

**NATIONAL SURVEY
OF THE
EDUCATION OF TEACHERS**

Bulletin 1933, No. 10

**IN SIX VOLUMES
Volume VI.**

SUMMARY AND INTERPRETATION

**By
E. S. EVENDEN**



UNITED STATES DEPARTMENT OF THE INTERIOR Harold L. Ickes, Secretary
OFFICE OF EDUCATION William John Cooper, 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 was 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. Dr. D. B. Waldo, president of the Teachers College at Kalamazoo, was a mem-

ber 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.

The board of consultants and the associate director were appointed in July 1930. The Survey was organized and its scope determined by October of that year. The next 2 years were spent in gathering data and the time since then in preparing, editing, and publishing the findings.

The Survey report is contained in six volumes. The first five volumes contain the results of the special investigations with the interpretations and recommendations of the Survey staff members responsible for each study. This volume, the sixth in the series, was prepared by the associate director and combines a summary of the studies reported in the first five volumes, with his interpretation of the teacher-training situation in this country. His interpretations were modified, of course, by the Survey findings, the points of view of the members of the Survey staff, and the reactions to most of the recommendations and controversial issues of the director and the members of the board of consultants.

I recommend that this volume be published as the final volume of the report of the National Survey of the Education of Teachers.

WM. JOHN COOPER,
Commissioner.

The SECRETARY OF THE INTERIOR.

FOREWORD AND ACKNOWLEDGMENT

This volume completes the formal report of the 3-year study of the education of teachers in the United States, provided for by authorization of the Seventy-first Congress and included in the Survey program of the United States Office of Education. An extended foreword to this volume is unnecessary since the first chapter serves that purpose. Chapter I outlines the conditions which led to the Survey, explains its organization, scope, and methods of treatment, and describes the nature and purposes of this last volume.

It is not intended that this volume should so summarize the material of the Survey that it will detract from the interest in the detailed reports presented in the first five volumes. Rather, it is hoped that the data drawn from these studies and the frequent references to additional information which they contain will tempt the reader to examine the more extended documents.

This volume is intended to be of service to two groups of readers: First, laymen and students of general education, and, second, those who are directly concerned with the education or employment of teachers. For the first group the volume presents, in consolidated form, facts and discussions which will indicate the scope and principal problems in the education of teachers for American public schools. For the second group the selection of the three large problems and the discussions of the controversial issues involved in their solution are intended to direct attention toward some phases of the pressing problems now confronting those interested in the preparation or employment of better prepared teachers.

The associate director desires at this time to acknowledge his indebtedness to many persons for assistance and suggestions without which the Survey would have been impossible.

Dr. William John Cooper as Commissioner of Education and ex-officio Director of the Survey gave invaluable advice on matters of organization, enlisted the cooperation of numerous divisions of the Office of Education, and gave the associate director that degree of freedom of action which fixes responsibility and encourages the greatest possible effort.

A paragraph of appreciation is utterly inadequate to express the valuable contributions made to the Survey by the board of consultants—W. C. Bagley, W. W. Charters, G. W. Frasier, William S. Gray, M. E. Haggerty, H. W. Holmes, W. W. Kemp, W. P. Morgan,

Shelton Phelps, Payson Smith, G. E. Snavely, and D. B. Waldo. These men gave generously of their time in attendance at meetings and in answering inquiries. The diversity of points of view and philosophies represented on the board of consultants insured the consideration of all sides of the principal issues and helped to correct any bias which the associate director or members of the staff might possess. Every suggestion of each member could not be accepted nor every point of view represented in the recommendations in this volume. Nevertheless, their discussions and their differences of opinion served as a stimulating challenge to the Survey staff and especially to the associate director. Many of the statements and recommendations in this volume are more practical or more definite as a result of suggestions received from the board of consultants. Collectively and individually the contribution to the Survey of these 12 leaders in the education of teachers is greater than anyone other than the writer can appreciate.

The professional advisory committee (the names of members are listed on the inside back cover) served to clarify issues and keep the Survey staff in closer touch with the important groups represented on the committee. The service which the members of this committee rendered in carrying the Survey findings back to their constituents resulted in more cooperation in obtaining data and in more interest in the Survey report.

To the Survey staff as a group and as individuals the associate director expresses his appreciation for their loyalty to the work which they undertook and for their willingness to carry through their studies often at considerable sacrifice of time, energy, and remuneration. Without their devotion to duty the Survey would have been far less complete. A list of the staff members and the fields of their Survey work is given on the inside front cover.

To the special advisors, K. J. Holzinger, T. L. Kelley, E. L. Thorndike, M. R. Trabue, and Helen M. Walker, the Survey is indebted for valuable suggestions and helpful criticisms on the more technical phases of the Survey studies.

The Survey is also indebted to a large number of the regular staff members of the Office of Education for assistance whenever Survey studies touched the fields in which these people specialize. The list is too long to mention each by name. Some, however, were called upon so frequently and responded so efficiently that it is a pleasure to acknowledge their services. This list includes Bess Goodykoontz, Assistant Commissioner of Education, W. D. Boutwell, editor, and Margaret F. Ryan of the editorial division, Martha R. McCabe of the library staff, and Andrew H. Gibbs for the preparation of charts and graphs.

Lewis A. Kalbach, Chief Clerk of the Office of Education, and his staff were under almost constant demand for extra bookkeeping and

accounting services, advice on financial routines and other matters of governmental procedures. This service is gratefully acknowledged.

Benjamin W. Frazier, senior specialist in teacher training, and during the period of the Survey, Assistant to the Director and coordinator, rendered a very important service to the Survey by his assistance in administrative matters, by his direct contributions to volumes I and V, and by his faithful and efficient services in seeing the manuscripts through the various stages of printing and distribution. The Associate Director acknowledges his personal indebtedness to Mr. Frazier for the many administrative details handled at times when he could not be in Washington.

This statement would be incomplete without acknowledging the contribution made by the half million teachers, supervisors, and administrative officers whose professional good-will, evidenced by supplying data requested, made the Survey possible.

E. S. EVENDEN,
Associate Director.

SUMMARY AND INTERPRETATION

CHAPTER I

INTRODUCTION—SCOPE AND PURPOSE OF THE SURVEY

SECTION 1. THE DEVELOPMENT OF THE SURVEY

A SHORTAGE OF TEACHERS

In the years during and immediately following the World War every State in the United States was embarrassed by a serious shortage of teachers. This statement does not have to be qualified as a shortage of adequately prepared teachers. It was a shortage of any and all kinds of teachers and of persons willing to accept teaching positions.

After the United States entered the war teaching was often urged upon boys and girls only partly through their high-school courses as an opportunity to render patriotic service. The patriotic service consisted in taking the place of an older person who could be released for some form of military or governmental service and also in keeping schools open in the rural areas. It was argued that farmers whose children were denied schooling because of the teacher shortage were moving to the cities at a time when it was very essential that they remain on the farms and maintain the production of the needed farm crops. Justifying their actions by such rationalizations, officers with the authority to issue teachers' certificates granted temporary teaching certificates to immature, inexperienced, unprepared boys and girls and sent them out to serve their country not realizing that this would exploit the country.

Some conditions which caused the shortage.—In 1913-14 a survey of the status of teachers in the United States was made by the United States Bureau of Education, and the results were published under the title, "The Tangible Rewards of Teaching."¹ The outstanding conclusion of this study was that teachers were so very meagerly paid that the rewards for teaching were largely intangible.

Little happened between the time of the 1913-14 survey and America's entry into the war to change to any significant degree the

¹ Boykin, J. C., and King, Roberts. The tangible rewards of teaching. U. S. Bureau of Education, Bulletin (1914) No. 16.

economic status of teachers. During that time the earnings of other occupational groups were increased by the industrial activity^{due to the war}—increased European markets for American goods. This disparity made teaching less desirable than it was in 1918-14.

After we entered the World War the rapid increases in the wage scale for all industrial workers and the relatively small and tardy increases in the salaries paid to teachers made teaching even less desirable than it was in 1917. In addition to these financial factors there was the very strong factor of "low prestige." An inevitable result of the general lowering of standards in the attempt to keep schools open was a decrease of public respect for teaching which made people think of it more than ever before as an occupation for the less able graduates of the local high schools who for one reason or another could not prepare for the professions or who could not get a start in some more remunerative occupation.

These conditions—economic and social—had two significant educational results by 1919-20. The first was the pronounced shortage of teachers already referred to and the second was a very low level of educational preparation for public-school teachers.

Conditions in 1919-20.—The teaching personnel of the American public schools at the close of the World War was at an extremely low point of efficiency. There were not enough certificated teachers to keep all the schools open. There were large numbers of young teachers (most of them girls) with little general education and no professional preparation, who had been encouraged to enter teaching and who at the close of the war found it a desirable occupation in which to continue. There had been a continued withdrawal from the teaching personnel of the more vigorous and capable members between the ages of 25 and 45 either into national service or into better-paid occupations. This left disproportionate numbers of the older and the very young teachers. Probably two-thirds of the teachers had had less than 2 years of education beyond the completion of a standard 4-year high school. Teachers' salaries were still relatively far below those paid in comparable fields of work and below the wages paid skilled laborers and many of the unskilled labor groups.

These conditions were not the result of an indifference toward education on the part of the American people. On the contrary, the American public had become quite "school conscious" during the war because of the many ways in which the schools were used to promote or facilitate such national programs as health, thrift, conservation of food, Junior Red Cross work, and similar activities. Unfortunately, the pressures immediately connected with the war prevented this interest in the schools from becoming the basis for a constructive program of educational improvement which would

probably have started with the improvement of the teaching personnel. Fortunately for the schools and for the teaching personnel the war ended when it did and the changes which followed affected almost immediately some of the conditions which had held teaching at its low status.

EXPANSION IN EDUCATION AND IN TEACHER TRAINING

Increased school enrollments.—In 1919-20 there were 2,200,389 pupils enrolled in the public secondary schools of the United States. Six years later this had increased 71 percent to 3,757,466.²

In 1919-20 there were 462,445 students enrolled in the colleges and universities (exclusive of students in preparatory departments and independent professional schools). In 1925-26 this enrollment had increased 66 percent to 767,263.³

In 1919-20 the enrollment in the normal schools and teachers colleges (public and private) was 208,763. In 1925-26 the enrollment had become 288,175, an increase of 38 percent.⁴ No single cause for the rapid increase in the enrollment in high schools or in higher educational institutions can be given. It was the cumulative effect of several causes. During the war period many individuals learned the value and desirability of education, especially of college education. Many of the men and women engaged in war service found, at its close, that the positions they formerly held either were filled by others or had been discontinued. Additional educational preparation was the most obvious method of readjustment for large numbers of these men and women. The shut-down or drastic reduction of many war-time industries forced large groups of workers to find other employment. Many of them used the high schools and colleges as a means of making that adjustment. In addition to these causes should be added the effect of the era of prosperity which followed the World War. This brought high-school and college education within the reach of hundreds of thousands of families which before the war could not have afforded to send children to school beyond the compulsory attendance age.

