107	51.2
Municipal university or college	112	2.3	4.7	8.9	67	37.4
Municipal teachers college	149	2.1	4.2	6.9	227	60.4
Municipal junior college	281	1.9	3.0	5.4	320	53.2
Denominational university or college	1,836	2.5	4.8	9.1	1,403	43.3
Private nondenominational university or college	1,419	2.6	4.7	8.6	639	31.0
Denominational junior college	102	1.7	2.8	5.8	117	53.4
Nondenominational junior college	33	1.8	2.8	5.9	27	45.0

This table shows that from 30 to 60 percent of the college instructors had had no college-teaching experience in any other colleges than the one in which they were teaching in 1931–32. It also shows that the median length of college teaching in other colleges or universities was only about two-thirds as long as the period in the institution of present employment.

Teaching experience of college faculties in elementary schools.—Because teachers for the elementary schools are being prepared in all of these groups of institutions the number of the faculty who have had any teaching experience in the elementary schools and the extent of that experience are facts of professional significance. These facts are given in table 18. In 1930–31 about two-thirds of the elementary teachers who entered teaching from institutions of higher education came from normal schools and teachers colleges and yet 45.4 percent of the instructional staff members of the State normal schools and teachers colleges had had no teaching experience in elementary schools. Municipal teachers colleges had the lowest percentage of the staff without teaching experience in the elementary schools. This is probably due to the practice of recruiting faculty members for such institutions very largely from teachers in the city school system. This is further indicated by the fact that a fourth of the staff members of the municipal teachers colleges had had more than 13.5 years' teaching experience in elementary schools. Other studies indicate that elementary teachers are being prepared in most of the institutions in all of the groups listed. Even though some of these institutions claim that they do not prepare elementary teachers it is nevertheless true that their graduates are given certificates which entitle them to teach. The large percentages of staff members in some of the groups of institutions who have not had any teaching experience

in elementary schools is an item which should be considered when institutions in those groups are involved in State programs for the preparation of elementary teachers.

TABLE 18.—*Total years' experience in elementary school as teacher, principal, or supervisor by members of teaching staffs of colleges and universities, 1931–32*

Type of institution	Total number involved	Years' experience			No experience	
		Q_1	Median	Q_3	Number	Percent
1	2	3	4	5	6	7
State university or land-grant college	1,023	2.1	3.2	4.9	2,821	73.4
State woman's college	191	2.2	3.5	5.5	390	67.1
State teachers college or normal school	2,115	2.6	4.3	7.5	1,761	45.4
State junior college	81	2.4	3.7	6.2	128	61.2
Municipal university or college	59	2.1	3.2	4.7	120	67.0
Municipal teachers college	297	3.9	7.4	13.5	79	21.0
Municipal junior college	190	2.3	3.6	5.6	402	66.9
Denominational university or college	990	2.2	3.4	5.5	2,245	69.4
Private nondenominational university or college	520	2.2	3.4	5.5	1,538	74.7
Denominational junior college	94	2.5	4.1	8.1	124	56.9
Nondenominational junior college	15	1.9	2.7	3.6	45	75.0

Experience of college faculties in secondary schools.—Data concerning the teaching experience of staff members in secondary schools is shown for the different types of institutions in table 19. This table has the same significance in the preparation of teachers for the high schools as does table 18 for the preparation of teachers for the elementary schools except it applies more directly to most of the groups. About four-fifths of the secondary teachers in 1930–31 who entered teaching from higher educational institutions in 1930–31 were recruited from the college and university group and only one-fifth from the normal schools and teachers colleges. The State teachers colleges had a smaller percentage of their faculty members without teaching experience in secondary schools than any of the other groups with the exception of the municipal junior colleges the faculties of which were recruited largely from the high-school teachers. Forty-two and three-tenths percent of the faculty members for all cooperating institutions were without educational experience in the secondary schools. In general, however, the percentage of staff members with teaching experience in secondary schools was higher than the percentages with teaching experience in elementary schools.

TABLE 19.—*Total years' experience in secondary school as teacher, principal, or supervisor by members of teaching staffs of colleges and universities, 1931–32*

Type of institution	Total number involved	Percentage of total having no experience	Number of years' experience in secondary school			
			Number of cases	Q_1 cases	Median	Q_3
1	2	3	4	5	6	7
State university or land-grant college	3,846	52.8	1,816	2.3	3.5	5.6
State woman's college	581	44.9	320	2.4	3.7	5.9
State teachers college or normal school	3,876	31.2	2,668	2.9	4.7	7.9
State junior college	209	35.9	134	2.9	4.9	8.1
Municipal university or college	179	48.0	93	2.4	3.7	6.9
Municipal teachers college	376	36.4	239	3.1	5.9	10.9
Municipal junior college	602	19.3	486	3.6	6.6	10.9
Denominational university or college	3,236	41.7	1,887	2.5	4.0	7.3
Private nondenominational university or college	2,058	50.1	1,026	2.5	3.9	6.6
Denominational junior college	219	35.2	142	2.8	4.8	8.4
Nondenominational junior college	60	48.3	31	2.7	4.6	8.1

Experience as school superintendents.—The tabulation of the number of college teachers who had had experience as superintendents of schools is given by types of institutions in table 20. The percentages are low except for the State teachers colleges and normal schools, in which group a sixth of the staff members had been superintendents of schools. The percentages are not relatively low when the number of positions as superintendent and assistant superintendent are compared with the number of teaching positions. On the basis of such comparisons, experience as a superintendent of schools has undoubtedly been an advantageous factor in securing positions on college faculties.

TABLE 20.—*Total years' experience as school superintendent or assistant superintendent by members of teaching staffs of colleges and universities, 1931–32*

Type of institution	Total number involved	Years' experience			No experience	
		Q_1	Median	Q_3	Number	Percent
1	2	3	4	5	6	7
State university or land-grant college	327	2.3	3.6	6.5	3,518	91.5
State woman's college	33	2.5	4.2	8.0	548	94.3
State teachers college or normal school	596	2.7	4.6	8.5	3,278	84.6
State junior college	28	2.4	3.8	6.7	181	86.6
Municipal university or college	15	2.6	4.3	7.6	164	91.6
Municipal teachers college	25	2.9	5.0	8.3	351	93.4
Municipal junior college	54	2.2	3.5	5.3	547	91.0
Denominational university or college	283	2.4	3.8	7.1	2,947	91.2
Private nondenominational university or college	120	2.5	4.0	6.8	1,929	93.7
Denominational junior college	22	2.1	3.2	4.8	196	89.9
Nondenominational junior college	2				58	96.7

Total teaching experience of college staff members.—The total teaching experience of faculty members of higher educational institutions in 1931–32 including all college experience and all teaching and administrative experience in the elementary and secondary schools is given in

table 21. This shows very clearly that the institutions in which teachers were prepared in 1931–32 were staffed by an experienced group of teachers. The data in this table check very well with the data on age of college teachers, table 6.

TABLE 21.—*Grand total years' educational experience of members of teaching staffs of colleges and universities, 1931–32*

Type of institution	Total number involved	Years' educational experience		
		Q_1	Median	Q_3
1	2	3	4	5
State university or land-grant college	3,846	8.3	14.2	24.1
State woman's college	581	8.1	13.1	21.2
State teachers college or normal school	3,876	9.7	15.8	25.5
State junior college	209	7.4	11.9	15.9
Municipal university or college	170	10.3	18.5	30.5
Municipal teachers college	376	16.9	23.6	30.4
Municipal junior college	302	8.4	13.3	21.5
Denominational university or college	3,242	7.6	13.3	23.1
Private nondenominational university or college	2,057	8.5	14.6	24.7
Denominational junior college	219	7.0	11.6	18.3
Nondenominational junior college	60	5.6	10.1	17.9

Experience in other occupations and professions.—One other element in the experience of college faculties was requested, namely, the years spent in "any occupation or profession, in business, commerce, etc., directly or indirectly related to your present field of endeavor." The answers to this question are reported in table 22 and indicate that two-thirds of the staff members had had no such related experience and that for the third that had the occupation or business was followed for a relatively short period of years.

TABLE 22.—*Total years' experience in any occupation or profession in business, commerce, etc., directly or indirectly related to present field of endeavor of members of teaching staffs of colleges and universities, 1931–32*

Type of institution	Total number involved	Years' experience			No experience	
		Q_1	Median	Q_3	Number	Percent
1	2	3	4	5	6	7
State university or land-grant college	1,617	2.4	3.7	6.6	2,229	58.0
State woman's college	166	2.3	3.6	7.0	415	71.4
State teachers college or normal school	1,236	2.3	3.6	6.6	2,640	68.1
Municipal university or college	60	2.7	4.7	9.5	119	66.5
Municipal teachers college	99	2.4	3.8	6.1	276	73.6
Municipal junior college	229	2.2	3.5	5.7	373	62.0
Denominational university or college	1,165	2.6	4.6	9.4	2,075	64.0
Private nondenominational university or college	762	2.4	3.9	8.4	1,296	63.0

SUMMARY

1. Approximately nine-tenths of the faculty members reported 1 or more years of graduate work and about two-thirds, 2 or more years.
2. There were greater differences in the preparation of faculties within groups than were found among groups of institutions.
3. Faculty members of institutions in which teachers were prepared in 1931–32 were in a very large majority of cases graduates of liberal arts colleges and the arts colleges of universities.
4. State universities and land-grant colleges and private nondenominational colleges granted more than four-fifths of all graduate degrees.
5. Only three-tenths of the teachers in the higher educational institutions in 1931–32 had received one or more of their degrees from the same institutions in which they were then teaching.
6. Staff members of higher educational institutions had taught a median of about 7 years in the institutions in which they were employed in 1931–32 and a median of between 4 and 5 years in other colleges or universities. About two-fifths of the faculty members had no teaching experience in other colleges.
7. The fact that the median length of teaching service of staff members increased with the size of the college shows the same tendency to move from smaller to larger institutions which was found for public-school teachers with respect to the size of communities.
8. The majority of the instructional staff members of higher educational institutions had not had experience as teachers, supervisors, or administrators in elementary schools. About two-fifths of the faculty members of normal schools and teachers colleges had not had such experience and more than two-thirds of the faculty members of the other groups were without such experience.
9. More staff members of higher educational institutions had had educational experience in secondary schools than was true of experience in the elementary schools but in the groups of institutions from which a large majority of high-school teachers were obtained approximately half of the staff members had had no educational experience in the secondary schools.
10. In general, the faculties of the institutions in this study were composed of experienced teachers most of whose teaching experience had been on the college level and most of that in the institutions in which they were then employed. Approximately half of them had not had experience as teachers, supervisors, or principals in elementary or secondary schools.

CHAPTER IV

SALARIES IN INSTITUTIONS OF HIGHER EDUCATION

Salary conditions in higher educational institutions.—The inquiry sent to staff members of higher educational institutions asked the salaries of 1930–31 and 1931–32 and the number of months for which the salary was paid (items 39 to 44, figure 1, p. 149). The questions dealing with the number of months of employment were not very satisfactory because of the large number of institutions which had 6 weeks' summer sessions and which made their totals 10½ or 11½ months if salaries were paid for 9 or 10 months and the summer session salaries in addition. There was no way of checking to know whether these cases were reported as 10 or 11 months for the group with 9 months and summer session or as 11 or 12 months for the group with 10 months and summer session. There was also evidence that a sizable percentage of instructors, in institutions where teaching in summer session was not expected of all staff members, did not include summer session salary in the salaries recorded for the 2 years, although it was intended that summer session salary should be included. There was also some confusion caused because some instructors checked the number of months for which they actually worked while others checked the number of monthly salary payments. For example, many colleges have 36 weeks in their academic years and yet pay the salaries of instructors in 10 monthly installments. Salaries from these schools were sometimes reported for 9 months and sometimes for 10 by instructors in the same institutions. Because of these limitations on the salary data and also because there was in 1931–32 and still is so much greater difference between the salaries paid within each group of institutions than among the groups which are being studied, the salary data in this study will be given little attention.

Some tables will be included with little or no comment. They will serve as a record of the college salaries paid in 1931–32 and while the salaries recorded are not highly reliable for a specific group or for a specific officer they can be used for general impressions. Because the inaccuracies mentioned were not confined to any one group or type of institution there is strong probability that most of the salary differences were real differences and would have appeared had the data been more uniformly reported.

Salaries of faculty members and heads of departments.—The medians and the first and third quartiles of the distributions of the salaries of faculty members and heads of departments by number of months of employment for the school year 1931–32 are presented for the different types of institutions in table 23. The number of cases indicates that the large majority of those teachers were paid on the basis of a 9- or 10-month year. The 11- and 12-month groups probably were composed of instructors who taught in summer sessions because in all but two instances the median salaries were higher for the 11- and 12-month group than for the 10-month group. The data in this table show that in 1931–32 a number of salary distinctions which had been found in previous studies were still present. For example, the teaching staffs of the practice and demonstration schools were in every instance paid smaller salaries, usually much smaller, than the faculty members and heads of departments in the same groups. The junior colleges were paid on a different schedule—much lower than were the colleges and universities. The salaries paid in the denominational colleges and universities were lower than in the other groups except the junior colleges.

The general impression given by the third quartile salaries in table 23 is that the range for college salaries had decreased by 1931–32. In some groups the third quartile salary was so nearly the same as the median that it indicated a group of the staff members at maximum salaries. In some groups the third quartile salary was lower than the medians of other groups and in some cases lower than the first quartile of other groups.

College salaries in different geographic areas.—The salaries of college and university teaching staffs distributed by geographic areas are given in table 24 for the different number of months for which salaries were paid. The similarity among the areas is the most noteworthy element in the table. The largest difference—the Middle Atlantic States for the 12-month group was probably due to several large institutions with large numbers of the faculty teaching in summer session.

TABLE 23.—*Salaries of faculty members and heads of departments, by number of months' employment, for the school year, 1931–32*

Faculty members and heads of departments in various types of institutions	9 months				10 months				11 months				12 months			
	Number of cases	Q_1	M	Q_3	Number of cases	Q_1	M	Q_3	Number of cases	Q_1	M	Q_3	Number of cases	Q_1	M	Q_3
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
State university or land-grant college:																
Teaching staff and department heads	1,580	2,377	3,077	3,857	1,192	2,400	3,000	3,759	312	2,867	3,536	4,273	707	2,690	3,439	4,084
Teaching staff, practice demonstration school	68	1,760	2,075	2,725	84	2,214	2,564	2,913	14	2,044	2,600	3,075	33	1,838	2,730	2,895
State woman's college:																
Teaching staff and department heads	476	1,907	2,263	2,810	40	2,150	2,850	3,300	18	3,000	4,050	4,575	40	2,250	2,967	3,583
Teaching staff, practice demonstration school	76	1,640	1,900	2,094												
State teachers college or normal school:																
Teaching staff and department heads	1,012	2,100	2,511	3,012	1,045	2,580	3,000	3,530	406	2,422	2,863	3,460	1,315	2,603	3,054	3,576
Teaching staff, practice demonstration school	567	1,625	2,007	2,286	528	2,121	2,441	2,809	98	2,028	2,293	2,658	364	2,146	2,443	2,696
Municipal university or college:																
Teaching staff and department heads	42	2,135	2,763	3,450	44	2,800	3,275	4,033					89	5,650	6,736	7,246
Municipal teachers college:																
Teaching staff and department heads					286	3,406	4,017	4,539					74	4,050	4,503	4,872
Teaching staff, practice demonstration school					52	2,700	3,950	4,514					33	4,372	4,451	4,880
Municipal junior college:																
Teaching staff and department heads	230	1,872	2,261	2,713	242	2,402	2,808	3,071					12	2,700	2,800	3,500
Denominational university or college:																
Teaching staff and department heads	1,789	1,944	2,484	3,024	551	2,084	2,564	3,044	110	2,259	2,790	3,250	311	2,252	2,755	3,269
Teaching staff, practice demonstration school	28	1,300	1,600	1,950	22	981	1,950	2,525					8	1,575	1,850	2,000
Private nondenominational university or college:																
Teaching staff and department heads	1,018	2,462	3,063	3,676	525	2,470	3,080	3,833	50	3,267	4,083	4,875	279	2,725	3,515	4,612
Teaching staff, practice demonstration school	23	1,794	2,298	2,868	75	2,225	2,675	3,081								

	Heads of departments, all months				Teaching staff, practice demonstration school, all months			
	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3
State university or land-grant college	998	3,592	4,050	4,611	203	1,911	2,417	2,879
State woman's college	116	2,975	3,338	3,767	89	1,655	1,917	2,109
State teachers college	912	2,847	3,329	3,950	1,566	1,935	2,243	2,637
State junior college	68	2,217	2,707	3,025				
Municipal university or college	30	3,663	4,700	5,950				
Municipal teachers college	52	4,100	4,760	5,534	89	2,863	4,464	4,535
Municipal junior college	101	1,895	2,513	3,095				
Denominational university or college	927	2,232	2,768	3,209				
Private nondenominational university or college	406	3,043	3,597	4,561	66	1,988	1,750	2,413
Denominational junior college	68	1,425	1,780	2,113	122	2,025	2,557	3,061
Nondenominational junior college	12	1,788	1,900	2,250				
Private teachers college	6	600	1,108	1,750	28	1,350	2,150	2,540

TABLE 24.—*1931–32 salaries of college and university teaching staffs distributed by geographic areas* [1]

Geographic area	Q_1	Median	Q_3	Total cases involved
1	2	3	4	5
8 months' employment:				
Middle Atlantic	2,000	3,075	4,338	59
Southern	2,082	2,570	3,275	89
Middle Western	1,833	2,400	3,338	17
9 months' employment:				
New England	2,431	3,143	3,907	342
Middle Atlantic	2,478	3,003	3,864	585
Southern	2,009	2,474	3,063	2,063
Middle Western	2,096	2,605	3,290	2,108
Mountain	2,108	2,596	3,155	165
Pacific	2,530	2,961	3,525	643
10 months' employment:				
New England	2,482	2,943	3,470	307
Middle Atlantic	2,693	3,364	4,084	894
Southern	2,318	2,764	3,383	593
Middle Western	2,450	3,012	3,700	1,488
Mountain	2,400	2,833	3,450	48
Pacific	2,433	2,853	3,283	804
11 months' employment:				
New England	2,975	3,600	4,175	23
Middle Atlantic	3,128	3,600	4,700	72
Southern	2,536	3,065	3,642	253
Middle Western	2,468	3,070	3,805	426
Mountain	2,625	3,063	3,625	34
Pacific	2,975	3,450	4,475	66
12 months' employment:				
New England	2,714	3,175	4,011	132
Middle Atlantic	3,313	4,008	5,029	473
Southern	2,473	2,984	3,571	938
Middle Western	2,573	3,204	3,943	777
Mountain	2,514	3,028	3,514	223
Pacific	2,569	3,021	3,881	209

[1] Areas as follows: New England—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Middle Atlantic—New Jersey, New York, Pennsylvania; Southern—Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia; Middle Western—Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin; Mountain—Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming; Pacific—California, Oregon, Washington.

College salaries according to academic rank.—Salaries of faculty members of cooperating institutions were distributed by academic rank for 7 of the larger groups of institutions for the school years of different lengths. The salaries for the 10-month group are reported as table 25 as they may be useful with other studies of college salaries in establishing trends. The data in table 25 show the very marked tendency to increase salary as academic rank is raised. This would probably have been even more marked if the practices of individual institutions could have been shown instead of the medians for groups of institutions.

TABLE 25.—*Comparative data showing the salaries paid in 1931–32 by various types of higher institutions to college teachers employed on a 10-month basis*

Position held	State university or land-grant college	State woman's college	State teachers college	Municipal university or college	Municipal teachers college	Municipal junior college	Denominational university or college	Private nondenominational university or college
1	2	3	4	5	6	7	8	9
Professors:								
Number of cases involved	305	15	200	14	55	11	294	177
Salary:								
Q_1	$3,681	$3,131	$3,086	$3,642	$3,476	$3,228	$2,572	$3,442
Median	$4,078	$3,600	$3,505	$4,063	$3,736	$3,582	$3,000	$3,988
Q_3	$4,780	$3,883	$4,042	$4,960	$4,722	$3,641	$3,436	$5,015
Associate professors:								
Number of cases involved	211	.....	111	.....	14	.....	51	66
Salary:								
Q_1	$2,945	.....	$2,831	.....	$2,767	.....	$2,092	$3,079
Median	$3,198	.....	$3,053	.....	$3,150	.....	$2,550	$3,575
Q_3	$3,554	.....	$3,402	.....	$3,925	.....	$2,881	$4,480
Assistant professors:								
Number of cases involved	311	11	119	14	14	.....	99	116
Salary:								
Q_1	$2,510	$2,100	$2,513	$2,350	$2,225	.....	$2,044	$2,562
Median	$2,680	$2,375	$2,783	$2,688	$2,413	.....	$2,279	$2,980
Q_3	$3,013	$2,688	$3,275	$2,875	$2,875	.....	$2,552	$3,350
Instructors:								
Number of cases involved	280	.....	409	9	64	305	95	136
Salary:								
Q_1	$1,874	.....	$2,316	.....	$2,533	$2,362	$1,725	$2,008
Median	$2,076	.....	$2,606	.....	$2,295	$2,780	$2,032	$2,300
Q_3	$2,319	.....	$3,108	.....	$4,100	$3,038	$2,275	$2,625

Salaries of college administrative officers.—The salary data (medians Q_1 and Q_3) for groups of administrative officers in which five or more returns were received are given in table 26. The returns from the administrative groups were not as complete as for the teaching groups for the reasons given in chapter I. However, several of the groups include enough cases to present satisfactory comparisons of the salaries paid to those officers with the salaries paid to the instructors in the same groups of institutions. The comparisons with the salaries of professors in the same groups of institutions as shown in table 25 are most easily made. Apparently, according to the salaries paid in 1931–32 the president and the dean of the college were the only administrative officers who were consistently paid better salaries than heads of departments and professors in the institutions of the same group. The same differences among groups of institutions in the salaries paid administrative officers existed in 1931–32 as were found for the faculty members' salaries.

TABLE 26.—*Salary of university and college administrators for the school year 1931–32*

Administrators in various types of colleges	Number involved	Salary		
		Q_1	Median	Q_3
1	2	3	4	5
State university or land-grant college:				
President	9	$8,100	$9,550	$9,775
Registrar	11	3,075	3,820	4,188
Dean of the college	110	4,713	5,650	6,638
Dean of men	16	4,150	4,650	5,200
Dean of women	24	3,125	3,683	4,200
Director of research	45	3,125	3,850	4,975
Director of training schools	16	3,000	3,600	4,450
State teachers college:				
President	72	5,535	6,055	7,200
Registrar	63	2,138	2,575	3,525
Dean of the college	61	3,813	4,075	4,492
Dean of men	36	2,950	3,325	3,900
Dean of women	103	2,535	3,051	3,358
Director of training schools	112	3,238	3,664	4,200
State junior college:				
Dean of the college	10	2,235	3,550	3,800
Municipal teachers college:				
President	9	5,181	5,800	7,375
Municipal junior college:				
President	6	3,425	5,150	5,650
Dean of the college	25	2,535	3,450	3,963
Denominational university or college:				
President	56	3,200	4,800	5,650
Registrar	47	1,925	2,475	3,250
Dean of the college	52	2,925	3,400	3,950
Dean of men	20	1,950	2,780	3,550
Dean of women	62	1,988	2,457	2,950
Director of training schools	15	2,225	2,725	3,088
Private nondenominational university or college:				
President	12	6,200	8,100	9,500
Registrar	16	2,250	2,700	3,500
Dean of the college	58	3,965	4,900	6,121
Dean of men	8	3,200	3,850	5,050
Dean of women	21	2,350	2,970	3,450
Director of research	27	1,775	2,263	4,488
Denominational junior college:				
President	14	2,775	3,350	3,950
Dean of the college	15	2,144	2,575	3,263
Private teachers college:				
President	5	3,788	4,050	6,488

SUMMARY

1. Because of certain inadequacies in the data blank and resulting inaccuracies in the replies the salary data included in this chapter are reported only in order that general impressions may be obtained of the college salary situation in 1931–32.
2. The majority of the staff members of colleges and universities in 1931–32 were paid salaries for 9- or 10-months' employment.
3. Staff members of practice and demonstration schools, of junior colleges, and of denominational colleges and universities as groups received lower salaries than other comparable groups.
4. College salaries in 1931–32 seemed to be less affected by location of the institutions in geographic areas than was thought from previous studies. The Middle Atlantic, New England, and Pacific coast areas paid slightly higher salaries than the other areas.
5. Salaries increased regularly with the higher academic ranks.
6. The president and the dean of the college were the two administrative officers who received higher salaries than the heads of departments and professors in the same institutional groups.

CHAPTER V

TEACHING AND SERVICE LOAD OF FACULTY MEMBERS

Teaching load and service load.—Persons outside of the immediate field of education frequently confuse the so-called "teaching load" of faculty members with their total institutional responsibilities. The actual hours spent in the classroom represent only a part—a small part in time—of a college teacher's work. In addition to the time spent in instruction he must prepare for the lectures or for the laboratory demonstrations, he must correct written work and examinations, serve on faculty committees, consult and advise students, answer correspondence, represent his institution in a variety of time- and energy-consuming ways and carry on research in connection with his own special field. These are all responsibilities which he is expected to assume and for which his salary is paid. The total of these responsibilities should be referred to as his "service load" or his "institutional load" instead of his "teaching load" even though most of the time is directly or indirectly related to his work as a teacher. In order to present this entire picture the inquiry to staff members of higher educational institutions included questions on the major divisions of the service load (items 45 to 65 in fig. 1, p. 150–51). Summary tables of the answers and a few of the detailed tables will be presented in this chapter with a minimum of discussion because the problem is so complex and the number of items so large that it would be impossible to single out even the most significant of the interrelations without greatly extending the space allowed for this section of the study.

Teaching load—clock-hours per week.—The actual teaching loads in clock-hours per week in the school year 1931–32 for the faculty members of the cooperating institutions are shown in table 27 which gives for each type of institution the number of teachers and the first quartile, median, and third quartile of the distribution of hours taught per week. Due in all probability to the work of various standardizing agencies the medians and the range of the middle 50 percent were rather uniform. The medians for the junior colleges were all slightly higher than for the other groups. In interpreting the data of table 27 the reader should remember that the numbers are higher than they would be as reported to standardizing agencies. No allowance was made in table 27 for the "weighting" given to class work in certain subjects especially those involving shop and laboratory work which is usually counted at the rate of 1½ or 2 hours for 1.

TABLE 27.—*Teaching load—clock-hours per week during school year 1931–32—of members of teaching staffs of colleges and universities*

Type of institution	Total number involved	Q_1	Median	Q_3
1	2	3	4	5
State university or land-grant college	3,838	11.5	15.0	18.3
State woman's college	561	15.2	16.6	21.0
State teachers' college or normal school	3,875	15.3	16.7	20.1
State junior college	209	15.4	18.2	20.5
Municipal university or college	179	12.4	15.3	18.6
Municipal teachers' college	375	14.9	16.6	19.3
Municipal junior college	602	15.4	17.8	22.1
Denominational university or college	3,240	13.5	15.8	18.6
Private nondenominational university or college	2,082	11.2	14.4	17.0
Denominational junior college	218	14.8	17.0	20.2
Nondenominational junior college	60	15.2	18.0	21.4

The municipal university and college group and the private nondenominational university and college had the most compact distribution of teaching loads and probably the fewest hours of teaching per week of any of the groups.

The teaching load in clock-hours per week was distributed according to the size of the institution as measured by college enrollment. The percentage of the faculty in each size group was computed for the different number of hours of teaching per week and is shown in table 28. The percentages in table 28 show a sharp difference in practice beginning with the 2,500–4,999 size group. In the three groups of the largest institutions there was a marked tendency to have larger percentages of the staff teaching fewer than 10 hours per week and smaller percentages teaching 20 or more hours per week. In the group of the largest institutions nearly two-thirds taught fewer than 15 clock-hours per week and only 7.4 percent more than 20.

TABLE 28.—*Teaching load by percents of members of instructional staffs in various sized colleges and universities, 1931–32*

College enrollment	Total responses	Teaching load (hours per week)									
		0	1–9	10–14	15	16	17–19	20–24	25–29	30–34	35 and more
1	2	3	4	5	6	7	8	9	10	11	12
Fewer than 200	1,201	0.1	9.1	22.1	17.5	10.8	10.0	13.8	5.5	1.4	0.7
200–499	2,724	.1	5.1	23.4	18.0	12.4	12.4	14.2	4.9	1.5	.4
500–749	2,695	------	4.0	22.0	16.9	16.2	12.2	16.8	5.2	2.0	.7
750–999	1,538	------	4.9	21.8	19.6	13.8	16.2	16.4	5.1	2.0	1.2
1,000–1,499	1,719	.1	7.4	24.4	18.9	9.6	13.7	17.0	4.4	1.6	.7
1,500–2,499	2,101	------	8.4	25.8	17.8	12.9	13.4	14.9	4.5	2.5	.7
2,500–4,999	1,789	.1	12.5	24.4	14.2	8.6	12.9	11.2	4.9	1.4	1.5
5,000–9,999	957	.3	23.5	41.7	10.6	5.1	7.0	8.1	1.8	1.5	.6
10,000 and more	563	.2	20.7	43.8	8.9	5.3	4.8	3.9	1.4	1.4	.7
Total responses: Number	15,267	12	1,360	4,045	2,574	1,757	2,268	2,092	690	247	122
Percent	------	0.1	8.9	26.5	16.9	11.5	14.4	13.7	4.6	1.6	0.8

Teaching load by subjects.—In order to show the variations which existed in the teaching load of faculty members teaching different subjects tabulations of the clock-hours spent by teachers of chemistry, physics, mathematics, and English (2 laboratory and 2 nonlaboratory subjects) were prepared and the results appear in table 29 for some of the larger groups of institutions. Heads of departments in the majority of cases taught full programs—the median teaching loads for them being around 16 or 17 clock-hours. The midpoint for the teachers of chemistry and physics were 3 or 4 clock-hours per week more than the midpoint for teachers of mathematics. Teachers of English had the lowest teaching load in clock-hours of those four groups—52.2 percent taught fewer than 15 clock-hours per week in 1931–32. Another point of interest in table 29 lies in the large numbers of staff members in chemistry and physics in some of the groups who taught 20 or more clock-hours per week. Teachers in the teachers colleges and in the denominational colleges and universities carried the heaviest loads in this respect. In three groups more than 50 per cent of the staff carried teaching loads of more than 20 clock-hours per week.