There was not a corresponding increase in enrollment in the elementary schools during the period following the war. There was, however, a definite increase in the enrollments in the upper grades caused by the desire of more boys and girls to go on to high school

² Foster, E. M. Statistics of State school systems, chap. II, Biennial Survey of Education in the United States, U. S. Office of Education, Bulletin 1931, no. 20.

³ Statistics of universities and colleges and professional schools, 1925-26. U.S. Bureau of Education, Bulletin 1927, no. 40, p. 4.

⁴ These enrollments include some duplicates between the regular session and summer session enrollments. Duplicate enrollments were not reported in 1919-20. Biennial Survey of Education in the United States, 1925-29, ch. V. Statistics of teachers colleges and normal schools, U.S. Office of Education, Bulletin 1931, no. 20.

and college and also by the fact that there were fewer opportunities to secure well-paid employment at the termination of the compulsory attendance period. There was also a definite expansion in the elementary-school program due to the opening of schools closed during the war, the lengthening of the school year, and the addition of many new types of teaching and educational service such as special teachers of music, art, health, and physical education, as well as supervisors, visiting teachers, and school nurses.

Increased salaries for teachers.—Another factor which must be considered in connection with this period of educational expansion is that teachers' salaries were increasing rapidly during that period. In the years between 1914 and 1918, teachers' salary increases lagged far behind the increased wages and salaries of other groups and also far behind the increased cost of living. This condition was called to the attention of teachers and school patrons through the National Education Association.⁶ Tardy but vigorous campaigns were waged throughout the country by educational organizations and by lay groups interested in the public schools to increase teachers' salaries as other salaries had been increased in order to enable teachers to live on a standard of living expected of professional and semiprofessional groups.

Such success attended these campaigns that by 1925-26 the teachers in American public schools were actually and relatively better paid for their services than ever before in our history. It is always desirable to remind the reader in connection with this statement that it does not mean that teachers were paid too much or that they were paid as much as other groups, or even that they were paid enough because as a group, teachers previously had been very inadequately paid. Teachers' salaries were, however, sufficiently increased to attract more persons to teaching as a career than at any other period.

Increased standards for teaching.—A third major change during this 6-year period of expansion was the widespread tendency to increase the amount and quality of the preparation of teachers. The publicity given to the inadequacy of the educational preparation of teachers during the period of the teacher shortage caused the States to raise the minimum levels of preservice preparation for teachers either by State laws or by regulations of State boards of education. During this 6-year period a number of States officially abandoned high-school teacher-training classes, although as late as 1926, 47 States reported students in teacher-training courses in public high schools. In the same period there was also an increased tendency to substitute preservice preparation for State and county examinations as bases for certification of teachers, and a marked increase in the number of

⁶ Evenden, E. H. Teachers' salaries and salary schedules in the United States, 1918-19. Commission series, no. 6, National Education Association, Washington, D.C., 1919.

normal schools which extended their curricula from 2 to 4 years. Many of these institutions, too, became degree-granting teachers colleges (46 teachers colleges in 1919-20, 101 in 1925-26, Bulletin 1927, no. 30). More details concerning the raising of standards of preparation for teachers will be presented in chapter II.

THE TEACHER SHORTAGE BECOMES A SURPLUS

Increased demands for teachers.—Immediately after the close of the World War there was a pronounced demand for additional and better-prepared teachers. Satisfactorily prepared teachers were needed: For the schools which had been closed; to replace the emergency teachers whose temporary certificates were not renewed or who continued their education; for the new forms of educational service introduced into both elementary and secondary schools; to replace teachers who left teaching to enter some other line of work; and to provide teachers for the large increases in secondary school enrollment.

Increased supply of teachers.—At the same time that the demands for additional teachers were increasing the supply was increasing at an even faster rate. Teaching had become more respected socially; teachers' salaries had been increased until they compared favorably with those in other lines of work; the opportunities to enter industry and more highly remunerative occupations were decreasing instead of increasing as had been true during and immediately following the war; and the greatly increased enrollments in the colleges, universities, normal schools, and teachers colleges provided hundreds of thousands of young men and young women with the educational equipment which permitted them to secure certificates as teachers.

Supply overtakes demand.—Not until about 1926 and 1927 did those in charge of educational programs for the education of teachers become aware that "production" was exceeding "consumption", that more teachers were being prepared than could be placed. Even at that time the oversupply was not serious enough to cause any general concern. Placement directors in a few schools were bothered by their unplaced registrants, but they too frequently attributed the unemployment to some local condition or to the personalities of the unemployed graduates instead of discovering, at that time, that the situation was quite general. Had the true situation been discovered at that time steps might have been taken to reduce the number of students admitted to courses for teachers. Instead, quite the opposite policy was followed. As competition for teaching positions increased, many institutions engaged in the preparation of teachers redoubled their efforts to increase their enrollments in order to meet the competition with the expanded programs made possible by the increased enrollment.

INITIATING THE NATIONAL SURVEY OF THE EDUCATION OF TEACHERS

By 1928 and 1929 the fact that the teacher shortage was a thing of the past and that a surplus of teachers was already embarrassingly large in many States was recognized by most of the State superintendents and State commissioners of education, deans of schools of education, and presidents of normal schools and teachers colleges. The extent of the surplus and its implications for teacher education were discussed at the annual meetings of the groups just mentioned—the three groups most directly interested in the problems of educating teachers. Questions invariably arose in these discussions concerning: The number of the unemployed teachers who were adequately prepared; whether the surplus was greater in some fields of work than in others; whether there were significant State and regional differences; and whether the standards were so different among States that some States were able to secure most of their new teachers from other States. Very few data were available with which to answer any of these questions and in the instances where States had studied any phase of their teacher unemployment problems the data were usually not comparable even between two States. Realizing the need for a more thorough study of the whole field of teacher education on a national scale representatives were appointed by the National Association of State Superintendents of Instruction and Commissioners of Education, the National Association of Deans of Schools of Education, and the American Association of Teachers Colleges to present the desirability of a national survey of teacher education to the authorities at Washington, and if the survey was approved, to cooperate with the United States Office of Education in securing the authorization from Congress for such a study.

The National Survey program of the United States Office of Education.—The United States Office of Education, under the direction of Dr. William John Cooper, Commissioner of Education, had developed and inaugurated a plan for a series of national fact-finding surveys in which certain phases of American education were to be studied more thoroughly than was possible with the data regularly obtained and distributed by the Office of Education. The first of these national surveys was of the land-grant colleges and was directed by Dr. Arthur J. Klein.^a

The second was the study of secondary education under the direction of Dr. Leonard V. Koos, professor of education, University of Chicago.^b This was started July 1, 1929, and was to extend over a period of 8 years.

^a Klein, Arthur J. Survey of land-grant colleges and universities. U.S. Office of Education Bulletin 1930, No. 9.

^b Koos, L. V. National survey of secondary education. In 28 monographs. U.S. Office of Education Bulletin 1932, No. 17.

The proposed study of the education of teachers was approved for the third in the series and, accordingly, was presented to the Seventy-first Congress for authorization. Commissioner Cooper, with the aid of the representatives of the three educational organizations previously referred to and others interested in improving conditions in the public schools, secured congressional authorization for a 3-year 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." The cost of the study was not to exceed \$200,000, including the printing of the report. This was later reduced by a \$20,000 deduction from the third year's appropriation in the attempt to balance the Federal Budget for that year. This Survey began July 1, 1930.

The Office of Education survey plan contemplated starting a national survey each year so that a series of three such studies would be under way at the same time—one in its final year, one in its second year, and one in its first year. The first year was planned as one of organization, selection of staff, preparation of inquiry forms, and the gathering of initial data. The second year was to be used for the collection of all necessary data, visiting, and field studies. The third year was to be used for interpretation of findings and for the preparation of manuscripts for the final report. It was thought that by having a survey in each of these stages each year the staff and equipment of the Office of Education could be used to the best advantage.

The fourth national survey approved in the series was of school finance. Dr. Paul R. Mort, director of the School of Education, Teachers College, Columbia University, was appointed associate director in charge of this survey and work was started July 1, 1931. The work on that survey was discontinued at the close of its first year.^a

The discontinuance of the School Finance Survey was unfortunate from the standpoint of the National Survey of the Education of Teachers. It was part of the larger plan of national surveys to have them supplement each other whenever possible and also to avoid unnecessary duplication. In this way it was possible for the Secondary Education Survey to omit a study of the preparation of secondary teachers and have that phase studied by the National Survey of the Education of Teachers while the National Survey of the Education of Teachers in turn did not investigate entrance

^aThe work of the first year included the completion of the Bibliography on School Finance prepared by Dr. Carter Alexander and Timon Covert and published as U.S. Office of Education Bulletin 1932, no. 15. By means of a grant from the General Education Board and under the joint auspices of the American Council on Education and the U.S. Office of Education, the studies started during the first year were completed and published as State Support for Public Education and Research Problems in School Finance. American Council on Education, Washington, D.C.

requirements to colleges and universities because that had been done by the Secondary Survey. In a similar way the National Survey of the Education of Teachers did not undertake certain studies dealing with salaries, financial support and control, and buildings and equipment because those topics were to be studied by the School Finance Survey. The School Finance Survey was able to use some of the data collected by the National Survey of the Education of Teachers in its study of county variations in the support of education and in the quality of educational opportunities offered.

ORGANIZATION OF THE NATIONAL SURVEY OF THE EDUCATION OF TEACHERS*

Directors of the Survey.—The United States Commissioner of Education was ex officio director of all the surveys conducted under the auspices of the United States Office of Education. The associate director in active charge of the Survey was selected by the Director and the board of consultants at their first meeting. Benjamin W. Frazier, a member of the regular staff of the Office of Education and specialist in the field of the Survey was assigned for the period of the Survey to serve as coordinator between the Office of Education staff and the special Survey staff.

Board of consultants.—The board of consultants—a group of 12 educators—served as the chief advisory group for the Survey. They were selected to secure representation of: (a) Different theories of education; (b) different theories concerning the education of teachers; (c) different types of institutions; (d) different sections of the country; and (e) State superintendents and State commissioners of education. The board of consultants met nine times during the 3-year period of the Survey, the meetings varying from half a day in length when held at the time of the meetings of the Department of Superintendence, to 2 and 3 days for other meetings. Besides the time spent at the meetings of the board the members gave liberally of their time in critical review of Survey material and in presenting the findings of the Survey to interested groups in their areas.

Professional advisory committee.—A professional advisory committee of 47 members was appointed during the first year of the Survey. The members of this committee were selected as representatives of the larger groups of educational workers interested in the education of teachers. The names of the members of this committee and the organizations which they represented are given on the inside of the back cover. This committee met once a year in connection

* The general plan of organization with the names and official positions of the members of each group is given on the inside of the front and back covers of this report. Reference to these lists should be made in connection with the general description of the organization of the Survey.

with the meeting of the Department of Superintendence. The services of the professional advisory committee were primarily of two kinds. In the first place the members were expected to represent their groups and bring the special teacher-training problems of their fields to the attention of those in charge of the Survey. It was hoped in this way to make the Survey of greater value to more groups.

In the second place it was expected that the members of the professional advisory committee would report back to their several groups the plans and findings of the Survey which were discussed at the meetings or presented to them in mimeographed form. In this way it was hoped to arouse interest in the Survey and its findings and also to have the Survey findings of interest to each group interpreted by a member of that group.

Special advisors.—When some of the studies undertaken by the Survey involved highly technical procedures, advice was obtained from nationally recognized specialists in the field concerned who donated in some cases several days of their time to the clarification of Survey problems and to the improvement of its techniques. While many persons were consulted by one or more members of the Survey staff, those who contributed most in this advisory capacity were Dean M. E. Haggerty, of the College of Education, University of Minnesota; Prof. Karl J. Holzinger, University of Chicago; Prof. T. L. Kelley, Harvard University; Dr. L. J. O'Rourke, Personnel Division of the United States Civil Service Commission; Prof. E. L. Thorndike, Teachers College, Columbia University; Prof. M. R. Trabue, University of North Carolina; and Prof. Helen M. Walker, Teachers College, Columbia University.

Survey staff members.—The Survey staff consisted of several groups of full-time and part-time specialists, and statistical and clerical workers. Four of the specialists (Benjamin W. Frazier, Gilbert L. Betts, Frank K. Foster, and Guy C. Gamble) were employed on a full-time basis during the time they were members of the staff. Most of the research assistants, statisticians, secretaries, stenographers, machine operators, and clerical helpers were members of the Civil Service group in Washington and were employed on a full-time basis for the duration of special projects demanding their services. All other members of the Survey staff gave only part of their time to the work of the Survey.

Associate members were not regularly appointed members of the Survey staff, but in each case their studies were approved by the directors and the board of consultants, and in most cases the Survey assisted in the collection of data. (The results of these cooperative studies are summarized in pt. IX, vol. V, of the Survey report.)

Assistance from the Office of Education staff.—The National Survey of the Education of Teachers was one of the large projects of

the Office of Education. As such it received continuous service from many officers and divisions of the Office of Education staff. Those so frequently drawn upon for assistance that they should be listed as members of the larger staff of the Survey are the assistant commissioner, the chief clerk, staff members of the editorial, library, higher education, American school systems, special problems, and statistical divisions, and the miscellaneous service division of the Department of the Interior.

SECTION 2. PURPOSES AND SERVICES OF THE SURVEY

As soon as possible after the Seventy-first Congress authorized the National Survey of the Education of Teachers, the board of consultants met with the Director and Associate Director to decide upon the general purposes of the Survey and the special services which it should render. At that meeting, held in Columbus, Ohio, July 4, 1930, it was provisionally decided that the separate studies should be organized in line with five major purposes. These five purposes will be briefly presented at this point for the light they throw upon the final report of the Survey:

1. A NATION-WIDE PICTURE OF PRESENT CONDITIONS AND PRACTICES IN THE EDUCATION OF TEACHERS

As was shown in the preceding section the "shortage" of teachers which existed in 1920 had become a troublesome "surplus" in 1930; students were enrolling in normal schools and teachers colleges and in the teacher-preparing courses of colleges and universities in annually increasing numbers; the total costs of publicly controlled higher education had increased until securing the necessary support was becoming yearly more difficult; competition increased among publicly supported institutions educating teachers and between them and privately controlled and endowed institutions engaged in the same work. These conditions were matters of much concern when they were further complicated by a number of professional controversies over such matters as: The length of preservice education for elementary teachers; the place of methods and teaching techniques in a teacher's education; the general or nonprofessional content of the first 2 years of the college course; the emphasis to be placed upon supervised practice teaching; and similar issues which confronted those responsible for the preparation or revision of curricula for the education of teachers.

In order to throw light upon this tangled situation it was obviously desirable to make the first task of the Survey that of furnishing an accurate picture of existing conditions and practices. Several agencies had been collecting and distributing data on some phases of this

problem but the results were of limited value because they were gathered for isolated factors, or for only one State or city, or at different times or in different ways, or from different groups of teachers. It was therefore planned to secure directly from the teachers and other workers in the public schools the information needed to construct this picture. By collecting this information at the same time and in the same way throughout the country it seemed possible to secure data which would be entirely comparable among States, sections of the country, and different teaching groups.

2. THE DISCOVERY AND CLARIFICATION OF PROBLEMS AND CONTROVERSIAL ISSUES

At the time the Survey was proposed many problems involved in the education of teachers were especially troublesome. They were in most cases of relatively recent origin, and this prevented those responsible for their solution from securing either guidance from past solutions or comfort from the knowledge that many other institutions had the same problems.

Frequently these problems were also so entangled with other problems that it was impossible to locate exactly the elements in need of correction. For example, whether the curriculum for the education of an elementary teacher should comprise 2 years of general or nonprofessional work followed by 2 years of professional training was a question that could not be satisfactorily answered without having answers to such questions as: Is such a curriculum better than one in which the 4 years are given over to professionally presented subject-matter courses especially designed for elementary teachers? Will the certification laws permit the graduate of such a course to teach in another type of school, for example, in a high school? Do the salary schedules in the area served by the institution encourage 4 years of preparation for elementary teachers or do they justify only 2 or 3 years? Is the institution large enough to provide fully differentiated courses for elementary teachers? Are the instructors qualified to teach the professionally motivated courses and are they sympathetically inclined toward such courses?

Another problem which confronted all institutions educating teachers was the place and amount of practice teaching in the education of teachers for different types of teaching positions. Obviously a satisfactory answer to this question could not be obtained without knowing the answers to such questions as: What is the minimum degree of teaching skill required by the beginning teacher to protect him against initial failure because of preventable classroom mistakes? Should the minimum degree of teaching skill required vary according to the amount of supervision which is provided for be-

ginning teachers? Is the same degree of initial teaching skill needed by high-school teachers as is needed by elementary teachers or by rural school teachers? What is the relative value of directed observation as compared with practice teaching in the development of initial teaching skill? Should practice teaching be given in one concentrated period or distributed at different times throughout the period of preparation, and if distributed, what are the most effective times to give it?

A third one of the entangled problems which faced presidents and faculty curriculum committees especially with regard to the preparation of high-school teachers was the number of fields in which prospective teachers should be prepared to teach. Involved in this question were such other questions as: What is the minimum amount of work in each field which is considered satisfactory preparation for teaching that field in a high school? How many subjects are high-school teachers generally required to teach and how does the number vary by size of high school and by subjects taught? What percent of beginning high-school teachers have to start their teaching experience in small high schools? Should the allotment of time to major and minor fields of specialization be made in terms of the requirements of the first few years of teaching experience during which the teacher will probably teach two, three, or more than three subjects or in terms of the fact that the majority of high-school teachers teach only one or two subjects? What differences in major and minor requirements must be made for such special subjects as music and art which require in addition to a command of the subject matter of a field, the development of skill in the techniques of the field?

A fourth illustration of the complicated problems which were attracting the attention of those responsible for the education of teachers and also of taxpayers and school patrons was the minimum of educational preparation which would be accepted for entrance into teaching at the different school levels. For example, was it satisfactory to allow graduates of high-school training classes to teach in the rural schools, require 2 or 3 years of preparation on the college level for elementary teachers in the villages and cities and require at least graduation from a standard college for all high-school teachers? Interwoven with this problem were such related questions as: What are the existing certification standards for the different school levels in the States and are those standards set by legal enactment or by State board regulations? Can a sufficient number of persons be secured to take the additional training if standards are raised and will the quality of recruits be affected adversely? Can standards for rural and elementary teachers be raised without greatly increasing the cost of public education? Is there any evidence to

indicate that elementary teachers with 4 or more years of preparation above the high school are more effective teachers than those with only 2 years of such preparation?

This list of problems could very easily be extended but enough problems have been given to show the complexity of the issues confronting administrators and curriculum committees when this Survey was undertaken.

In the light of these conditions it seemed highly desirable to determine whether the problems and controversial issues were widespread or local, political and financial or educational, simple and isolable or complex and fused, quantitative or qualitative, practical or theoretical. Problems submitted to thorough analysis are certain to be more clearly understood and easier to solve even if the solution cannot be determined immediately. Such clarification of issues establishes more definite points for attack in the work of any group studying curriculum problems. Many problems have not been solved and many desirable changes have not been made primarily because those responsible for solving the problems or making the changes have been unaware that something needed to be done or did not know where to begin.

3. INDICATION OF TRENDS IN THE EDUCATION OF TEACHERS

The complaint is often made that surveys show merely the present situation—the way things are, and do not show the way to go—the way things should be. As Dr. Bagley and others have frequently said, the picture of present practice in a flexible society—one in which changes are made with relative ease—is more than a mere picture of things as they are. Present practice in such a society is the residuum of empirically and experimentally tested practices which are approved by that society.

If then, in a survey of the educational procedure in preparing teachers the accurate picture of present practice can be supplemented by any clearly indicated trends (obtained from the study of preceding periods) the accuracy with which predictions and recommendations may be made is greatly increased.

A very detailed historical study of the education of teachers in this country was made with special emphasis upon the discovery of trends, with a view to their use as additional guides to prediction.

4. THE SOLUTION OF PROBLEMS OR PROPOSALS FOR IMPROVING PRESENT PRACTICES

This Survey, as is equally true of most educational surveys, had its inception in the consciousness of troublesome problems and the desire for their solution or for data in the light of which they could

be more clearly understood. The board of consultants, the directors, and the staff members have at all times been keenly aware of these desires. They have also become increasingly aware of the complexity of these problems and the improbability of supplying satisfactory solutions to many of them within the time and money limits of the Survey.

It became more and more evident, as the Survey progressed, that many of the problems were so involved and so sensitive to changes made in the attempts to solve other problems that it was highly improbable that any initially satisfactory solution would remain satisfactory for more than a brief period. Even though this limitation was fully realized it was also realized that some of these complicated problems are so intimately connected with the successful development of programs for the education of teachers that decisions frequently must be made on some phase of the problem even though all data necessary for the decision are not available.

Such decisions are often palliative in nature or are dictated by economic or political expediency. More certain progress toward desirable conditions would result from these decisions if they could be made in the light of available data and after a careful analysis of the interrelationship of the problem and other problems in the education of teachers.

It has therefore seemed desirable, even though conclusive proof is not available and even though the proposals may have but temporary value, to present (a) careful analyses of some of the more pressing problems in the field of educating teachers, and (b) carefully considered recommendations for desirable changes.

Such proposals will constitute the principal constructive contribution of this Survey: They have been arrived at in the following ways:

1. They are, whenever data were available, based upon the findings of the Survey.
2. A number of the proposals were suggested by persons actually engaged in the preparation or certification of teachers.
3. They have been considered and discussed by experienced specialists in teacher education and related fields.

(a) Many were submitted, by means of inquiry blanks, to the groups most immediately concerned with the practice about which the proposal is made. For example, State departments of education were asked concerning certification practices, summer-school directors concerning the future lines of development for summer schools, and directors of training schools about the adequacy of present practice facilities.