TABLE 29.—*Distribution of teaching load (clock-hours per week during school year 1931–32) of staff members of different types of colleges*

Type of instructor and institution	Number involved	Percentage of clock-hours per week								
		1-9	10-14	15	16	17-19	20-24	25-29	30-34	35 and more
1	2	3	4	5	6	7	8	9	10	11
CHEMISTRY										
Heads of departments in:										
State university or land-grant college	36	19.4	33.3	5.6	2.8	13.9	16.7	8.3		
State teachers college or normal school	34		5.9	5.9	11.8	29.4	35.3	8.8		2.9
Private nondenominational university or college	26	3.9	23.1	7.7	11.5	26.9	15.4	3.9	3.8	3.8
Denominational university or college	75	4.0	10.7	12.0	10.7	16.0	26.6	12.0	5.3	2.7
Total	171	6.4	16.4	8.8	9.4	19.9	24.5	9.4	2.9	2.3
PHYSICS										
Heads of departments in:										
State university or land-grant college	22	13.6	36.4	13.7	9.1	13.6	13.6			
Denominational university or college	36	5.6	22.2	5.6	8.3	22.2	27.8	5.5	2.8	
Private nondenominational university or college	18	5.6	22.2	22.2	5.6	27.7	11.1	5.6		
Total	76	7.9	26.3	11.8	7.9	21.1	19.7	4.0	1.3	
CHEMISTRY										
Teaching staff in:										
State university or land-grant college	222	4.9	14.4	4.1	4.1	17.1	33.8	12.6	5.8	3.2
State teachers college or normal school	103		6.7	7.6	8.6	18.1	40.9	13.3	2.9	1.9
Municipal university or college	17	5.9	35.3		35.3	17.6		5.9		
Denominational university or college	145	2.8	12.4	6.2	4.1	19.3	33.1	15.2	5.5	.7
Private nondenominational university or college	92	9.8	17.4	8.7	5.4	21.7	33.7	3.3		
Total	581	4.5	13.6	5.9	6.0	18.6	33.9	11.7	4.1	1.7

TABLE 29.—*Distribution of teaching load (clock-hours per week during school year 1931–32) of staff members of different types of colleges*—Continued

Type of instructor and institution	Number involved	Percentage of clock-hours per week								
		1–9	10–14	15	16	17–19	20–24	25–29	30–34	35 and more
1	2	3	4	5	6	7	8	9	10	11
PHYSICS										
Teaching staff in:										
State university or land-grant college	111	7.2	21.6	12.6	10.8	24.3	19.8	2.7	.9	
State teachers college or normal school	50		10.0	6.0	10.0	34.0	34.0	4.0	2.0	
Municipal university or college	4		25.0		50.0		25.0			
Denominational university or college	75	4.0	13.3	4.0	4.0	21.4	37.4	13.3	1.3	1.3
Private nondenominational university or college	57	5.3	22.8	14.0	8.8	19.3	26.3	1.8	1.7	
Total	297	4.7	17.9	9.4	9.1	23.9	28.0	5.4	1.3	.3
MATHEMATICS										
Teaching staff in:										
State university or land-grant college	213	7.0	33.8	19.7	14.1	24.0	.9		.5	
State teachers college or normal school	148	3.4	12.2	22.3	29.0	21.6	9.5	2.0		
Municipal university or college	15		46.6	6.7	40.0	6.7				
Denominational university or college	125	5.6	23.2	21.6	12.0	28.8	5.6	3.2		
Private nondenominational university or college	71	7.0	40.9	28.[illegible]	11.3	7.0	4.2			1.4
Total	572	5.6	27.1	21.5	17.8	21.9	4.5	1.2	.2	.2
ENGLISH										
Teaching staff in:										
State university or land-grant college	433	10.2	58.3	20.3	3.7	3.0	4.2	.7	.9	.7
State teachers college or normal school	508	2.2	30.3	26.4	21.6	11.2	5.9	1.4		1.0
Municipal university or college	20	5.0	55.0	20.0	20.0					
Denominational university or college	337	5.6	45.7	26.1	9.5	8.3	3.3	1.2	.3	
Private nondenominational university or college	227	17.6	52.0	13.2	5.3	6.2	4.8	.9		
Total	1,525	7.5	44.7	22.6	11.4	7.3	4.6	1.1	.3	.5

Institutional responsibilities of staff members.—In attempting to obtain a more accurate picture of the total service load of college staff members they were asked to estimate for the year 1931–32 the average number of hours per week which, as full-time employees, they devoted to each of the following nine forms of institutional responsibilities: (1) Residential college instruction—nonlaboratory, etc.; (2) residential college instruction—laboratory, studio, gymnasium, shop, etc.; (3) residential instruction—practice school pupils; (4) extension teaching; (5) preparation for instruction; paper work, etc.; (6) college representative to the public; (7) regularly delegated administrative responsibilities; (8) research; and (9) other institutional responsibilities (conferences, committee work, travel, etc.). The answers to these questions are summarized for 8 groups of institutions and for each kind of institutional responsibility in table 30. For each type of responsibility the number reporting that they gave time to that form of service, the percentage which that number was of the total number of instructional staff members and the first quartile, the median, and the third quartile of the distribution of the time spent are reported in table 30. This table contains an unusually large number of interesting and important facts and rela-

tionships but because it is so concentrated (a final summary of numerous detailed tables) it must be used with caution. For example, 93.2 percent of the instructional staff of the State university and land-grant college group reported time spent in residential instruction of the nonlaboratory type. The median of the average hours per week spent in this form of work was 10.8 and because such a large proportion of the faculty was involved it may be said that the instructional staff spent about 10 hours per week teaching nonlaboratory courses. The situation presented for the same group of institutions in column 3 is a very different one. Here it appears that only 161 instructors or 4.2 percent of the total group gave any residential instruction to practice school pupils. The median number of hours per week spent in this work by the 161 teachers was 6.2, but this is not representative of the entire group because 95.8 percent, or 3,685 members, of the instructional staff did not teach practice school pupils. An effective method for using table 30 for comparisons is to read down each column first for the percentage of the total group reporting that form of institutional responsibility and then again for the median average amount of time spent. In this manner decided differences among institutions will appear.

An example is shown in column 3 in which the percentage of the total instructional groups in the State teachers colleges and the municipal teachers colleges teaching practice school pupils was much larger than was true for any of the other groups. Another example was the larger percentage of the faculty in the municipal universities and colleges, which reported extension teaching. Still another difference was the larger percentages of the faculties in the State universities and land-grant colleges, the private nondenominational and the municipal universities giving time to research as well as the longer time devoted to research as indicated by the medians. The data in table 31 supplement those in table 30. The average hours shown in table 31 for each of the nine forms of institutional responsibility represent the average time spent by the entire faculty (including those who did not perform the activity) while the averages in table 30 are for only those who reported time spent on each item. An illustration will show the difference in the way the data for the two tables were prepared. If for the State universities and land-grant colleges the medians in table 30 are added the sum is 66.7 hours per week. This is obviously too high because all the medians were for only parts of the total group. The total median load of institutional responsibility for the instructional members of the State university and land-grant college group is shown in table 31 to have been either 44.7 hours or 46 hours. (The figures in column 11 are the medians of the total sums reported by the staff members (items 57–58, fig. 1, p. 151) and those in column 12 are the sums of the averages in columns 2 to 10, inclusive.)

TABLE 30.—*Institutional responsibilities of faculty members in selected types of institutions, 1931–32*

Institutional responsibilities by type of institution	Residential college instruction, nonlaboratory, etc.	Residential college instruction, laboratory, studio, gymnasium, shop, etc.	Residential instruction, practice school pupils	Extension teaching	Preparation for instruction, paper work, etc.	Services as college representative to public	Regularly delegated administrative responsibilities	Research	Other institutional responsibilities (conferences, committee work, etc.)	Total hours devoted to institutional responsibilities
1	2	3	4	5	6	7	8	9	10	11
State university or land-grant college:										
Number engaged in activity	3,586	1,883	161	659	3,745	913	1,725	2,692	2,524	3,840
Percent engaged in activity	93.2	49.0	4.2	17.1	97.4	23.8	44.9	70.0	65.7	
Average hours per week Q_1	7.0	6.0	3.4	2.3	9.0	2.3	3.3	4.0	2.4	36.0
Average hours per week median	10.8	10.2	6.2	3.7	13.8	3.5	6.3	8.4	3.8	44.6
Average hours per week Q_3	14.2	15.3	10.1	5.0	20.0	4.8	12.3	14.4	6.1	50.4
State teachers college:										
Number engaged in activity	3,413	1,873	692	683	3,794	843	1,298	1,675	2,878	3,860
Percent engaged in activity	88.1	48.3	17.9	17.6	98.0	21.8	33.5	43.2	74.3	
Average hours per week Q_1	9.1	7.0	3.3	2.2	10.0	2.2	2.8	2.6	2.5	34.5
Average hours per week median	13.9	12.1	5.9	3.4	14.7	3.3	4.7	4.2	3.9	40.6
Average hours per week Q_3	17.4	17.4	9.5	4.7	21.0	4.5	9.3	7.5	6.6	46.6
Denominational university or college:										
Number engaged in activity	3,021	1,249	205	402	3,081	652	952	1,671	1,972	3,207
Percent engaged in activity	93.2	38.5	6.3	12.4	95.3	20.2	29.4	51.6	60.9	
Average hours per week Q_1	9.7	7.2	2.5	2.2	10.4	2.2	2.9	2.8	2.3	30.6
Average hours per week median	13.5	11.7	4.1	3.4	15.2	3.3	4.7	4.6	3.6	40.2
Average hours per week Q_3	17.0	16.1	7.0	4.6	21.7	4.5	9.5	9.2	4.9	46.2
Private nondenominational university or college:										
Number engaged in activity	1,899	835	88	336	1,996	367	739	1,274	1,393	2,054
Percent engaged in activity	92.3	40.6	4.3	16.3	97.3	17.9	36.0	62.0	67.8	
Average hours per week Q_1	7.5	5.9	2.6	2.2	9.6	2.2	3.1	3.4	2.3	32.6
Average hours per week median	11.4	10.6	4.1	3.5	14.7	3.4	5.4	6.5	3.7	40.5
Average hours per week Q_3	14.5	15.0	7.5	4.7	22.3	4.6	11.1	12.2	5.1	48.0
State women's college:										
Number engaged in activity	499	318	40	43	567	111	137	238	372	581
Percent engaged in activity	85.9	54.8	6.9	7.4	97.6	19.1	23.6	41.0	64.0	
Average hours per week Q_1	7.6	8.8	3.2	2.1	10.5	2.1	2.9	2.6	2.5	33.1
Average hours per week median	12.6	14.1	5.9	3.2	15.8	3.2	4.9	4.1	4.0	40.5
Average hours per week Q_3	16.8	19.2	11.7	4.3	22.8	4.2	10.2	7.8	6.7	48.3
Municipal university or college:										
Number engaged in activity	171	71	8	79	171	35	83	123	135	179
Percent engaged in activity	95.5	39.7	4.5	44.1	95.5	19.6	46.4	68.7	75.4	
Average hours per week Q_1	9.1	4.7		2.4	8.3	2.2	3.3	3.5	2.4	34.3
Average hours per week median	12.6	9.1		3.7	13.0	3.3	6.3	6.8	3.7	40.5
Average hours per week Q_3	15.9	13.8		5.3	19.2	4.5	12.2	11.7	5.4	46.9

Municipal teachers college:											
Number engaged in activity	314	166	51	55	352	52	132	160	279		368
Percent engaged in activity	83.5	44.1	13.6	14.9	93.7	13.8	35.1	42.6	74.2		
Average hours per week Q_1	10.2	6.5	2.8	2.2	9.2	2.2	2.5	2.6	2.5		30.5
Average hours per week median	14.1	10.6	4.6	3.3	13.7	3.5	4.1	4.2	3.9		36.9
Average hours per week Q_3	17.4	15.4	17.3	4.5	20.5	4.7	7.4	7.3	6.4		45.4
Municipal junior college:											
Number engaged in activity	546	252	13	55	585	81	103	229	337		590
Percent engaged in activity	91.0	42.1	2.2	9.2	97.5	13.5	25.5	38.2	64.5		
Average hours per week Q_1	9.4	8.0	3.6	2.3	8.6	2.2	2.7	2.5	2.6		30.9
Average hours per week median	15.1	13.2	7.5	3.6	14.4	3.5	4.5	3.9	4.1		40.2
Average hours per week Q_3	182	19.0	14.4	4.8	21.5	4.7	8.5	6.4	7.1		45.8

This table should be read as follows: Of the faculty members of State universities and land-grant colleges 3,586, or 93.2 percent of the total group reported doing residential college instruction of the nonlaboratory type; of this group 25 percent gave an average of 7 hours or less per week, half of them gave an average of 10.8 hours or less, and 25 percent gave an average of 14.2 hours or more.

TABLE 31.—*A composite picture of the average hours per week devoted to institutional responsibilities by members of college and university teaching staffs, 1931–32*

Type of institution	Institutional responsibilities										
	Residential college instruction, nonlaboratory, etc.	Residential college instruction—laboratory, studio, gym, shop, etc.	Residential instruction, practice school pupils	Extension teaching	Preparation for instruction, paper work, etc.	Serve as college representative to public	Regularly delegated administrative responsibilities	Research	Other institutional responsibilities (conferences, committee work, etc.)	Sum of hours devoted to institutional responsibilities	Sum of items 48 to 56, inclusive
1	2	3	4	5	6	7	8	9	10	11	12
State university or land-grant college (total cases 3,846)	10.0	5.5	0.3	0.8	14.0	1.0	4.0	7.1	3.3	44.7	46.0
State teachers college (total cases 3,875)	11.5	6.0	1.3	.7	14.8	.8	2.5	2.4	3.8	41.8	43.8
Denominational university or college (total cases 3,242)	12.1	4.6	.3	.5	14.7	.8	2.2	3.5	2.8	40.0	41.5
Private nondenominational university or college (total cases 2,057)	10.4	4.5	.3	.7	14.9	.7	3.0	5.3	3.2	41.5	43.0
State woman's college (total cases 581)	10.4	7.6	.6	.3	15.5	.7	1.9	2.4	3.4	41.9	42.8
Municipal university or college (total cases 179)	11.6	3.9	.2	1.9	13.2	.8	4.3	5.8	3.7	42.4	45.4
Municipal teachers college (total cases 376)	11.2	4.9	1.3	.6	13.6	.6	2.1	2.4	3.8	38.9	40.5
Municipal junior college (total cases 600)	12.7	5.7	.2	.4	14.3	.6	1.8	1.9	3.4	40.0	41.0

This table should be read as follows: The average number of hours spent per week by the entire teaching staff of the State university and land-grant college group was 10 on residential instruction of the nonlaboratory type, 5.5 hours on residential instruction of the laboratory, studio, shop type, etc.

From table 31 it is possible to check some of the conclusions drawn from the preceding table and also to obtain a better perspective of the total service program of college teachers. The sum of the hours reported in columns 2 and 3 gives a measure of the median teaching load for each type of institution. The time spent in preparation for instructional work, correcting papers, and other responsibilities directly connected with instruction was about equal to the time spent in instruction. While the other types of responsibilities seem to have taken relatively little time, when the averages in columns 8, 9, and 10 are added they total to a median load ranging from 7.1 to 14.4 hours per week—nearly as much time as was spent in teaching in 3 of the groups.

Relation of teaching load to research.—The relationship of the amount of time spent in teaching to the amount of time devoted to research has been a matter of frequent discussion among college administrators. The medians and averages given in tables 30 and 31 indicate that the institutional groups in which the largest number of staff members conducted research had somewhat fewer hours of residential instruction. Another phase of this problem is presented in table 32, which gives the relationship of the total institutional load of the instructional staffs of the cooperating institutions and

the amount of time spent on research. The table also compares the teaching load of the group doing research with that of the group not reporting any research. The number of cases at either extreme of the distribution were too few for reliability but the table shows that in 1931–32 the faculty members who carried the heaviest total service loads also spent the most time in research and carried almost as heavy teaching loads as the members not reporting any research. Furthermore, the percentage of the faculty engaged in research increased steadily as the total service load increased. Another item worthy of note is that the median hours spent in research in all the groups with total service loads of 40 or more hours per week were from 4 to 27 times the difference in the median hours of the teaching loads of the 2 groups.

TABLE 32.—*The relation of total institutional load of teaching staffs of colleges and universities to the amount of research and teaching load, 1931–32*

Total hours per week devoted to institutional responsibilities	Total number involved	Teaching staff engaged in research				Teaching load (clock-hours per week)					
		Percent of group	Hours spent in research			Nonresearch group			Research group		
			Q_1	Median	Q_3	Q_1	Median	Q_3	Q_1	Median	Q_3
1	2	3	4	5	6	7	8	9	10	11	12
0 to 9	39	5									
10 to 19	401	20	2.2	3.3	4.5	8.9	12.6	15.3	4.8	8.6	12.5
20 to 29	1,786	35	2.3	3.7	5.0	13.3	15.9	18.4	11.0	14.4	16.2
30 to 39	4,087	45	2.6	4.2	7.5	15.1	16.8	20.7	12.6	15.6	18.0
40 to 49	5,699	59	3.2	5.7	10.5	15.1	16.8	21.2	12.6	15.6	18.6
50 to 59	2,329	70	3.9	8.3	14.2	13.9	16.6	21.8	12.5	15.6	18.9
60 to 69	689	79	4.9	11.5	21.0	13.2	16.5	21.8	12.1	15.5	19.2
70 to 79	110	77	7.7	13.7	24.4	12.2	15.5	18.3	11.4	15.0	18.2
80 to 89	33	76	10.2	15.8	24.7	------	22.5	------	------	18.5	------
90 to 99	17	76	16.9	25	25	------	20.0	------	------	17.8	------
Total	15,190	------	------	------	------	------	------	------	------	------	------

Relation of length of college curriculum to research.—Table 33 shows the relation of the length of the curriculum offered in institutions to the number of hours spent in research by the staff members of the institutions in 1931–32. The effect of graduate work and its emphasis upon research by both students and faculty members is evident from the increased percentages of the instructional staff who reported 20 or more hours per week devoted to research.

TABLE 33.—*Relation of amount of research done by teaching staffs of colleges and universities to maximum length of curricula presented by institutions, 1931–32*

Number of hours research work per week	Total number of cases	Maximum length of curricula presented in percentages					
		2 years undergraduate	3 years undergraduate	4 years undergraduate	1 year graduate	2 years graduate	3 or more years graduate
1	2	3	4	5	6	7	8
10 to 14	1,185	64.3	62.5	61.9	54.0	50.6	47.3
15 to 19	452	19.0	18.7	22.1	17.4	16.0	20.6
20 to 24	280	2.4	12.5	7.5	14.3	10.8	14.7
25 and more	332	14.3	6.3	8.5	14.3	22.6	17.4
Total	2,249	42	16	530	463	93	1,105

Relation of size of college to research.—The amounts of time devoted by staff members to research in 1931–32 in institutions of different sizes (college enrollment) are given in table 34. It is evident from this table that members of the instructional staffs in the larger institutions devoted more time to research than did those in the smaller institutions. This is shown most effectively by the increasing percentage of the instructors who reported 20 or more hours of research per week.

TABLE 34.—*Relation of amount of research done by teaching staffs of colleges and universities to size of student body, 1931–32*

Number of hours research work per week	Total number of cases	Percentage of college enrollment as at Nov. 1, 1931								
		Fewer than 250	250 to 499	500 to 749	750 to 999	1,000 to 1,499	1,500 to 2,499	2,500 to 4,999	5,000 to 9,999	10,000 and more
1	2	3	4	5	6	7	8	9	10	11
10 to 14	1,185	63.3	61.8	66.8	67.0	52.2	51.9	47.0	43.6	49.1
15 to 19	452	21.7	23.0	17.3	19.4	21.8	18.8	20.2	23.8	13.1
20 to 24	280	8.3	5.4	8.6	4.0	11.6	14.0	16.4	14.4	15.5
25 or more	332	6.7	9.8	7.3	9.6	14.4	15.3	16.4	18.2	22.3
Total	2,249	60	183	232	124	270	320	464	390	206

Size of college classes by college loads.—Another measure of the teaching load of college teachers involves the number of students in the classes they teach. Staff members in cooperating institutions were asked to report the average size of their classes in 1931–32 on the three levels junior college, senior college, and graduate school (items 60 to 65, fig. 1, p. 151). The number of instructors reporting from each type of institution and the Q_1 median and Q_3 of the distributions of class sizes as reported for the three levels are given in table 35. Classes and the ranges of the middle 50 percent of the classes were larger on the junior college level than on the senior college level and larger on the senior college level than on the graduate level. The

median size of the classes was surprisingly similar among the different groups of institutions on the junior college level and very varied on the graduate level.

TABLE 35.—*Average size of classes at different levels in colleges and universities, as given by members of teaching staffs, 1931–32*

Type of institution	Junior-college level				Senior-college level				Graduate level			
	Total number involved	Q_1	Median	Q_3	Total number involved	Q_1	Median	Q_3	Total number involved	Q_1	Median	Q_3
1	2	3	4	5	6	7	8	9	10	11	12	13
State university or land-grant college	2,536	21	26	36	2,707	11	17	26	1,368	4	6	11
State womans college	412	19	24	30	430	11	16	23	28	2	3	6
State teachers college or normal school	3,378	21	27	35	2,573	11	17	25	146	5	10	20
Municipal university or college	87	21	26	31	113	15	22	28	23	14	22	27
Municipal teachers college	254	19	25	30	231	16	21	26	56	10	17	35
Municipal junior college	575	21	25	30								
Denominational university or college	2,465	16	22	30	2,526	8	13	20	252	4	8	13
Private nondenominational university or college	1,349	18	24	31	1,514	9	15	24	516	5	13	24

SUMMARY

1. The total "service load" of college instructors should be distinguished from their "teaching load."
2. The median number of teaching hours per week was quite uniform for all types of institutions included in this study except that it was higher in the junior colleges.
3. The median number of hours of teaching per week tended to decrease as the size of the institution increased.
4. College teachers of subjects involving laboratory work taught approximately 3 or 4 hours more per week than teachers of nonlaboratory subjects. Heads of departments carried approximately full-time teaching loads.
5. Very few of the staff members of the cooperating institutions taught practice-school pupils except in the two groups, State teachers colleges and municipal teachers colleges.
6. The State universities and land-grant colleges, the private nondenominational colleges and universities, and the municipal universities and colleges had the largest percentage of their faculties doing research and more hours spent at it per week than in the other groups.
7. The median total service load for college instructors was 43 or 44 hours per week—divided roughly into thirds—one-third for instruction, one-third for preparation for instruction, and one-third for all other institutional responsibilities including research.

8. Regularly delegated administrative responsibilities, research and conferences, committee work, etc., each took on the average from 2 to 4 or more hours per week from faculty members.
9. Larger percentages of the teachers with the heaviest service loads conducted research and also spent more time in research than did college teachers with lighter total service loads.
10. There was little difference (about 1 hour per week) in the teaching load of the groups doing research and those not doing research.
11. Faculty members in graduate schools and in larger institutions gave more time to research than did those in undergraduate schools and in the smaller institutions.
12. The median sizes of classes on the junior college level of the cooperating institutions were larger than those on the senior college level which in turn were larger than those on the graduate level. Median class sizes on the graduate level varied much more widely than in either of the undergraduate levels.

CHAPTER VI

PROFESSIONAL GROWTH AND ACTIVITIES OF STAFF MEMBERS

Evidences of professional growth of staff members.—The continuous professional development of all members of the instructional staffs of higher educational institutions is a matter of constant concern to all administrative officers in such institutions. There are numerous ways by which instructors may continue their professional growth while teaching, for instance, by systematic reading in the field of their teaching interests, by research either in the methods of teaching their subjects or in the subject-matter content of the subjects, by travel, by study, and in other ways. The use and the results of many of these ways are not subject to easy study by means of a questionnaire. It was thought, however, that the way in which sabbatical absences were used, the extent to which the results of research and study were published, and the participation of faculty members in various professional activities would serve as indices of the extent to which the staff members of the several groups of institutions were interested and active in their own professional improvement. Accordingly some detailed questions on these three phases of the noninstructional activities of faculty members were incorporated in the staff inquiry (items 59, 66–69, fig. 1, p. 151).

TABLE 36.—*Sabbatical leave of absence taken by members of teaching staff of colleges and universities, 1931–32*

Type of institution	Total number involved	Institution does not grant sabbatical leave	Did not take last sabbatical leave	Took last sabbatical leave and traveled abroad	Traveled in the United States	Studied for advanced degree abroad	Studied for advanced degree in United States	Taught at another institution	Wrote a book	Other
1	2	3	4	5	6	7	8	9	10	11
State university or land-grant college	3,218	73.2	12.4	4.9	1.3	0.5	5.3	0.3	0.4	1.7
State womans college	580	98.8	.2			.2	.8			
State teachers college or normal school	3,477	78.8	5.7	2.1	1.1	.5	9.9	.3	.3	1.5
Municipal university or college	169	55.0	35.5	5.9		.6	1.8		.6	.6
Municipal teachers college	323	51.1	34.1	7.1	3.4	.3	2.8			1.2
Municipal junior college	503	95.8	3.2		.2		.8			
Denominational university or college	2,912	85.3	4.3	2.5	.9	.5	4.9	.3	.2	1.1
Private nondenominational university or college	1,629	69.4	9.3	10.3	1.7	.8	4.1	1.4	1.2	1.8

Sabbatical leaves of absence.—The extent to which sabbatical absences were available to faculty members in eight groups of institutions in 1931–32 is shown in table 36. The percentages in this table refer to the number of staff members replying and not to the number of institutions. Thus a few large institutions in which sabbatical absences were not granted would outweigh a large number of smaller institutions in which sabbatical absences were granted.

Several interesting and unexpected things are shown in table 36. In the first place, the granting of sabbatical absences was apparently much less common than is usually supposed. Sabbatical absences were available to only about one-fifth of the instructors in the institutions reporting. In the second place, most of the instructors took advantage of the sabbatical year if they had the opportunity, the exception to this generalization being the municipal universities and colleges, and the municipal teachers colleges. In the third place, it was evident that most of the staff members used the sabbatical absence for professional advancement. Only an insignificant number used the time to teach in another institution. While the percentages in the body of table 36 appear small, it is because they are percentages of the total groups, most of whom did not have sabbatical leaves. The two ways of using the sabbatical absence which were most frequently employed by faculty members in 1931–32 were for travel abroad and for studying for advanced degrees in the United States.

TABLE 37.—*Books and articles by members of teaching staffs of colleges and universities published since July 1926*

Type of institution	Total number involved	Percent of faculty producing books					Percent of faculty producing articles				
		No books	1	2 or 3	4 or 5	More than 5	No articles	1 to 3	4 to 9	10 to 19	20 or more
1	2	3	4	5	6	7	8	9	10	11	12
State university or land-grant college	3,846	72.4	14.5	8.9	2.4	1.8	49.1	25.2	15.7	6.4	3.6
State woman's college	581	86.9	10.3	2.1	.5	.2	76.4	18.6	3.9	.9	.2
State teachers college and normal school	3,876	86.5	8.7	3.6	.7	.5	76.1	17.1	4.8	1.4	.6
State junior college	209	90.9	6.7	2.4	.....	.....	83.7	15.3	1.0	.....	.....
Municipal university or college	179	66.5	17.8	12.3	1.7	1.7	58.6	24.6	10.0	3.4	3.4
Municipal teachers college	376	85.6	8.0	3.4	1.1	1.9	74.0	15.7	8.5	.5	1.3
Municipal junior college	601	93.9	4.0	1.5	.3	.3	82.7	14.9	1.7	.2	.5
Denominational university or college	3,240	84.8	10.8	3.2	.8	.4	74.6	16.4	5.8	2.0	1.2
Private nondenominational university or college	2,058	73.7	14.5	7.9	2.1	1.8	56.2	24.0	11.6	5.6	2.6
Denominational junior college	219	94.5	3.7	1.8	.....	.....	87.2	8.7	2.7	.9	.5
Nondenominational junior college	60	93.3	1.7	3.3	1.7	.....	90.0	6.7	3.3	.....	.....

Books published.—The extent to which books and magazine articles were produced by the teaching staffs of higher educational institutions in the period between July 1926 and the academic year 1931–32 is shown in table 37. The number of instructors replying and the

percentage who during that period wrote no books, 1 book, 2 or 3 books, 4 or 5 books, and more than 5 books are given for each of the 11 different types of institutions. Similar data are also included for the number of magazine articles published during the same period.

It appears from table 37 that approximately one-fifth of the instructors in these institutions wrote books, the percentage varying from 33.5 in the municipal universities and colleges to 5.5 in the denominational junior colleges. The table also shows that the most typical number of books produced by the instructors who did write books during the 5-year period was 1. Only in the three groups, the State universities or land-grant colleges, the municipal universities and colleges, and the private nondenominational universities or colleges, were there any significant number of faculty members who produced 2 or 3 books during the 5-year period.

Table 38 in which the number of books published by members of the instructional staffs of cooperating colleges were distributed according to the college enrollment of the universities shows that very definite relationships existed between the size of the institution, the percentage of instructors who published books, and the number of books per instructor published. The percentage of instructors who during that period published no books diminishes from 89.3 percent in the smallest group (those institutions with fewer than 250 students), to 54.9 percent in the institutions with 10,000 or more students. The percentage of instructors writing 1 book or 2 or more books during that period increased in a corresponding manner.

TABLE 38.—*Books published since July 1926 by percentages of members of instructional staffs in colleges and universities of various sizes, 1931–32*

College enrollment	Total responses	Number of books published				
		None	1	2 or 3	4 or 5	More than 5
1	2	3	4	5	6	7
Fewer than 250	1,200	89.3	8.2	2.1	0.4	
250–499	2,723	89.0	7.3	2.9	.4	0.4
500–749	2,693	85.5	10.2	2.9	.8	.6
750–999	1,538	80.7	8.7	3.4	.7	.5
1,000–1,499	1,720	80.4	11.6	5.6	1.2	1.2
1,500–2,499	2,100	78.3	12.9	6.2	1.5	1.1
2,500–4,999	1,769	75.7	13.6	7.1	2.2	1.4
5,000–9,999	957	60.4	18.6	14.4	3.6	3.0
10,000 and more	564	54.9	20.7	16.0	4.3	4.1
Total responses:						
Number	15,264	12,382	1,713	814	199	156
Percent		81.1	11.2	5.4	1.3	1.0

The distribution of the number of books published by staff members according to the geographic areas in which the colleges are located showed no significant variations among the various areas.

Articles published between 1926 and the academic year 1931–32.—Table 37 indicates that approximately two-thirds of the staff members of the institutions reporting did not write any magazine articles during the 5-year period between 1926 and 1931–32. The percentage of faculty members writing magazine articles varied from 50.9 percent in the State universities and land-grant colleges to 10 percent in the nondenominational junior colleges. The three groups in which the largest percentage of faculty members wrote magazine articles were the same three groups in which most books were produced, namely the State universities and land-grant colleges, the municipal universities and colleges, and the private nondenominational universities and colleges. Reference to column 9 in table 37 shows that most of the faculty members who did write magazine articles during the 5-year period did not write more than three articles. However, in the three institutional groups which had the largest percentage of faculty members who wrote magazine articles, the significant percentages of staff members who wrote 20 or more articles in the 5-year period was distinctly larger than for other groups.

The tabulations for the number of magazine articles written when distributed according to the size of the institution and according to geographic areas showed results similar to those for books written.

Relationship of research to educational productivity.—Table 39 shows the relationship between the percentage of instructors reporting some research activities in 1931–32 compared with the percentage writing books and magazine articles during the period 1926–32. These comparisons are arranged according to the instructional departments in the higher educational institutions cooperating in the study. The data in column 3—the percentage of the instructors in each department reporting research—showed that the highest percentages in 1931–32 were in the fields of agriculture, psychology, biology, and economics; the lowest were in the fields of library science, home economics, and physical education. Checking these returns with the data in columns 7 and 8 shows that the departments most productive in writing books in the 5-year period following 1926 were sociology, education, agriculture, psychology, and for magazine articles written during the same period, agriculture, psychology, biological science, sociology, philosophy, and education. While these figures cannot be taken too seriously for individual departments they do indicate that there was a direct relationship between the percentage of faculty members in a department engaged in research and the number of books and magazine articles produced by the instructors in those departments.