- (b) Statistical techniques and procedures were checked by specialists in that field.
- (c) Preliminary findings were presented before such groups as the American Association of Teachers Colleges, the Association of Deans of Education, the Association of State Superintendents and State Commissioners of Education, the National Society of College Teachers of Education, the American Educational Research Association, the Southern Association of Colleges and Secondary Schools, and associations of teachers in different fields such as English, commercial education, home economics, and mathematics. These presentations were in most cases followed by periods of discussion the results of which were reported back to the Survey staff.
4. Many of the subjects upon which recommendations are presented were discussed in individual conferences between Survey staff members and administrative officers and teachers of representative courses in the group of 56 institutions selected as representative of better practices in the education of teachers.
 5. Some of the proposals which were printed in *SCHOOL LIFE* and other periodicals were read, reviewed, and criticised by competent and interested members of the teaching profession.
 6. The principal proposals were the subjects of numerous formal and informal discussions by the Survey staff. The cumulative experience and increased perspective of staff members was brought to bear on the interpretation of data and trends and upon the form of the proposals.
 7. Finally the proposals were submitted to the members of the board of consultants and discussed by them during a 3-day meeting of the board at Cleveland, April 28-30, 1933. The plan of organization of volume VI was developed at that meeting and numerous modifications of the recommendations were suggested. Excerpts of this volume showing its organization and the modified recommendations were mimeographed and submitted to the board of consultants for final criticism before publication.

Obviously, the proposals in this and the other volumes of the final report do not represent full agreement of all persons consulted. Nevertheless the process of refinement just described should result in proposals which deserve the attention of all persons interested in the education of teachers. They should serve also as a direct challenge to the faculties of all institutions following practices at variance with the proposals.

5. OTHER SERVICES RENDERED BY THE SURVEY

In addition to the four major types of contributions just listed, there has been a consistent attempt to make available especially significant data as early as possible. In this way it was hoped that such findings could be used by those responsible for the formulation of educational programs at times when the data would be of greatest value. Such material has been made available by the following means: A series of articles in *SCHOOL LIFE*, reports to the board of consultants and the advisory board, newspaper releases, papers presented to various groups at educational meetings, conferences with individuals, and innumerable letters giving Survey data in answer to inquiries. Survey data were also frequently made available to other divisions of the United States Office of Education. The Hollerith cards prepared from Survey data have in several instances been duplicated for States and organizations which have wished to make more intensive use of the data than was possible in the Survey. These cards were used by the National Survey of School Finance under the direction of Dr. Paul R. Mort in an intensive study of county variations in teachers' salaries and the training of teachers. Duplicates of the cards of all teachers of the social studies who answered the inquiry were used by Dr. W. C. Bagley in the section on the preparation of teachers for the Committee of the American Historical Association on Social Studies in the Schools.

It was necessary, in connection with the work of the Survey, to assemble and analyze the bibliographical material dealing with the education of teachers. Current references were published during the first year and a half of the Survey in the quarterly bibliographical reports of the Office of Education until these reports were discontinued. A selected annotated and cross-referenced bibliography of 1297 titles was issued as the first volume of the final Survey report.

It has also been considered that one of the services of the Survey was to assist States or areas in any "follow-up" programs in which staff members might be of special help in interpreting the Survey findings in terms of local needs.

SECTION 3. STUDIES MADE BY THE SURVEY AND FORM OF THE REPORT

Selection of the problems to be studied.—The specifications of the Congressional authorization, act for the Survey, the amount of money available, the limitation of time, other studies in the field of teacher education, other surveys of the United States Office of Education, availability of data and a number of other elements made it imperative that the scope of the National Survey of the Education of Teachers be limited. In order to assist the Board of Consultants

and the Directors in deciding which of the many problems in the education of teachers should be studied, a letter was sent to State superintendents and State commissioners of education, presidents of universities, colleges, teachers colleges, normal schools, deans of schools of education, and a selected group of city and county superintendents asking them to supply three types of information: (1) the most important problems connected with the education of teachers in the area or institution they represented; (2) any recent systematic studies (printed or in manuscript form) on any phase of the education of teachers which were in progress or which had been completed by any one in their organization or institution; and (3) the names of the individual or individuals in their areas most active in the study of teacher education or in the promotion programs for raising the standard of teacher preparation.

The problems submitted from the field were tabulated, and those most frequently mentioned were incorporated in the different programs of Survey studies proposed to the board of consultants at its second meeting. This cooperation from the field enabled those responsible for the Survey to select problems for study which were real and important at that time.

The information submitted concerning recent studies in the education of teachers and persons active in teacher education in the several areas proved very helpful in the preliminary survey of the literature of the field and in the preparation of the bibliography used by the Survey staff.

Controversial issues and evaluation.—In the lists of problems proposed for study by the Survey, a number of problems appeared which were directly or indirectly related to certain controversial issues of long standing among the leaders in the field of teacher education. Several of these were mentioned earlier in this chapter in connection with the discussion of the second major purpose of the Survey (p. 11). Others which were involved in the problems submitted and which were presented to the board of consultants at its second policy-determining meeting were:

1. Is there a distinguishable and significant difference, and, if so, in what elements, between the work of teachers with various amounts of pre-service education?
 - (a) Between graduates of high-school training classes or county normal schools and graduates of 2-year normal schools?
 - (b) Between graduates of teachers colleges or normal schools and those who have had 4 years of college work?
 - (c) Between graduates of colleges and those with one or more years of graduate work?

2. Is there a distinguishable and significant difference, and, if so, in what elements, between the work of teachers with equal amounts of education from professional and from nonprofessional schools?
 - (a) Between graduates of normal schools and junior colleges?
 - (b) Between graduates of teachers colleges and those of liberal arts colleges or the undergraduate divisions of universities?
3. Is there a distinguishable and significant difference, and, if so, in what elements, between teachers with different amounts of practice teaching during the pre-service period of preparation?
 - (a) Between those with 90 hours and those with 180 or 270 hours of practice teaching?
 - (b) Between those with 90 hours of practice teaching and those with 45 hours of practice teaching and 45 hours of supervised observation?
 - (c) Between any two of a variety of combinations of observation, participation, and practice teaching?
4. Is there a distinguishable and significant difference, and, if so, in what elements, between secondary-school teachers with various amounts of college work in the fields in which they are teaching?
 - (a) Between a teacher of mathematics with 10 semester-hours in mathematics and 1 with 30 or more?
 - (b) Between a teacher with a "heavy major" and 1 minor and a teacher with a "light major" and 2 minors?
5. Is there a distinguishable and significant difference, and, if so, in what elements, between experienced and inexperienced teachers?
 - (a) Between teachers with equal or comparable amounts of preparation from the same type of institution?
 - (b) Between teachers with equal or comparable amounts of preparation from different types of institutions, e. g., teachers colleges and liberal arts colleges?
6. Is there a distinguishable and significant difference, and, if so, in what elements, among teachers with different prominent personality traits?
 - (a) Between traits which are largely natural and those which are subject to cultivation and training?
 - (b) Between those generally considered desirable for teachers and those generally considered undesirable?
 - (c) Between teachers working in two different school levels, e. g., kindergarten-primary and high school?
7. Is there a distinguishable and significant difference, and, if so, in what elements, between teachers who carry in-service education programs, and those who devote all their time to teaching?

- (a) Between teachers of two different school levels—elementary and secondary!
 - (b) Between teachers with light in-service educational programs and those with heavy programs of in-service education!
 - (c) Between young and old teachers with the same amount of in-service education!
 - (d) Between the best teachers and the poorest!
8. Is there a distinguishable and significant difference in the desirability of different kinds of school work, other things, such as salary, living conditions, amount of pre-service preparation, being equal!
- (a) Between teachers of two different school levels, e. g., elementary and secondary!
 - (b) Between teaching and supervision or administration!
 - (c) Between teachers of any two different subjects in the secondary schools!
9. Is there a distinguishable and significant difference, and, if so, in what elements, between the teaching effectiveness of graduates of institutions of the same type but whose faculties or facilities differ noticeably!
- (a) Between the graduates of large and small institutions!
 - (b) Between graduates of institutions with highly educated faculties and of those with less well-educated faculties!
 - (c) Between graduates of institutions with faculty members inexperienced in public-school teaching and of those with faculty members of long experience in public-school work!
 - (d) Between graduates of institutions with large and with small libraries!
 - (e) Between graduates of institutions with and without dormitory facilities!
 - (f) Between graduates of institutions with high- and with low-salary schedules for the faculty members!
10. Is there a distinguishable and significant difference, and, if so, in what elements, between teachers working under different conditions with respect to tenure, retirement provisions, salary schedules, merit-rating systems, supervision, and other such provisions!
11. Is there a distinguishable and significant difference in the abilities or in the social and economic background of students in different types of institutions!
- (a) Between students in normal schools and junior colleges!

(b) Between students in normal schools and teachers colleges?

(c) Between students in teachers colleges and liberal arts colleges?

12. Is there a distinguishable and significant difference, and, if so, in what elements, between the effectiveness for teachers of college work done in residence and in extension or by correspondence?

(a) Between work on the junior college level and on the senior college level?

(b) Between two different subjects or teaching fields?

(c) Between experienced and inexperienced teachers?

Other controversial issues were suggested by the problems submitted and were presented to the Board of Consultants. Those listed, however, were the ones most frequently involved in the problems which were confronting those at work in the field. As these issues were discussed by the members of the Board of Consultants at the meeting on September 12 and 13, 1930, it became increasingly apparent that very few, if any, of the issues could be settled, even temporarily, without resorting to some form of measurement. Dean Haggerty suggested the desirability of developing an evaluation program for the entire Survey and also that the aid of a group of specialists in measurement, particularly personnel measurement, be obtained to assist in the development of this program. This plan was approved and the Associate Director called such a conference in Washington, November 7 and 8. Those present at that meeting were: Prof. E. L. Thorndike, Teachers College, Columbia University; Dean M. E. Haggerty, College of Education, University of Minnesota; Prof. Truman L. Kelley, Harvard University; Prof. M. R. Trabue, Director of Research Division, University of North Carolina; Prof. Karl J. Holzinger, University of Chicago; and Mr. Benjamin W. Frazier and Dr. Guy C. Gamble, of the Survey Staff, and the Associate Director.

As a result of this meeting, the possibilities, and particularly the limitations, of available measures were more clearly realized by the Survey staff. Some of the studies already started, such as the inquiry to all teachers, were approved and amended by this group. At the conclusion of the conference it seemed to be the opinion of the majority of those present that the greatest good would be accomplished if the Survey would confine its efforts to studying, as intensively as time and money would permit, a small group—about 1,000 sixth-grade teachers. These teachers would be so chosen that they would represent as many as possible of the controversial issues. For example, there would be graduates of normal schools, teachers colleges, colleges, and universities; there would be those with little or no practice teaching and those with large amounts; there would be experienced teachers and beginning teachers, and other differences would also be found. It was proposed to test the effect of one or another

of these differences in training by equating the groups of teachers on as many other items as possible and then measure the result of the teachers' work by measuring the work of the children taught by them during the year. This would involve measurements of intelligence, achievement, and character and personality traits of the pupils at the beginning of the year's work and at the end. It would also demand a series of measurements of the teachers in order to make the groups as comparable as possible. It was estimated that such a restricted but intensive study would require from \$150,000 to \$250,000, depending upon the amount of voluntary work obtained in taking and scoring the tests.