TABLE 39.—*Research (1931–32) and productivity (1926–32) of university and college teaching staffs*

Department	Total number of cases	Percentage of department doing research (1931–32)	Hours of research per week by department members during 1931–32			Percentage of department producing books since 1926	Percentage of department producing articles since 1926
			Q_1	Median	Q_3		
1	2	3	4	5	6	7	8
Agriculture	449	75	5	11	20	28	61
Art and drawing	461	50	3	5	9	10	23
Biological sciences	1,072	64	3	6	12	18	40
Business and commerce	505	49	3	5	9	19	28
Chemistry	880	60	3	6	12	15	44
Economics	468	68	3	7	12	24	40
Education	1,353	61	3	5	10	20	46
English	2,106	50	3	5	9	18	28
Geography	309	70	4	7	12	27	44
Health	105	35	2	4	6	13	25
History, civics	1,016	65	3	7	13	26	33
Home economics, household arts	641	24	3	4	7	11	21
Industrial arts	209	45	2	4	6	17	33
Languages							
Classical	389	57	4	7	12	17	26
Modern	1,242	55	4	7	12	20	22
Library science	85	28	3	4	8	11	31
Mathematics	872	45	3	5	11	11	24
Music	530	40	3	4	6	8	12
Philosophy, ethics	303	60	3	5	12	24	47
Physical education	692	32	2	4	5	8	17
Physics	447	53	3	5	9	14	29
Psychology	379	74	3	5	11	27	55
Sociology	265	64	4	7	13	38	47
Trades, industries	81	48	3	5	10	19	39
Other	216	52	3	5	10	29	44
Total	15,273	54					

Extracollege professional activities.—In the attempt to secure a picture of the professional activities outside of regular college work in which staff members participated in the 5-year period following 1926, a check-list of activities was prepared covering the usual range of these professional responsibilities. (For list see items 68–69, fig. 1, p. 151.) The answers to this list are reported in table 40. There are obvious reasons why the percentages in table 40 vary for some of the extracollege activities among the different groups of institutions. For example, in the percentage of municipal university, college, and teachers college faculty members serving as consultants for city school systems or for city institutions was larger than the percentage of faculty members of other types of institutions participating in this form of professional activity. The most significant column in table 40 is the last one showing the percentage of faculty members in the different types of institutions not participating in any of the activities listed. This percentage ranging from 39.3 in the State universities and land-grant colleges to 58.3 percent in the municipal junior colleges indicates that approximately half of the staff members of these institutions did not participate in any of those activities considered indicative of professional growth and recognition.

TABLE 40.—*Distribution of participation in extracollege activities by members of teaching staffs in colleges and universities*

Type of institution	Total number involved	Number of activities checked less nonparticipants	Elected member of national honorary professional association of your particular field	Participated in State or city survey	Member of national or State committee (professional)	Member of national or State committee (civic, fraternal, social)	Office in State civic, etc., organization	Office in State professional organization	Office in national civic, etc., organization	Office in national professional organization	Consultant for city system or institution	Won honorary citation or recognition for scholarly, artistic, or other accomplishment from a government or from a professional or civic organization	Editor of magazine or journal	Other	Number not participating	Percent not participating
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
State university or land-grant college	3,846	3,501	31.1	9.5	22.0	6.3	2.9	8.4	1.0	6.5	1.2	3.3	3.1	4.7	1,511	39.3
State teachers colleges	581	427	32.1	7.3	25.0	4.7	3.7	10.1	1.9	3.3	.9	4.2	2.1	4.7	281	48.4
Municipal university or college	170	126	32.8	5.5	20.3	6.2	1.6	7.8	.8	2.3	3.9	10.2	3.1	5.5	91	50.8
Municipal teachers college	375	225	18.7	11.6	15.6	8.0	5.8	3.5	3.1	3.5	10.2	2.7	4.4	12.9	216	57.6
Municipal junior college	602	337	30.6	17.2	17.2	8.6	4.5	9.5	.9	1.2	1.5	6.2	1.8	3.8	351	58.3
Denominational university or college	8,242	2,020	37.4	7.7	15.7	7.5	3.6	7.5	1.4	3.1	2.0	4.8	3.1	6.2	1,780	55.2
Private nondenominational university or college	2,058	1,549	29.1	10.8	18.0	6.6	3.4	7.0	1.2	5.6	2.2	4.6	3.8	7.7	994	47.8

The tabulation of participation in the extracurricular activities distributed according to the college enrollment shows that there was a distinct relationship between participation in these activities and the size of the institution—the larger the institution, the larger the percentage of participation.

SUMMARY

1. Only about one-fifth of the instructional staff members reporting in 1931–32 worked in institutions which granted sabbatical leaves of absence.
2. Of those who had leaves of absence in 1931–32 the large majority spent the year either in travel abroad or in work toward an advanced degree in the United States.
3. About one-fifth of the instructional staff members wrote books and one third wrote magazine articles during the 5-year period following 1926.
4. Most of the educational productivity occurred in the State universities and land-grant colleges, the municipal universities and colleges, and the private nondenominational universities and colleges.
5. The percentages of instructors who wrote books and magazine articles was greater in the larger institutions than in the smaller. The number written per instructor was also greater.
6. There was a definite relationship between the percentage of the faculty engaged in research and the number of books and magazine articles prepared during the 5-year period following 1926.
7. About half of the faculty members of higher educational institutions did not participate in any of the extracollege activities listed in the inquiry blank.
8. The extracollege activities most frequently listed by faculty members were election to membership in national honorary professional associations of their particular field of work and membership in national or State professional committees.

CHAPTER VII

TEACHING STAFF OF PRACTICE-DEMONSTRATION SCHOOLS

Place of practice-demonstration schools in teacher education.—Teaching may be described as both a science and an art. A teacher's professional equipment must include a knowledge of the things to be taught, a knowledge of the science of education and the methods of teaching, and proficiency in the art of teaching. There are, of course, other elements in a teacher's professional equipment but these three are fundamental. In order to provide prospective teachers with the necessary minimum of teaching skills before they are graduated and certificated as teachers it is essential that they have opportunity to practice the required skills under careful supervision until they can demonstrate the degree of teaching proficiency required of beginning teachers. Some form of practice or laboratory school is therefore a necessary part of the facilities of any institution educating teachers. Practice in the actual skills of teaching must obviously be had either during the preservice period of preparation or obtained during the teacher's first year of teaching. The second plan requires a degree of supervision of the young teacher which virtually amounts to conducting a practice school for him after he is employed, otherwise he obtains his practice at the expense of the children he teaches and at the risks of initial failure and the establishment of bad teaching habits.

The study of curricula of institutions in which teachers are prepared showed that the most distinguishing element between institutions which are primarily concerned with the education of teachers and those in which teacher education is only one of several main functions is the adequacy of the facilities for practice and demonstrstion work. This difference was shown and emphasized in several other parts of the survey (vol. III, pts. IV and V; vol. IV; vol. V, pts. I, VII, and VIII).

Because of the very important place which the practice school holds in the education of teachers and because of the important relation which the staff of the practice school holds to the effectiveness of such schools it was decided to separate the practice school staff for special study in order to facilitate comparisons. This chapter shows the status of the practice-demonstration teaching staff members for the year 1931–32 on the various items in the inquiry (fig. 1, p. 145) distributed by the seven groups of institutions of senior college grade. The data are summarized in table 41. The same items are included

in this table as have been presented and discussed for instructional staff members in the colleges and universities in the earlier chapters of this part. Because the same distribution has been carried for all the items the data have been presented in one long table. Anyone interested in detailed comparisons with similar data for the college instructional staff may easily find them by referring to preceding tables as indicated for the items in table 41. Attention will be called to a few of the most noteworthy items in this table.

TABLE 41.—*Personnel study of the teaching staff of practice-demonstration school, 1931–32*

Field	Percent by type of institution						
	State university or land-grant college	State woman's college	State teachers college	Municipal teachers college	Denominational university or college	Private nondenominational university or college	Private teachers college
1	2	3	4	5	6	7	8
MARITAL STATUS							
Total number responding	211	90	1,595	90	75	122	
Single	64.0	78.9	79.8	73.3	62.7	54.9	
Married	32.7	17.8	14.9	21.1	36.0	41.8	
Divorced	.9		1.1	1.1			
Widow—widower	2.4	3.3	4.2	4.5	1.3	3.3	
(N.B.—Tables 7 and 8.)							
AGE							
Total number responding	211	90	1,588	83	75	122	30
Q_1	31.3	30.6	30.6	37.2	30.3	30.9	35.3
Median	36.4	36.2	36.4	43.2	33.9	36.4	39.0
Q_3	42.9	43.4	44.2	50.8	40.6	42.2	46.9
(N.B.—Table 6.)							
DEPARTMENT IN WHICH INSTRUCTION IS GIVEN							
Total number responding	207	90	1,572	89	74	121	
Agriculture	2.9		.2				
Art and drawing	1.5	1.1	2.4	1.1	1.4	2.5	
Biological sciences	3.4	2.2	1.1		2.7	1.7	
Business and commerce	2.9		.7		4.0		
Chemistry	1.4		.2		5.4	1.7	
Economics			.1		1.4		
Education	47.9	58.9	67.5	76.4	39.1	36.3	
English	7.7	4.4	6.2	4.5	14.8	11.5	
Geography	.5	2.2	1.1	2.3			
Health			.4				
History—civics	4.9	5.6	3.7	2.3	2.7	5.8	
Home economics—household arts	10.1	6.7	2.5	1.1	1.4	4.1	
Industrial arts	1.4	1.1	1.9	1.1		1.7	
Languages:							
Classical	1.9	1.1	1.1		5.4	4.1	
Modern	2.9	1.1	.6		4.0	8.3	
Library science			.1				
Mathematics	1.9	5.6	3.2	2.3	4.0	5.8	
Music	2.4	6.7	3.9	4.5	4.1	6.6	
Philosophy—ethics					5.4		
Physical education	5.3	2.2	1.8	1.1		4.9	
Physics	.5	1.1	.1		1.4	1.7	
Psychology			.1	1.1		2.5	
Sociology			.1		1.4	.8	
Other	.5		1.0	2.2	1.4		
(N.B.—Table 4.)							

TABLE 41.—*Personnel study of the teaching staff of practice-demonstration school, 1931–32*—Continued

Field	Percent by type of institution						
	State university or land-grant college	State woman's college	State teachers college	Municipal teachers college	Denominational university or college	Private nondenominational university or college	Private teachers college
1	2	3	4	5	6	7	8
SEX							
Total number responding	211	90	1,595	90	75	123	30
Men	37.0	7.8	10.7	8.9	50.7	36.6	10.0
Women	63.0	92.2	89.3	91.1	49.3	63.4	90.0
(N.B.—Tables 6 and 7.)							
HIGHEST LEVEL OF TRAINING							
Total number responding	210	90	1,594	89	75	123	29
Less than high-school graduate				1.1			3.4
High-school graduate			0.2			0.8	
Less than 1 year of college			.3			.8	
1 year of college		1.1	.8	2.2	2.7		
2 years of college	1.4		8.3	5.6		.8	6.9
3 years of college	.5	3.3	6.2	6.8	4.0	2.5	6.9
4 years of college	11.9	34.4	30.3	24.7	22.7	13.8	41.4
1 year of graduate work	42.4	44.5	43.1	19.1	25.3	30.1	27.6
2 years of graduate work	24.3	15.6	7.3	12.4	24.0	24.4	6.9
3 or more years of graduate work	19.5	1.1	3.5	28.1	21.3	26.8	6.9
(N.B.—Table 10.)							
SOURCE OF EARNED BACHELOR'S DEGREE							
Total number responding	205	84	1,306	66	69	114	24
State university or land-grant college	64.4	10.7	23.5	1.5	2.9	18.4	8.3
State woman's college	.5	38.1	1.4		1.4		
State teachers college	10.7	11.9	34.1	4.6	4.4	4.4	16.7
Municipal college or university	.5	1.2	1.8	31.8		1.8	
Municipal teachers college			.2				
Denominational college or university	11.2	14.3	9.9	12.1	68.1	12.3	8.3
Private nondenominational college or university	9.7	11.9	19.3	40.9	10.1	59.6	50.0
Private teachers college	2.0	9.5	8.1	9.1	13.1	.9	8.3
Foreign college or university	.5					1.7	8.4
Other type	.5	2.4	1.7			.9	
(N.B.—Table 12.)							
SOURCE OF EARNED MASTER'S DEGREE							
Total number responding	140	44	712	32	46	82	9
State university or land-grant college	70.7	29.5	29.8	9.4	21.7	9.8	
State woman's college		2.3					
State teachers college	2.2	2.3	5.8		2.2		
Municipal college or university			2.8	9.4			
Municipal teachers college		2.3	.4	3.1			
Denominational college or university	.7		5.6	25.0	32.6	1.2	
Private nondenominational college or university	20.0	34.1	34.6	46.8	21.7	79.2	66.7
Private teachers college	5.7	29.5	20.2	6.3	21.8	9.8	22.2
Foreign college or university	.7		.1				11.1
Other type			.7				
(N.B.—Table 13.)							

TABLE 41.—*Personnel study of the teaching staff of practice-demonstration school, 1931–32*—Continued

Field	Percent by type of institution						
	State university or land-grant college	State woman's college	State teachers college	Municipal teachers college	Denominational university or college	Private nondenominational university or college	Private teachers college
1	2	3	4	5	6	7	8
SOURCE OF EARNED DOCTOR'S DEGREE							
Total number responding	15	5	37	3	13	6	
State university or land-grant college	93.3	80.0	78.4	66.7	15.4	33.3	
Denominational college or university			2.7		38.4		
Private nondenominational university or college	6.7	20.0	8.1	33.3	23.1	33.3	
Private teachers college			10.8		23.1	16.7	
Other type						16.7	
(N.B.—Table 14.)							
DEGREE OR DEGREES EARNED IN INSTITUTION OF PRESENT EMPLOYMENT							
Total number responding	211	90	1,593	90	75	124	
Percent with no such degree	47.9	65.6	82.6	96.7	49.3	50.8	
Number with such degrees	110	31	277	3	38	61	
Bachelor's	40.9	96.8	93.9	100.0	71.0	14.7	
Master's	26.4	3.2	2.5		7.9	52.5	
Doctorate	2.7					3.3	
Bachelor and master's	24.6		3.6		21.1	27.9	
Bachelor and doctorate	.9						
Master's and doctorate	1.8						
Bachelor, master's, and doctorate	2.7					1.6	
(N.B.—Table 15.)							
EXPERIENCE							
Total years employed by present institution: Total number responding	211	90	1,595	90	75	124	30
Q_1	2.7	2.7	2.8	5.0	3.3	2.1	2.3
Median	5.4	4.7	5.4	8.6	4.7	4.5	4.3
Q_3	9.8	7.9	9.6	15.8	6.4	8.7	8.1
(N.B.—Table 16.)							
Total years' experience on other college or university staffs: Total number responding	211	90	1,594	90	74	124	30
Percent with no experience	64.9	70.0	70.6	85.6	85.1	58.9	60.0
Number with experience	74	27	469	13	11	51	12
Q_1	1.7	1.8	2.0	2.3	1.9	2.1	2.0
Median	2.8	2.8	3.4	4.5	3.8	3.6	3.6
Q_3	5.6	5.3	5.7	7.9	8.1	5.9	5.4
(N.B.—Table 17.)							
Total years' experience in elementary school as teacher, principal, or supervisor: Total number responding	211	90	1,596	90	75	124	30
Percent with no experience	54.5	35.6	22.4	13.3	50.7	50.0	20.0
Number with experience	96	58	1,239	78	37	62	24
Q_1	2.5	3.0	4.6	6.5	4.3	2.8	5.3
Median	4.0	5.6	8.0	10.4	6.2	5.0	11.0
Q_3	7.9	10.8	13.2	18.2	9.8	9.3	17.0
(N.B.—Table 18.)							

TABLE 41.—*Personnel study of the teaching staff of practice-demonstration school' 1931–32*—Continued

Field	Percent by type of institution						
	State university or land-grant college	State woman's college	State teachers college	Municipal teachers college	Denominational university or college	Private nondenominational university or college	Private teachers college
1	2	3	4	5	6	7	8
EXPERIENCE—Continued							
Total years' experience in secondary school as teacher, principal, or supervisor:							
Total number responding	211	90	1,596	90	75	124	30
Percent with no experience	23.7	45.6	58.8	73.3	53.3	45.2	86.7
Number with experience	161	49	657	24	35	68	4
Q_1	3.8	4.0	2.9	2.6	3.6	3.1	.....
Median	6.8	5.9	4.9	4.7	7.1	6.7	.....
Q_3	10.6	9.1	8.5	10.0	9.8	10.8	.....
(N.B.—Table 19.)							
Total years' experience as school superintendent or assistant superintendent:							
Total number responding	211	90	1,596	90	75	124	30
Percent with no experience	90.5	96.7	94.0	97.8	94.7	94.4	100.0
Number with experience	20	3	95	2	4	7	0
Q_1	2.9	.....	2.6	.....	.....	.....	.....
Median	4.8	.....	4.2	.....	.....	.....	.....
Q_3	8.5	.....	7.1	.....	.....	.....	.....
(N.B.—Table 20.)							
Grand total years' educational experience:							
Total number responding	211	90	1,596	90	75	124	30
Q_1	8.6	7.9	8.8	15.1	5.5	7.8	7.5
Median	13.6	12.6	13.9	22.3	9.9	12.5	15.0
Q_3	21.6	20.0	22.9	29.8	16.2	18.9	24.1
(N.B.—Table 21.)							
SALARIES							
Year 1930–31:							
Total number responding	186	74	1,402	89	62	97	25
Q_1	$1,990	$1,717	$1,969	$2,783	$1,425	$2,278	$1,000
Median	2,533	2,006	2,256	4,455	1,800	2,706	2,150
Q_3	2,883	2,158	2,642	4,531	2,469	3,123	2,438
Year 1931–32, *total:*							
Total number responding	203	89	1,566	89	66	122	28
Q_1	$1,911	$1,685	$1,935	$2,863	$1,088	$2,025	$1,350
Median	2,417	1,917	2,243	4,464	1,750	2,557	2,150
Q_3	2,879	2,109	2,637	4,535	2,413	3,061	2,540
(N.B.—Tables 23 and 25.)							
TEACHING LOAD (HOURS PER WEEK)							
Total number responding	211	90	1,596	89	75	123	30
Percent not teaching	2.8	0	.9	0	0	3.2	0
Number who teach	205	90	1,581	89	75	119	30
Q_1	15.3	23.2	20.5	25.0	11.1	15.6	7.8
Median	22.4	26.9	26.3	27.9	16.4	20.6	14.3
Q_3	28.5	29.8	30.4	31.2	25.1	26.3	21.9
(N.B.—Table 27.)							

TABLE 41.—*Personnel study of the teaching staff of practice-demonstration school, 1931–32*—Continued

Field	Percent by type of institution						
	State university or land-grant college	State woman's college	State teachers college	Municipal teachers college	Denominational university or college	Private nondenominational university or college	Private teachers college
1	2	3	4	5	6	7	8
INSTITUTIONAL RESPONSIBILITIES (HOURS PER WEEK)							
Residential college instruction, nonlaboratory, etc.:							
Total number responding	211	90	1,570	90	75	123	30
Percent not instructing	50.2	56.7	67.2	75.6	30.7	48.0	26.7
Number who give instruction	105	39	515	22	52	64	22
Q_1	3.3	3.3	3.4	5.3	5.0	6.6	2.2
Median	6.0	6.4	6.4	8.0	9.3	13.6	3.3
Q_3	10.6	12.7	12.0	15.8	13.4	19.4	4.5
(N.B.—Table 30.)							
Residential college instruction—laboratory, studio, gym, shop, etc.:							
Total number responding	211	90	1,573	90	75	123	30
Percent not instructing	74.9	65.6	79.4	87.8	80.0	74.8	63.3
Number who give instruction	53	31	324	11	15	31	11
Q_1	4.8	7.8	4.5	5.5	3.5	6.3	2.1
Median	8.5	14.6	8.8	10.3	6.9	11.6	3.3
Q_3	15.5	20.8	15.0	16.9	11.6	17.3	4.6
(N.B.—Table 30.)							
Residential instruction, practice school pupils:							
Total number responding	211	90	1,594	89	75	123	30
Percent not instructing	18.0	10.0	9.6	11.2	57.3	48.8	20.0
Number who give instruction	173	81	1,441	79	32	63	24
Q_1	11.9	16.1	17.3	24.4	13.0	13.8	6.4
Median	19.9	23.5	25+	25+	21.7	22.0	10.6
Q_3	25+	25+	25+	25+	25+	25+	14.4
(N.B.—Table 30.)							
Extension teaching:							
Total number responding:	211	90	1,594	89	75	123	30
Percent not teaching	90.5	91.1	95.5	96.6	68.0	93.5	96.7
Number who teach	20	8	72	3	24	8	1
Q_1	2.5	----------	2.1	----------	2.3	----------	----------
Median	4.1	----------	3.3	----------	3.5	----------	----------
Q_3	8.3	----------	4.4	----------	4.8	----------	----------
(N.B.—Table 30.)							
Preparation for instruction, paper work, etc.:							
Number reporting preparation	198	86	1,499	76	72	112	28
Q_1	7.6	8.5	7.8	8.5	2.9	6.3	5.0
Median	12.2	12.6	12.2	12.3	4.9	10.3	8.2
Q_3	16.4	17.3	16.9	15.8	13.8	13.4	13.8
(N.B.—Table 30.)							
Serve as college representative to public:							
Total number responding	211	90	1,595	88	75	123	30
Percent not serving	87.2	87.8	87.0	96.6	92.0	94.3	93.3
Number who make public contacts	27	11	207	3	6	7	2
Q_1	2.3	2.1	2.1	----------	----------	----------	----------
Median	3.6	3.2	3.1	----------	----------	----------	----------
Q_3	4.9	4.3	4.2	----------	----------	----------	----------
(N.B.—Table 30.)							

TABLE 41.—*Personnel study of the teaching staff of practice-demonstration school, 1931–32*—Continued

Field	Percent by type of institution						
	State university or land-grant college	State woman's college	State teachers college	Municipal teachers college	Denominational university or college	Private nondenominational university or college	Private teachers college
1	2	3	4	5	6	7	8
INSTITUTIONAL RESPONSIBILITIES (HOURS PER WEEK)—Con.							
Regularly delegated administrative responsibilities:							
Total number responding	211	90	1,594	89	75	123	30
Percent having none	70.1	92.2	79.9	88.8	92.0	76.4	86.7
Number with responsibilities	63	7	320	10	6	29	4
Q_1	2.6	----------	2.7	2.7	----------	2.4	----------
Median	4.2	----------	4.4	4.3	----------	3.8	----------
Q_3	7.6	----------	9.6	7.5	----------	6.3	----------
(N.B.—Table 30.)							
Research:							
Total number responding	211	90	1,595	88	75	124	30
Percent doing no research	64.0	87.8	73.7	72.7	70.7	51.2	76.7
Number who do research	76	11	419	24	22	61	7
Q_1	2.5	2.1	2.3	2.4	2.0	2.6	----------
Median	3.9	3.2	3.5	3.8	3.1	4.1	----------
Q_3	6.7	4.3	4.8	7.5	4.1	7.4	----------
(N.B.—Table 30.)							
Other institutional responsibilities (conferences, committee work, travel, etc.):							
Total number responding	211	90	1,595	88	75	123	30
Percent having none	39.8	51.1	36.1	38.6	66.7	30.1	40.0
Number with other responsibilities	127	44	1,019	54	25	86	18
Q_1	2.4	2.5	2.6	2.2	2.5	2.3	3.6
Median	3.9	3.9	4.3	3.5	3.9	3.7	6.7
Q_3	6.5	6.5	7.6	4.7	7.2	5.3	11.3
(N.B.—Table 30.)							
Total institutional responsibilities:							
Total number reporting	211	90	1,591	88	74	122	30
Q_1	31.5	35.7	35.1	31.5	15.5	29.1	18.3
Median	40.8	40.6	40.8	38.0	25.5	34.9	30.5
Q_3	47.4	48.0	48.3	45.8	40.2	40.6	37.6
(N.B.—Table 31.)							
BOOKS PUBLISHED SINCE JULY 1926							
Total number responding	211	90	1,596	90	75	124	30
None	86.3	98.9	95.1	93.3	94.7	79.0	100.0
1	9.0	----------	3.9	1.1	4.0	9.7	----------
2 or 3	3.3	----------	.6	3.4	----------	9.7	----------
4 or 5	.5	1.1	.1	1.1	----------	1.6	----------
More than 5	.9	----------	.3	1.1	1.3	----------	----------
(N.B.—Table 37.)							
ARTICLES PUBLISHED IN MAGAZINES OF NATIONAL SCOPE SINCE JULY 1926							
Total number responding	211	90	1,582	90	74	124	30
None	66.8	92.2	89.2	93.3	90.5	79.9	93.3
1 to 3	24.6	6.7	9.1	5.6	6.8	14.5	6.7
4 to 9	6.2	----------	1.3	----------	----------	3.2	----------
10 to 19	1.9	1.1	.1	1.1	----------	.8	----------
20 or more	.5	----------	.3	----------	2.7	1.6	----------
(N.B.—Table 37.)							

Extent of practice-demonstration facilities.—Some very noticeable differences among the types of institutions shown in tables 3 and 41 were in the ratios of the practice-school staff members to the total instructional-staff members in the different types of institutions. Assuming that the same proportion of both groups answered, the percentage the practice-school staff members were of the instructional staff was an index of the extent of practice-school facilities provided by the different type of institutions. One reservation would have to be made, however, and that is that the groups of institutions other than the teachers colleges were not devoted exclusively or primarily to teacher education. For most of these institutions 46 percent of the students were preparing to become teachers. Even if due allowance is made for this, there were still marked differences among the types of institutions. The percentage which the practice-school staffs were of the college or university instructional staffs in each type of institution in 1931–32 was: State universities and land-grant colleges 5.9, State women's colleges 19.2, State teachers colleges 53, municipal teachers colleges 26.6, denominational universities or colleges 3.1, private nondenominational universities or colleges 6.9, and private teachers colleges 37. Obviously the percentages for the types of institutions not teachers colleges were very much smaller than for the three groups of teachers colleges even if allowance is made for the proportion of students not going into teaching and for the fact that many of the colleges and universities made provision for practice teaching in cooperating schools and did not include reports from the teachers in those schools.

Age, sex, and marital status of practice-school staffs.—Comparisons of the median age of the practice-school teachers with those of the college and university instructional groups as given in table 6 show that the practice-school staffs were consistently a younger group than the college instructors. Much higher percentages of the practice school staffs in all cases were women than was true for the college instructional staffs of the same types of institution. Computations from the percentages in tables 6 and 7 show that larger percentages of the practice-school staffs were unmarried than of the college instructional staffs.

Highest level of education.—The data in table 10 show very convincingly that the practice-school instructors in 1931–32 had had less educational preparation than the college instructional staff members. This was especially true for the percentages with 2 or more years of graduate work, which ranged from 46.5 percent to 76.8 percent for the college instructional staff members, but from 10.8 percent to 51.2 percent for the practice-school instructors. The larger percentage with 4 years of college work or less is further evidence that the staff members of the practice schools had had less educational preparation than the college faculty members.

Source of earned degrees.—In comparing the source of the earned bachelor's degree held by the practice school staff members with the source of the same degree for the college instructional staff members the proportions received from the different types of institutions were similar with one pronounced difference, namely, that there was a decidedly stronger tendency for the practice school staff members to hold their first degrees from institutions of the same type as the ones in which they were then teaching than was true for the college instructors. The importance of this fact is increased by the conditions which existed in these institutions with respect to the percentage of the staff members who received their bachelor's degree from the institution in which they were teaching in 1931–32. In every group except the municipal teachers college larger percentages of the practice school faculty than of the college faculty received their first degree from the institution in which they were then teaching. It therefore seems that there was more professional inbreeding in the practice school faculties than in the college and university faculties.

The types of institutions from which the majority of the practice school staff members earned their master's and doctor's degrees were the State universities and land-grant colleges and the private nondenominational colleges and universities. One element in which the practice school staff differed from the college staff was in the larger percentage of master's and doctor's degrees granted by the private teachers college group to the practice school instructors. This might be interpreted to indicate more emphasis upon preparation of a distinctly professional nature for the practice school instructors than for the college teachers.

Teaching experience of practice school staff members.—Instructional staff members of practice schools in 1931–32 had taught in the institutions in which they were then employed fewer years than had the college staff members. There was a difference of 1 or 2 years in the medians for the 2 groups. A decidedly larger percentage of practice school teachers than of college teachers had had no teaching experience in another institution of higher education and of those who had had, the median length of the experience was uniformly less by approximately a year, than for the instructional staffs of the colleges or universities. This is another indication that the staff members of the practice schools were more institutionally provincial than were the college instructional staffs.

The situation was different in the matter of teaching experience in the elementary schools. Not only had a larger percentage of the practice school staff members had experience in the elementary schools but the median length of experience was for most of the groups 2 or 3 years longer than for the college teachers. In the matter of teaching experience in secondary schools the reverse of the foregoing situation

prevailed for all groups except the State universities and land-grant colleges and the private nondenominational colleges and universities. This was probably accounted for by the fact that there were more elementary practice and demonstration schools than secondary and by the tendency to recruit college teachers more frequently from the high schools than from the elementary schools.

A comparison of the total years of experience showed medians slightly lower for the practice school groups than for the college faculties. The medians and quartiles indicate, however, that the practice schools were staffed by experienced teachers since the lowest quartile was nearly 8 years for most of the groups.

Salaries of practice school staff members.—Salaries for practice school staff members as reported for the years 1930–31 and 1931–32 showed insignificant reductions in the median salaries paid in 1931–32 except for the private nondenominational college and university group. Salary reductions in higher educational institutions did not become widespread until after the school year 1931–32 but the denominational and the private groups were the first to experience them. Comparisons of the salaries paid the faculty members of practice schools and those paid college staff members, as shown in tables 23, 25, and 41, indicate that there were median differences ranging from $400 or $500 to more than $2,000 in the several groups with the exception of the municipal teachers colleges. In that group the practice school teachers received almost as much as the college teachers due to the fact that both groups were in most cases on the same city salary schedules. With the exception of the three groups, State universities and land-grant colleges, municipal teachers colleges, and private nondenominational colleges and universities, the teachers in the practice schools, as judged by the median salaries received, ranked lower than the college staff members holding the rank of "instructors." In all groups, except the municipal teachers colleges, they ranked lower on the basis of median salaries than the assistant professors.

Institutional responsibilities of practice school staff members.—In five of the groups of institutions the actual teaching load in hours per week was from 5 to 10 hours longer for the teachers in the practice school than for the college instructors. This is compensated for by less time devoted to other institutional responsibilities so that the total time spent per week on various institutional activities was no more and for several of the groups was even less than the total time spent by the members of the college instructional staffs.

An analysis of the medians and quartiles of the time spent by practice school staff members on the various forms of institutional responsibilities indicates that in 1931–32 about half of them gave regular instruction in the colleges and universities for about 6 hours

per week; about one-fourth of them taught laboratory, studio, shop, or gymnasium courses for from 8 to 10 hours per week; most of them taught in the practice schools (denominational colleges and universities and private nondenominational colleges and universities were exceptions); less than a tenth taught extension classes and for 4 or fewer hours per week; they spent approximately 12 hours per week in preparation for instructional work; about one-eighth served as representatives of their institutions for a median of 3 hours per week; about one-fifth spent a median of 4 hours per week in regularly delegated administrative duties; about one-fourth averaged between 3 and 4 hours per week in research; and more than half gave about 4 hours per week to conferences, committee work and other institutional responsibilities.

Books and magazine articles published by practice school staff members.—In all groups of institutions a smaller percentage of the practice-school faculty members published books in the 5-year period following 1920 than was true for the college and university instructional staffs and those who did publish books wrote fewer. There were only very small percentages of the practice-school faculty members who wrote more than one book in that period.

The same relationship held with respect to the magazine articles published during the same 5-year period.

SUMMARY

1. Facilities for practice in teaching and for demonstration of teaching techniques are considered necessary in all professional schools for teachers and were the elements in which the greatest differences were found between the institutions devoted primarily to the preparation of teachers and other higher educational institutions.
2. The State teachers colleges and normal schools, the municipal teachers colleges and the private teachers colleges all gave more emphasis to practice and demonstration schools, as indicated by the ratio of the practice-school staff to the college or university staff, than did the other types of colleges and universities.
3. The staff members of the practice schools in 1931–32 were slightly younger, more of them were women and fewer of them were married than was found for the college staff members.
4. The staff members of the practice schools had less formal education than the staff members of colleges and universities. There were more of them with only 4 years of college work or less and fewer of them with 2 or more years of graduate work. Probably an average of more than a year's difference existed between the two groups in the total amount of education.