The recommendations of this conference represented such a radical change from the general plan discussed at the September meeting of the board of consultants that another meeting was called for December 10 and 11 in Chicago. Careful consideration was given the proposed study, and new estimates were obtained on its cost, which were more than the original estimates. Because of the cost (which was greater than the unexpended balance of the appropriation), and also because of the small number of teachers involved and the very technical nature of the statistical refinements needed, it was felt that more good would be done to a much larger group of workers if the original plans for an extensive, instead of an intensive, survey were carried out. There was, however, such full agreement upon the desirability of many of the elements in the other plan that it was voted to attempt several of them on a smaller scale and by the use of voluntarily contributed data. Some of these smaller studies will, it is hoped, show the need for and the possibilities of such an intensive study to be made at some time in the near future. It was also voted at this meeting that the Survey should make or have made for it a critical analysis of the existing literature and of experimental studies bearing on as many of the controversial issues as possible, in order that individuals or organizations desiring to study them would have a point of departure which would represent a summary of the work done to date.¹⁹

All of the problems submitted for study in the Survey were considered by the board of consultants and the directors in terms of: Their relationship to the most persistent of the controversial issues in teacher education, the availability of data bearing on the problem, the probability of completing the study in the time allotted and with the funds available, and the number of persons interested in and concerned with the problem. The studies for which the Survey assumed responsibility were chosen in the light of these considerations. The cooperative studies, of course, were selected from those submitted by individuals interested in making them. Even in the case of cooperative studies the attempt was made to select those which fitted into the total Survey pattern and which met as many as possible of the standards which were applied to the regular Survey studies. In a few cases studies were started and either curtailed or discontinued when the funds to be made available were reduced by \$20,000. In general, the studies which were approved at the begin-

¹⁹ From Progress Report of the Associate Director, June 30, 1931. A more detailed description of the work of this special conference on evaluation and the Survey studies which grew out of it was inserted in vol. V, pt. II, sec. 1 under the heading, "The relation of teacher characteristics to pupil achievement."

ning of the Survey have been carried through as planned. The most effective way to indicate those studies is to list them in connection with a brief description of the final report of the Survey.

Form of final report of the Survey.—One result of the cut in the amount of money appropriated for the Survey was a large reduction in the amount which could be used for printing the final report of the Survey. It was thought that if the Survey report were divided into related units and published in smaller volumes these volumes could be distributed to persons especially interested in the contents of each volume and that in this way a much wider distribution of the findings would be obtained than if the report were one large-unit publication.

Accordingly, the final report was arranged to appear in six volumes. While each volume is, in a sense, a complete report, in another sense it is very definitely an integral part of the total report. Libraries and those responsible for the education of teachers or for the development of teacher-education programs should have the set of six volumes not only because they present the total picture but also because frequent references are made in each volume to material contained in other volumes. The entire report appears as Bulletin 1933, No. 10, of the United States Office of Education, Department of the Interior.

Volume I, Selected Bibliography, contains 1,297 selected and annotated references classified under the principal headings in teacher education and indexed by author and subject. It was prepared for the Survey by Gilbert L. Betts, Benjamin W. Frazier, and Guy C. Gamble and published in December 1932.

Volume II, Teacher Personnel in the United States, presents most of the personnel and supply and demand data collected by the Survey. It is arranged in three parts:

Part I, The Personnel of Public School Teachers in the United States, contains personnel data from questionnaires returned by 469,000 public-school teachers, supervisors, and administrative officers—about 50 percent of the total number. It also contains data on the combinations of subjects taught by high-school teachers and an analysis of the supply and demand data gathered for the year 1930-31. This part was prepared by E. S. Evenden and Guy C. Gamble.¹¹

Part II, Student Personnel—Prospective Teachers, compares the social, economic, and occupational backgrounds of 12,880 undergraduate students who in 1932-33 were preparing to be teachers in a selected number of State teachers colleges and private liberal arts colleges in the Middle West. This study was made by Harold O. Blue.

¹¹ Dr. Gamble directed the statistical work in the preparation of the tables.

Part III, *Staff Personnel of Higher Educational Institutions*, contains personnel data on 21,742 staff members in 637 higher educational institutions in which teachers are prepared. It was prepared by E. S. Evenden and Guy C. Gamble.¹¹

This volume was published in 1935.

Volume III, *Teacher Education Curricula*, includes the reports on the studies which bear most directly upon the curricula for teachers. It is arranged in seven parts.

Part I, *Introduction to Curriculum Studies*, presents the general problems connected with the expanded program and scope of teacher-education and with the admission and selection of prospective teachers. It was prepared by Earle U. Rugg and W. E. Peik.

Part II, *Curricula of Normal Schools and Teachers Colleges*, contains a detailed analysis of the curricula of the normal schools and teachers colleges in the United States. The analysis is based upon the following kinds of data: Answers to a questionnaire from 184 cooperating institutions; catalogs of 65 selected normal schools and teachers colleges; detailed data on the content of the most frequently offered courses in 17 instructional fields in 29 normal schools and teachers colleges selected as representative of the better practices in the education of teachers; results from interviews with staff members in the 29 selected institutions; copies of the permanent record cards of approximately 2,000 recent graduates who entered teaching from the selected institutions; and attitudes of staff members toward certain aims of education and practices in the education of teachers. Part II was prepared by Earle U. Rugg.

Part III, *Teacher Education Curricula in Universities, Colleges, and Junior Colleges*, contains an analysis of the curricula for the education of teachers in 344 cooperating universities, colleges, and junior colleges in the United States. The same procedures and the same types of data were used as in the study of curricula in normal schools and teachers colleges in part II. (Thirty-one institutions representative of better practices in the education of teachers were used for the more intensive studies.) Part III was prepared by Wesley E. Peik.

Part IV, *The Training School in the Education of Teachers*, describes the facilities for observation and practice teaching in the different types of institutions in which teachers are prepared and the practices of the different types of institutions with respect to this phase of curricula for teachers. It was prepared by Frank K. Foster.

Part V, *Summer Sessions for Teachers*, includes the present status of summer sessions in the education of teachers, their organization

and administration, and the lines of present development. It was prepared by Frank K. Foster.

Part VI, Graduate Work in the Education of Teachers, gives a classification of the groups of institutions that offer graduate work in education, the development of such work from 1900 to 1930 in 12 typical institutions, the opinions of heads of undergraduate and of graduate departments of education regarding graduate courses in education, and the status of the doctor of education degree. This part was prepared under the direction of Walton C. John.

Part VII, Educational Philosophies Held by Faculty Members in Schools for the Professional Education of Teachers, presents an expression of the attitudes of staff members of institutions in which teachers are educated toward various philosophies of education and certain social and economic issues. Comparisons were made among types of institutions and instructional groups. The study was made under the direction of Robert B. Raup.

These seven parts constitute a volume of 547 pages. It was published in 1935.

Volume IV, Education of Negro Teachers, includes special studies of problems in the education of Negro teachers in those aspects of the Survey for which satisfactory data were obtained. These studies were made under the immediate supervision of Ambrose Caliver. It was published December 1933.

Volume V, Special Survey Studies in the Education of Teachers, comprises the reports of eight special Survey studies in the education of teachers reported in the first 8 parts and the digests of 9 cooperative studies reported in the ninth part.

Part I, History of the Professional Education of Teachers in the United States, presents an historical analysis of teacher education from the beginning of our history to the present with emphasis placed upon the identification of trends regarding some of the more important of the controversial issues being studied in the Survey. This study supplied historical background material for many of the studies reported in this and other volumes of the final Survey report. The material of this part is an abbreviated summary of a very much more detailed report prepared by Benjamin W. Frazier.

Part II, The Education of Teachers Evaluated through Measurement of Teaching Ability, includes a classification and summarization of the available studies in the field of measuring teaching merit and reports the results of the Survey studies in this field which were made with the cooperation of groups of teachers in Washington, D. C., Baltimore, and Philadelphia. This report was made by Gilbert L. Betts.

Part III, Student Welfare and Extracurricular Activities, gives the social and economic background of students, and discusses the

student personnel staff, living accommodations, health and physical education programs, social, religious, and extracurricular activities, and orientation and guidance programs in the various types of institutions in which teachers are educated. Part III was prepared by Benjamin W. Frazier and Walter J. Greenleaf.

Part IV, *Library Facilities of Teachers Colleges*, compares the library facilities of a selected group of 50 teachers colleges and 6 normal schools with those of 29 selected liberal arts colleges. The study was directed by Douglas Waples.

Part V, *Reading Interests of Teachers*, reports the reading interests of various groups of prospective teachers in different types of institutions and compares them with the interests of several groups of teachers in service and with groups of professional and nonprofessional citizens. Reading interests are analyzed with especial reference to topics of great social, economic, and political importance. The study was made by Douglas Waples.

Part VI, *The In-Service Education of Teachers*, consists of a summary and interpretation of eight separate studies dealing with such phases of the in-service education of teachers as: The programs maintained by different types of institutions; the effect of certification upon in-service education; and the evaluation of various kinds of in-service education. The studies were directed and the summary prepared by Ned H. Dearborn.

Part VII, *The Preparation of Teachers for Small Rural Schools*, presents the problems dealing with the important task of providing better teachers for the rural schools. The data from the various Survey studies which bear most directly upon these problems are combined with data from other studies and with the results of a supplementary study made by the author of this part and used as the basis for proposed changes. The report was prepared by Mabel Carney.

Part VIII, *The Training of Teachers in Europe*, presents the present practices in the education of elementary and secondary teachers in England, France, Germany, and Sweden. The data are so arranged as to make possible comparisons of the practices among those countries and between each of them and the United States. The report was prepared by Thomas Alexander with the assistance of John W. Carr, Ruth McMurry, and Gretchen Switzer.

Part IX, *Summary of Cooperative Studies in the Education of Teachers*, contains summaries of the cooperative studies not reported upon in other parts of the Survey. The studies summarized include the following topics: The placement of students in teaching positions; substitute teaching in cities of 50,000 population and more; internal administration of teachers colleges; internal administration of liberal arts colleges; the preparation of teachers of reading; the

training of elementary teachers of arithmetic; the status of teachers of mathematics in secondary schools in the United States; and State control of teacher training in the United States. The digests were made by E. S. Evenden.

The nine parts included in volume V make a book of 484 pages. It was published in 1935.

Volume VI, *The Education of Teachers in the United States*, comprises the general summary and recommendations of the National Survey of the Education of Teachers. Here the Associate Director presents the most important of the findings of the different Survey studies and in a discussion of several of the more important of the larger problems in the education of teachers gives the composite judgment¹² of those directly connected with the Survey as consultants, directors, or specialists in charge of specific phases of work concerning the best solutions to those problems.

SECTION 4. PURPOSE OF THE SUMMARY VOLUME

Not a recapitulation.—It is not the purpose of this summary volume to give a faithful recapitulation of the more significant findings and recommendations from each of the studies included in the Survey. In nearly every case the reports on those studies have concluded with a summary and a set of proposals or recommendations which seemed justified by the findings. These summaries and recommendations were given in such detail that if they were repeated they would use up most of the space available for this volume. In the several summaries there are instances of duplication and of disagreement in the recommendations. The repetitions were left either because they did not occur in the same volume or for the sake of the emphasis which comes from repetition. Most of the cases of disagreement in recommendations were due either to the fact that one of the specialists involved did not have access to all the data available to the other or to a different interpretation of the data. No attempt was made except as might result from staff conferences and discussions to obtain uniformity of point of view or interpretation on the part of all Survey staff members. The diversity of points of view in the board of consultants and within the staff was considered a protection against biased interpretations.

An interpretation.—Readers interested in one or more particular phases of the Survey report have those phases summarized for them in the other volumes. They also have the recommendations which the specialist or specialists in charge of that section consider most essential. It seemed that for such persons the separate volumes of

¹² This should not be interpreted to mean the unanimous approval of all individuals consulted. It is the Associate Director's estimate of majority approval or group consensus.

the separate parts would be sufficient. On the other hand, for those interested in the whole field of teacher education—presidents of teachers colleges and colleges, deans of schools of education, State superintendents of public instruction and others—it seemed desirable that an attempt be made to present a larger view of teacher education in the United States and to bring to bear the results of the several Survey investigations upon a few of the more important and more troublesome problems confronting the leaders in the work of preparing and certificating teachers—leaders who are being forced constantly to make decisions far-reaching in their effect and who are anxious to make those decisions in the light of all available information.

The three problems selected for presentation in this volume are: (1) To raise the level of education of American teachers (quantity or amount); (2) to make their preparation more distinctly professional (quality or appropriateness); and (3) to bring about a more desirable adjustment between demand and supply among teachers (professional security). These were chosen because they are important problems in need of immediate attention and are so inclusive that nearly every Survey study contributes directly or indirectly to the solution of one or more of them.

A chapter will be devoted to the consideration of each of these problems. Selected data from studies reported in the preceding volumes will be used and other related material in those studies referred to in these chapters. The selection of the problems, the material used, the arguments presented, and the recommendations made represent an interpretation—colored by the experiences of the Survey and modified in many instances by the judgments and opinions of the board of consultants and members of the Survey staff.

CHAPTER II

RAISING THE LEVEL OF EDUCATION OF AMERICAN TEACHERS

Are the teachers in the United States deficient in education?

Do the teachers in the high schools have a satisfactory amount of education while the teachers in the elementary schools do not?

Do the teachers in some States have sufficient education while those in others do not?

Do the teachers in cities have sufficient education while those in rural areas do not?

Do white teachers have sufficient education while Negro teachers do not?

Has the amount of education of American teachers increased since the World War and is it still increasing?

Do European teachers have more education than teachers in the United States?

Would the cost of having teachers with more education be prohibitive at this time?

Should standards for the education of teachers be raised, maintained, or lowered in order to meet the present emergency?

These questions, or criticisms of the public schools implied by these questions, have been so continuously before the American public, especially during the two decades just past, that like the oft-repeated cry of "Wolf!" they fail to arouse concern or in many cases to attract attention. However, the fact that these issues have been repeatedly raised by educators, sociologists, economists, school patrons, and critics of the social order during this period is rather conclusive evidence that unsatisfactory conditions have been allowed to go uncorrected or that the corrective measures applied have been either ineffectual or only partly effectual.

Neither proof nor extended exposition is needed to establish three assumptions basic to the study of the problems raised at the beginning of this chapter. The first is that the people of the United States are generally and genuinely interested in the public schools and desire to have them as efficient as possible. The second is that the teacher is the most important single factor determining the effectiveness of the school. The third is that the teacher's educa-

tional preparation, while by no means the only element, is one of the most important of the elements determining his effectiveness.

If, as it is believed, these three assumptions are widely accepted no further justification is needed for selecting the problem of raising the educational level of American teachers as one of those deserving special analysis in the light of the findings of the Survey. The problems in this chapter will be discussed in terms of the *amount* of educational preparation and without reference to its *quality* or *nature*. The latter will be discussed in chapter III.

SECTION 1. THE SITUATION BEFORE 1930

Early American conditions.—During the colonial period of American development neither teaching nor teachers, especially on the elementary school level, were accorded much respect. Education was largely the responsibility of the individual family and teachers were selected on such bases as having spare time to turn to a small profit, religious acceptability, and incapacity for other forms of work. As the close relationship of general schooling to the preservation of religious and political liberty was more clearly realized, laws were passed compelling communities to provide schools and later to compel children to attend schools—public or private. Even under these conditions the preparation of the teacher was given small consideration.

One of the earliest recorded expressions of the need for better prepared teachers was contained in the proposal which Benjamin Franklin made in advocating the establishment of the Academy and Charitable School of the Province of Pennsylvania, chartered in 1753.

3. . . . a number of the poorer sort will hereby be qualified to act as schoolmasters in the country, to teach children reading, writing, arithmetic, and the grammar of their mother tongue, and being of good morals and of good character, may be recommended from the academy, to country schools for that purpose—the country suffering very much at present for want of good schoolmasters.¹

Conditions had improved but little by the end of the first quarter of the nineteenth century. Samuel R. Hall in his *Lectures on School-Keeping*, published in 1829, quotes a writer in the *Journal of Education* who explains many of the deplorable conditions then existing in the schools as due to the failure to secure better educated teachers.

Every stripling who has passed 4 years within the walls of a college, every dissatisfied clerk who has not ability enough to manage the trifling concerns of a retail shop, every young farmer who obtains in the winter a short vacation from the toils of summer—in short, every person who is conscious of his

¹ Reprinted in Wickesham, James F. *A History of Education in Pennsylvania*. Inquirer Publishing Co., 1896, p. 69.

imbecility in other business, esteems himself fully competent to train the ignorance and weakness of infancy, into all the virtue and power and wisdom of maturer years—to form a creature, the frailest and feeblest that heaven has made, into the intelligent and fearless sovereign of the whole animated creation, the interpreter and adorer, and almost the representative of Divinity.²

Similar standards prevailed in most of the States and probably in some localities in all of the States until well past the middle of the century.

Beginnings of teacher education.—Samuel R. Hall's private normal school established at Concord, Vt., in 1823 is usually considered the first institution in this country specifically designed for the preparation of teachers. Just 100 years ago the New York State Legislature appropriated money to certain academies in the State in order that they might provide teacher-training courses. That is, so far as is known, the first State-supported work for the training of teachers in the United States. The first State-supported normal school was established at Lexington, Mass., July 3, 1839.

It is fair to say that teacher education in the United States is approximately 100 years old and yet the rate of progress, especially during the first half of that century, was extremely slow. The record of this period has been presented in part I of volume V of the Survey report and will not be repeated here. It should, however, be remembered that the first teacher-training courses were but a year in length and could be taken by students with no more than an elementary or common-school education.

By 1890 progress in the education of teachers could be noticed in the following respects:³ 92 State-supported normal schools had been established which meant that there was one or more in most of the States; the courses of those schools had been increased in length to 2 and 3 years and in some cases 4 years, although it was still possible in most of the States to begin the courses at the completion of the eighth grade; large numbers of private normal schools and teacher-training classes had been established; normal departments in colleges and universities in a number of instances gave way to departments of pedagogy and education; summer schools for teachers were begun (1872) and were quite generally adopted (more than 100 had been organized by 1890); and Chautauqua meetings, extension courses, correspondence work, teachers institutes, and other methods of in-service education for teachers had been started.

Developments from 1890 to 1920.—The partial list of accomplishments in the field of education for teachers presented in the preceding

² Hall's Lectures on School-Keeping. Reprinted by Wright, Arthur D., and Gardner, George. Hanover, N.H., the Dartmouth Press, 1929, p. 60.

³ Dates, statistics, and quotations not otherwise acknowledged in this section are taken from pt. I, vol. V, of the Survey report, History of the Professional Education of Teachers in the United States, by Benjamin W. Frasier.

paragraph gives perhaps too favorable an impression of the progress which had been actually accomplished in the preparation of the average or typical teacher. Teaching was still held in low public esteem, certification for teaching was largely by means of examinations, teachers were paid extremely low wages (a more appropriate term than salaries), and the standards in all teacher-training curricula were so low that "the typical teacher did not have the equivalent of a high-school education until after the beginning of the twentieth century."

The 30 years between 1890 and 1920 witnessed a very noticeable advance in education in the United States, most of which was a continuation or an upgrading of movements started previous to 1890. Compulsory education laws were more widely adopted and more strictly enforced and resulted in greatly increased enrollments in elementary schools (more than 50 percent). Publicly supported high schools in this period increased at an unprecedented rate both in the number of schools and the number of students (nearly 1,000 percent). Kindergarten enrollments increased more than 100 percent to a total of nearly half a million children. During the last part of the period curricula for teachers in the normal schools and teachers colleges were quite generally placed upon a collegiate basis which required graduation from a standard 4-year high school for entrance. The typical curriculum for elementary teachers was still only 2 years in length but with the increased entrance requirements it represented 6 years of work above the eighth grade—a decided advance over the standards prevailing before 1890. The movement to lengthen the curricula of the normal school to 4 years and to convert the institutions into degree-granting teachers colleges was well started by 1920. The enrollment in all normal schools and teachers colleges increased by nearly 300 percent and in the same period the enrollment in colleges, universities, and professional schools increased by 200 percent. Starting early in this 30-year period with the activities of the Herbartian group there was a rapid increase in the emphasis placed upon methods of teaching, practice teaching, and related courses in education and psychology.

The World War, coming at the close of this period had a very marked influence upon education and upon the education of teachers. The immediate effect of the war upon the status and professional preparation of teachers had been to retard and in some cases to set back the forces which were working for the improvement of the preparation of teachers. Certification standards were drastically lowered in many States, teachers' salaries were allowed to lag far behind those paid other workers and to remain far below the mounting costs of living, appropriations especially for needed buildings

and facilities were reduced, enrollments in courses for teachers decreased sharply, and teaching as an occupation lost caste.

Developments from 1920 to 1930.—The end of the war and the school year 1919-20, however, marked the beginning of a decade of progress in the development of the educational, professional, social, and economic status of the public-school teachers in the United States which has probably not been equalled in any other period of 2 or 3 times its length. In order to realize more clearly the progress made during this 10-year period and the situation which existed with respect to the education of teachers in 1930 (the date the Survey started) it is desirable to recall some of the conditions which existed at the beginning of this decade which were not referred to in chapter I in discussing the situation which led to a request for a National Survey. No satisfactory data are available on the education of teachers for the year 1919-20. The following estimates were made concerning the levels to which the 600,000 teachers at work during the early part of the war period were educated.

As to age:

100,000 are 17, 18, and 19 years old.

150,000 are not more than 21 years old.

300,000 are not more than 25 years old.

As to length of service:

150,000 serve in the schools 2 years or less.

300,000 serve in the schools not more than 4 or 5 years.

As to education:

30,000 have had no education beyond the eighth grade of the elementary school.

100,000 have had less than 2 years education beyond the eighth grade.

200,000 have had less than 4 years education beyond the eighth grade.

300,000 have had no more than 4 years education beyond the eighth grade.