5. Practice-school staff members were much more frequently graduates of the same type of school and also of the same school in which they were teaching in 1931–32 than were the college faculty members.
6. Faculty members of practice schools had less teaching experience in the institutions in which they were employed in 1931–32; fewer had taught in the secondary schools and for a shorter period than had the instructional-staff members of the colleges and universities.
7. The salaries paid teachers in the practice schools were distinctly smaller than those paid to staff members in the same types of institutions. The salary levels for practice-school teachers were in all groups but one below those paid assistant professors and usually below those paid college instructors.
8. Staff members of practice schools in the cooperating institutions spent more hours per week in class work but fewer hours per week in their total institutional responsibilities. Their teaching responsibilities in the college were largely in the field of education (many of them methods courses) and in the special fields of art, music, physical education, household arts, and industrial arts.
9. The staff members of demonstration and practice schools gave distinctly less time as a group to research and to the production of books and magazine articles during the 5 years following 1926 than did their colleagues on the instructional staffs of the colleges and universities.

CHAPTER VIII

RECOMMENDATIONS

In making recommendations for improving the professional preparation and the quality of the work of staff members in institutions in which teachers are educated the following reservations should be kept constantly in mind. The first reservation is that degrees held, experience, hours taught, salary received, and such quantitative items are at best merely general indices of the value and quality of the work done by college teachers. They are in no sense ends in themselves and everyone will admit that certain college teachers with little formal education, with little experience in college teaching, with a very heavy teaching load, with low salaries, and with no books written during the 5 years just past are nevertheless doing excellent work as college teachers and rendering valuable service in the education of the prospective teachers for the elementary or secondary schools who are in their classes. Even though this is so, most people would also admit that such teachers are good teachers in spite of these conditions rather than because of them.

The second reservation is that the variations were much greater within individual institutions and among institutions in the same group than they were among different groups of institutions. For that reason most of the suggested recommendations are of greater value to those in charge of institutions than to organizations concerned with the problems of one or more of the groups of institutions.

The third reservation is that teachers are being educated in the majority of the institutions of each of the groups studied even though many of the institutions do not consider the education of teachers as among their principal functions. However, since these institutions accept prospective teachers as students and expect them to receive certificates as teachers upon graduation, they should be judged by the same standards, so far as their teacher-education courses are concerned, as are those institutions whose principal function is the professional preparation of teachers.

The following recommendations are made with the preceding reservations in mind:

1. The professional nature of the instruction given to prospective teachers depends not only upon the education and experience of the college teachers but also upon the attitude of the college teachers toward teaching and teachers. For this reason

instructional-staff members of institutions in which teachers are prepared should possess a high degree of contagious enthusiasm for teaching and a sincere interest in the students as prospective teachers in the public schools.

2. The master's degree or its equivalent should be considered the minimum requirement for the preparation of staff members of all higher educational institutions in which teachers are prepared. This standard should be enforced primarily upon all new appointments but it should not be accepted as a substitute for teaching ability particularly for those college teachers who are to teach prospective teachers. Increased emphasis should be placed upon the possession of the doctor's degree or its equivalent for new permanent appointments.

   In enforcing such a recommendation as this one on the amount of education it is only reasonable that provision should be made for a number of exceptions in order to provide for those experienced teachers or specialists who are eminently qualified and skilled as teachers but who do not have the required degrees.

3. Laboratory school facilities should be provided in all institutions preparing teachers. These facilities should be adequate to provide for observation, demonstration teaching, practice teaching, and, if possible, for some experimentation. Proficiency in teaching should be the final test of a prospective teacher's right to graduate and the work of the laboratory school should also be the final test of the institution's ability to educate teachers. For this reason every staff member whose courses are required of prospective teachers should have an interest in and some responsibility for the work of the training school if to no greater extent than a partial responsibility for the supervision of his own students when they are teaching his subject in any of the grades.

4. Instructors of prospective teachers who have not had any teaching experience or at least not any recent teaching experience in the public schools should be expected to compensate for that lack by frequent contacts with the kinds of teaching situations for which they are preparing students.

5. The improvement of instruction in institutions preparing teachers should come as a result of encouragement to conduct studies, organize syllabi, visit other teachers and other schools, and try different types of class organization and presentation, rather than through inspectional supervision from administrative officers or heads of departments. Staff members should be provided with the necessary clerical help for such occasional

studies and experiments. Studies of this kind and other research activities of the teaching staff members should be recognized as part of the total service load especially when the investigations are concerned with the improvement of the teaching process. In graduate divisions, research by faculty members which is directly related to research activities of students should be scheduled as a regular part of the teaching load. On the basis of the findings of this Survey it is recommended that research of the more technical kind should be concentrated in the larger institutions where there are enough students, library and laboratory facilities, and faculty specialists to reduce the cost and furnish the necessary stimulation and supervision.

6. Because of the significant increase in the educational preparation of staff members as the size of the institution increases, comprehensive programs of teacher education should not be encouraged or accredited in very small institutions (especially those with fewer than 250 students) unless such schools are unusually well supported. Exceptions to this recommendation should be made for those small institutions which concentrate upon the education of teachers for one or two related types of positions for which the faculty members are adequately equipped to prepare teachers.
7. Reports from staff members upon the number of students taught by them indicated that many very small classes should be eliminated or offered less frequently in order to increase the student load per teacher. This was particularly true for the graduate classes in the smaller institutions.
8. Critic teachers and supervisors in the training and demonstration schools should meet quantitative standards of preparation equal to those set for other members of the faculty who work with prospective teachers. The practice school staff members in addition to meeting the quantitative educational qualifications should be experienced "master teachers" in the subjects or grades taught, and should be capable of demonstrating various types of teaching for those subjects or grades with a skill which will set high standards of teaching for the prospective teachers who observe them.
9. Much more general and adequate provisions should be made for the retirement of college and university teachers.
10. Higher educational institutions educating teachers in the United States should make more and better provisions for insuring continued professional development of instructional staff members during service. Some of the ways in which this end may be accomplished are:

(*a*) More general use of sabbatical absences for study, travel, special research, or writing.

(*b*) Payment of expenses to meetings of national and special associations in which individual instructors are interested.

(*c*) Encouragement to publish books and magazine articles in the fields in which instructors are working.

(*d*) Small subsidies in money, in clerical help, or in freedom from teaching responsibilities to aid in conducting research or special instructional experiments.

(*e*) Designation of faculty members as institutional representatives at meetings in which they are prepared to participate.

(*f*) Occasional visits by individual instructors to one or more other institutions to observe ways in which certain instructional matters are handled in those institutions.

11. If public-school teachers are to be expected to assume places of leadership in the communities in which they teach it is reasonable to expect the college teachers of these public-school teachers to be leaders not only in their fields of academic specialization but also in the civic and social life of the communities in which the colleges are located.

As was remarked at the close of part I of this volume these recommendations were suggested by one or more of the survey findings and have resulted from numerous discussions among the survey staff and from one or more presentations to the board of consultants. They are submitted not as a program but rather as the elements from which programs can be made for the improvement of the professional preparation and service of faculty members of institutions in which teachers are educated with the expectation that the ultimate result will be better-prepared teachers and better teaching in the public schools of the United States.

APPENDIX TO PART I

TABLE I.—*Highest level of training of elementary school teachers in open-country 1- and 2-teacher schools, 1930–31*

State	Number involved	Non-graduate of elementary school only	Graduate of elementary school only	1 year of high school	2 years of high school	3 years of high school	4 years of high school	6 to 12 weeks of college	Half year of college	1 year of college	2 years of college	3 years of college	4 years of college	1 year of graduate work	2 years of graduate work	3 years of graduate work	More than 3 years of graduate work
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Alabama	1,044		0.1	0.4	1.1	1.4	2.8	5.8	3.7	45.8	30.8	5.6	2.3	0.2			
Arizona	132				.7					6.2	47.0	19.7	19.7	4.5	1.5	0.7	
Arkansas	629	0.8	4.0	3.7	7.0	6.2	14.5	35.4	9.8	14.0	3.5	3.5	1.3	.3			
California	967	.2	1.6	.8	.8	.6	3.9	4.9	2.7	8.2	26.0	30.7	15.5	3.5	.5		0.1
Colorado	926		.1	.2	.4	.1	1.1	5.2	10.1	30.3	37.5	8.1	6.3	.5	.1		
Connecticut	270	.4	.4		2.6	3.0	12.2	1.9	.4	4.5	71.1	2.2	1.3				
Delaware	66	1.7	1.7	1.7		1.7	6.3	1.7	5.0	20.0	49.0	8.3	10.0				
Florida	130	3.8	6.8	5.4	7.7	18.5	11.6	7.7	10.8	14.6	5.4	6.9	.8				
Georgia	171		1.8	1.2	2.3	3.0	22.2	22.2	3.5	14.6	18.6	5.3	5.3				
Idaho	162			.6					1.9	9.8	73.5	9.3	4.3	.6			
Illinois	4,844	.1	.8	.3	1.1	.7	3.8	9.3	16.1	42.2	20.6	3.2	1.7	.1			
Indiana	1,184	.3	.5	.1	.7	.1	.7	1.6	2.3	20.5	59.4	10.1	3.3	.3	.1		
Iowa	5,130		.3	.2	.5	.8	26.8	26.7	10.2	16.8	14.1	1.6	2.1	.1			
Kansas	3,164			.1	.5	.2	31.8	20.1	7.6	15.8	18.7	3.5	1.5	.1			
Kentucky	1,256		.4	.8	7.0	8.8	5.6	3.2	13.1	25.3	24.0	8.3	3.5				
Louisiana	402	.7	.7		.7	.2	1.2	4.0	5.7	22.5	51.0	9.0	3.8		.5		
Maine	627	.3	.2	.2	.6	.8	10.4	9.1	6.2	20.7	47.8	2.4	.9	.2	.2		
Maryland	521	.2	1.0	.8	1.1	1.0	4.4	1.0	1.0	3.8	75.6	6.3	3.2	.2	.2	.2	
Massachusetts	160	1.3	.6	1.3	1.9	7.5	3.1		8.1	65.6	5.6	4.4	.6				
Michigan	2,709		.1	.1	.2	.1	1.1	2.6	2.0	47.2	39.7	3.8	2.5	.4	.1	.1	
Minnesota	3,895		.1	.2	.1	.2	2.5	3.6	2.2	70.2	17.1	2.0	.8	1.0			
Mississippi	203		.9	.5	4.5	3.4	14.8	23.6	5.6	15.8	18.2	7.4	5.9				
Missouri	651				.2	.2	9.0	11.5	7.5	21.5	35.9	11.4	2.8				
Montana	1,112	.1		.1	.2	.2	5.1	4.1	5.1	30.0	43.3	7.1	4.3	.1	.3		
Nebraska	2,950		.1		.1	.1	23.2	22.1	9.2	26.2	15.8	1.9	1.2	.1		.6	

Nevada	135			.8		3.0	2.2	6.6	2.2	22.2	33.3	15.6	14.1				
New Hampshire	269	.4	.4	1.1	.8	1.5	5.2	2.5	[illegible]	8.8	67.3	7.1	3.0		.4		
New Jersey	336	.6	2.1		.9	1.2	11.0	4.7	4.7	11.6	54.5	5.1	2.1	.6	.6	.3	
New Mexico	218	.5	.5	2.3	1.0	1.4	12.4	15.1	11.[illegible]	26.5	16.1	7.7	5.0				
New York	4,108	.2	.6	.6	3.2	4.2	16.1	3.8	1.3	34.2	17.1	14.6	3.3	.7	.1		
North Carolina	664		.7	.4	.7	1.7	8.3	4.4	3.3	34.2	32.7	8.4	4.8	.3	.1		
North Dakota	2,753	.1	.1	.1	.1	.2	1.2	26.2	15.1	35.2	18.6	1.9	1.1	.1			
Ohio	1,817	.3	1.3	.4	.7	.6	1.3	1.7	1.6	37.2	45.2	6.9	2.4	.3	.1		
Oklahoma	1,271	.1		.2	.4	.1	2.2	6.5	4.5	20.0	48.7	13.0	4.0	.2	.1		
Oregon	961		.3	.3	1.3	.5	3.2	4.9	1.9	16.0	59.3	7.5	4.1	.4	.3		
Pennsylvania	3,842	.2	2.2	.5	1.2	1.2	2.2	2.7	3.3	16.5	56.4	7.7	5.1	.5	.1	.1	.1
Rhode Island	41	2.5	2.5				12.1	2.5	2.5	10.6	34.1	12.1	12.1				
South Carolina	164		1.3			3.1	7.9	5.5	4.3	11.0	26.2	7.3	31.7	1.7			
South Dakota	1,802	.2	.4	.5	.7	.3	5.3	16.7	4.2	42.6	22.0	3.8	3.2	.1			
Tennessee	1,668	.1	.8	.6	1.7	1.7	6.2	10.6	8.6	45.0	18.1	3.6	2.8	.2			
Texas	1,061		.2	.3	.4	.6	2.3	3.0	1.9	30.0	40.2	15.3	5.8				
Utah	69						1.4	1.4	1.4	4.4	71.1	14.5	4.4	1.4			
Vermont	452	.3	.5	.9	.9	1.8	5.3	2.9	1.3	43.6	36.4	3.2	2.4	.5			
Virginia	1,379	.1	.4	.3	.8	.4	.9	3.8	3.5	49.2	32.4	3.5	4.4	.1	.1	.1	
Washington	904		.2	.2	.2	.6	.8	1.1	.4	3.3	71.8	14.8	5.3	.8	.3	1	.1
West Virginia	29					3.4		3.4	3.4	10.4	48.3	6.9	24.2				
Wisconsin	3,551		.2	.1	.5	.3	5.9	4.6	1.1	72.7	10.5	2.6	.7	.8			
Wyoming	506	.2	.6		.2		10.0	13.4	8.0	38.0	18.5	6.0	4.0	1.1			
Total	61,299	.1	.6	.4	1.0	1.1	9.0	9.9	6.1	33.6	28.7	6.0	3.0	[illegible]	.1		

TABLE II.—*Highest level of training of elementary school teachers in open country 3-or-more-teacher schools, 1930–31*

State	Number involved	Non-graduate of elementary school	Graduate of elementary school only	1 year of high school	2 years of high school	3 years of high school	4 years of high school	6 to 12 weeks of college	Half year of college	1 year of college	2 years of college	3 years of college	4 years of college	1 year of graduate work	2 years of graduate work	3 years of graduate work	More than 3 years of graduate work
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Alabama	851		0.1	0.1	0.2	0.5	1.5	3.5	2.6	32.2	46.5	8.5	4.4	0.5	0.2	0.1	
Arizona	71									4.3	35.3	32.4	19.8	5.5	2.7		
Arkansas	206		1.0	1.0	2.4	2.9	5.8	20.4	11.7	22.8	23.3	6.3	2.4				
California	601			.1	.3	.5	1.3	2.2	1.3	5.3	24.0	33.5	[illegible]	6.0	.7		0.2
Colorado	154				.7	.7		1.3	2.6	16.2	58.8	16.9					
Connecticut	20						5.0			5.0	65.0	10.0	15.0				
Delaware	20		5.0				5.0		5.0	15.0	40.0	5.0	20.0		5.0		
Florida	116		3.4	.9	5.2	2.5	13.7	10.4	7.7	16.4	20.7	9.5	8.7	.9			
Georgia	216			.5	.9	.9	9.7	13.5	5.1	11.6	41.2	4.6	11.1	.9			
Idaho	44							4.6		2.3	72.7	6.8	13.6				
Illinois	127		1.6		.8	1.6	1.6	8.7	11.8	29.8	31.5	5.6	7.1				
Indiana	815	0.1	.4		.4		.6	.6	.6	8.8	66.4	15.4	6.5	.1			
Iowa	258			.8	.8		15.1	16.3	7.7	14.6	32.6	8.6	3.5				
Kansas	122			.9			14.7	13.1	7.4	17.2	28.6	11.5	5.7				
Kentucky	187		.5	1.1	1.6	2.7	2.1	3.2	4.8	14.4	39.1	16.0	13.4	1.1			
Louisiana	67		.1			.3	.9	1.3	1.9	10.8	58.5	16.9	8.9	.3	.1		
Maine	32				3.2		12.5	9.3	9.3	28.2	34.3	3.2					
Maryland	122		.9		.9		4.1			1.7	77.8	11.4	3.2	.9			
Massachusetts	52	1.9					3.9	1.9	3.9	7.7	61.6	7.7	7.6	1.9	1.9		
Michigan	320				.3		1.0	2.0	1.0	13.4	67.2	11.5	3.4	1.2			
Minnesota	153		.7					2.0		16.4	65.4	10.5	3.8	1.2			
Mississippi	304				.3	.7	5.3	9.8	6.9	18.1	28.0	13.5	17.4				
Missouri	58						5.2	1.8	1.8	1.8	44.8	31.3	13.7				
Montana	45					2.2		2.2	2.2	20.0	44.5	15.5	11.2	2.2			
Nebraska	94			1.1			20.3	14.8	7.5	26.5	25.5	3.2	1.1				
Nevada	3								33.3		33.3		33.4				
New Hampshire	5									20.0	80.0						
New Jersey	317		.3	.3	.6	.9	7.6	1.9	2.5	8.5	63.1	8.2	5.8				.3
New Mexico	91		2.2	2.2		1.1	2.2	11.0	5.5	29.9	33.0	14.3	6.5	1.1			
New York	308		.5	.5	3.3	3.5	6.8	2.0	.5	15.1	24.4	35.4	7.3	.5		.2	

North Carolina	1,605	----	2	.1	.4	.2	1.6	1.5	.7	15.9	44.4	13.1	20.7	.9	.2	.1	----
North Dakota	137	----	----	----	----	.7	----	12.4	8.7	16.1	52.6	5.1	3.7	.7	----	----	----
Ohio	863	.2	.9	.2	.2	.2	.9	.8	1.0	18.1	80.5	10.5	5.8	.7	----	----	----
Oklahoma	355	----	----	----	----	.3	.3	.3	.3	10.6	55.0	18.8	13.0	.8	.6	----	----
Oregon	161	----	.6	----	1.7	----	.6	1.9	1.9	8.1	60.9	14.3	8.7	.6	1.2	----	----
Pennsylvania	843	----	1.3	.1	.8	1.2	2.9	2.4	2.6	11.4	59.2	10.6	6.3	.6	.5	.1	----
Rhode Island	11	----	----	----	9.1	----	9.1	9.1	9.1	18.2	36.3	----	9.1	----	----	----	----
South Carolina	223	----	.4	----	----	.4	5.8	3.1	1.3	8.1	30.1	10.8	39.1	----	.9	----	----
South Dakota	68	----	----	----	1.5	----	4.4	13.3	2.9	41.2	26.5	4.4	5.8	----	----	----	----
Tennessee	840	----	.5	.2	.7	.9	2.4	4.9	6.3	41.2	25.7	8.4	8.0	.6	.2	----	----
Texas	614	.2	.2	----	----	.3	1.0	2.2	1.1	22.4	45.0	16.2	11.1	.3	----	----	----
Utah	141	----		----		----	----	----	.7	2.6	79.5	11.4	5.6	----	----	----	----
Vermont	14	----	7.1	----	----	----	----	7.1	----	50.0	35.8	----	----	----	----	----	----
Virginia	728	.3	----	.1	.5	.1	.3	1.4	1.1	32.5	47.8	7.9	7.1	.7	.1	----	1
Washington	268	----	----	----	.4	----	.7	.7	1.1	2.2	67.9	20.2	6.0	.4	.4	----	----
West Virginia	9	----	----	----	----	----	----	----	----	----	66.7	11.1	11.1	----	11.1	----	----
Wisconsin	158	----	----	.6	.6	----	3.2	2.5	3.2	36.7	38.0	11.4	1.9	1.3	.6	----	----
Wyoming	34	----	----	----	----	----	----	14.7	8.8	50.0	23.5	3.0	----	----	----	----	----
Total	13,550	----	.4	.2	.6	.6	2.7	3.4	2.6	17.9	47.0	13.4	10.2	.8	.2	----	----

TABLE III.—*Highest level of training of elementary teachers in villages less than 2,500 population, 1930–31*

State	Number involved	Non-graduate of elementary school	Graduate of elementary school only	1 year of high school	2 years of high school	3 years of high school	4 years of high school	6 to 12 weeks of college	Half year of college	1 year of college	2 years of college	3 years of college	4 years of college	1 year of graduate work	2 years of graduate work	3 years of graduate work	More than 3 years of graduate work
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Alabama	1,007					0.2	1.1	2.2	2.8	19.0	48.1	15.9	9.1	1.3	0.3		
Arizona	289	0.3				.3	.3	.7		1.7	46.0	26.7	22.3	1.4		0.3	
Arkansas	583	.2	0.3	40.9	1.5	.7	3.6	13.5	8.7	18.4	37.4	7.9	6 6	.3			
California	1,561	.1	.8	.1	.2	.2	1.3	1.6	1.2	4.1	24.0	35.6	24.0	5.2	1.3	.1	0.2
Colorado	736	.3	.1			.3	.3	.5	1.6	12.0	48.8	25.0	10.5	.6			
Connecticut	642		1.1		1.1	1.1	8.6	1.7	.6	3.9	75.3	4.2	1.7	.2	.5		
Delaware	136				1.5	1.5	5.9	.7	2.2	11.1	62.4	7.3	5.2	2.2			
Florida	517	.2	.6	.6	2.7	1.5	9.1	8.3	7.6	18.4	30.6	9.6	9.5	.6	.4	.2	
Georgia	460				.9	.6	5.2	5.0	3.0	11.3	49.6	9.6	13.7	1.1			
Idaho	315					.3	.3	.3	.3	3.5	72.1	14.9	6.7	1.3	.3		
Illinois	1,055		.4	.5	.7	.5	2.1	7.2	14.0	29.7	31.2	8.0	5.0	.5	.2		
Indiana	2,278		.2	.1	.3	.3	.3	.8	.7	7.4	67.9	16.9	4.8	.2	.1		
Iowa	2,308		.1	.1	.1	.1	2.1	4.9	4.0	17.2	56.3	10.1	4.6	.3	.1		
Kansas	1,154				.4	.4	1.4	9.6	8.3	18.0	39.7	13.2	5.5	.4	.1		
Kentucky	708		.1		1.0	2.1	2.5	3.0	7.1	20.9	36.6	16.5	9.6	.4	.1	.1	
Louisiana	1,303	.1		.1		.1	.6	.7	.7	3.3	63.5	19.6	10.6	.4	.1	.1	.1
Maine	775	.1	.4	.1	.1	.4	7.4	4.0	2.9	17.1	62.3	2.7	1.9	.1	.5		
Maryland	842		1.2	.2	.2	.9	4.3	.8	.9	4.6	72.3	9.8	4.1	.4	.2	.1	
Massachusetts	994		.1		.3	.3	6.4	1.3	.7	6.8	66.3	12.8	4.4	.3	.3		
Michigan	1,497	.1				.8	.3	.9	.8	9.6	71.9	10.7	5.1	.2	.1		
Minnesota	1,877		.1		.1		.3	.7	.6	8.7	79.2	7.4	2.7	.2			
Mississippi	376		.3			.8	3.0	1.5	1.2	10.2	32.0	21.3	28.4	1.3			
Missouri	1,112		.2		.1		.3	.3	.3	2.1	54.7	32.1	9.4	.4	.1		
Montana	487				.2		.4	.8	1.2	8.3	68.2	15.4	4.4	1.1			
Nebraska	923	.1	.1		.2		1.4	3.1	2.5	22.2	52.4	12.6	5.0	.4			
Nevada	109						1.8	2.7	1.8	12.0	35.7	21.2	20.2	3.6	1.0		
New Hampshire	451		.2	.2	.5	1.2	4.6	2.0	1.2	11.3	70.0	6.4	2.2		.2		
New Jersey	1,928		.8	.2	.7	1.0	6.9	1.5	1.9	6.6	66.0	7.7	5.7	.8	.2		
New Mexico	313			1.0	1.0	.6	2.9	10.9	5.7	12.8	28.7	21.4	12.5	1.9	.6		
New York	3,089	.1	.4	.7	1.5	2.2	7.0	2.5	.8	12.4	28.9	35.7	6.8	.8	.1	.1	

North Carolina	2,060			.1	.1	.3	2.0	.7	.3	8.4	41.7	16.6	28.7	1.0	.1		
North Dakota	962						.2	1.2	1.2	4.7	78.7	11.2	3.0	.2	.2		
Ohio	2,753		.4	.2	.3	.6	1.4	1.4	1.2	16.2	62.1	10.7	5.1	.3	.1		
Oklahoma	796				.1		.2		.5	5.4	51.8	30.2	11.2	.6			
Oregon	679	.1		.1	.6	.7	.6	3.4	1.2	7.1	64.5	13.4	6.8	.9	.3	.3	
Pennsylvania	5,033	.3	1.2	.3	.6	1.0	2.2	2.5	2.5	11.6	61.7	10.0	5.4	.5	.2		
Rhode Island	185			.5	1.1	1.6	8.7	2.7	.5	10.8	41.6	22.7	8.7	1.1			
South Carolina	380				.3	.5	1.8	1.6	.3	5.8	20.0	11.3	56.8	1.3	.3		
South Dakota	424		.7	.2	.5	.2	1.9	5.9	3.1	18.6	52.1	12.5	4.0				
Tennessee	1,108			.3	.9	.5	2.1	4.0	4.0	33.7	31.2	12.2	10.2	.6	.1	.1	.1
Texas	2,037					.3	.6	1.1	.7	12.5	40.2	28.2	15.9	.5			
Utah	558			.2	.2	.2	.4	.2	.2	2.3	78.1	13.7	4.1	.2			.2
Vermont	486	.2	.2	.6	.8	.8	8.7	3.1	.8	39.8	36.8	4.9	3.1		.2		
Virginia	1,284		.1	.3	.2	.2	.5	1.0	.8	28.1	51.0	8.6	8.5	.5	.2		
Washington	1,306		.1	.2	.2	.2	.5	.6	.7	2.0	65.8	23.4	5.3	.9	.1		
West Virginia	32						6.3			9.4	62.4	15.6	6.3				
Wisconsin	840		.1			.2	1.9	3.5	1.4	21.3	60.3	8.6	2.4	.1	.2		
Wyoming	378	.3					.5	2.9	4.0	14.3	51.2	17.2	8.5	.8	.3		
Total	51,126	.1	.3	.2	.4	.6	2.5	2.4	2.1	12.4	54.0	15.7	8.4	.7	.2		

TABLE IV.—*Highest level of training of elementary teachers in cities of 2,500 to 9,999 population, 1930–31*

State	Number involved	Non-graduate of elementary school	Graduate of elementary school only	1 year of high school	2 years of high school	3 years of high school	4 years of high school	6 to 12 weeks of college	Half year of college	1 year of college	2 years of college	3 years of college	4 years of college	1 year of graduate work	2 years of graduate work	3 years of graduate work	More than 3 years of graduate work
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Alabama	414					0.5	1.9	2.2	2.2	11.4	49.0	16.8	15.0	0.5	0.5		
Arizona	273									1.5	42.4	32.3	20.5	3.3			
Arkansas	231			0.4	0.4		1.3	2.2	2.2	12.1	50.1	15.2	15.2	.9			
California	1,709		0.3	.1	.2	.2	1.3	1.3	.6	3.0	28.0	31.0	25.8	7.5	.6		0.1
Colorado	46						2.1			6.5	39.2	28.3	21.8		2.1		
Connecticut	645		.3		.5	.5	8.7	1.7	.9	5.0	76.0	2.9	3.3		.2		
Delaware	41						2.5	7.4		4.8	68.2	9.8	4.8	2.5			
Florida	410			.2	1.0	.5	3.4	2.0	4.4	16.4	35.1	15.1	21.0	.7			.2
Georgia	288		.3			.3	4.2	.7	2.1	6.3	49.3	17.7	17.7	1.1	.3		
Idaho	174							.6	.6	.6	2.9	66.0	24.7	4.6			
Illinois	504	0.2	.4	.2	.6	1.2	1.4	3.4	12.9	21.2	39.7	13.1	5.8	.4			
Indiana	921	.1	.2				.8	.8	.4	8.8	57.2	21.9	9.2	.6			
Iowa	673					.3	1.9	2.4	2.1	6.8	58.9	18.0	9.4	.1	.1		
Kansas	581		.2	.2		.2	.9	2.1	1.6	9.1	50.2	24.5	10.7	.3			
Kentucky	397		.5		.2	.7	.5	2.8	4.1	10.1	43.6	20.4	16.4	.7			
Louisiana	467					.2	.4	.4	.4	1.8	61.9	21.1	14.1		.2		
Maine	425					.2	10.1	3.1	.7	12.2	68.5	2.8	1.2	.7	.5		
Maryland	186					1.6	3.2	1.6	1.1	8.1	69.9	8.6	5.4	.5			
Massachusetts	1,242	.1				.4	4.4	.8	.4	5.8	71.2	12.4	4.1	.3	.2		.1
Michigan	998		.1				.5	.5		2.9	72.8	16.5	5.8	.5	.3	.1	
Minnesota	667		.1				.3			5.9	80.5	10.7	1.9	.6			
Mississippi	88		2.2		1.1		3.4	1.1	4.5	10.2	27.2	15.9	31.0	3.4			
Missouri	532			.2						1.3	39.1	38.5	20.1	.8			
Montana	197								.5	2.5	74.1	16.8	5.6	.5			
Nebraska	209						.9	1.4		6.7	80.7	25.4	14.9				
Nevada	65							1.5		6.1	49.2	13.9	24.7	4.6			
New Hampshire	131						6.1	2.3	1.6	10.7	70.9	5.4	2.3	.7			
New Jersey	2,447		.3		.7	.4	4.8	.8	.7	2.9	73.5	8.6	6.3	.6	.4		
New Mexico	117			.8			.8	.9	.9	2.5	45.3	27.4	16.3	4.3	.8		
New York	1,862		.2	.2	.5	1.2	3.4	1.1	.3	8.1	39.7	35.9	7.6	1.1	.6	.1	

North Carolina	729					.8	.5	.8	.5	5.0	28.4	17.1	45.7	1.1	.1		
North Dakota	91							3.3		1.1	65.9	14.3	14.3		1.1		
Ohio	1,639		.3	.2	.2	.3	2.1	1.5	1.2	10.5	60.3	14.4	7.9	1.0	.1		
Oklahoma	444				.2				.2	1.2	33.2	41.4	21.4	1.8	.4	.2	
Oregon	425						.7	.9	.9	3.5	71.6	15.6	5.7	.9	.2		
Pennsylvania	2,506		.4		.4	1.4	3.2	2.2	1.5	6.1	63.6	12.3	7.6	.8	.2		
Rhode Island	108			.9	.9	1.9	5.5			6.4	51.9	22.3	9.3	.9			
South Carolina	214		.5			1.4	2.7	.4	.4	3.3	8.9	10.3	69.7	1.9	.5		
South Dakota	88				1.1			1.1	1.1	5.7	60.3	15.9	13.7	1.1			
Tennessee	440			.2	1.6	.4	2.1	2.1	4.1	24.7	38.3	13.6	12.0	.9			
Texas	1,458			.1	.1	.3	.7	1.2	.7	6.0	37.1	29.4	22.7	1.3	.4		
Utah	210						.5			5.7	70.0	20.0	3.8				
Vermont	160		.6		.6	1.3	7.5	3.1	2.0	29.2	44.1	7.0	4.0	.6			
Virginia	458			.2	.4		.8	.4	1.1	14.0	56.0	13.3	13.6	.2			
Washington	388					.3	.3	.3		4.4	64.4	23.2	5.1	1.0	.5	.5	
West Virginia	33									3.0	63.6	15.2	18.2				
Wisconsin	521				.2		.4	1.1	.4	6.5	75.4	11.3	4.3	.4			
Wyoming	94		1.1		1.0			1.1		2.1	44.7	33.0	17.0				
Total	26,946		.1		.3	.5	2.3	1.3	1.1	6.9	55.1	18.8	12.2	1.2	.2		

TABLE V.—*Highest level of training of elementary teachers in cities of 10,000 to 99,999 population, 1930–31*

State	Number involved	Non-graduate of elementary school	Graduate of elementary school only	1 year of high school	2 years of high school	3 years of high school	4 years of high school	6 to 12 weeks of college	Half year of college	1 year of college	2 years of college	3 years of college	4 years of college	1 year of graduate work	2 years of graduate work	3 years of graduate work	More than 3 years of graduate work
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Alabama	412		9.2		0.2		5.1	3.6	4.9	11.4	38.7	18.7	17.0	0.2			
Arizona	289						1.0	.3		1.0	45.1	28.0	22.2	2.1		0.3	
Arkansas	250						.8	1.2	2.4	14.0	40.0	22.4	18.4	.8			
California	2,495		.5	0.1	.2	0.6	1.0	.9	.6	3.3	27.5	30.3	27.1	6.1	1.3	.4	0.1
Colorado	257	0.4					1.2		.8	2.3	31.1	25.3	33.1	5.4	.4		
Connecticut	1,875			.1	.4	.6	4.9	.9	.6	3.1	82.4	4.7	2.1	.6	.1		
Delaware	8									37.5	25.0	37.5					
Florida	482			.4	.4	.2	2.5	3.7	3.7	11.8	44.6	14.8	16.4	1.3	.2		
Georgia	452					1.1	3.3	1.6	2.0	7.3	50.0	15.2	17.5	1.1	.7	.2	
Idaho	37						2.7	2.7			62.2	27.0	5.4				
Illinois	2,603		.2		.2	.2	1.4	1.4	2.0	9.2	54.9	19.0	10.7	.6	.2		
Indiana	1,606	.1	.1		.2	.2	.9	.7	.4	3.5	48.2	27.4	16.9	1.2	.2		
Iowa	1,201				.2	.3	1.7	2.0	2.2	10.4	50.4	21.0	10.0	1.6	.2		
Kansas	677		.1	.1		.1	1.3	.7	1.2	4.6	35.5	31.4	23.2	1.8			
Kentucky	606		.2		.7	.5	1.8	.7		3.9	33.4	27.4	28.2	3.0	.2		
Louisiana	359		.3			.3			.3	3.1	36.5	34.5	22.8	1.9	.3		
Maine	509				.2	.2	5.9	.2	1.2	12.6	75.0	2.5	1.8	.2	.2		.4
Maryland	264				.4	3.4	3.0	1.5	2.3	7.2	67.8	9.8	3.4	.8			
Massachusetts	3,226		.1			.4	3.4	.4	.2	6.4	71.2	12.7	4.5	.4	.3		
Michigan	2,197						.3		.1	1.0	64.0	23.0	10.6	.8	.2		
Minnesota	409						.5	.2	1.0	7.4	66.5	18.1	5.6	.2	.5		
Mississippi	241					.8	2.1	1.2	2.5	9.4	29.9	18.7	37.8	1.6			
Missouri	819		.1		.1		.5		.1	1.3	25.2	39.6	30.1	2.8	.1		.1
Montana	363					.3	.6	1.4	.8	3.0	66.1	20.9	6.3	.6			
Nebraska	289						.6	.6	.3	2.0	40.0	33.6	20.1	2.8			
Nevada	31		3.2							6.5	45.1	22.6	22.6				
New Hampshire	267						3.7	.4	.4	9.7	78.3	5.2	1.9	.4			
New Jersey	4,264		.2		.3	.6	2.5	.6	.3	1.5	75.1	11.2	6.4	1.1	.4		
New Mexico	110		1.0							5.5	19.1	32.7	37.2	4.5			
New York	3,898	.1	.1	.1	.3	.8	3.6	.9	.4	6.8	44.8	32.4	8.1	1.1	.3	.1	.7

North Carolina	822			2	1	.2	1.7	1	1	4.1	23.7	14.6	51.9	2.8	.5		
North Dakota	95							2.1	3.2	1.1	64.2	16.8	8.4	2.1	2.1		
Ohio	2,986		.2		.1	.5	2.6	1.7	1.2	7.3	58.5	16.3	10.5	.9	.2		
Oklahoma	323									.6	25.0	34.1	37.2	2.8	.3		
Oregon	220		.5		.1	.5	1.3	.9		4.5	62.3	19.5	10.0				
Pennsylvania	4,748		.3	1	.2	1.4	4.5	2.0	.9	5.2	65.0	11.5	8.0	.6	.2	1	
Rhode Island	338				.9	.3	13.6	.9	.3	3.8	47.6	25.7	6.5	[illegible]	.3		
South Carolina	349	.3	.3		.3		4.6	2.0	.6	6.3	20.9	8.0	47.9	6.9	.8	.8	.3
South Dakota	162		1.2						.6	3.1	61.1	21.0	13.0				
Tennessee	184		.5		.5	1.1	1.1	4.9	2.7	13.6	36.5	22.3	15.2	1.6			
Texas	1,595				.1	.1	.5	.8	.6	4.1	32.9	33.0	25.8	1.7	.4		
Utah	47									6.4	48.9	29.8	14.9				
Vermont	72				1.4	2.8	18.1	2.8		15.3	50.0	5.5	4.1				
Virginia	654				.2	.2	1.5	1.5	1.4	7.5	59.1	11.4	16.5	.5	.2		
Washington	550	.2					.5	.4	.5	1.8	60.2	27.8	6.5	1.5	.4	.2	
West Virginia	353	.3	.3			.6	2.3	.6	.6	5.6	51.2	26.9	11.6				
Wisconsin	1,188		.1	.1		.2	.6	1.0	.3	3.5	68.2	18.3	6.5	.6	.3		
Wyoming	97							1.0		1.0	49.5	31.0	16.5	1.0			
Total	45,278		.2	.1	.2	.5	2.5	1.0	.8	5.2	55.4	19.7	13.0	1.3	.3	.1	

TABLE VI.—*Highest level of training of elementary teachers in cities of 100,000 population or more, 1930–31*

State	Number involved	Non-graduate of elementary school	Graduate of elementary school only	1 year of high school	2 years of high school	3 years of high school	4 years of high school	6 to 12 weeks of college	Half year of college	1 year of college	2 years of college	3 years of college	4 years of college	1 year of graduate work	2 years of graduate work	3 years of graduate work	More than 3 years of graduate work
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Alabama	423		0.2			0.5	0.5	0.7	0.2	1.2	17.5	20.1	53.4	3.6	1.2	0.7	0.2
California	3,005		.1		0.2	.3	1.2	.6	.5	3.1	35.0	29.8	19.8	7.3	1.7	.2	.2
Colorado	297		.3				.3	.3	.3	3.1	14.2	19.9	53.5	5.1	1.7	1.0	.3
Connecticut	644		.2		.5		1.9	.2		2.9	84.1	6.3	2.7	.6	.2	.2	.2
Delaware	108		1.0			3.9	5.8	3.9		15.5	48.5	10.7	9.7				1.0
District of Columbia	528		.2		.2	.2	1.9		.2	5.7	42.0	27.4	15.3	5.5	.6	.8	
Florida	354				1.1	.6	4.0	3.7	3.1	15.8	37.8	18.4	14.4	1.1			
Georgia	485					.6	6.6	.4	.8	5.4	43.1	18.0	20.4	3.1	1.2	.2	.2
Illinois	269			1.1	.4		5.6	2.2	2.6	12.6	44.6	11.9	17.1	1.5	.4		
Indiana	1,532				.1	.1	1.0	.3	.4	2.9	32.2	32.0	25.1	5.1	.7		.1
Iowa	212				.5	.9	.5	2.4	.9	6.1	27.4	32.6	25.9	1.4	1.4		
Kansas	280			.4		.4	.4	1.4	1.1	2.9	22.1	23.6	44.9	1.4	1.4		
Kentucky	503		.2			.2	.8	1.6		4.0	59.4	18.5	11.5	3.2	.6		
Louisiana	785	0.4			.4	1.9	.8	.4	.1	11.3	58.3	12.9	10.8	1.4	.6	.4	.3
Maryland	1,041		.5	.1	.5	.4	12.8	1.1	.6	3.5	62.9	9.6	6.4	.7	.4	.3	.2
Massachusetts	2,686		.1			.1	1.9	.1	.2	5.2	52.7	32.0	5.5	1.2	.6	.1	.3
Michigan	2,063						.2	.1	.1	1.2	55.9	28.4	12.1	1.6	.3	.1	
Minnesota	1,329			.1	.2	.2	1.2	.4	.5	4.4	60.9	19.9	11.0	.8	.3	.4	
Missouri	1,398	.1		.1	.2	.1	2.5	.2	.5	7.8	33.0	27.9	23.0	3.6	.8	.1	.1
Nebraska	352			.6		.6	.9		1.4	6.2	36.6	27.3	22.1	3.7	.6		
New Jersey	3,075		.4			.4	1.2	.3	.2	4.5	78.0	9.0	4.3	.9	.5	.3	
New York	12,451		.1	.1	.4	.7	2.3	.3	.3	4.6	40.1	23.4	19.1	4.5	2.2	1.0	.9
Ohio	4,236					.4	1.1	.4	.5	4.6	45.6	22.7	17.8	5.8	.9	.1	.1
Oklahoma	365										2.2	7.7	70.4	16.4	2.5	.5	.3
Oregon	588		.2			2.0	5.4	2.4	1.0	9.9	39.0	21.8	14.5	3.0	.8		

Pennsylvania	6,045		.2	.1	.4	.8	3.1	.7	.3	7.8	61.6	13.9	9.0	1.2	.6	.1	.2
Rhode Island	189						7.4		1.1	7.4	42.3	32.8	6.9	1.6	.5		
Tennessee	967		.1	.4	.4	1.6	4.3	4.6	6.4	11.7	26.9	20.5	21.5	1.4	.2		
Texas	1,823		.1		.1	.3	.9	.5	.5	4.2	23.6	26.1	39.1	3.7	.8		.1
Utah	171									7.6	49.1	18.7	23.4	.6	.6		
Virginia	419				.2	.5	1.7	1.2	1.7	5.7	59.7	17.4	11.5	.2	.2		
Washington	892	.1	.1			.4	.9	.3	.3	2.7	42.0	30.2	19.2	2.8	.8	.1	
Wisconsin	884	.1				.2	.6	.1	.2	1.7	50.6	23.4	19.6	2.3	1.0	.2	.1
Total	50,394		.1	.1	.2	.5	2.1	.6	.5	5.1	47.0	21.8	16.9	3.3	1.1	.4	.3

TABLE VII.—*Highest level of training of junior high school teachers, 1930–31*

State	Number involved	Non-graduate of elementary school	Graduate of elementary school only	1 year of high school	2 years of high school	3 years of high school	4 years of high school	6 to 12 weeks of college	Half year of college	1 year of college	2 years of college	3 years of college	4 years of college	1 year of graduate work	2 years of graduate work	3 years of graduate work	More than 3 years of graduate work
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Alabama	566				0.2	0.2	0.4	0.7	0.2	7.1	29.6	20.5	35.2	4.8	0.9		0.2
Arizona	137										8.6	16.1	57.7	15.4	2.1		
Arkansas	317		0.3		.3	.3	.3	1.6	3.2	6.6	24.0	16.7	41.0	4.4	1.3		
California	2,552		.2	0.1	.2	.2	.6	.6	.3	1.3	5.2	8.9	28.6	39.9	10.1	2.7	1.1
Colorado	446				.2	.2	.4	.7	.2	1.3	9.2	15.1	48.5	20.2	2.9	.4	.7
Connecticut	497					1.0	3.4	.6	.4	2.6	40.3	13.9	28.8	6.0	2.0	.6	.4
Delaware	81		1.2				6.2	1.2	1.2	8.7	27.2	11.1	38.3	2.5		1.2	1.2
District of Columbia	151			.7	.7	1.3	.7	.7	.7	3.3	10.6	7.3	33.7	27.1	8.6	1.3	3.3
Florida	531			.2	.2	2	.6	2.1	1.3	4.1	13.6	14.1	54.8	7.3	.9	.2	.4
Georgia	273					.7	1.1	.3	.7	2.2	12.9	9.9	44.3	15.8	8.4	2.2	1.5
Idaho	113				.9		.9			4.4	36.3	24.8	25.7	3.5	3.5		
Illinois	717		.1		.1	.3	1.5	.3	1.1	5.0	23.2	20.5	41.9	4.3	1.3	.4	
Indiana	1,097					.1	.3	.2		.5	7.7	17.6	57.6	14.1	1.6	.3	
Iowa	994					.1	1.2	1.6	.4	6.6	21.5	18.7	40.0	8.7	1.1		.1
Kansas	695					.1	.5		.3	1.6	9.8	13.8	60.2	12.0	1.3	.4	
Kentucky	466		.4	.2		.4	1.1	.6	.6	3.0	16.1	13.8	50.2	11.2	2.2		.2
Louisiana	119	0.8		.8				.8	.8		22.7	11.8	49.6	11.0	1.7		
Maine	164					1.2	3.7	.6	1.2	7.3	54.9	10.4	17.7	2.4		.6	
Maryland	387		.3	.5		.5	6.2	1.8	1.0	7.2	16.3	13.7	41.9	6.2	3.6	.3	.5
Massachusetts	2,363		.2	.1	.1	.3	2.6	.5	.3	5.0	34.3	15.4	30.8	6.9	2.2	.5	.8
Michigan	2,431		.2	.1	.1		.1	.3	.1	.9	14.0	18.0	53.4	10.5	1.7	.3	.3
Minnesota	961			.1		.1	.2	.1	.5	3.3	24.7	19.5	43.8	5.9	1.3	.4	.1
Mississippi	152									3.9	15.8	7.9	69.1	2.6	.7		
Missouri	659								.2	.6	5.6	15.2	60.0	15.3	2.7	.2	.2
Montana	134							.7		1.5	34.4	24.7	32.9	4.4	1.4		
Nebraska	361						.8		1.1	4.7	21.4	23.0	41.3	5.5	1.9	.3	
Nevada	41									2.4	7.3	12.2	68.3	4.9	4.9		
New Hampshire	145					1.4	4.1	.7	.7	6.2	24.2	33.8	26.9	2.0			
New Jersey	1,743	.1	.2	.2	.3	.8	1.3	.5	.3	3.0	23.2	16.2	35.3	12.7	4.3	1.6	.5
New Mexico	99			1.0				1.0		2.0	10.1	22.3	53.6	8.0	2.0		

New York	3,713	.1	.4	.3	.7	.8	1.9	.8	.4	3.2	23.9	15.5	33.8	9.0	4.2	1.5	1.5
North Carolina	366								.3	1.1	8.4	7.6	69.7	11.8	.5	.3	.3
North Dakota	127									.7	41.8	25.2	30.7	1.6			
Ohio	2,778					.3	.8	.5	.3	2.9	11.1	13.8	54.1	13.4	2.4	.3	.1
Oklahoma	498									.4	9.0	14.5	52.4	17.3	5.8	.4	.2
Oregon	260							.8		1.5	29.6	23.9	39.6	3.4	.4	.8	
Pennsylvania	4,193		.3	.1	.2	.5	1.4	.7	.7	3.7	15.1	17.2	42.1	10.5	4.0	1.6	1.9
Rhode Island	182		3.8	.5	1.1		2.2	1.1	.5	3.8	25.9	16.5	30.8	10.4	1.1	1.7	.6
South Carolina	82									1.2	2.4	6.1	67.1	19.6	2.4	1.2	
South Dakota	117							.9	.9	4.2	18.0	19.7	46.2	8.5	.8	.8	
Tennessee	557				.2	.7	1.1	1.4	1.4	7.5	17.8	14.0	48.0	6.5	1.1	.3	
Texas	1,291				.1	.1	.2	.2	.2	1.5	9.9	17.9	56.1	11.8	1.7	.2	.1
Utah	376								.3	1.9	12.0	23.7	53.2	8.2	.7		
Vermont	60				3.3		1.7	3.3	1.7	11.7	26.7	8.3	40.0	3.3			
Virginia	514			.2	.4	.4	.4	.7	.7	3.7	16.2	14.8	56.5	4.8	1.0		.2
Washington	541	.2	.2				.9	.2	.3	2.2	16.3	21.5	42.7	14.1	.9	.5	
West Virginia	118						.8		1.7	.8	8.5	24.6	57.7	5.9			
Wisconsin	930		.1				.2	.5	.4	1.6	13.6	20.4	52.2	8.7	1.7	.3	.3
Wyoming	91							1.1		3.3	11.0	16.5	58.2	6.6	1.1	2.2	
Total	36,186		.2	.1	.2	.3	1.1	.6	.4	3.2	17.5	16.0	43.7	12.1	3.1	.8	.7

TABLE VIII.—*Highest level of training of senior high school teachers, 1930–31*

State	Number involved	Non-graduate of elementary school	Graduate of elementary school only	1 year of high school	2 years of high school	3 years of high school	4 years of high school	6 to 12 weeks of college	Half year of college	1 year of college	2 years of college	3 years of college	4 years of college	1 year of graduate work	2 years of graduate work	3 years of graduate work	More than 3 years of graduate work
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Alabama	966			0.2	0.2		0.3	0.3	0.2	0.8	2.9	6.3	66.9	19.9	1.6	0.5	0.2
Arizona	327						.3				1.8	3.4	60.6	26.3	6.7	.3	.6
Arkansas	507			.2		0.2	.8	.4	.6	1.0	10.8	10.5	60.4	13.4	1.7		
California	4,969		0.3	.1	.4	.4	.5	.4	.6	1.9	3.9	4.0	19.4	45.2	17.2	3.1	2.6
Colorado	788						.3	.3		.5	1.8	2.7	62.5	23.5	6.7	1.1	.6
Connecticut	1,214		.1	.2	.1	.2	.7	.2	.1	2.8	6.8	5.3	55.8	18.7	5.5	1.6	1.9
Delaware	175						.6			1.1	5.2	5.7	60.0	17.2	5.7	1.1	3.4
District of Columbia	264		.8		.4	.4	.4	.4	.4	1.6	1.9	3.5	26.4	28.8	20.9	7.9	8.2
Florida	648			.2		.2	.5	.8	.2	1.1	3.9	6.2	65.3	17.9	2.9	.9	.3
Georgia	565	0.2		.2		.2	.3	.3	.5	.9	6.7	5.3	55.1	21.1	7.1	.9	1.2
Idaho	439		.2					.2		.7	.4	1.6	78.3	15.3	2.9	.4	
Illinois	4,743		.1														
Indiana	4,119					.1	.3	.1	.1	.9	4.0	5.5	60.7	20.8	5.1	1.5	.8
Iowa	2,678						.2		.2	.3	1.8	5.0	64.8	22.8	4.2	.8	.2
Kansas	1,825					.1	.2	.3	.1	.3	4.8	8.1	69.1	14.1	2.5	.3	.1
Kentucky	1,012		.4	.1	.3		.4	.1		.3	1.1	3.1	70.0	21.2	3.3	.4	.1
Louisiana	1,303		.2	.2			.8	.5	.2	1.1	5.0	7.6	59.4	17.6	5.1	1.0	.9
Maine	795					.2	.2	.2	.2	.7	5.1	3.8	69.7	10.8	6.0	1.1	1.6
Maryland	795				.1	.2	1.1	.6	.4	4.0	14.3	6.5	62.5	7.9	2.3	.1	
Massachusetts	3,616	.1	.1	.1	.2	.2	1.0	.2	.4	2.0	5.2	5.7	55.9	17.0	7.0	2.3	2.3
Michigan	4,057		.5	.1	.2	.3	1.7	.5	.3	2.9	7.0	5.9	49.0	19.1	8.0	2.2	2.6
Minnesota	2,484		.1				.1	.1	.1	.3	6.3	9.6	61.5	17.7	3.3	.6	.4
Mississippi	491		.2		.1		.1	.1	.2	.5	3.0	4.9	78.2	13.6	3.2	.6	.4
Missouri	2,006						.2			1.4	4.7	4.5	78.6	9.8	.6		
Montana	533							.2		.9	1.2	3.7	64.3	21.0	6.2	1.6	.9
								.2	.2	.2	2.1	3.9	73.4	16.7	3.0		.3
Nebraska	1,288				.1		.6	.2	.2	.9	4.4	6.7	66.4	15.1	4.2	.6	.6
Nevada	102										.9		69.8	20.6	7.8		.9
New Hampshire	429		.2				1.4	.4		2.6	4.0	11.2	65.8	11.2	2.8	.2	.2
New Jersey	3,352		.1	.1	.2	.1	.8	.3	.3	1.4	6.5	7.7	46.0	22.3	8.7	3.1	2.4
New Mexico	255						.4	.8	.4		.8	3.1	67.5	21.2	4.7	1.1	

New York	8,698		.1	.2	.2	.2	.7	.3	.2	1.8	6.1	7.1	48.9	19.6	8.1	2.8	3.7
North Carolina	1,724							.1	.1	.3	1.5	5.0	78.3	12.1	2.5	.1	
North Dakota	604		.2		.2			.7		.5	4.8	5.6	73.9	11.1	1.7	.9	.4
Ohio	5,614		.1	.1		.1	.3	.1	.2	1.0	1.8	4.4	62.4	22.7	5.0	1.2	.6
Oklahoma	1,130							.1		.1	2.7	9.5	64.5	18.1	4.2	.4	.4
Oregon	1,277		.3	.3	.2	.3	.9	.4		.5	3.2	2.3	70.2	16.3	3.5	.9	.7
Pennsylvania	6,741	.1	.2	.1	.3	.2	.4	.2	.2	1.1	5.3	6.2	52.3	18.5	7.7	3.1	4.1
Rhode Island	277		.7		.4	.4	1.5	.7		1.8	6.1	5.4	43.7	28.2	7.2	2.5	1.4
South Carolina	513		.2		.4		.9	.4		.6	2.1	3.1	70.6	16.4	4.1	.6	.6
South Dakota	431					.2				.2	2.3	2.8	80.5	12.6	1.4		
Tennessee	913				.1		.4	.2	.1	1.3	4.2	5.2	65.5	19.4	2.4	.7	.5
Texas	3,358			.1		.1	.3	.2	.1	.8	4.8	8.7	62.2	18.4	3.6	.4	.3
Utah	418					.2			.2	1.2	3.4	4.3	68.0	17.9	3.4	1.2	.2
Vermont	286						1.0			2.1	9.1	4.5	71.7	8.0	2.5	.7	.4
Virginia	1,364				.1	.2	.2	.1	.2	2.4	9.5	7.8	65.4	11.1	2.3	.5	.2
Washington	1,896		.1	.1	.2		.1	.1	.2	.5	1.3	2.9	60.8	27.0	4.8	1.3	.6
West Virginia	161		.6					.6	1.9	.6	.6	2.5	52.2	31.7	8.7		.6
Wisconsin	2,272		.3		.1	.1	.5	.2	.2	.9	3.7	13.9	59.5	16.5	3.1	.5	.5
Wyoming	354		.3				.3			.3	2.0	2.5	72.3	19.2	3.1		
Total	84,767		.1	.1	.1	.1	.5	.2	.2	1.1	4.4	6.1	58.1	20.2	5.9	1.5	1.4

TABLE IX.—*Sources of earned degrees of elementary teachers, 1930–31*

State	Source of earned bachelor's degree								Source of earned master's degree							
	Number involved	State or city teachers college	Private teachers college	State college for women	City college or university	State university or land-grant college	Other State-supported college	Private college or university	Number involved	State or city teachers college	Private teachers college	State college for women	City college or university	State university or land-grant college	Other State-supported college	Private college or university
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Alabama	493	5.3	3.5	11.4	8.3	16.2	3.4	51.9	29	3.4	13.8		10.4	27.6	3.4	41.4
Arizona	248	36.3	1.6	1.2	4.1	38.7	3.2	14.9	14	14.3				57.1		28.6
Arkansas	129	24.0		1.6	3.1	24.0	6.2	41.1	3		33.3					66.7
California	2,659	29.6	.6	.5	3.8	30.4	.7	34.4	151	9.9	1.3		3.3	29.2		56.3
Colorado	436	40.6	.5	.5	10.5	14.0	.9	33.0	27	11.1			7.4	22.2		59.3
Connecticut	80	21.2	2.5	2.5	6.3	10.0	1.3	56.2	9		11.1			44.4		44.5
Delaware	30	13.3		16.7	10.0	20.0		40.0								
District of Columbia	88	9.1	1.1	2.3	18.2	1.1	1.1	67.1	8				12.5	12.5		75.0
Florida	296	7.4	4.0	37.2	6.1	10.1	2.4	35.8	8	12.5				37.5		50.0
Georgia	319	5.3	1.3	20.7	4.4	9.1	2.5	57.0	19				5.3	10.5		84.2
Idaho	45	6.7														
Illinois	480	18.8	.8	1.2	10.0	48.9	4.4	40.0	1					100.0		
Indiana	857	30.1	5.3	.1	6.8	21.7	1.9	45.6	14	7.1			7.2	50.0		35.7
Iowa	405	28.1	.5		11.9	16.3	1.6	39.8	33	3.0	9.1		12.1	39.4		36.4
Kansas	483	44.5		.4	12.8	19.3	1.2	39.0	16	25.0			6.2	31.3	6.2	31.3
Kentucky	408	26.0	1.7	.5	19.1	18.9	.8	22.6	9				44.5	33.3		22.2
Louisiana	434	26.7	1.2	2.1	8.3	27.7	1.9	23.1	13	7.6			23.1	38.5		30.8
Maine	30	13.3			6.6	12.2	14.5	35.0	14				14.3	14.3		71.4
Maryland	94	10.7	1.0	1.0	4.2	23.4	3.3	53.4	1	100.0						
Massachusetts	312	33.7	1.6	1.3	9.6	16.0	7.5	59.6	7							
Michigan	716	46.6	1.3	.3	7.3	3.5	1.3	49.0	35	17.2	2.8				14.3	85.7
Minnesota	232	37.1	2.1	.8	3.0	22.6	2.1	19.8	35	8.6	11.4			45.7	5.7	80.0
Mississippi	286	12.8	2.1	39.5	1.0	44.4	.9	11.7	10	60.0			10.0	10.0		28.6
Missouri	787	59.0	.2	.7	2.3	6.9	3.1	34.6	2			50.0		50.0		20.0
Montana	100	19.0	2.0		1.0	19.1	.9	17.8	36	2.8			8.3	22.2		66.7
Nebraska	244	21.3	.8	.8	7.0	48.0		30.0	2	100.0						
Nevada	71	15.5		1.4	1.4	40.2	.4	29.5	10							
New Hampshire	23	8.7		4.3	8.7	76.0		5.7	3					30.0		70.0
New Jersey	665	9.6	3.3	6.8	11.0	39.1		39.2	1					100.0		
New Mexico	120	31.6	1.7	2.5	3.3	19.1	1.8	48.4	53	7.6	11.3		9.4	13.2	3.8	100.0
						36.7	4.2	20.0	9	11.1				55.6		34.7
																33.3

New York	3,328	15.9	1.9	1.1	46.1	2.4	.8	31.8	448	5.1	7.6	.7	14.3	2.2	1.1	69.0
North Carolina	1,509	7.1	2.1	33.4	6.3	3.2	1.6	46.3	38	5.3	5.3	10.5	10.5	13.1	5.3	50.0
North Dakota	86	34.9	2.3		3.5	26.7	1.2	31.4	2	50.0	50.0					
Ohio	1,664	10.2	1.1	.5	36.0	19.6	1.7	30.9	87	2.3	3.5		44.8	13.8	1.1	34.5
Oklahoma	734	37.6	.5	2.5	13.5	27.5	1.8	16.6	41	7.3	4.9	2.4	2.4	58.6		24.4
Oregon	202	10.4	.5		1.5	67.8	1.5	18.3	4					100.0		
Pennsylvania	1,274	20.2	1.9	1.0	17.4	6.4	2.8	50.3	100	30.0	1.0		12.0	9.0	2.0	46.0
Rhode Island	61	62.3	1.6			6.6	3.3	26.2	4	25.0						75.0
South Carolina	715	5.9	1.5	29.3	9.9	2.9	2.7	47.8	19	5.3		5.3	5.3	47.3		36.8
South Dakota	90	28.9	2.2	1.1	4.4	26.7	2.2	34.5	1	100.0						
Tennessee	524	21.4	6.5	3.2	4.2	15.9	1.1	47.7	13		38.4		7.7	23.1		30.8
Texas	1,852	30.9	.8	7.6	5.3	12.5	3.1	39.8	65	12.3	1.5		4.6	27.7	1.6	52.3
Utah	85	8.3	1.1		2.3	68.3	2.3	17.7	2					50.0		50.0
Vermont	25	16.0			8.0	32.0	4.0	40.0	1						100.0	
Virginia	412	38.4	1.2	10.2	2.7	6.3	6.5	34.7	10	10.0			10.0	30.0		50.0
Washington	369	14.7	.3	.5	2.7	53.1	1.6	27.1	20		5.0			45.0		50.0
West Virginia	41	19.6		2.4	7.3	53.7	4.8	12.2								
Wisconsin	316	30.4	.3	.3	4.1	20.6	.6	43.7	13	7.7	7.7			15.4		69.2
Wyoming	93	36.5			4.3	38.8	2.1	18.3	2	50.0				50.0		
Total	24,950	23.5	1.5	5.8	14.4	17.1	2.0	35.7	1,442	8.9	5.1	.7	11.2	18.4	1.3	54.4

TABLE X.—*Sources of earned degrees of junior high school teachers, 1930–31*

State	Source of earned bachelor's degree								Source of earned master's degree								Source of earned doctor's degree				
	Number involved	State or city teachers college	Private teachers college	State college for women	City college or university	State university or land-grant college	Other State-supported college	Private college or university	Number involved	State or city teachers college	Private teachers college	State college for women	City college or university	State university or land-grant college	Other State-supported college	Private college or university	Number involved	Private teachers college	City college or university	State university or land-grant college	Private college or university
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Alabama	220	2.3	2.3	10.5	7.7	32.2	3.2	41.8	17		5.9			64.7		29.4					
Arizona	102	31.4	1.0	1.0	2.9	43.1	1.0	19.6	8					75.0		25.0					
Arkansas	143	28.7	2.8	4.2	1.4	30.7	3.5	28.7	8	12.5	25.0					62.5					
California	1,986	14.8	.2	.2	2.5	44.6	1.1	36.6	399	2.0	1.3		2.8	32.8	0.7	60.4	6			33.3	66.7
Colorado	315	29.2			8.6	27.6	2.2	32.4	61	13.1	1.6		9.9	26.2		49.2					
Connecticut	177	7.3	2.8	.6	6.8	12.4	.6	69.5	20				10.0	5.0	5.0	80.0					
Delaware	32	6.2		6.3	3.1	34.4	9.4	40.6	2							100.0					
District of Columbia	106	10.4		.9	13.2	8.5	.9	66.1	22				9.1	9.1		81.8					
Florida	327	7.6	.6	27.5	4.0	19.6	2.4	38.3	17	11.8	5.9		5.9	35.3		41.1					
Georgia	194	4.6	2.1	10.3	3.1	15.5	1.5	62.9	56		1.8			14.3		83.9					
Idaho	38	18.4		2.6	5.3	47.4		26.3	5				20.0	40.0		40.0					
Illinois	321	18.4	.3	.3	6.8	27.1	1.9	45.2	20					55.0		45.0					
Indiana	753	37.5	1.5	.1	3.7	26.8	1.3	29.1	69	15.9	5.8		2.9	55.1		29.3					
Iowa	489	22.5	.2		9.4	29.5	1.8	36.6	45	2.2	2.2		8.9	46.7		40.0	1		100.0		
Kansas	508	38.1	.6		7.7	26.0	2.0	25.6	46	6.5	6.5		13.1	56.5		17.4					
Kentucky	289	20.8	1.0	.3	24.2	27.7	.7	25.3	29	13.8	17.2		13.8	31.1		24.1					
Louisiana	72	20.8		1.4	1.4	26.4	9.7	40.3	11		9.1			63.6		27.3					
Maine	33	3.0			6.1	18.2	3.0	69.7													
Maryland	189	3.2	.5	.5	3.7	14.3	4.2	73.6	9	11.1				22.2		66.7	1	100.0			
Massachusetts	873	21.9	.7	1.2	5.4	5.6	1.4	63.8	121	19.0	1.6		5.8	1.6		72.0					
Michigan	1,577	36.1	.4	.4	4.6	33.2	2.3	23.0	170	2.9	.6		6.5	59.4		30.6	2			50.0	50.0
Minnesota	476	8.2	.2		2.7	61.1	1.7	26.1	27			3.7	7.4	70.4		18.5					
Mississippi	103	8.7	1.0	35.0		17.4	1.0	36.9	2		50.0		50.0								
Missouri	476	48.9	.8	.2	3.2	27.7	1.3	17.9	54	3.7	1.9		3.7	51.8	1.9	37.0					
Montana	54	9.2			1.9	68.5		20.4	3		33.3			66.7							
Nebraska	174	15.5			2.9	51.7	2.3	27.6	16	6.2			6.2	81.3		6.3					
Nevada	31	25.8			6.5	54.8	3.2	9.7	1					100.0							