As to professional preparation:

300,000 have had no special professional preparation for the work of teaching.*

While it is probable that these estimates, because they were based upon percentages obtaining in 1910, show conditions somewhat worse than they actually were, it is also probable that much of the gains registered between 1910 and 1916 were lost during the war years. The next data indicating the level of education of teachers are contained in the seventeenth annual report of the Carnegie Foundation for the Advancement of Learning, 1922. The proportion of teachers in the several States holding certificates requiring at least 4 years of high-school training varied from 5.5 percent in one State to 100 percent in several, with a percent of 74.8 for the whole

* A National Program for Education, Commission Series, no. 3, p. 4, N.E.A. 1918. Estimates based on data from Coffman, L. D. Social composition of the teaching population, New York, N. Y., Bureau of Publications, Teachers College, Columbia University, 1911.

country. The proportion holding certificates requiring at least 2 years of collegiate training varied from only 1.3 percent in one State to 89.8 in another. The percent for the United States was 45.6. Even though these percentages probably showed "a better condition than actually exists" the significant thing is that at that time a fourth of the teachers were teaching on certificates which did not require the completion of 4 years of high-school training while the certificates of more than half of the teachers did not require as much as 2 years of collegiate training. These conditions were also revealed by the data presented in the first issue of the N. E. A. Research Bulletin, January 1923 (p. 43). In this study "adequate training" was defined as the equivalent of 2 years of education above the completion of a standard 4-year high school and 56 percent of the teachers in the United States were reported as "without adequate training." Only 7 of the States were reported with 20 percent or less of the teachers without adequate training, while 11 were reported with 80 percent or more of their teachers "without adequate training" including 4 in which the percent was more than 90.

The differences among States shown in both the Carnegie and the N. E. A. reports indicate that in 1921 and 1922 the teachers with the least educational preparation were in most cases found in southern States and in the sparsely settled agricultural States. Some exceptions existed, probably due to economic or educational conditions which resulted in the development of systems of county normal schools or high-school training classes.

As indicated in chapter I the conditions just described were changed very rapidly during the period of educational expansion which followed immediately after the war.

—Some of the changes which most directly affected standards for the education of teachers and which took place during the decade under discussion should be listed before the Survey data for 1930-31 are presented.

During this period the teachers-college movement made its greatest progress. The number of normal schools reported in 1919-20 was 138 and in 1929-30 was 66. In the same period the number of teachers colleges increased from 39 to 125. As further evidence of the upgrading tendency in the education of teachers may be cited the reduction during that decade of the number of county normal schools from 95 to 68 and the abandonment by at least 12 States of their high-school training classes for teachers.

Other changes which tended to increase the amount of education considered desirable for teachers were: The centralization of certification authority; the decrease in the number of certificates issued as a result of examination; the rapid development of the materials

in the field of education and psychology which required a longer period of pre-service preparation if they were to be mastered without sacrificing time needed for the acquisition of subject matter; the rapid growth of local and national associations of teachers with their campaigns for increasing the professional status of public-school teaching; and the increased competition for positions which appeared during the last part of this decade and which encouraged many prospective teachers to continue in college 1 or 2 years longer than the required minimum period in order to increase their chances of securing positions.

A knowledge of the conditions which prevailed in the education of teachers in 1929-30 and particularly the progress made during the 10-year period just preceding that time are necessary to the development of a proper mind-set for the data to be presented in the next section of this chapter. Educationally, the United States had gathered a momentum which in a few more years would have placed it far beyond the standards obtaining in 1928-29 when all calculations were upset by the financial crisis starting in 1929.

SECTION 2. THE SITUATION IN 1930-31

This was the time at which the Survey was organized. Most of the data were collected for the year 1930-31 so that by a fortunate coincidence the Survey records present a very complete picture of conditions for that year—a year destined to be an important one in the history of education. The data collected for that year on the education of teachers may serve as a record of achievements which may not be attained again for some time and as an inspiration to accomplish again what was once accomplished. These data, obtained and arranged in such a way as to make possible comparisons and diagnostic studies, may help in determining lines of future development.

A caution regarding interpretations.—All readers should be reminded again before any Survey data are presented that final conclusions concerning the large questions discussed in this volume cannot safely be drawn from any single set of data any more than a physician makes a final diagnosis from a pulse rate. It is the desire to avoid that danger—present in some of the separate studies of the earlier volumes—which determined the form of the presentations in this volume. Here the attempt is made to bring to bear on each issue the data from as many Survey studies as space will permit and at the same time to call attention to the limitations of the available data or to the urgent need for diagnostic data not at hand.

During the period of educational expansion which followed the close of the war the people of this country were anxious to have more

and better schools. They felt that teachers should be better prepared, but there were no satisfactory measures in terms of which the better preparation could be demanded. The only course was to trust that more schooling for teachers was desirable and to express the increased standards in terms of such measures as "years of schooling" or "semester hours of credit" (merely a method of expressing fractions of a year's schooling). These measures were considered fairly uniform and "enforceable." As a matter of fact, they are extremely variable, but with it all, they are at least more understandable by both teachers and laymen than scores on rating cards or other measures of improvement which might be used.

No one is going to claim that two teachers, A and B, equal in efficiency, will after each has taken an additional year's work in an institution of higher education still be considered equal or that they will remain equal. Nor would one claim that if C is considered a less capable teacher than D he will necessarily be considered the equal or the superior of D if he goes to college for a year. Quantity of schooling in terms of time spent in school is not the same as quality of schooling, or appropriateness of schooling, or effectiveness of schooling. Any of these attributes are probably more important than amount, but unfortunately they are less tangible than "time spent."

With the assurance that amount of schooling does represent an exposure to additional information and points of view and that it also provides an opportunity to read more systematically than is usually afforded the teacher in service, it is reasonable to suppose that the requirements of additional years of education are desirable requirements. This would certainly be true as long as the teaching population has not reached the saturation point or the point of rapidly diminishing returns for preservice instruction.

The data on highest level of training, degrees held, and other measures of quantity of educational preparation will be used with the full realization that they are subject to all the limitations referred to and also to others not mentioned. They do show exposure to opportunities for education and represent one measure used in all of the learned professions and in developing programs for teachers in this and other countries.

HIGHEST LEVEL OF TRAINING FOR ELEMENTARY TEACHERS IN 1930-31

In the inquiry which was sent to all teachers, supervisors, and administrative officers in the public schools each person was asked

6715-511-4

to encircle in the following scale the code number at the left of the item which most accurately described the highest level of his training.

HIGHEST LEVEL OF TRAINING

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

Because the answers were all reported on the same form, at the same time, and reported directly by each individual to the Office of Education in Washington, the data received are undoubtedly more accurate and more comparable than any previously obtained data on this question.⁵

In presenting the picture of the amount of educational preparation of elementary teachers five questions are of interest alike to the school patron and to those responsible for State programs for the education of teachers.

1. How many teachers are now teaching whose formal education has not gone beyond 4 years of high school?
2. How many teachers have less education than the generally accepted minimum of 2 years of college or normal school work beyond the completion of a standard high-school course?
3. How many teachers barely meet the minimum standard of 2 years of college or normal school work?
4. How many have more than the minimum education by 1 or 2 years?
5. How many elementary teachers have had 1 or more years of graduate work?

In order to answer these questions and simplify the tabular material to be used in this volume the 15 levels of education as reported by the teachers have been combined into six groups and these groups are reported in table 1 and figure 1 for rural and consolidated schools and for urban communities of four different sizes. (Table 12, vol. II, pt. I gives the percents for all 15 levels.)

⁵ Detailed data on the highest level of training are reported by States in the first eight tables of the appendix, vol. II of the Survey Report.

TABLE 1.—Highest levels of training reported by elementary teachers of the United States, distributed according to percent in communities of different sizes, 1930-31

Highest levels of training	Size of community						Total elementary group
	Rural 1- and 2-teacher schools open country	Consolidated 3- or more-teacher schools open country	Village less than 2,500 population	City 2,500 to 9,999 population	City 10,000 to 99,999 population	City 100,000 or more population	
1	2	3	4	5	6	7	8
4 years of high school or less.....	12.2	4.5	4.1	3.2	3.5	3.0	5.7
1 year of college or less.....	49.6	23.9	16.9	9.3	7.0	6.2	20.5
2 years of college.....	28.7	47.0	54.0	55.1	55.1	47.0	46.2
3 years of college.....	6.0	13.4	15.7	18.8	19.7	21.8	15.5
4 years of college.....	3.0	10.2	8.4	12.2	13.0	16.9	10.2
1 year or more of graduate work.....	.5	1.0	.9	1.4	1.7	5.1	1.9
Number of cases involved.....	61,299	13,550	51,125	23,946	45,278	50,394	248,598

Approximately 1 out of every 20 elementary teachers in the United States in 1930-31 had no schooling beyond the high school. This is the surprising answer to the first of the questions just asked. The rural schools had the largest percentage of their teachers in this group, but on the other hand, the cities, and even the largest cities, had 3 or more percent of their teachers with this inexcusably meager preparation—inexcusable because, even though many of them were older teachers who entered teaching 20 or more years ago when standards were lower, they should not have been permitted to remain in teaching during that time without adding to their educational preparation.

The answer to the second question is equally disquieting. One-fifth of the elementary teachers of the United States who had completed high school reported 1 year or less in college as the highest level of their training. This group and those with 4 years of high school or less make a total of more than a fourth of America's elementary teachers who in 1930-31 had not had the minimum of 2 years of education beyond the completion of a 4-year high-school course. One out of four elementary teachers had less education than is represented by the completion of the junior college which, according to many estimates, represents about the same level of intellectual maturity as the completion of the secondary schools of Europe.

From an inspection of the percentages in table 1 it is clear that most of these undereducated teachers were teaching in the rural schools, the consolidated schools, and the villages—the locations in which the work of teaching is most difficult and where the need for the highest type of teaching service is probably greatest. The selection of the most poorly qualified teachers in the rural and small village