New Hampshire	38	21.1	2.6	2.6	5.3	15.8		52.6	2		50.0			50.0							
New Jersey	882	6.3	2.5	5.2	6.6	13.6	2.3	63.5	167	2.4	8.4	6	5.4	10.8	1.2	71.2	2		50.0		50.0
New Mexico	61	37.7			1.6	45.9	1.6	13.2	3					100.0							
New York	1,591	16.9	1.9	1.3	25.9	6.6	1.0	46.4	268	9.4	9.0	3	16.0	5.2		60.1	14			7.2	92.8
North Carolina	280	10.4	.7	25.4	5.0	11.4	3.2	43.9	20	5.0		10.0	5.0	15.0		65.0	1				100.0
North Dakota	42	31.0				45.2		23.8	1					100.0							
Ohio	1,863	8.0	.7	.1	11.5	24.9	2.8	52.0	222	4.5	2.7		16.2	27.9	.5	48.2	3		33.3	33.3	33.4
Oklahoma	369	27.9	.5	4.3	6.5	42.6	1.4	16.8	54	1.9	3.7		3.7	75.9		14.8					
Oregon	104	6.7			1.0	61.5		30.8	4					100.0							
Pennsylvania	2,331	9.7	1.2	.3	12.2	7.9	4.2	64.5	272	2.9	1.5		12.9	10.7	6.6	65.4	3			33.3	66.7
Rhode Island	72	30.6	1.4	1.4	1.4	6.9		58.3	8					12.5		87.5					
South Carolina	72	1.4	2.8	20.8	8.3	19.5	1.4	45.8	6				16.7	50.0		33.3					
South Dakota	67	29.9			1.5	37.3	3.0	29.3	4					75.0		25.0					
Tennessee	306	22.2	9.8	2.0	3.9	19.9	1.0	41.2	27	7.4	25.9			25.6	3.7	37.0					
Texas	880	24.8	.2	9.2	2.9	23.1	4.7	35.1	71	4.2	2.8	1.4	2.8	52.2		36.6	2			100.0	
Utah	213	1.9	1.4		2.3	63.9	4.2	26.3	10		10.0		10.0	40.0	20.0	20.0					
Vermont	22					50.0		50.0	1					100.0							
Virginia	307	17.6	1.0	5.5	2.9	8.1	13.7	51.2	13		15.4		15.4	38.4		30.8	1				100.0
Washington	306	4.9			3.0	69.6	1.6	20.9	23	4.3				52.2	4.3	39.2					
West Virginia	68	19.1		1.5	11.8	33.3	2.9	29.4	6	16.7				50.0		33.3					
Wisconsin	561	24.1	.5	.4	3.0	28.0	1.8	34.2	42	2.4	4.7		4.7	47.7	2.4	38.1					
Wyoming	59	32.2	1.7		6.8	30.0	3.4	16.9	5	20.0			20.0	40.0		20.0					
Total	20,552	18.5	1.0	2.4	7.9	25.6	2.4	42.2	2,487	5.2	3.9	2	8.1	29.7	4.3	51.6	38	2.9	8.3	22.2	66.7

TABLE XI.—*Sources of earned degrees of senior high school teachers, 1930–31*

State	Source of earned bachelor's degree								Source of earned master's degree								Source of earned doctor's degree				
	Number involved	State or city teachers college	Private teachers college	State college for women	City college or university	State university or land-grant college	Other State-supported college	Private college or university	Number involved	State or city teachers college	Private teachers college	State college for women	City college or university	State university or land-grant college	Other State-supported college	Private college or university	Number involved	Private teachers college	City college or university	State university or land-grant college	Private college or university
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Alabama	856	3.6	2.4	12.7	3.4	31.6	2.6	43.7	129	1.6	10.0	0.8	0.8	42.6	1.6	42.6					
Arizona	301	14.6	.7	.3	3/3	52.5	1.0	27.6	55	9.1				58.2	3.7	29.0	1	100.0			
Arkansas	378	25.7	.8	2.1	2.1	27.3	3.4	38.6	40	5.0	12.5		2.5	50.0	2.5	27.5	1	100.0			
California	4,187	6.8	.5	.2	1.9	50.9	.9	39.1	1,316	1.0	.6		1.7	42.7	.3	53.7	29	3.4	7.0	31.0	58.6
Colorado	735	23.9	.1	.4	5.6	35.9	2.2	31.9	135	9.7			10.4	31.8		48.1					
Connecticut	987	3.8	1.0	.6	3.9	12.7	.6	77.4	202	3.0	5.4	.5	3.5	6.4	.5	80.7	5				100.0
Delaware	149		.6	7.4	2.6	38.3	4.7	46.4	23	8.6			4.4	26.1	4.4	56.5	2				100.0
District of Columbia	228	3.5	.9	.9	7.9	13.6	1.3	71.9	105	.9	3.9	11.5	8.5			75.2	7			14.3	85.7
Florida	564	4.3	.7	24.1	3.9	21.3	1.4	44.3	68	2.9	2.9	10.3	2.9	28.0		53.0	1				100.0
Georgia	483	6.0	.6	9.9	3.3	21.2	2.9	56.1	116	.9	4.3		1.8	19.0	.9	73.1	1			100.0	
Idaho	422	3.0	.2		2.4	58.1	1.4	34.9	38		2.7			78.4		18.9					
Illinois	4,150	11.0	.4	.2	5.8	30.7	.7	51.2	624	2.6	.8	.2	4.5	46.0	.6	45.3	20	5.0		10.0	85.0
Indiana	3,671	22.5	2.9	.1	3.3	31.2	1.6	38.4	558	5.4	1.0		5.0	56.0	1.0	31.6	1				100.0
Iowa	2,277	15.6	.3	.2	6.5	32.3	2.7	42.4	215	3.3	.9		6.0	54.0	.5	35.3	1				100.0
Kansas	1,641	29.3	.2	.3	.1	29.5	1.5	39.1	238	4.3	2.1		6.3	59.2	1.7	26.4	1			100.0	
Kentucky	835	21.1	1.6	.6	11.2	30.1	1.3	34.1	138	5.0	7.0		22.0	42.0	2.0	22.0	3			33.3	66.7
Louisiana	1,151	20.4	.9	1.8	3.6	21.8	13.5	38.0	137	.8	.8		6.0	23.5	1.6	67.3	1		100.0		
Maine	567	2.6	.7		4.9	25.1	1.6	65.1	36		5.5		5.5	22.3		66.7					
Maryland	660	2.8	1.0	1.2	1.9	18.5	15.2	59.4	112	7.2	4.4		4.4	23.3	1.7	59.0	7				100.0
Massachusetts	2,805	5.2	.4	.1	4.7	7.1	.7	81.8	778	5.9	.7		3.9	2.0	.4	87.1	22	9.0	4.5	9.0	77.5
Michigan	3,320	24.1	.4		3.0	40.2	1.8	30.5	555	1.4	1.3		3.6	65.2	.2	28.6	11	9.0		9.0	82.0
Minnesota	2,233	4.1	.4	.1	3.0	44.6	1.3	46.5	172	2.4	1.8		4.6	58.1	1.1	32.0	1			100.0	
Mississippi	430	13.5	1.6	29.8	1.8	16.8	2.8	33.7	28	3.5	16.5			35.0		45.0					
Missouri	1,803	40.8	.4	.3	2.3	25.6	1.1	29.5	328	1.8	1.2	.3	4.3	46.7		45.7	3	33.3			66.7
Montana	491	7.9			3.0	58.1	.8	30.2	40	2.5			2.5	65.0		30.0					

Nebraska	1,103	17.4	.5		3.9	47.1	1.2	29.9	118				1.6	72.9	.9	24.6					
Nevada	99	10.1	1.0		3.0	63.7	1.0	21.2	10	10.0				70.0		20.0	1				100.0
New Hampshire	335	11.4	.3	.6	3.5	33.2	.3	50.7	33		3.0		9.0	15.5		72.5					
New Jersey	2,730	4.5	1.6	2.7	4.8	12.5	1.9	72.0	806	3.0	7.8	.1	5.1	9.8	1.0	73.2	26	3.8		7.6	88.6
New Mexico	239	28.1	1.2	.4	2.9	38.1	1.7	27.6	31	12.8			6.4	48.6		32.2					
New York	6,986	10.7	1.3	.7	10.1	7.2	.9	60.1	1,790	3.1	6.6	.2	7.1	5.5	.4	77.1	109		2.8	5.5	91.7
North Carolina	1,554	5.6	1.1	20.0	3.2	15.4	1.2	53.5	131	1.6	3.8	3.8	4.6	35.1	1.6	49.5					
North Dakota	526	14.2			2.3	45.1	1.3	37.1	45	4.4			4.4	62.6		28.6	2			50.0	50.0
Ohio	5,070	5.7	1.0	.1	8.9	29.6	1.6	53.1	956	3.9	2.8	.2	15.2	37.3	.7	39.9	16	6.2	24.8	31.0	38.0
Oklahoma	982	32.2	.2	5.6	3.0	37.0	3.4	18.6	138	3.6	3.6		.7	69.6	2.2	20.3					
Oregon	1,157	.9	.3		1.7	64.0	.5	32.6	128	2.3	1.5		3.1	64.9		28.2	2			50.0	50.0
Pennsylvania	5,654	6.0	1.2	.2	9.7	10.3	3.4	69.2	1,310	1.5	1.2	.1	9.2	12.6	5.5	69.9	75	1.4	4.2	7.0	87.4
Rhode Island	226	1.3	.4		6.2	11.1	.9	80.1	64	3.1	1.6		3.1	3.1		89.1	2				100.0
South Carolina	471	2.5	1.1	22.5	8.7	12.8	3.8	48.6	65			1.5	6.2	60.0	1.5	30.8	1				100.0
South Dakota	404	14.9	.2		5.2	34.9	1.5	43.3	21				4.8	71.4		23.8					
Tennessee	795	16.6	6.4	1.9	3.4	25.1	1.2	45.4	112		28.6	.8	2.7	27.7		40.2					
Texas	2,790	22.5	.5	8.8	2.9	27.6	2.5	35.2	449	3.1	2.2	.4	4.5	48.8	2.5	38.5	2	50.0			50.0
Utah	364	1.9	1.3		.8	70.1	1.4	24.5	38					60.5	2.6	36.9					
Vermont	235	3.0		.8	1.7	49.4	1.7	43.4	16		6.2		6.2	24.8		62.8					
Virginia	1,067	17.8	.6	5.5	3.0	14.1	7.5	51.5	112	1.8	2.7		5.3	35.8	4.4	50.0					
Washington	1,766	1.1	.2	.1	1.8	70.9	.9	25.0	238	1.3	2.5	.4	3.4	71.0	.4	21.0	2		100.0		
West Virginia	148	10.2	1.3	1.4	2.0	37.9	1.3	46.0	43		2.3	2.3	2.3	60.5	2.3	30.3	1	100.0			
Wisconsin	1,773	16.2	.3	.2	3.7	44.3	1.4	33.9	266	2.6	1.5		3.7	62.8	.4	29.0	2				100.0
Wyoming	338	20.4		.9	2.6	51.8	1.2	23.1	38	23.6			5.3	55.3		15.8					
Total	72,136	12.3	.9	2.1	6.0	28.6	2.0	48.1	13,144	2.9	3.1	.2	5.9	32.6	1.2	54.1	359	3.6	3.9	11.7	80.8

TABLE XII.—*Fields for which rural school teachers received most training, 1930–31*

State	Number involved	Rural school	Kindergarten-primary	Intermediate	Upper elementary	Junior high	Senior high	Junior college	Other
1	2	3	4	5	6	7	8	9	10
Alabama	1,047	29.3	16.1	31.3	5.7	15.8	1.4	0.3	0.1
Arizona	132	29.6	12.9	27.3	9.1	9.8	9.1	.....	2.2
Arkansas	631	65.4	12.7	8.9	6.8	4.1	2.1	.....	.....
California	965	53.0	9.8	17.3	11.7	3.7	3.6	.....	.9
Colorado	929	36.2	16.9	22.8	5.3	9.4	7.5	.1	1.8
Connecticut	269	27.2	27.5	29.4	13.8	1.5	.3	.....	.3
Delaware	59	59.3	3.4	23.8	6.7	3.4	3.4	.....	.....
Florida	130	47.7	13.1	19.3	13.9	3.8	1.5	.....	.7
Georgia	176	55.1	9.7	14.8	14.8	1.7	3.4	.5	.....
Idaho	163	35.0	12.9	27.0	9.2	12.3	3.6	.....	.....
Illinois	4,845	65.3	5.9	11.5	8.1	3.7	4.8	.2	.5
Indiana	1,182	52.3	10.1	25.1	9.2	.9	2.4	.....	.....
Iowa	5,119	81.3	4.6	7.1	2.6	1.1	2.7	.2	.4
Kansas	3,154	73.3	5.5	10.7	3.5	3.4	3.4	.....	.2
Kentucky	1,253	74.5	7.4	6.9	7.4	2.1	1.4	.2	.1
Louisiana	403	25.1	21.8	29.1	15.7	1.2	6.2	.2	.7
Maine	630	54.8	13.3	17.1	9.8	2.4	1.9	.2	.5
Maryland	520	55.4	15.7	17.5	9.4	.8	.8	.2	.2
Massachusetts	160	28.8	26.3	33.1	8.2	1.8	.6	.....	1.2
Michigan	2,708	64.5	5.8	12.6	6.7	6.2	3.6	.1	.5
Minnesota	3,891	82.2	5.1	7.2	3.8	1.4	.2	.....	.1
Mississippi	203	53.7	15.3	14.8	6.9	1.4	5.5	1.4	1.0
Missouri	648	68.0	8.0	9.0	6.3	2.3	5.7	.1	.6
Montana	1,114	42.3	16.6	22.8	10.3	4.6	3.1	.....	.3
Nebraska	2,966	76.1	7.5	9.0	2.9	1.9	2.2	.1	.3
Nevada	135	45.9	11.9	20.8	11.1	4.4	5.9	.....	.....
New Hampshire	269	48.0	13.8	24.5	6.3	5.6	1.5	.3	.....
New Jersey	339	41.6	13.9	36.6	7.3	.....	.6	.....	.....
New Mexico	219	56.2	14.6	15.1	8.7	3.6	1.8	.....	.....
New York	4,161	68.6	5.8	14.4	4.8	4.5	1.7	.....	.2
North Carolina	669	35.4	22.3	22.0	16.1	1.8	1.8	.3	.3
North Dakota	2,748	65.0	11.0	13.1	7.2	2.3	1.0	.1	.3
Ohio	1,816	49.7	7.2	22.5	12.8	2.8	4.5	.2	.3
Oklahoma	1,271	63.9	10.0	13.6	6.4	2.8	2.8	.2	.3
Oregon	963	40.0	19.8	24.0	10.0	5.2	.6	.....	.4
Pennsylvania	3,887	41.1	15.5	32.6	4.6	3.9	2.1	.....	.2
Rhode Island	41	46.4	7.3	34.2	4.9	2.4	2.4	.....	2.4
South Carolina	165	46.1	16.4	21.2	7.3	4.2	4.2	.6	.....
South Dakota	1,798	79.1	3.5	9.3	3.5	2.3	2.0	.2	.1
Tennessee	1,684	66.7	7.2	9.0	12.3	1.7	2.9	.1	.1
Texas	1,065	41.2	15.5	23.7	5.4	5.1	8.7	.2	.2
Utah	69	13.0	20.3	31.9	21.8	10.0	1.5	1.5	.....
Vermont	451	77.6	4.4	10.2	3.6	2.2	1.6	.....	.4
Virginia	1,377	34.5	19.4	17.4	20.5	4.4	3.4	.3	.1
Washington	908	29.2	16.8	28.0	19.2	5.7	1.0	.....	.1
West Virginia	29	58.6	3.5	6.9	13.8	6.9	10.3	.....	.....
Wisconsin	3,557	89.7	2.4	2.8	3.0	.7	1.0	.1	.3
Wyoming	504	71.2	6.1	11.9	5.4	2.2	2.8	.....	.4
Total	61,407	63.3	9.0	14.7	6.7	3.3	2.6	.1	.3

TABLE XIII.—*Fields for which intermediate teachers in cities 10,000 to 99,999 population received most training, 1930–31*

State	Number involved	Rural school	Kindergarten-primary	Intermediate	Upper elementary	Junior high	Senior high	Junior college	Other
1	2	3	4	5	6	7	8	9	10
Alabama	134	0.7	8.2	76.2	4.5	6.7	3.0		0.7
Arizona	133		7.5	60.2	9.7	10.6	11.3	0.7	
Arkansas	85		5.9	82.4	3.5	3.5	4.7		
California	877	.4	4.8	70.7	9.3	8.6	5.5		.7
Colorado	100		8.0	79.0		5.0	7.0		1.0
Connecticut	761	.4	9.5	80.3	8.6	1.0	.1		.1
Delaware	1								
Florida	182	.5	9.4	74.8	2.2	4.4	8.7		
Georgia	172	.6	8.7	77.3	2.9	4.1	5.8		.6
Idaho	16	6.2	18.8	56.3		6.2	12.5		
Illinois	1,086	.3	5.7	72.3	8.2	5.3	7.2	.1	.9
Indiana	616	.8	5.3	79.3	7.3	2.1	5.2		
Iowa	488	.2	8.4	75.8	6.2	4.9	4.1		.4
Kansas	270		7.8	68.6	5.1	6.6	11.9		
Kentucky	244	.4	3.3	77.5	5.7	3.7	8.2	.8	.4
Louisiana	142		4.9	76.1	4.2	3.5	9.1	.8	1.4
Maine	250	1.2	7.2	80.8	9.2	.4	1.2		
Maryland	104		9.6	88.5	1.9				
Massachusetts	1,507	.2	8.2	79.6	7.0	4.7	.3		
Michigan	768	.1	9.3	72.0	8.1	5.9	4.2		.4
Minnesota	192		16.1	71.4	8.9	1.6	.5		1.5
Mississippi	85		7.0	69.5	7.0	5.9	10.6		
Missouri	356	.3	9.2	67.6	5.1	6.7	10.1	.5	.5
Montana	139	.7	13.7	72.7	7.9	2.9	1.4		.7
Nebraska	124		14.6	69.4	6.4	3.2	6.4		
Nevada	16			81.3		12.5	6.2		
New Hampshire	116		5.2	85.4	5.1	1.7	2.6		
New Jersey	1,807	.3	5.0	83.5	7.4	1.1	2.1	.1	.5
New Mexico	43		9.3	76.7			14.0		
New York	1,633	.4	5.8	76.8	6.8	7.8	1.9	.1	.4
North Carolina	288	.3	10.1	72.3	3.8	4.5	8.0		1.0
North Dakota	40		15.0	70.0	12.5	2.5			
Ohio	1,214	.2	7.1	76.7	6.7	3.0	6.0	.3	
Oklahoma	132		5.3	75.1	7.5	6.1	5.3		.7
Oregon	91		14.3	72.6	5.5	6.6	1.0		
Pennsylvania	2,012	.6	13.7	75.8	3.1	4.0	2.4	.1	.3
Rhode Island	151	.6	10.6	82.8	4.0	2.0			
South Carolina	146		10.9	75.4	2.7	4.8	5.5	.7	
South Dakota	60		11.6	80.0	6.7		1.7		
Tennessee	60		10.0	63.3	5.0	10.0	11.7		
Texas	620	.3	6.8	69.9	3.2	6.8	13.3	.3	.4
Utah	15		13.3	80.0			6.7		
Vermont	42		2.3	80.9	12.1	4.7			
Virginia	228		15.8	66.7	7.0	3.0	6.6		.9
Washington	246	1.2	12.2	67.1	13.1	4.4	1.6		.4
West Virginia	158		6.3	77.3	6.3	4.4	5.7		
Wisconsin	497	.6	8.1	72.0	12.5	3.4	3.0		.4
Wyoming	40		12.5	72.5	2.5	10.0	2.5		
Total	18,487	.4	8.1	75.8	6.6	4.4	4.2	.1	.4

TABLE XIV.—*Fields for which upper elementary teachers in villages less than 2,500 population received most training, 1930–31*

State	Number involved	Rural school	Kindergarten-primary	Intermediate	Upper elementary	Junior high	Senior high	Junior college	Other
1	2	3	4	5	6	7	8	9	10
Alabama	270	0.3	2.9	8.5	63.5	19.8	4.0	0.7	0.3
Arizona	51	3.9	1.9	3.9	41.2	23.6	25.5	.....	.....
Arkansas	111	4.5	.9	8.0	57.7	18.1	9.9	.....	.9
California	407	5.4	2.0	7.4	59.5	14.5	9.8	.7	.7
Colorado	119	4.2	1.6	6.7	42.1	30.3	12.6	.8	1.7
Connecticut	120	.....	3.3	18.3	68.3	9.3	.8	.....	.....
Delaware	20	.....	5.0	.....	60.0	25.0	10.0	.....	.....
Florida	101	3.0	1.9	12.9	55.5	14.9	10.9	.....	.....
Georgia	110	.9	.....	8.2	62.7	13.7	10.0	2.7	.9
Idaho	63	3.1	3.1	12.7	42.9	31.9	6.3	.....	1.8
Illinois	283	3.5	.4	4.2	67.9	12.0	9.9	.7	1.4
Indiana	421	3.7	.5	6.7	76.7	6.0	6.0	.2	.2
Iowa	434	3.5	1.6	7.6	61.5	15.5	9.2	.....	1.1
Kansas	291	5.5	1.4	7.2	55.0	24.1	6.8	.....	.....
Kentucky	184	5.4	3.3	6.0	62.0	13.1	9.7	.5	.....
Louisiana	380	.7	2.9	15.4	64.5	1.5	14.1	.2	.7
Maine	161	3.1	1.8	14.3	70.9	6.8	1.9	.6	.6
Maryland	195	6.2	4.1	8.2	71.8	6.1	3.6	.....	.....
Massachusetts	203	1.5	3.4	11.4	61.1	18.3	3.9	.....	.4
Michigan	323	2.1	1.2	8.0	55.5	21.1	9.9	.....	1.2
Minnesota	425	3.3	1.4	5.9	62.1	25.2	1.9	.....	.....
Mississippi	101	.....	2.9	2.9	58.5	16.9	17.9	.9	.2
Missouri	280	1.0	1.0	7.9	57.9	15.4	15.1	.3	.....
Montana	97	2.0	4.1	5.1	60.9	22.7	5.2	.....	1.4
Nebraska	241	3.3	3.3	8.7	50.7	24.1	9.1	.....	.....
Nevada	26	3.8	.....	11.6	50.0	7.7	23.1	3.8	.8
New Hampshire	82	6.0	2.4	13.5	56.1	19.6	2.4	.....	.....
New Jersey	477	2.1	2.3	10.5	69.6	8.2	5.6	.....	.....
New Mexico	73	6.9	1.3	6.8	57.6	12.4	13.7	1.3	1.7
New York	506	4.2	1.3	8.9	56.7	22.9	5.5	.2	.....
North Carolina	539	.7	1.6	5.6	69.6	5.4	16.0	.4	.3
North Dakota	229	.9	.8	11.4	67.7	13.1	4.8	.....	.7
Ohio	617	3.6	.5	7.3	68.7	12.0	7.8	.....	1.3
Oklahoma	197	3.0	1.0	9.6	61.5	13.2	10.7	.5	.1
Oregon	181	3.8	4.4	8.3	59.2	21.6	2.2	.....	.5
Pennsylvania	1,049	4.9	3.4	14.6	55.1	17.4	4.1	.2	.5
Rhode Island	44	.....	4.5	16.1	59.1	11.3	6.8	.....	.3
South Carolina	77	.....	1.3	11.7	63.7	10.3	11.7	1.3	2.2
South Dakota	114	7.9	1.7	6.1	58.8	22.9	3.5	.....	.....
Tennessee	308	5.2	2.3	7.8	64.6	6.4	12.7	1.0	.....
Texas	483	1.2	1.4	8.1	54.7	12.5	21.5	.6	.....
Utah	120	2.5	2.5	8.3	62.5	20.0	4.2	.....	.....
Vermont	76	10.6	2.6	3.9	79.0	3.9	.....	.....	.....
Virginia	385	1.3	3.6	4.7	63.4	12.2	14.5	.3	.....
Washington	327	1.2	3.6	9.2	64.5	19.0	2.1	.4	.....
West Virginia	4	.....	.....	25.0	75.0	.....	.....	.....	.....
Wisconsin	198	13.2	.5	5.0	59.1	15.2	6.0	.....	1.0
Wyoming	75	5.3	1.3	9.3	56.1	17.3	10.7	.....	.....
Total	11,670	3.3	2.0	8.9	61.7	14.8	8.5	.3	.5

TABLE XV.—*Semester-hours' credit of senior high school instructors teaching 1 field, 1930–31*

State	Agriculture and forestry		Art and drawing		Biological sciences		Business and commerce		Education and teacher training		English		Classic languages		Modern languages		Health and physical education		Home economics or household arts		Physical sciences		Mathematics		Music		History, sociology, economics		Trades and industries and industrial arts	
	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Alabama	80	11	....	1	....	7	38	12	....	....	43	46	....	4	....	7	....	3	44	17	....	8	23	26	....	7	40	35	....	4
Arizona	....	3	....	2	....	3	....	9	....	....	51	12	....	1	....	4	....	4	....	5	....	5	....	6	....	1	....	6	....	5
Arkansas	....	3	....	1	....	6	43	10	....	....	31	20	....	2	....	1	....	2	....	6	....	4	....	9	....	1	39	18	....	4
California	92	23	60	47	51	38	37	159	....	....	41	174	50	10	55	58	41	136	49	88	51	37	31	65	61	54	50	99	29	95
Colorado	....	2	....	2	....	5	48	21	....	1	43	31	....	7	....	6	....	8	....	8	....	5	31	19	....	3	52	16	....	2
Connecticut	....	2	....	7	44	10	58	62	....	....	34	85	26	13	49	38	....	5	36	15	39	17	24	26	....	3	38	44	30	13
Delaware	....	....	....	2	....	2	....	8	....	....	31	10	....	2	....	3	....	5	....	3	....	....	....	2	....	....	....	3	....	1
District of Columbia	....	....	....	1	....	2	19	10	....	....	45	18	....	3	....	3	....	5	....	2	....	4	....	7	....	1	47	10	....	1
Florida	....	3	....	2	....	4	53	11	....	....	31	20	....	3	....	2	....	2	....	8	....	3	20	21	....	....	25	14	....	1
Georgia	....	2	....	2	....	4	29	12	....	....	36	24	....	7	44	11	....	2	....	8	....	3	27	12	....	....	34	11	....	2
Idaho	....	5	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Illinois	61	15	48	29	28	2	47	10	....	....	34	16	....	....	....	2	....	4	58	15	....	3	....	3	....	2	....	8	....	1
Indiana	....	5	79	21	46	34	32	142	....	2	41	219	39	31	57	38	47	34	41	69	41	62	30	112	60	23	40	96	39	74
Iowa	....	8	....	3	47	26	51	115	....	....	45	142	41	29	49	14	49	26	49	57	46	31	32	87	61	22	48	88	49	75
Kansas	73	10	....	6	....	10	37	92	....	2	35	130	....	8	38	10	49	22	51	37	32	21	25	55	47	15	45	60	55	20
Kentucky	....	2	....	3	....	7	41	54	....	2	40	66	....	8	57	13	46	22	47	42	....	7	30	33	83	15	49	42	40	21
Louisiana	....	4	....	....	....	4	61	11	....	....	37	38	35	11	....	8	....	5	39	14	....	9	27	32	....	4	47	15	....	4
Maine	....	1	....	....	....	7	15	17	....	....	32	47	....	1	24	18	....	3	35	14	....	3	22	23	....	1	26	18	....	2
Maryland	....	6	....	3	....	....	25	18	....	....	36	29	....	9	25	10	....	....	....	8	....	6	25	15	....	2	36	10	....	5
Massachusetts	....	4	40	17	35	5	27	17	....	....	32	32	....	9	....	8	....	3	50	15	....	2	37	13	....	7	31	16	43	16
Michigan	....	5	60	16	50	16	40	166	....	....	34	212	31	46	40	112	57	22	54	31	40	45	25	111	....	4	33	100	28	22
Minnesota	97	10	....	9	35	26	36	169	....	1	41	160	41	23	43	27	51	49	46	85	41	39	29	100	62	24	42	95	41	65
Mississippi	....	5	....	2	....	18	35	53	....	3	43	98	34	13	47	10	38	11	55	45	40	22	25	29	82	10	44	60	42	35
Missouri	....	9	....	6	....	3	37	10	....	....	40	25	....	4	....	....	....	1	51	10	....	6	28	17	....	3	37	13	....	....
Montana	....	6	....	3	....	7	32	39	....	8	40	57	....	8	....	8	46	25	50	26	47	15	31	26	....	8	43	42	50	26
	....	....	....	....	....	8	33	14	....	....	36	21	....	3	....	3	....	4	....	6	....	2	28	16	....	2	40	13	....	7

TABLE XV.—*Semester-hours' credit of senior high school instructors teaching 1 field, 1930–31*—Continued

State	Agriculture and forestry		Art and drawing		Biological sciences		Business and commerce		Education and teacher training		English		Classic languages		Modern languages		Health and physical education		Home economics or household arts		Physical sciences		Mathematics		Music		History, sociology, economics		Trades and industries and industrial arts	
	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Nebraska	....	9	....	2	....	4	31	43	....	2	40	34	....	8	....	6	....	8	49	10	....	6	28	14	....	1	45	21	47	10
Nevada	....	....	....	....	....	....	....	2	....	....	....	3	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	2	....	....
New Hampshire	....	....	....	....	....	....	45	16	....	....	40	21	....	2	....	6	....	2	....	6	....	3	....	8	....	....	....	8	....	1
New Jersey	....	5	60	26	34	16	61	199	....	3	41	190	38	34	46	86	56	43	73	33	38	38	30	100	55	11	41	115	30	30
New Mexico	....	....	....	....	....	1	....	5	....	....	....	8	....	....	....	6	....	....	....	3	....	....	....	2	....	....	....	5	....	1
New York	86	10	75	101	42	68	60	370	....	1	41	482	38	126	53	211	75	136	65	95	50	98	30	306	82	45	41	317	41	156
North Carolina	67	20	....	1	....	9	37	17	....	....	34	52	....	6	....	9	....	3	50	21	....	7	26	36	....	4	32	29	....	4
North Dakota	....	....	....	....	....	1	....	7	....	....	37	10	....	2	....	2	....	1	....	5	....	1	....	3	....	....	....	7	....	2
Ohio	90	13	74	24	41	39	45	182	....	....	36	239	30	61	44	55	44	50	42	86	34	64	25	132	77	30	36	129	26	143
Oklahoma	....	2	....	2	....	7	39	20	....	....	42	39	....	4	....	8	....	2	58	13	....	7	38	24	....	4	43	23	30	13
Oregon	....	5	....	9	....	6	40	31	....	....	47	50	....	5	....	8	....	2	67	10	....	9	34	30	....	....	43	27	44	12
Pennsylvania	96	14	82	44	36	32	61	312	....	1	38	265	28	57	46	80	58	82	52	63	40	56	27	169	53	47	36	176	30	109
Rhode Island	....	....	....	....	....	....	....	8	....	....	30	13	....	3	....	8	....	2	....	3	....	4	....	8	....	1	....	6	....	....
South Carolina	....	3	....	....	....	2	26	13	....	....	31	24	....	9	....	6	....	....	....	5	....	2	22	17	....	....	39	13	....	3
South Dakota	....	1	....	2	....	1	....	5	....	....	35	18	....	4	....	1	....	1	....	4	....	3	....	8	....	1	....	6	....	5
Tennessee	....	4	....	2	....	4	37	10	....	....	36	28	....	8	....	6	....	4	54	21	....	4	24	22	....	2	33	15	....	6
Texas	80	23	....	5	34	11	40	43	....	1	33	193	28	12	39	52	29	17	47	71	34	30	24	102	....	4	36	106	37	30
Utah	....	1	....	1	....	6	....	5	....	....	46	19	....	1	....	1	....	4	48	15	....	2	....	3	....	5	....	9	43	10
Vermont	....	....	....	....	....	....	42	10	....	....	....	8	....	3	....	3	....	....	....	2	....	....	17	10	....	1	....	5	....	....
Virginia	....	7	....	....	....	3	38	22	....	....	32	37	....	7	....	9	....	2	....	6	....	5	22	35	....	2	31	23	....	6
Washington	....	5	....	3	....	9	35	41	....	....	43	70	....	7	68	12	....	9	48	22	41	15	24	28	....	6	42	42	27	11
West Virginia	....	1	....	1	....	4	....	6	....	....	....	4	....	1	....	2	....	2	....	3	....	4	....	2	....	1	....	2	....	4
Wisconsin	....	7	....	7	40	16	46	77	....	1	39	124	40	12	54	13	43	24	55	22	48	34	31	63	....	8	41	67	50	40
Wyoming	....	5	....	....	....	....	....	7	....	....	38	12	....	4	....	1	....	2	....	5	....	3	....	3	....	1	....	6	....	4
Total	....	279	....	415	....	493	....	2,692	....	28	....	3,675	....	631	....	1,005	....	798	....	1,159	....	754	....	1,991	....	386	....	2,091	....	1,112

TABLE XVI.—*Semester-hours' credit in major teaching field of senior high school instructors teaching 2 or more fields. 1930–31*

State	Agriculture and forestry		Art and drawing		Biological sciences		Business and commerce		Education and teacher training		English		Classic languages		Modern languages		Health and physical education		Home economics or household arts		Physical sciences		Mathematics		Music		History, sociology, economics		Trades and industries and industrial arts	
	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Alabama	49	15	....	1	33	38	36	20	....	.....	33	127	27	16	29	27	26	32	44	37	35	33	21	82	....	2	31	86	33	10
Arizona	....	5	....	2	....	9	44	19	....	.....	42	44	....	5	29	14	38	14	....	8	44	12	30	25	....	5	38	14	....	9
Arkansas	51	16	....	3	33	22	....	6	....	1	31	70	26	10	42	14	....	4	42	25	26	11	19	51	....	2	33	48	....	6
California	66	35	53	59	44	128	32	172	....	3	43	392	41	65	50	175	36	176	42	65	45	193	31	211	55	63	48	245	41	99
Colorado	62	16	....	2	41	18	36	44	....	4	37	97	38	24	39	36	40	13	49	28	52	42	30	56	....	5	32	61	35	15
Connecticut	....	3	....	3	36	35	40	31	....	1	35	103	29	42	37	45	....	9	....	8	44	29	24	66	....	....	31	54	28	10
Delaware	....	1	....	....	....	5	....	4	....	.....	28	14	29	10	....	6	....	2	43	10	35	12	18	15	....	....	27	11	....	4
District of Columbia	....	....	....	1	....	6	....	9	....	.....	39	20	....	6	38	12	....	1	....	4	....	4	....	1	21	14	40	12	....	2
Florida	....	8	....	1	28	28	37	15	....	1	28	91	29	33	28	34	22	25	42	28	31	22	24	58	....	....	31	51	31	12
Georgia	....	4	....	3	38	17	....	8	....	1	30	65	28	25	34	26	....	5	48	14	28	19	22	47	....	....	27	33	....	6
Idaho	....	7	....	2	28	16	30	24	....	.....	34	70	....	8	34	10	....	9	49	14	35	25	24	31	....	5	28	38	....	9
Illinois	60	82	30	45	39	180	33	207	....	.....	36	547	32	184	40	132	33	101	44	162	40	193	28	374	50	47	36	306	30	105
Indiana	78	63	43	31	40	134	40	203	....	5	38	520	39	188	42	63	33	88	53	148	45	106	30	387	60	57	41	407	36	93
Iowa	44	107	48	10	29	54	33	129	34	30	31	336	35	90	42	26	22	58	42	288	33	85	25	191	41	54	34	167	26	77
Kansas	60	41	....	8	39	45	45	113	32	16	35	204	34	49	45	31	39	33	43	105	37	47	30	143	61	37	37	131	35	65
Kentucky	64	23	....	4	29	23	29	20	....	2	31	145	30	44	39	28	24	10	46	27	40	43	24	100	....	5	34	70	27	18
Louisiana	61	12	....	2	27	49	22	41	....	3	24	170	25	36	26	59	11	14	35	77	26	49	17	129	....	2	25	72	....	1
Maine	91	11	....	....	....	9	21	24	....	.....	29	115	26	42	32	49	....	5	....	8	28	26	22	38	....	1	28	38	....	6
Maryland	....	4	....	2	31	26	30	17	....	1	34	74	24	12	34	21	37	10	45	20	42	36	21	57	....	5	34	50	29	21
Massachusetts	....	3	....	7	23	70	41	88	....	1	35	253	32	119	32	138	28	20	44	24	30	101	25	138	....	2	30	174	32	36
Michigan	61	64	48	27	41	100	33	210	....	1	36	502	34	153	37	102	40	74	46	86	39	181	28	275	46	32	36	295	37	98
Minnesota	79	16	....	6	31	104	36	78	....	2	33	333	27	61	37	41	28	31	48	113	33	140	25	172	36	16	34	228	45	61
Mississippi	....	6	....	....	38	23	27	15	....	1	30	59	26	21	....	9	....	3	40	26	33	13	28	51	....	2	27	35	....	2
Missouri	37	51	38	21	31	53	32	139	41	18	30	318	30	38	37	35	26	52	38	85	41	77	26	174	41	24	36	201	28	27
Montana	....	8	....	3	33	16	35	34	....	1	34	58	32	12	54	16	28	14	50	16	26	28	30	46	....	8	44	45	....	5

TABLE XVI.—*Semester-hours' credit in major teaching field of senior high school instructors teaching 2 or more fields, 1930–31*—Continued

State	Agriculture and forestry		Art and drawing		Biological sciences		Business and commerce		Education and teacher training		English		Classic languages		Modern languages		Health and physical education		Home economics or household arts		Physical sciences		Mathematics		Music		History, sociology, economics		Trades and industries and industrial arts	
	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Nebraska	60	25	----	5	29	35	29	62	30	54	33	177	28	77	45	22	47	14	41	54	32	56	27	109	41	15	31	93	22	20
Nevada	----	4	----	1	----	3	----	7	----	----	34	19	----	1	----	5	----	4	----	2	----	8	----	4	----	----	----	2	----	2
New Hampshire	----	3	----	----	----	2	47	13	----	----	32	58	29	22	36	24	----	2	52	13	30	13	20	25	----	1	31	24	----	3
New Jersey	----	9	32	17	35	89	41	121	----	----	40	274	31	92	43	152	39	33	48	13	40	128	29	184	----	8	41	159	33	35
New Mexico	----	6	----	2	----	8	35	14	----	1	40	36	----	4	42	23	----	7	41	19	30	18	21	22	----	1	40	17	----	5
New York	87	25	51	42	36	199	41	226	----	2	37	549	31	274	38	258	61	66	50	42	41	224	29	434	58	26	39	357	50	60
North Carolina	----	9	----	1	29	144	40	19	----	1	32	260	28	56	36	98	36	17	48	48	31	61	22	174	----	4	31	154	----	8
North Dakota	56	24	----	----	31	23	31	20	----	3	34	122	25	17	----	5	31	12	42	20	36	24	26	41	----	4	33	77	----	8
Ohio	75	52	51	35	33	175	41	219	----	5	31	678	28	240	35	188	35	128	41	173	36	300	27	379	50	35	35	403	31	156
Oklahoma	44	19	----	3	31	45	32	46	----	----	30	179	28	20	28	29	32	14	42	73	33	32	25	129	30	11	31	103	32	14
Oregon	68	11	----	4	36	48	34	61	----	1	36	150	36	38	40	38	32	34	47	26	39	45	26	69	----	6	38	88	31	14
Pennsylvania	72	28	40	39	33	238	41	179	----	3	33	721	27	302	37	243	49	142	52	75	37	314	24	459	68	32	34	463	38	73
Rhode Island	----	1	----	1	----	9	----	5	----	----	26	19	20	11	40	11	----	----	----	1	----	9	27	19	----	----	30	10	----	----
South Carolina	----	3	----	2	21	16	----	3	----	1	32	56	26	28	25	27	----	3	41	12	34	17	24	48	----	----	27	31	----	9
South Dakota	----	3	----	----	44	15	30	23	----	----	30	80	32	20	----	8	33	11	39	11	37	14	24	37	----	3	33	31	27	11
Tennessee	62	19	----	3	35	30	30	21	----	----	30	110	30	35	29	34	44	13	37	68	33	21	22	76	----	----	27	60	42	13
Texas	61	38	37	10	27	91	32	111	----	5	31	430	31	68	31	170	29	86	46	127	35	79	21	243	----	5	31	245	34	69
Utah	53	20	----	3	41	15	31	17	----	----	41	27	----	2	----	6	40	31	40	23	43	13	20	19	43	12	45	20	41	12
Vermont	----	1	----	----	----	6	----	8	----	----	28	31	30	23	31	20	----	1	52	14	----	7	21	19	----	----	27	15	----	3
Virginia	74	14	----	4	29	79	34	24	----	4	26	218	25	87	27	47	----	8	35	46	28	43	20	147	----	----	25	87	----	3
Washington	60	22	42	10	41	46	37	113	----	1	40	205	41	26	45	66	34	49	44	60	36	94	26	113	51	19	40	113	33	48
West Virginia	----	1	----	3	----	1	----	5	----	----	39	22	----	2	----	4	----	5	----	8	----	5	----	9	----	----	42	17	----	5
Wisconsin	52	17	46	11	40	69	44	109	----	1	38	234	36	75	38	59	51	49	48	39	35	111	28	129	53	14	40	156	42	39
Wyoming	----	9	----	----	49	13	34	21	----	3	35	41	34	11	35	14	30	11	48	13	47	17	31	25	----	5	48	17	----	4
Total	----	944	----	439	----	2,607	----	3,117	----	177	----	9,432	----	2,824	----	2,700	----	1,543	----	2,406	----	3,180	----	5,833	----	590	----	5,622	----	1,411

TABLE XVII.—*Semester-hours' credit in minor teaching field of senior high school instructors teaching 2 or more fields, 1930–31*

State	Agriculture and forestry: Median	Agriculture and forestry: Number of cases	Art and drawing: Median	Art and drawing: Number of cases	Biological sciences: Median	Biological sciences: Number of cases	Business and commerce: Median	Business and commerce: Number of cases	Education and teacher training: Median	Education and teacher training: Number of cases	English: Median	English: Number of cases	Classic languages: Median	Classic languages: Number of cases	Modern languages: Median	Modern languages: Number of cases	Health and physical education: Median	Health and physical education: Number of cases	Home economics or household arts: Median	Home economics or household arts: Number of cases	Physical sciences: Median	Physical sciences: Number of cases	Mathematics: Median	Mathematics: Number of cases	Music: Median	Music: Number of cases	History, sociology, economics: Median	History, sociology, economics: Number of cases	Trades and industries and industrial arts: Median	Trades and industries and industrial arts: Number of cases
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Alabama	----	5	----	2	21	20	32	10	25	12	24	84	23	16	24	46	12	36	----	5	24	45	18	43	----	3	24	117	----	8
Arizona	----	3	----	2	25	14	----	7	----	6	20	21	----	8	25	16	----	9	----	1	25	15	24	20	----	3	26	35	----	2
Arkansas	----	5	----	3	18	34	----	2	30	26	22	42	18	26	30	24	----	7	----	4	20	22	17	21	----	4	19	61	----	2
California	37	38	20	52	22	145	16	23	35	70	24	239	34	133	36	181	17	89	22	16	30	155	21	217	23	17	27	416	30	26
Colorado	----	2	----	5	21	34	----	7	40	12	22	75	25	34	25	47	12	26	----	5	25	42	19	43	----	7	20	63	----	5
Connecticut	----	----	----	3	19	20	----	6	26	13	24	64	24	41	24	53	----	9	----	3	23	42	14	45	----	2	22	86	----	2
Delaware	----	1	----	----	25	11	----	----	----	4	----	9	----	6	18	14	----	4	----	----	23	12	18	12	----	----	26	13	----	2
District of Columbia	----	----	----	2	----	5	----	1	----	1	30	20	----	8	----	8	----	1	----	----	19	13	----	9	----	2	28	13	----	----
Florida	----	5	----	1	20	36	----	2	32	15	22	93	26	26	25	41	15	17	----	4	23	35	18	26	----	1	24	70	----	5
Georgia	----	----	----	2	24	22	----	1	28	13	24	80	23	28	18	31	----	5	----	1	19	26	16	23	----	1	19	44	----	----
Idaho	----	5	----	4	22	25	----	6	----	3	24	26	24	20	23	18	20	14	----	1	28	34	18	27	----	6	26	46	----	2
Illinois	46	16	16	33	21	228	18	48	33	74	25	434	20	209	29	172	16	105	17	32	24	318	20	263	20	29	23	457	19	35
Indiana	27	24	25	32	28	204	26	26	44	50	30	643	28	236	29	134	19	114	29	61	26	214	25	228	32	39	31	370	26	62
Iowa	16	60	19	16	19	109	13	31	29	44	21	266	20	94	27	74	13	94	33	33	21	150	15	159	19	35	20	313	13	55
Kansas	22	20	15	13	25	60	13	17	29	75	23	180	20	80	26	63	15	49	20	18	21	97	18	94	19	17	23	182	22	23
Kentucky	----	4	----	7	19	57	----	8	34	17	24	85	26	40	22	48	14	12	----	5	20	50	18	69	----	7	21	106	----	4
Louisiana	----	4	----	1	19	90	----	6	37	15	21	120	18	36	19	38	15	13	----	6	20	63	15	82	43	12	21	108	----	5
Maine	----	1	----	----	19	22	----	4	----	6	23	62	20	45	25	51	8	12	----	1	24	27	13	41	----	2	15	67	----	5
Maryland	----	----	----	7	18	34	----	4	----	5	25	80	23	19	20	38	----	7	----	1	25	46	17	49	----	9	25	60	----	2
Massachusetts	----	3	13	20	21	66	20	23	30	14	21	174	25	107	26	150	12	13	----	6	21	115	19	129	----	8	20	214	----	3
Michigan	20	17	18	20	22	155	25	34	30	68	26	374	25	170	28	187	17	70	----	8	25	166	19	263	28	31	24	413	20	18
Minnesota	----	3	17	11	21	147	24	19	27	26	24	174	22	119	25	114	12	51	----	7	23	115	18	156	30	34	23	288	----	8
Mississippi	----	2	----	1	25	24	----	1	----	6	24	36	18	25	20	20	17	10	----	2	21	30	19	17	----	1	24	56	----	----
Missouri	19	20	22	18	22	85	20	31	33	35	24	200	23	74	23	51	18	55	24	22	25	108	18	124	22	24	25	201	----	5
Montana	----	2	----	2	20	19	----	9	----	9	27	46	20	14	26	28	17	13	----	4	28	29	17	29	----	8	23	70	----	2

TABLE XVII.—*Semester-hours' credit in minor teaching field of senior high school instructors teaching 2 or more fields, 1930–31*—Continued

State	Agriculture and forestry		Art and drawing		Biological sciences		Business and commerce		Education and teacher training		English		Classic languages		Modern languages		Health and physical education		Home economics or household arts		Physical sciences		Mathematics		Music		History, sociology, economics		Trades and industries and industrial arts	
	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases	Median	Number of cases
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Nebraska	....	5	....	4	21	60	11	15	30	20	22	178	20	69	24	58	14	28	....	9	21	74	17	74	21	19	22	127	21	17
Nevada	....	1	....	1	....	3	....	2	....	2	....	8	....	2	24	11	....	5	....	1	....	2	....	7	....	4	27	11	....	3
New Hampshire	....	1	....	....	20	13	....	5	....	2	21	23	15	20	24	28	....	1	....	1	20	31	17	18	....	2	22	59	....	1
New Jersey	....	4	17	15	20	88	16	22	35	52	25	211	24	111	26	137	17	19	....	4	25	105	19	142	21	10	24	242	25	14
New Mexico	....	1	....	2	22	17	....	2	....	6	26	23	....	4	25	18	....	8	....	1	22	18	15	22	....	5	22	35	....	1
New York	....	3	14	33	20	233	26	58	30	66	25	419	24	263	27	338	14	36	23	10	21	296	21	267	24	22	24	487	25	48
North Carolina	....	5	....	4	19	106	....	7	27	18	24	193	19	52	22	151	16	14	....	4	19	112	16	101	....	5	24	190	....	3
North Dakota	....	6	....	3	26	25	14	12	29	12	21	46	23	31	25	17	15	18	....	8	24	46	18	41	23	21	25	88	....	1
Ohio	29	28	19	26	21	293	19	48	35	64	23	576	24	226	25	238	15	121	19	58	24	256	19	331	18	22	22	559	15	42
Oklahoma	....	8	....	4	18	65	19	10	27	34	19	129	20	23	22	60	13	22	33	12	21	74	15	62	21	20	21	138	....	9
Oregon	....	2	23	14	26	47	27	22	....	8	25	83	21	54	31	63	19	38	20	10	20	59	19	60	29	11	24	111	....	3
Pennsylvania	....	6	21	30	24	276	27	31	30	56	24	656	24	246	24	382	13	60	47	11	24	338	19	101	27	25	21	649	21	25
Rhode Island	....	....	....	....	20	11	....	4	....	1	25	22	....	8	18	7	....	1	....	1	24	10	13	11	....	1	9	15	....	4
South Carolina	....	....	....	1	17	25	....	1	....	3	25	42	20	12	18	21	....	4	....	4	19	23	16	47	....	....	19	39	....	1
South Dakota	....	4	....	....	24	22	....	4	....	2	18	39	24	30	26	21	....	9	....	....	22	39	16	22	....	4	24	61	....	2
Tennessee	....	8	....	2	23	55	....	3	28	16	24	96	23	35	22	51	....	6	....	9	21	41	19	55	....	2	24	85	....	1
Texas	24	10	18	13	24	124	19	38	30	59	25	299	21	79	23	183	19	76	33	18	24	131	14	209	26	14	24	260	26	11
Utah	....	4	18	10	25	14	28	12	....	5	28	36	....	2	28	11	23	17	....	3	24	23	17	22	....	6	26	30	....	3
Vermont	....	2	....	....	....	5	....	....	....	....	20	31	17	13	18	19	....	2	....	4	19	16	14	17	....	2	19	24	....	....
Virginia	....	2	....	4	18	86	....	3	40	14	21	167	18	64	20	78	19	13	....	4	24	70	13	81	....	1	19	162	....	....
Washington	30	10	....	7	22	87	17	34	38	17	22	123	22	81	31	86	19	56	36	10	25	92	19	103	23	31	26	137	21	11
West Virginia	....	....	....	1	19	11	....	1	....	3	30	18	....	6	....	7	....	5	....	3	....	5	18	10	....	....	27	17	....	1
Wisconsin	....	8	18	16	18	104	24	16	25	25	23	149	25	66	27	89	16	27	....	6	24	109	21	106	17	20	25	227	....	9
Wyoming	....	13	....	3	29	16	....	2	....	6	25	25	18	11	30	48	18	17	....	2	23	18	18	25	....	2	23	46	....	3
Total	....	388	....	462	....	3,470	....	698	....	1,122	....	7,219	....	3,094	....	3,738	....	1,438	....	439	....	3,967	....	4,133	....	556	....	7,883	....	496

TABLE XVIII.—*A picture of demand for and supply of elementary school teachers in 1- and 2-teacher open-country schools, 1930–31*

State	Total number of rural teachers involved	Total number of new rural teachers	Ratio of mobility—col. 3÷col. 2—ratio of new teachers to total	Reasons for demand for new rural school teachers by percents										Sources of supply meeting demand for new teachers by percents									
				Predecessor died	Predecessor retired	Predecessor entered college	Predecessor married	Predecessor left to teach elsewhere in the State	Predecessor left to teach in another State	Predecessor entered another occupation or profession	Predecessor left on leave of absence, illness, etc.	Held newly created position	Other reasons creating demand	College or university in same State	Normal school or teachers college in same State	Another school system in same State	College or university in another State	Normal school or teachers college in another State	Another school system in another State	A position other than educational work	Leave of absence	Return to teaching, having some occupation other than education the past year	Other source of supply
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Alabama	1,002	277	1–3.62	2.7	6.9	5.4	10.5	54.5	0.7	6.6	2.5	8.7	4.3	5.4	37.6	26.8	1.1	1.1	7.2	0.3	7.6	2.9
Arizona	126	54	1–2.33	2.7	11.2	1.8	9.2	42.6	2.7	7.4	1.8	7.4	11.2	9.2	3.7	29.6	3.7	3.7	9.2	1.8	24.1	7.4
Arkansas	610	212	1–2.88	.5	9.5	5.7	7.1	50.9	1.4	11.3	1.4	8.0	4.2	8.5	8.5	53.3	1.4	.9	9.9	1.9	5.2	8.5
California	940	322	1–3.11	1.6	8.3	2.0	8.6	55.6	1.0	5.6	4.7	5.6	7.0	8.6	26.8	32.8	2.3	1.9	7.6	2.3	12.6	7.0
Colorado	905	554	1–1.63	.9	6.3	8.1	12.1	50.2	2.9	8.1	2.1	3.2	6.1	15.0	18.1	40.3	5.4	2.3	6.3	.5	6.5	3.4
Connecticut	263	70	1–3.76		2.8	4.3	8.6	57.2	15.8	1.4	4.3	2.8	2.8	6.7	41.5	27.2	1.4	1.1	7.1	.5	4.3	4.3
Delaware	57	15	1–3.80			6.7	20.0	53.4	6.7	6.6			6.6			60.0	13.4		6.7			6.6
Florida	123	45	1–2.73		6.6	2.2	8.9	51.2	2.2	11.2	2.2	4.4	8.9	4.4	4.4	42.2	2.2				15.6	6.7
Georgia	167	44	1–3.80	2.4	18.7	11.5	2.3	45.5	2.3	11.3		9.1	11.3	11.4	6.9	36.4	2.3		4.6	2.2	11.3	11.3
Idaho	162	87	1–1.86	1.1	5.8		9.2	42.6	9.2	6.9	2.3	2.3	8.0	15.0	32.2	31.1			4.6		4.6	4.6
Illinois	4,712	1,640	1–2.87	.3	6.6	6.3	12.6	57.3	1.8	7.4	2.1	2.1	3.5	12.9	19.8	45.6	2.0		5.4	1.4	4.8	2.2
Indiana	1,154	267	1–4.32	1.9	6.4	2.0	6.0	66.8	1.1	4.5	5.3	4.1	5.3	6.8	17.6	45.0	.8		5.3	1.4	12.0	4.9
Iowa	4,907	2,064	1–2.38	.3	6.8	6.8	19.2	46.5	1.1	8.7	1.9	1.5	5.2	9.5	14.1	44.5	1.4	1.1	10.2	.5	8.6	9.8
Kansas	3,026	1,519	1–1.99	.4	5.2	8.7	18.8	51.3	1.3	8.6	2.3	1.8	3.6	13.6	14.7	44.5	1.3	1.2	6.6	.9	4.8	8.4
Kentucky	1,133	280	1–4.03	.5	10.4	4.3	10.9	50.4	.7	9.1	.9	5.7	7.8	22.2	29.1	27.4	.9	.4	7.8	.9	4.8	4.6
Louisiana	397	66	1–6.02	1.5	10.6	10.6	10.6	41.0	7.5	6.1	9.1	3.0	24.3	27.9	15.2	1.5	6.1	7.5	7.5		7.5	7.5
Maine	616	240	1–2.57	.4	8.3	5.8	11.7	42.5	5.0	11.3	5.8	7.1	2.7	27.1	23.6	.4	5.4	1.7	5.4	1.1	7.9	7.9
Maryland	511	92	1–5.55		6.5	1.1	18.5	44.6	2.1	8.7	3.3	4.3		66.3	14.1		1.7		2.2		2.3	2.3
Massachusetts	153	37	1–4.14				8.1	67.5	5.4	13.6		5.4	5.4	45.0	5.4		21.6	19.0	10.8			10.8
Michigan	2,636	1,178	1–2.24	.8	6.0	20.1	12.2	46.7	.7	6.6	1.6	1.7	3.6	5.0	40.6	40.2	2.6	.5	3.2	.4	5.9	3.3
Minnesota	3,741	1,762	1–2.12	.3	4.5	9.2	15.6	56.3	1.9	5.9	1.6	2.0	2.7	2.3	39.1	47.8	.2	1.2	2.6	.5	2.4	1.6
Mississippi	196	63	1–3.14		15.9	3.2	17.4	55.0		17.4		1.6	9.5	9.5	1.6	44.1		1.6	7.9		12.7	17.4
Missouri	637	306	1–2.07	.3	3.5	12.4	17.5	43.8	2.8	12.4	2.3	2.3	4.2	15.6	20.1	49.9	2.2	2.2	4.9	2.5	4.2	2.9
Montana	1,076	647	1–1.66	.3	4.8	8.6	10.0	49.8	8.2	6.2	2.3	5.4	4.7	3.4	21.9	67.0	2.0	2.0	6.8	2.5	7.0	2.1
Nebraska	2,670	1,441	1–1.99	.8	6.9	9.9	19.3	46.9	1.6	8.1	1.4	2.2	4.4	9.6	22.5	45.6	2.6	.6	1.8	.5	2.3	7.6

TABLE XVIII.—*A picture of demand for and supply of elementary school teachers in 1- and 2-teacher open-country schools, 1930–31*—Contd.

State	Total number of rural teachers involved	Total number of new rural teachers	Ratio of mobility—col. 3÷col. 2—ratio of new teachers to total	Reasons for demand for new rural school teachers by percents										Sources of supply meeting demand for new teachers by percents									
				Predecessor died	Predecessor retired	Predecessor entered college	Predecessor married	Predecessor left to teach elsewhere in the State	Predecessor left to teach in another State	Predecessor entered another occupation or profession	Predecessor left on leave of absence, illness, etc.	Held newly created position	Other reasons creating demand	College or university in same State	Normal school or teachers college in same State	Another school system in same State	College or university in another State	Normal school or teachers college in another State	Another school system in another State	A position other than educational work	Leave of absence	Returning to teaching, having some occupation other than education the past year	Other sources of supply
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Nevada	134	72	1-1.86	.....	5.5	2.7	15.3	36.2	11.2	5.5	2.7	12.5	8.4	9.7	13.9	34.8	4.2	4.2	4.2	11.2	4.2	6.8	6.8
New Hampshire	265	92	1-2.88	.....	6.5	2.2	16.4	52.2	4.3	7.5	2.2	4.3	2.2		69.0	27.2	1.1	2.2	5.3	1.1	1.1	6.5	6.5
New Jersey	330	83	1-3.98	.....	6.0	2.4	9.6	51.9	3.6	14.5	3.6	4.8	3.6		50.7	19.3		6.0	4.8	6.0		6.0	7.2
New Mexico	208	63	1-3.22	.....	9.5	1.6	7.9	52.5	9.5	3.2	1.6	9.5	4.7	6.3	3.2	28.7	6.3	1.6	3.2	19.1	1.6	6.3	12.7
New York	4,072	1,534	1-2.65	.6	8.8	10.8	8.0	47.5	1.2	10.2	4.2	1.7	6.9	.9	46.1	36.3	.4	1.6	1.1	2.3	.9	5.9	2.5
North Carolina	641	169	1-3.79	1.8	14.2	2.4	9.5	48.1	4.1	7.7	1.2	7.1	2.9	16.0	22.5	34.9	1.8	.6	2.9	10.1	.6	5.3	5.3
North Dakota	2,644	1,388	1-1.90	.3	4.5	9.8	12.8	52.1	2.6	6.7	1.7	3.8	4.7	5.7	36.4	46.4	1.0	1.1	3.5	4.7	.4	4.4	6.4
Ohio	1,768	531	1-3.33	.6	6.6	7.9	8.9	55.8	.9	7.5	1.8	3.0	7.0	28.5	23.0	22.2	2.3	1.3	.9	5.7	.4	8.1	2.6
Oklahoma	1,289	569	1-2.18	.5	8.0	7.0	13.5	50.0	2.0	10.0	2.0	2.0	4.0	21.0	14.5	42.6	2.2	1.0	2.0	7.0	.7	6.0	3.0
Oregon	941	451	1-2.09	1.5	11.5	9.3	11.0	42.0	2.5	8.0	4.0	3.2	7.0	2.0	43.0	39.9	.....	.8	2.0	4.6	.5	4.6	2.6
Pennsylvania	3,809	1,121	1-3.40	.6	4.6	4.5	13.4	58.0	1.3	7.7	2.1	2.8	7.0	5.6	28.9	34.8	.4	4	1.4	6.8	1.0	7.1	2.8
Rhode Island	38	8	1-4.75	.....	.....	12.5	.....	50.0	25.0	.....	12.5	.....	.....	.....	37.5	12.5	.....	12.5	12.5	12.5	.....	12.5	.....
South Carolina	161	42	1-3.83	.....	9.5	.....	19.1	28.2	4.8	9.5	9.5	16.6	4.8	14.3	4.8	45.3	.....	2.4	7.1	7.1	4.8	7.1	7.1
South Dakota	1,727	930	1-1.86	.2	5.7	6.4	11.6	55.8	2.5	7.6	1.9	4.4	2.9	8.4	20.6	50.3	1.7	1.4	2.8	4.1	.6	6.9	3.2
Tennessee	1,620	348	1-4.66	.3	7.8	6.9	8.3	53.7	1.1	6.6	1.7	8.1	5.5	23.3	13.8	28.7	1.7	.8	2.6	6.0	1.7	4.4	7.3
Texas	1,040	450	1-2.31	.2	7.1	7.6	11.3	54.0	1.1	6.7	1.8	6.0	4.2	26.7	12.6	41.6	1.6	.7	.7	7.1	.4	5.2	2.4
Utah	68	26	1-2.54	.....	7.7	7.7	7.7	23.1	7.7	34.6	3.8	7.7	.....	4.1	23.4	34.7	1.3	3.4	5.4	7.5	.....	8.9	1.3
Vermont	438	147	1-2.98	.....	5.4	4.1	13.6	30.4	6.1	7.5	2.4	4.1	5.4	4.1	32.7	37.3	4.0	1.0	3.7	3.7	.7	4.0	4.7
Virginia	1,346	297	1-4.53	.3	4.0	5.7	12.8	30.9	1.7	7.1	2.7	10.5	4.3	18.2	32.7	37.3	.....	2.6	5.6	6.0	.9	8.1	2.5
Washington	885	430	1-2.06	.2	6.3	3.7	12.8	33.3	2.5	7.2	1.6	3.7	7.7	2.3	32.8	57.3	.....	.....	.....	.....	.....	.....	.....
West Virginia	28	4	1-7.00	.....	.....	.....	.....	50.0	25.0	.....	.....	25.0	.....	25.0	25.0	.....	25.0	.....	25.0	.....	.....	.....	.....
Wisconsin	3,452	1,421	1-2.43	.2	7.5	6.3	15.5	50.5	1.3	8.2	2.9	2.0	2.6	1.8	40.8	46.1	.3	.7	1.3	2.6	.5	4.1	1.8
Wyoming	467	262	1-1.86	.7	5.7	4.6	12.6	44.7	6.5	8.4	2.7	10.0	4.1	6.1	23.3	35.1	5.4	2.7	5.3	6.1	.4	7.6	8.0
Total	30,458	23,652	1-2.5	.5	6.4	8.0	13.7	51.1	2.1	7.9	2.3	3.3	4.7	8.5	27.5	42.2	1.2	1.2	2.1	5.7	.7	5.7	4.9

TABLE XIX.—*A picture of demand for and supply of elementary school teachers in cities of from 10,000 to 99,999 population in the United States, 1930–31*

State	Total number of elementary teachers involved	Total number of new elementary teachers	Ratio of mobility—col. 3÷col. 2—ratio of new teachers to total	Reasons for demand for new elementary school teachers by percents: Predecessor died	Predecessor retired	Predecessor entered college	Predecessor married	Predecessor left to teach elsewhere in the State	Predecessor left to teach in another State	Predecessor entered another occupation or profession	Predecessor left on leave of absence, illness, etc.	Hold newly created position	Other reasons creating demand	Sources of supply meeting demand for new teachers by percents: College or university in same State	Normal school or teachers college in same State	Another school system in same State	College or university in another State	Normal school or teachers college in another State	Another school system in another State	A position other than educational work	Leave of absence	Return to teaching, having some occupation other than education the past year	Other sources of supply
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Alabama	409	27	1–15.2	3.7	7.4		11.1	26.0	11.1	7.4	3.7	22.2	7.4	[illegible]	11.1	33.4	11.1	3.7	18.5			11.1	3.7
Arizona	288	52	1–5.53	1.9	1.9	1.9	28.9	19.2	5.8	1.9	5.8	11.5	21.2	19.2	5.8	25.0	9.6		23.1	7.7	3.8		5.8
Arkansas	249	23	1–10.82			8.7	17.4	17.4	8.7		4.3	17.4	26.1	17.4		21.7	13.1		30.4		8.7		8.7
California	2,459	285	1–8.62	1.1	4.9	2.1	11.6	29.5	1.4	2.1	10.5	24.2	12.6	27.0	14.4	36.1	2.1	.7	3.9	1.4	4.2	5.6	4.6
Colorado	256	22	1–11.6	4.6	4.6	4.6	22.7	13.6			13.6	4.5	31.8	31.8	9.1	18.1	9.1	4.6	4.6		4.6	18.1	
Connecticut	1,862	121	1–15.38	2.5	5.0		18.2	28.6	9.1	5.8	4.9	24.0	4.9	.8	44.6	28.5	3.3	4.1	11.6		.8	1.7	6.6
Florida	480	62	1–7.74	1.6	6.5	3.2	11.3	14.5	11.3	3.2	9.7	22.6	16.1	22.6	4.8	29.0	8.1		9.7	4.8	4.8	8.1	8.1
Georgia	450	41	1–10.9	4.9		2.4	26.8	[illegible]	2.4	12.2	9.8	19.5	7.3	14.6	7.3	41.5	2.4		14.6	4.9	2.4	2.4	9.8
Idaho	36	13	1–2.8				23.1	23.1	15.4			23.0	15.4		15.4	30.8			30.4		7.7		7.7
Illinois	2,596	316	1–8.21	1.6	4.8	6.0	31.6	18.7	7.3	4.1	4.1	11.7	10.1	11.4	30.7	32.3	5.1	2.2	10.8	2.2	.9	2.2	2.2
Indiana	1,596	138	1–8.67	1.5	4.4	2.9	30.4	18.1	3.6	4.3	9.4	11.6	13.8	9.4	23.2	30.1	5.8	3.6	8.7	2.2	2.2	2.2	3.6
Iowa	1,193	130	1–9.18		5.4	6.2	30.8	14.6	6.1	5.4	3.8	15.4	12.3	6.2	3.8	56.4	5.4	5.4	16.9	1.5	.8	1.5	3.1
Kansas	663	81	1–8.19	1.2	2.5	7.4	29.6	21.0	7.4	4.9	4.9	8.7	12.4	11.1	22.2	43.3	1.2		7.4	4.9		3.7	6.2
Kentucky	603	66	1–9.14	1.5	4.6	16.7	27.3	9.1	1.5	[illegible]	12.1	13.6	10.6	34.9	22.7	13.7	7.7		4.5	4.5		3.0	4.5
Louisiana	351	22	1–15.9		4.6	4.6	22.7	31.8			13.6	13.6	9.1	9.1	18.2	36.4		4.5	9.1			13.6	13.6
Maine	506	26	1–19.4	3.8	3.9		7.7	26.9	11.5	7.7	7.7	15.4	15.4	34.6	46.2				7.7		7.7		3.8
Maryland	260	13	1–20				30.8	15.4		7.7	7.7	23.1	15.3		30.8	53.8		7.7					7.7
Massachusetts	3,195	226	1–14.15	1.3	3.1	.9	27.9	31.4	1.8	.4	6.2	19.0	8.0	2.7	14.6	38.4	1.8	.9	21.2	2.7	1.3	3.1	13.3
Michigan	2,175	286	1–7.61	.7	5.6	5.6	27.3	24.5	4.5	3.1	3.2	17.1	8.4	8.7	28.5	32.9	2.8	3.2	4.9	3.1	1.7	2.5	1.7
Minnesota	405	44	1–9.21	2.3	4.5		25.0	25.0	4.5		2.3	27.3	9.1	4.6	15.9	54.6	4.5	2.3	13.6			4.5	
Mississippi	234	30	1–7.8		13.3	6.7	23.3	20.0	3.3	10.0	10.0	13.4		30.0	3.3	46.7	6.7		3.3	3.3			6.7
Missouri	806	101	1–7.99		1.0	5.0	18.8	27.7	6.9		1.0	25.7	13.9	20.8	20.8	36.6	2.0	3.0	6.9	2.0		3.0	4.9
Montana	361	36	1–10				36.1	13.9	11.1	8.3	13.9	11.1	5.6		2.8	50.0	2.8		30.5			8.3	5.6
Nebraska	286	29	1–9.87	3.5	3.5	13.8	17.2	10.3	3.5	3.4	6.9	24.1	[illegible]	13.8	3.4	51.8		3.4	10.4	3.4		10.4	3.4
Nevada	30	4	1–7.5				75.0					[illegible]				25.0			75.0				

TABLE XIX.—*A picture of demand for and supply of elementary school teachers in cities of from 10,000 to 99,999 population in the United States, 1930–31*—Continued

State	Total number of elementary teachers involved	Total number of new elementary teachers	Ratio of mobility—col. 3÷col. 2—ratio of new teachers to total	Reasons for demand for new elementary school teachers by percents										Sources of supply meeting demand for new teachers by percents									
				Predecessor died	Predecessor retired	Predecessor entered college	Predecessor married	Predecessor left to teach elsewhere in the State	Predecessor left to teach in another State	Predecessor entered another occupation or profession	Predecessor left on leave of absence, illness, etc.	Hold newly created position	Other reasons creating demand	College or university in same State	Normal school or teachers college in same State	Another school system in same State	College or university in another State	Normal school or teachers college in another State	Another school system in another State	A position other than educational work	Leave of absence	Return to teaching, having some occupation other than education the past year	Other sources of supply
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
New Hampshire	267	23	1-11.6	.....	8.7	.....	26.1	17.4	8.7	13.0	4.4	21.7	.....	.....	34.8	26.1	4.4	.....	21.7	8.7	.....	.....	4.3
New Jersey	4,233	336	1-12.6	.3	6.0	1.2	19.6	21.7	5.1	2.7	6.8	27.4	9.2	2.4	33.0	25.0	2.7	2.4	15.4	3.6	1.2	4.2	10.1
New Mexico	110	26	1-4.24	.....	7.7	7.7	19.2	11.5	7.7	7.7	3.9	23.1	11.5	23.2	3.8	15.4	15.4	7.7	26.9	3.8	.....	.....	3.8
New York	3,881	346	1-11.2	2.9	7.2	2.6	18.8	23.7	2.0	2.9	8.1	20.5	11.3	4.6	42.5	27.2	1.5	2.0	9.8	2.9	1.7	2.6	5.2
North Carolina	813	81	1-10	.....	6.2	1.2	22.2	32.1	9.9	7.4	3.7	12.4	4.9	17.3	2.4	52.0	7.4	1.2	3.7	1.2	3.7	6.2	4.9
North Dakota	94	15	1-6.27	.....	6.7	.....	33.3	6.7	20.0	.....	6.7	20.0	6.6	6.7	13.2	20.0	.....	.....	40.0	6.7	6.7	6.7	.....
Ohio	2,974	291	1-10.2	1.4	4.1	2.7	34.4	22.0	2.1	2.7	5.5	14.8	10.3	27.1	17.9	34.7	5.5	1.7	6.2	2.4	.7	2.4	1.4
Oklahoma	317	42	1-8.58	4.8	4.8	2.4	21.4	14.3	.....	4.8	4.7	33.3	9.5	21.4	7.1	47.6	2.4	2.4	11.9	2.4	4.8	.....	.....
Oregon	219	38	1-5.77	2.6	5.4	.....	13.1	28.9	7.9	10.5	5.3	7.9	18.4	7.9	23.7	42.1	2.6	.....	13.2	.....	.....	10.5	.....
Pennsylvania	4,722	372	1-12.7	1.3	4.0	2.2	41.4	18.0	1.9	1.1	2.7	17.2	10.2	7.5	40.3	35.0	1.3	1.1	3.2	4.6	.5	1.1	5.4
Rhode Island	334	15	1-22.6	.....	.....	.....	6.7	40.0	.....	.....	6.7	13.3	33.3	6.7	46.7	26.7	.....	.....	13.2	.....	6.7	.....	.....
South Carolina	347	33	1-10.5	6.1	.....	3.0	30.3	15.2	3.0	15.2	12.1	12.1	3.0	24.3	12.1	42.4	.....	.....	18.2	.....	.....	3.0	.....
South Dakota	161	30	1-5.37	.....	3.3	.....	30.0	16.7	20.0	.....	6.7	3.3	20.0	.....	3.3	33.3	6.7	10.0	43.4	.....	.....	3.3	.....
Tennessee	181	12	1-15	.....	.....	8.3	16.7	41.7	.....	.....	8.3	16.7	8.3	16.7	8.3	16.7	16.7	.....	8.3	.....	.....	25.0	8.3
Texas	1,571	302	1-5.2	.7	3.7	2.0	17.5	18.9	1.3	3.3	4.6	39.4	8.6	23.2	4.3	46.0	2.0	1.3	5.6	4.0	2.0	6.0	5.6
Utah	46	7	1-6.58	.....	.....	.....	14.3	85.7	.....	.....	.....	.....	.....	28.6	.....	42.8	.....	.....	14.3	.....	.....	14.3	.....
Vermont	74	10	1-7.4	.....	.....	.....	30.0	10.0	30.0	.....	20.0	10.0	.....	.....	10.0	50.0	.....	.....	20.0	.....	.....	10.0	10.0
Virginia	652	62	1-10.5	.....	1.6	.....	32.3	14.5	6.5	4.8	9.7	12.9	17.7	16.1	19.4	35.5	4.8	6.5	12.9	.....	.....	3.2	1.6
Washington	543	72	1-7.55	.....	4.2	15.3	22.2	23.6	6.9	1.4	1.4	11.1	13.9	5.6	13.9	47.2	2.8	.....	20.8	1.4	2.8	1.4	4.2
West Virginia	351	28	1-12.5	.....	3.6	.....	28.6	21.4	7.1	7.1	.....	25.0	7.2	10.7	28.6	28.6	10.7	.....	7.1	7.1	.....	.....	7.2
Wisconsin	1,168	153	1-7.64	3.3	2.6	5.2	28.1	16.3	9.2	3.3	5.9	19.6	6.5	5.2	25.5	40.5	2.6	1.3	15.0	.7	2.0	.....	7.2
Wyoming	93	15	1-6.2	.....	.....	.....	20.0	6.7	20.0	6.7	6.7	6.6	33.3	6.7	.....	40.0	.....	.....	46.6	.....	6.7	.....	.....
Total	44,900	4,503	1-9.97	1.4	4.5	3.4	25.3	21.6	4.6	3.3	5.9	19.5	10.5	12.3	23.3	35.6	3.4	2.0	10.8	2.6	1.6	3.3	5.1

TABLE XX.—*Salaries of elementary school teachers in 1- and 2-teacher open-country schools, 1930–31*

State	7 months								8 months								9 months							
	Men				Women				Men				Women				Men				Women			
	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Alabama	108	516	562	642	623	439	488	553																
Arkansas	27	518	585	725	59	491	552	638	69	643	736	867	154	606	661	755								
California																	16	1,280	1,400	1,600	492	1,287	1,362	1,460
Colorado									34	809	859	930	232	792	839	881	78	950	1,011	1,132	527	919	966	1,036
Connecticut																					28	1,030	1,100	1,200
District of Columbia																								
Florida																								
Georgia					12	500	560	650	10	725	838	931	52	650	770	863								
Idaho					81	372	436	491					32	464	527	580					13	931	1,060	1,169
Illinois									11	975	1,063	1,225	46	828	870	944	11	1,055	1,175	1,363	14	607	657	800
Indiana	10	842	883	938	28	855	913	960	634	704	824	901	3,172	723	822	888	56	922	1,054	1,189	80	992	1,106	1,182
Iowa									444	877	1,013	1,069	607	858	937	1,041	16	1,033	1,150	1,268	895	911	978	1,061
Kansas									78	601	645	690	964	602	643	685	105	712	787	891	58	973	1,126	1,212
Kentucky	247	535	613	681	585	526	599	671	282	668	782	875	2,682	656	739	838	24	938	1,100	1,200	3,741	714	775	854
Louisiana									47	629	716	789	227	628	694	771	18	738	900	990	122	870	969	1,103
Maine									11	644	713	781	61	606	679	783	36	671	867	973	80	800	883	969
Maryland																					274	651	754	862
Massachusetts									16	533	578	700	143	505	563	646								
Michigan																	11	975	1,063	1,231	359	606	712	805
Minnesota	12	543	586	640	168	533	574	638	11	744	819	922	78	678	736	786					107	1,024	1,072	1,196
Mississippi									108	712	776	847	2,048	666	729	788	312	917	985	1,127	24	920	980	1,100
Missouri																	57	838	916	1,006	2,134	872	944	1,006
Montana									21	618	693	835	106	521	588	664					1,433	814	889	961
Nebraska									93	605	662	755	388	599	652	718	25	716	808	925	127	670	757	846
Nevada													58	768	832	875	59	986	980	1,083	927	922	971	1,056
									23	629	673	756	319	620	663	718	114	750	843	963	2,396	714	788	885
													27	959	1,032	1,098					80	1,128	1,191	1,285

TABLE XX.—*Salaries of elementary school teachers in 1- and 2-teacher open-country schools, 1930–31*—Continued

State	7 months								8 months								9 months							
	Men				Women				Men				Women				Men				Women			
	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
New Hampshire																					151	864	928	976
New Jersey																					72	992	1,119	1,229
New Mexico	15	563	706	753	27	552	675	748	19	689	775	854	38	679	806	862	29	902	968	1,063	84	918	970	1,063
New York													52	870	971	1,064	68	965	1,050	1,153	930	943	1,007	1,119
North Carolina									19	648	695	806	170	708	771	844								
North Dakota	107	532	566	601	277	528	560	593	125	642	690	762	1,007	639	682	743	115	807	885	1,004	1,059	772	843	911
Ohio									416	850	902	993	785	837	876	940	144	928	1,013	1,115	428	907	969	1,053
Oklahoma									168	805	875	1,032	629	736	816	873	100	945	1,054	1,236	316	908	964	1,096
Oregon									13	828	869	975	212	760	831	881	45	953	1,068	1,152	669	909	969	1,052
Pennsylvania									722	821	856	892	2,635	818	850	881	64	1,000	1,080	1,192	373	938	1,022	1,147
South Carolina					55	652	723	772					50	802	848	894					45	883	943	994
South Dakota									54	716	777	847	350	686	745	797	87	876	938	989	269	850	919	971
Tennessee					114	427	468	526	280	573	661	751	1,085	536	627	691	15	675	800	1,042	117	623	669	770
Texas	21	516	581	694	98	455	537	625	59	697	781	887	272	586	688	769	56	863	1,017	1,167	353	713	817	889
Utah													14	713	800	950	15	1,125	1,238	1,342	22	838	943	1,045
Vermont													117	645	694	750					275	691	748	796
Virginia	18	429	467	510	112	432	470	521	77	529	584	663	877	523	572	636	26	681	750	917	303	664	729	787
Washington													56	771	834	883	73	1,117	1,258	1,375	727	976	1,094	1,193
West Virginia													13	675	810	875								
Wisconsin									101	730	829	968	666	684	754	826	291	867	945	1,026	2,390	839	917	981
Wyoming													151	713	776	845	21	912	965	1,058	308	839	920	985
Total	565				2,239				5,945				20,524				2,087				22,811			

TABLE XXI.—*Salaries of elementary school teachers—cities 10,000 to 99,999 population, 1930–31*

State	9 months								10 months							
	Men				Women				Men				Women			
	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Alabama					235	863	968	1,179								
Arizona					167	1,293	1,466	1,763					144	949	1,089	1,285
Arkansas					231	938	1,044	1,288					97	1,627	1,797	1,916
California					344	1,418	1,609	1,813	24	1,680	2,200	2,500	1,673	1,641	1,878	2,405
Colorado					108	1,293	1,519	1,688					76	1,506	1,640	1,900
Connecticut									14	1,738	2,117	2,750	1,792	1,443	1,677	1,946
Florida					311	944	1,048	1,169								
Georgia					351	915	1,065	1,324								
Idaho					26	1,265	1,343	1,436								
Illinois					392	1,013	1,200	1,320	16	1,338	1,600	2,200	2,078	1,267	1,484	1,679
Indiana	43	1,319	1,458	1,804	896	1,194	1,133	1,463	16	1,638	1,900	2,100	614	1,447	1,663	1,839
Iowa					430	1,175	1,302	1,407					640	1,274	1,429	1,582
Kansas					491	1,141	1,312	1,511					115	1,239	1,516	1,718
Kentucky					233	893	974	1,086					343	1,121	1,337	1,513
Louisiana					309	1,059	1,223	1,343								
Maine					194	1,146	1,268	1,348					298	1,346	1,518	1,566
Maryland					95	999	1,134	1,340					142	1,125	1,194	1,396
Massachusetts									12	1,750	1,900	2,250	2,939	1,397	1,574	1,749
Michigan					79	1,220	1,338	1,604	17	1,513	1,794	1,988	2,026	1,380	1,570	1,828
Minnesota					195	1,159	1,293	1,448					203	1,510	1,733	2,003
Mississippi					158	976	1,043	1,098								
Missouri					627	980	1,112	1,359								
Montana					188	1,298	1,514	1,831					172	1,323	1,547	1,875
Nebraska					257	1,305	1,448	1,709					139	1,444	1,639	1,813
Nevada					12	1,525	1,600	1,700								
New Hampshire					44	1,056	1,139	1,200					13	1,514	1,550	1,586
New Jersey													196	1,196	1,413	1,551
New Mexico					76	1,260	1,356	1,543	40	1,500	1,800	2,167	3,536	1,516	1,868	2,281
New York									19	1,425	1,875	2,688	3,574	1,561	1,782	1,990
North Carolina					553	1,084	1,253	1,409								

TABLE XXI.—*Salaries of elementary school teachers—cities 10,000 to 99,999 population, 1930–31*—Continued

State	9 months								10 months							
	Men				Women				Men				Women			
	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
North Dakota					61	1,272	1,403	1,487								
Ohio	22	1,317	1,500	1,850	1,136	1,092	1,297	1,567	25	1,281	1,712	1,956	1,759	1,271	1,518	1,861
Oklahoma					254	979	1,118	1,307								
Oregon					108	1,071	1,168	1,258								
Pennsylvania	27	1,588	1,838	2,063	2,471	1,298	1,462	1,681	60	1,367	1,[illegible]	1,871	102	1,371	1,486	1,587
Rhode Island													2,045	1,349	1,496	1,826
South Carolina																
South Dakota					267	1,084	1,241	1,342					259	1,406	1,599	1,707
Tennessee					105	1,246	1,406	1,561								
Texas	18	1,263	1,350	1,450	101	812	931	1,042					39	1,315	1,541	1,646
Utah					1,468	952	1,082	1,248								
Vermont					20	933	1,200	1,350								
Virginia					23	1,158	1,237	1,285					21	1,100	1,650	1,821
Washington					336	1,029	1,225	1,398					46	1,217	1,329	1,391
West Virginia					132	1,270	1,392	1,543					297	1,147	1,340	1,530
Wisconsin					293	1,142	1,305	1,512					261	1,345	1,507	1,688
Wyoming					205	1,128	1,294	1,634								
					37	1,554	1,708	1,946					921	1,362	1,562	1,757
Total	110				14,014				243				26,560			

TABLE XXII.—*Salaries of junior high school teachers, 1930–31*

State	9 months								10 months							
	Men				Women				Men				Women			
	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Alabama	84	925	1,120	1,400	220	807	921	1,060								
Arizona	23	1,544	1,750	1,925	56	1,400	1,600	1,767	12	1,733	1,950	2,200	23	1,629	1,750	1,964
Arkansas	44	1,133	1,371	1,800	152	941	1,100	1,350								
California									563	1,943	2,340	2,769	1,371	1,970	2,346	2,779
Colorado	53	1,256	1,507	1,935	142	1,232	1,527	1,850	29	2,013	2,395	2,575	126	2,050	2,729	2,895
Connecticut									78	1,815	2,120	2,450	385	1,577	1,868	2,198
Delaware									8	1,488	1,563	1,750	58	1,306	1,520	2,049
District of Columbia									26	2,075	2,300	2,413	94	2,050	2,422	2,579
Florida	83	1,252	1,397	1,563	322	1,113	1,233	1,364								
Georgia	41	1,363	1,975	2,492	114	874	1,025	1,442								
Idaho	34	1,131	1,250	1,450	59	1,097	1,254	1,362								
Illinois																
Indiana	183	1,421	1,611	1,801	361	1,336	1,459	1,624	85	1,581	1,845	2,164	408	1,392	1,584	1,841
Iowa	70	1,115	1,300	1,525	460	1,041	1,163	1,353	91	1,808	1,964	2,127	272	1,707	1,921	2,108
Kansas	126	1,417	1,685	1,904	397	1,256	1,457	1,715	68	1,867	2,111	2,420	333	1,610	1,774	1,975
Kentucky	42	1,013	1,250	1,613	104	933	1,029	1,229								
Louisiana	14	1,150	1,400	1,583	61	788	1,075	1,316	52	1,600	1,820	1,983	231	1,488	1,623	1,772
Maine	24	1,067	1,400	1,867	89	990	1,129	1,286								
Maryland									55	1,388	1,871	2,077	272	1,487	2,034	2,245
Massachusetts									316	1,819	2,135	2,464	1,672	1,546	1,828	2,081
Michigan	50	1,394	1,271	1,470	107	1,173	1,336	1,495	636	1,809	2,124	2,497	1,567	1,565	1,874	2,288
Minnesota	68	1,256	1,500	1,820	285	1,151	1,297	1,511	89	1,775	2,056	2,353	478	1,740	2,081	2,287
Mississippi	8	1,150	1,300	1,400	77	968	1,068	1,160								
Missouri	82	1,105	1,300	1,406	337	1,005	1,218	1,358								
Montana	24	1,400	1,550	1,723	57	1,243	1,364	1,648	6	1,475	1,800	1,913	47	1,547	1,706	1,944

TABLE XXII.—*Salaries of junior high school teachers, 1930–31*—Continued

State	9 months								10 months							
	Men				Women				Men				Women			
	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Nebraska	79	1,113	1,442	1,704	246	1,093	1,333	1,650								
Nevada									6	1,988	2,100	2,400	19	1,588	1,675	1,813
New Hampshire	10	1,175	1,250	1,400	31	1,134	1,236	1,354	12	1,467	1,650	2,175	88	1,200	1,518	1,800
New Jersey									355	1,972	2,288	2,640	1,121	1,818	2,174	2,606
New Mexico	18	1,075	1,375	1,638	62	1,170	1,320	1,496								
New York									478	2,015	2,428	2,886	2,019	1,781	2,098	2,644
North Carolina	36	1,517	1,667	1,834	166	1,176	1,363	1,584								
North Dakota	36	1,100	1,250	1,500	78	1,030	1,182	1,450								
Ohio	297	1,391	1,648	2,069	641	1,337	1,548	2,052	478	1,741	2,066	2,489	1,282	1,646	2,030	2,551
Oklahoma	82	1,136	1,345	1,675	247	1,034	1,186	1,485	21	1,525	1,950	2,281	51	1,268	1,475	2,113
Oregon	42	1,235	1,340	1,456	150	1,148	1,237	1,301	8	1,533	1,600	1,700	43	1,346	1,494	1,698
Pennsylvania	332	1,383	1,693	1,954	1,008	1,338	1,522	1,815	771	1,925	2,191	2,615	1,910	1,831	2,159	2,649
Rhode Island									29	1,725	2,117	2,475	118	1,383	1,705	1,895
South Carolina	9	1,225	1,550	1,781	54	954	1,225	1,375								
South Dakota	14	1,275	1,567	1,875	73	1,154	1,405	1,565								
Tennessee	71	1,212	1,332	1,554	168	1,000	1,169	1,600								
Texas	201	1,288	1,584	1,829	924	1,099	1,353	1,722								
Utah	119	1,269	1,385	1,544	80	1,133	1,210	1,340								
Vermont	4	1,000	1,200	1,400	24	1,040	1,200	1,350	55	1,408	1,683	1,863	72	1,350	1,633	1,885
Virginia	88	1,144	1,400	1,750	280	1,052	1,400	1,673	4	1,500	1,650	1,800	22	1,217	1,375	1,525
Washington	84	1,308	1,464	1,625	125	1,226	1,361	1,540	26	1,725	1,883	2,138	154	1,285	1,568	1,990
West Virginia	23	1,417	1,560	1,738	92	1,238	1,354	1,533	54	1,531	1,833	2,025	141	1,510	1,765	2,068
Wisconsin																
Wyoming	13	1,350	1,583	1,738	49	1,204	1,379	1,611	162	1,744	2,053	2,328	466	1,563	1,775	2,070
Total	2,560				7,843				4,571				14,843			

TABLE XXIII.—*Salaries of senior high school teachers, 1930–31*

State	9 months								10 months							
	Men				Women				Men				Women			
	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Alabama	169	1,149	1,398	1,840	435	946	1,067	1,319	75	1,554	1,975	2,218	192	1,323	1,707	2,202
Arizona	55	1,795	1,990	2,381	85	1,648	1,850	2,269	51	1,906	2,021	2,281	79	1,679	1,870	2,054
Arkansas	87	1,219	1,469	1,853	228	1,014	1,180	1,400								
California									1,378	2,283	2,631	2,935	2,202	2,151	2,478	2,852
Colorado	171	1,477	1,655	1,943	310	1,334	1,438	1,592	45	2,359	2,707	2,859	110	2,188	2,786	2,947
Connecticut																
Delaware									323	2,086	2,484	2,912	812	1,635	2,052	2,424
District of Columbia									43	1,738	1,963	2,363	97	1,602	1,[illegible]	2,319
Florida									47	2,295	2,805	2,923	151	2,454	2,[illegible]05	2,880
Georgia	117	1,339	1,464	1,664	386	1,185	1,289	1,427								
	116	1,350	1,867	2,475	287	886	1,102	1,429								
Idaho																
Illinois	153	1,401	1,528	1,673	218	1,296	1,375	1,496								
Indiana	707	1,528	1,737	2,036	1,346	1,359	1,483	1,647								
Iowa	559	1,549	1,750	1,962	855	1,429	1,556	1,764	852	2,167	2,763	3,595	1,581	1,853	2,564	3,688
Kansas	632	1,348	1,537	1,848	1,482	1,226	1,332	1,433	493	2,088	2,456	2,811	699	1,966	2,286	2,688
	530	1,496	1,757	2,049	1,018	1,333	1,419	1,576								
Kentucky																
Louisiana	170	1,186	1,394	1,672	374	1,021	1,154	1,301								
Maine	221	1,193	1,374	1,636	725	988	1,097	1,264	137	1,894	2,285	2,672	248	1,539	1,864	2,186
Maryland	145	1,492	1,808	2,070	372	1,132	1,277	1,415								
Massachusetts	52	1,264	1,475	1,750	88	1,242	1,342	1,464								
									242	1,592	2,080	2,613	360	1,296	1,536	2,021
Michigan									977	2,179	2,627	3,166	1,997	1,663	1,922	2,229
Minnesota	162	1,413	1,594	1,869	256	1,274	1,382	1,498								
Mississippi	477	1,360	1,503	1,778	1,070	1,241	1,323	1,417	1,275	1,809	2,156	2,643	2,136	1,535	1,860	2,289
Missouri	51	1,352	1,550	1,842	212	1,053	1,204	1,334								
Montana	360	1,178	1,342	1,586	908	1,078	1,197	1,359								
	124	1,491	1,700	1,895	288	1,378	1,516	1,721	264	2,331	2,943	3,594	343	2,120	2,715	3,264

TABLE XXIII.—*Salaries of senior high school teachers, 1930–31*—Continued

State	9 months								10 months							
	Men				Women				Men				Women			
	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3	Number of cases	Q_1	Median	Q_3
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Nebraska	306	1,338	1,558	1,917	786	1,239	1,368	1,595								
Nevada									21	1,742	2,030	2,313	40	1,660	1,800	1,963
New Hampshire	34	1,738	2,050	2,207	85	1,215	1,291	1,509	79	1,709	2,035	2,442	201	1,257	1,407	1,716
New Jersey									1,095	2,094	2,609	3,359	1,714	1,833	2,273	2,864
New Mexico	73	1,366	1,565	1,747	139	1,318	1,461	1,620								
New York									1,979	2,096	2,621	3,280	4,606	1,637	2,096	2,627
North Carolina	170	1,206	1,500	1,963	443	1,082	1,249	1,449								
North Dakota	220	1,319	1,574	1,826	308	1,203	1,286	1,394								
Ohio	1,171	1,473	1,670	2,083	1,641	1,327	1,471	1,680	1,018	2,071	2,476	2,926	1,416	1,539	2,400	2,869
Oklahoma	313	1,176	1,426	1,796	605	1,058	1,199	1,471	45	1,681	2,153	2,688	34	1,388	1,850	2,460
Oregon	218	1,398	1,618	1,848	479	1,230	1,319	1,423	174	1,877	2,275	2,477	338	1,733	2,171	2,453
Pennsylvania	1,236	1,409	1,672	2,026	1,862	1,299	1,481	1,786	1,513	2,176	2,757	3,268	1,795	1,869	2,536	3,255
Rhode Island									75	1,896	2,525	3,004	147	1,825	2,134	2,511
South Carolina	107	1,196	1,464	1,825	309	988	1,084	1,349								
South Dakota	134	1,458	1,700	1,958	234	1,323	1,393	1,548								
Tennessee	206	1,314	1,472	1,823	415	1,004	1,160	1,358								
Texas	780	1,305	1,541	1,916	2,043	1,122	1,316	1,675								
Utah	152	1,446	1,618	1,789	100	1,244	1,360	1,494								
Vermont	36	1,450	1,900	2,150	121	1,138	1,254	1,406	32	1,575	1,838	2,400	84	1,278	1,483	1,698
Virginia	198	1,074	1,342	1,685	747	931	1,012	1,217								
Washington	270	1,440	1,636	1,882	589	1,315	1,390	1,529	308	1,900	2,156	2,488	451	1,625	2,039	2,313
West Virginia	50	1,883	1,988	2,310	87	1,554	1,814	1,982								
Wisconsin	294	1,518	1,743	1,984	592	1,274	1,398	1,597	487	1,982	2,381	2,662	792	1,668	1,937	2,403
Wyoming	110	1,455	1,733	1,993	163	1,356	1,561	1,743								
Total	11,130				22,636				13,018				22,705			