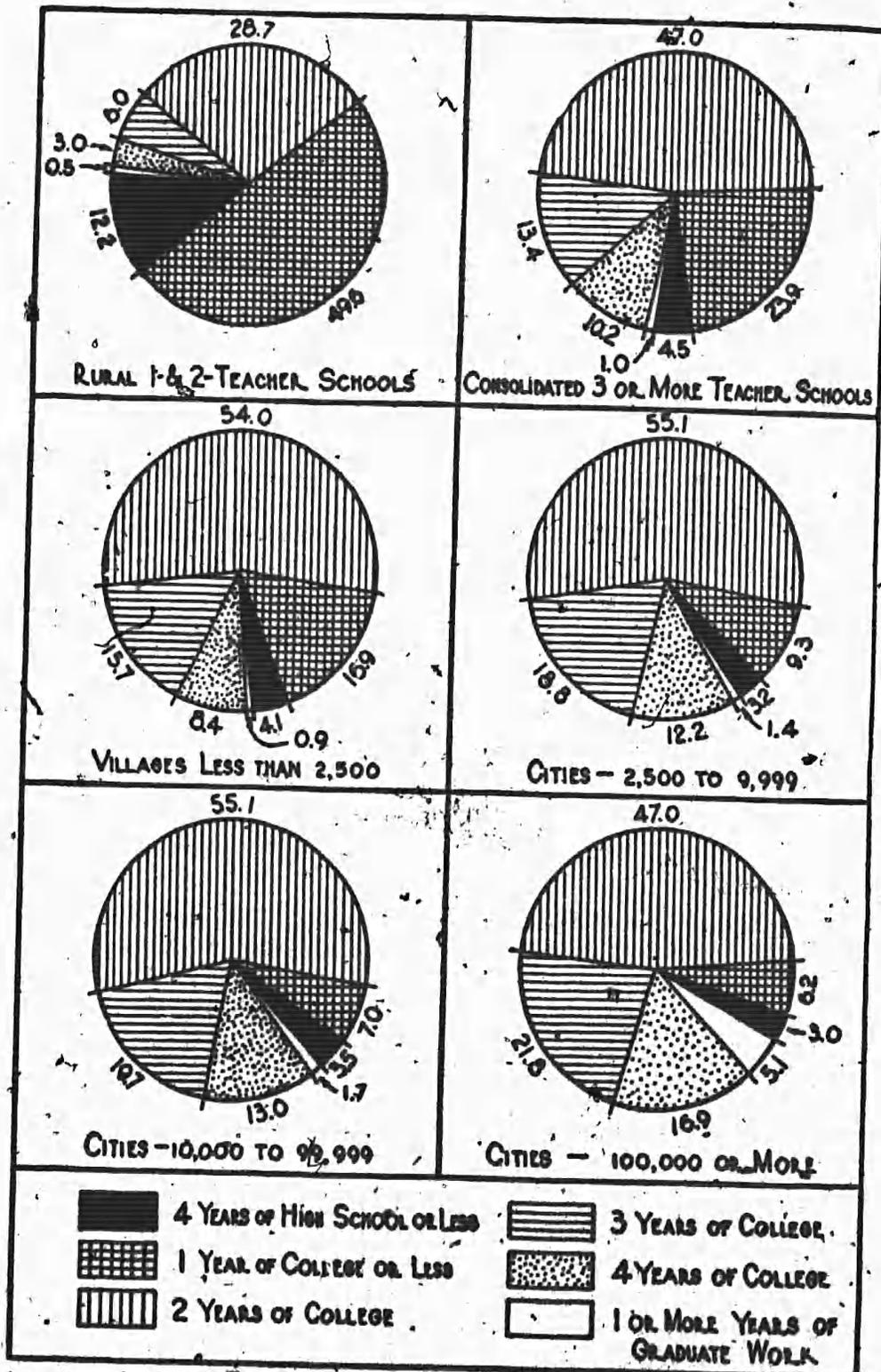


Figure 1.—Highest level of training of elementary teachers in communities of different sizes in the United States, 1980-81. (Data from table 1, p. 37).

schools is an unfortunate continuation of one element in the vicious circle of inadequately prepared teachers, poor teaching, ineffective schools, low educational standards, resulting in the selection of inadequately prepared teachers and the beginning of another circle. Thus it continues from school generation to school generation in circles of ever-narrowing educational opportunities.

The situation just presented is both unjustifiable and challenging. Something should be done to remedy it, and done immediately. Some States in which corrective action is imperative may not be stimulated by the national situation just pictured. Such States may not recognize how much of the national situation is due to their low standards. A careful study of tables I to VIII, inclusive, in the appendix of volume II of this report will rather effectively remove any doubt as to the States in which this problem needs prompt, vigorous, and State-wide attention. For example, of the rural school teachers reporting in 1930-31, the following 9 States had 20 percent or more—a fifth or more—with 4-years of high-school education or less: Arkansas, Florida, Georgia, Iowa, Kansas, Kentucky, Mississippi, Nebraska, and New York. In one of these States more than half (53.8 percent) of the rural teachers reported no more than high-school education.

The answer to the third question concerning the number of teachers who barely meet the minimum standard of educational preparation is that in 1930-31 approximately half of the elementary teachers belonged in that group. About half (46.2 percent) of the elementary teachers had had 2 years' work above high school in a normal school, teachers college, junior college, college, or university. The size of this group affords a basis for encouragement if one looks backward a few years, but the encouragement should disappear when it is realized that nearly three-fourths of our elementary teachers (72.4 percent) had no more than the minimum educational preparation when that minimum was as low as only 2 years above high school. The number of teachers in the 2 years of college-work group may help justify the impression that many persons now teaching took no more preservice education than was required for admission to teaching. For many of those persons the only sure way to increase their education would be to raise the minimum standard by regulation, since it is unlikely that they will do it voluntarily.

That such a criticism does not apply to all teachers in the elementary schools is evidenced in the percentages of elementary teachers who had 1 or more years of education above the minimum and the number who had had 1 or more years of graduate work. While these two groups represented only a tenth of the rural school teachers, they comprised more than two-fifths (42.9 percent) of the elementary teachers in the largest cities and more than one-fourth of the total

elementary group. To be sure, not all of the education above the 2 years of college level represents voluntary improvement. Several States extended their normal-school courses from 2 to 3 years, and other States and a number of cities have required the completion of 4 years of preservice education for admission to teaching. Even though these requirements would account for some of the individuals being in this group, there is no doubt that most of the preparation obtained above the "2 years' minimum" was obtained either because of a professional desire to be better prepared for teaching or because additional education was an advantage in meeting the increased competition for teaching positions which has developed during the 7 or 8 years just past.

The answer to the fifth question—the number with 1 or more years of graduate work affords little comfort to those who believe that teaching should be comparable with the so-called "learned professions" in the educational equipment of its members or to those who believe that teachers in the elementary schools should be as well educated as the teachers in the high schools. Not 1 in every 200 rural school teachers had done a year's graduate work when the data were collected in 1930-31 and even in the largest cities where competition for placement is keenest and tenure longest only 1 elementary teacher in each 20 reported a year or more of graduate work. To be sure, small as these percentages are, they are better than nothing especially if they show the beginning of a movement toward adequate education of elementary teachers. They are relatively very small when compared with those for high-school teachers in this country or for either elementary or high-school teachers in some European countries.

The problem of raising the level of education of elementary teachers can be understood more clearly in the light of some hypothetical problems in connection with the data presented in table 1.

1. Suppose that the sorry plight of the rural schools should attract attention enough so that a concerted attack were made to bring all the rural school teachers up to a minimum of 2 years of college work. This would affect 61.8 percent of the rural teachers in 1- and 2-teacher schools and if successful would lower the percentage of elementary teachers in the United States with less than the minimum of 2 years of college work from 26.4 percent to 10.2 percent and raise the percent with the minimum amount of education from 46.2 percent to 61.4 percent. The other groups would remain the same.
2. If all the elementary teachers in the entire country were required to meet the 2 years of college work minimum there would be no teachers with less than that amount and the percent in the minimum group would be 72.4, the other groups remaining unchanged.
3. As a third problem, suppose that within the next 5 years all elementary teachers in the country with less than 2 years of college

work could be required to meet this standard and that all other elementary teachers with less than 1 year of graduate work could be required to increase their educational preparation by at least 1 year—what would be the result in the percentages in the last column of table 1? The 5.7 percent with 4 years of high school or less and the 20.5 percent with 1 year of college or less would disappear and there would be no elementary teachers with less than 2 years of education beyond high school. The group which barely met the minimum would be 26.2 percent instead of 46.2 percent. The remaining groups would be: 3 years of college work, 46.2 percent; 4 years of college work, 15.5 percent; and 1 year or more of graduate work, 12.1 percent. While this distribution would still not be all that is desirable it would present a very much better picture than the one that represented the education of our elementary teachers in 1930-31.

It is readily admitted that these problems are hypothetical and the solutions proposed unreal and impractical. They are inserted for only two purposes. In the first place they show that any improvement in standards, especially in bringing all teachers up to an accepted minimum, has a marked effect upon the total picture, even if the increase is only in one group. In the second place they show that a relatively small amount of additional preparation, if obtained by all teachers, makes a very large difference in the number who meet acceptable standards. The problem of raising the educational level of elementary teachers in the United States is quite clearly a threefold one of cutting off the lower end of the distribution, raising the educational level of the total group, and increasing the number at the upper end of the distribution. The solution implies the elimination or upgrading of the teachers with less than an approved minimum amount of education (certainly not less than 2 years beyond high school), the upgrading of all elementary teachers with less than 4 years of college-level work and the encouragement of greater numbers of elementary teachers to continue their educational preparation into the graduate level for 1 or more years.

HIGHEST LEVEL OF TRAINING OF JUNIOR HIGH SCHOOL TEACHERS, 1930-31

The highest level of training of junior high school teachers in the United States for the year 1930-31 was determined in the same way as for elementary teachers. The answers may therefore be used for comparisons between the junior high school and the elementary school teachers as well as for an analysis of the education of the group itself. Because of the smaller numbers in the groups and also because some preliminary tabulations showed that the preparation of secondary teachers was not as much affected by the size of the communities in

which the schools were located, the junior and senior high school groups were not distributed according to size of community.

The highest levels of training as reported by junior high school teachers in 1930-31 are distributed in table 2 according to the different levels. The same table contains also the data for all elementary teachers and for senior high school teachers in order to facilitate comparisons. (See also fig. 2.) From this table it is clearly apparent that in the matter of the education of its teachers the junior high school stood between the other two groups—distinctly better than the elementary group and decidedly poorer than the senior high school group. The explanation is probably due to the fact that the junior high school is a relatively new type of school organization. When it was started it was not clear in the minds of many school people whether it was an intermediate school, an upward extension of the elementary school, or a downward extension of the high school. As a result of that confusion the prevailing standards for the training of teachers for both the elementary and the secondary schools were applied in staffing the first junior high schools; in fact, many of those first schools were staffed by transferring successful teachers from the elementary schools to the junior high schools. At the time this was done it was quite generally accepted that high-school teachers should be college graduates. If the junior high school in its beginning could have been clearly classed as a secondary school and the standards of secondary schools applied to it, its teachers would probably have been, because of the recency of its development, a better educated group than the teachers of the senior high schools.

TABLE 2.—Highest levels of training reported by elementary, junior high school, and senior high school teachers in the United States distributed according to the percent at each level, 1930-31

Highest levels of training	Elementary teachers	Junior high school teachers	Senior high school teachers
1	2	3	4
Nongraduate of elementary school.....	0.1	0.1	0.1
Graduate of elementary school only.....	.3	.2	.1
1 year of high school.....	.2	.1	.1
2 years of high school.....	.5	.2	.1
3 years of high school.....	.7	.3	.1
4 years of high school.....	4.0	1.1	.5
6 to 12 weeks of college.....	3.6	.6	.2
Half year of college.....	2.4	.4	.2
1 year of college.....	14.5	3.2	1.1
2 years of college.....	40.2	17.5	4.4
3 years of college.....	15.5	10.0	6.1
4 years of college.....	10.2	42.7	53.1
1 year of graduate work.....	1.3	12.1	20.2
2 years of graduate work.....	.4	2.1	6.9
3 years of graduate work.....	.1	.3	1.5
More than 3 years of graduate work.....	.1	.2	1.4
Number of cases involved.....	245,000	24,100	84,700

Comparisons with elementary teachers.—The fact that two-fifths (39.6 percent) of the junior high school teachers in 1930-31 had less than 4 years of college work was, without doubt, the result of accepting elementary school standards for the junior high schools. To

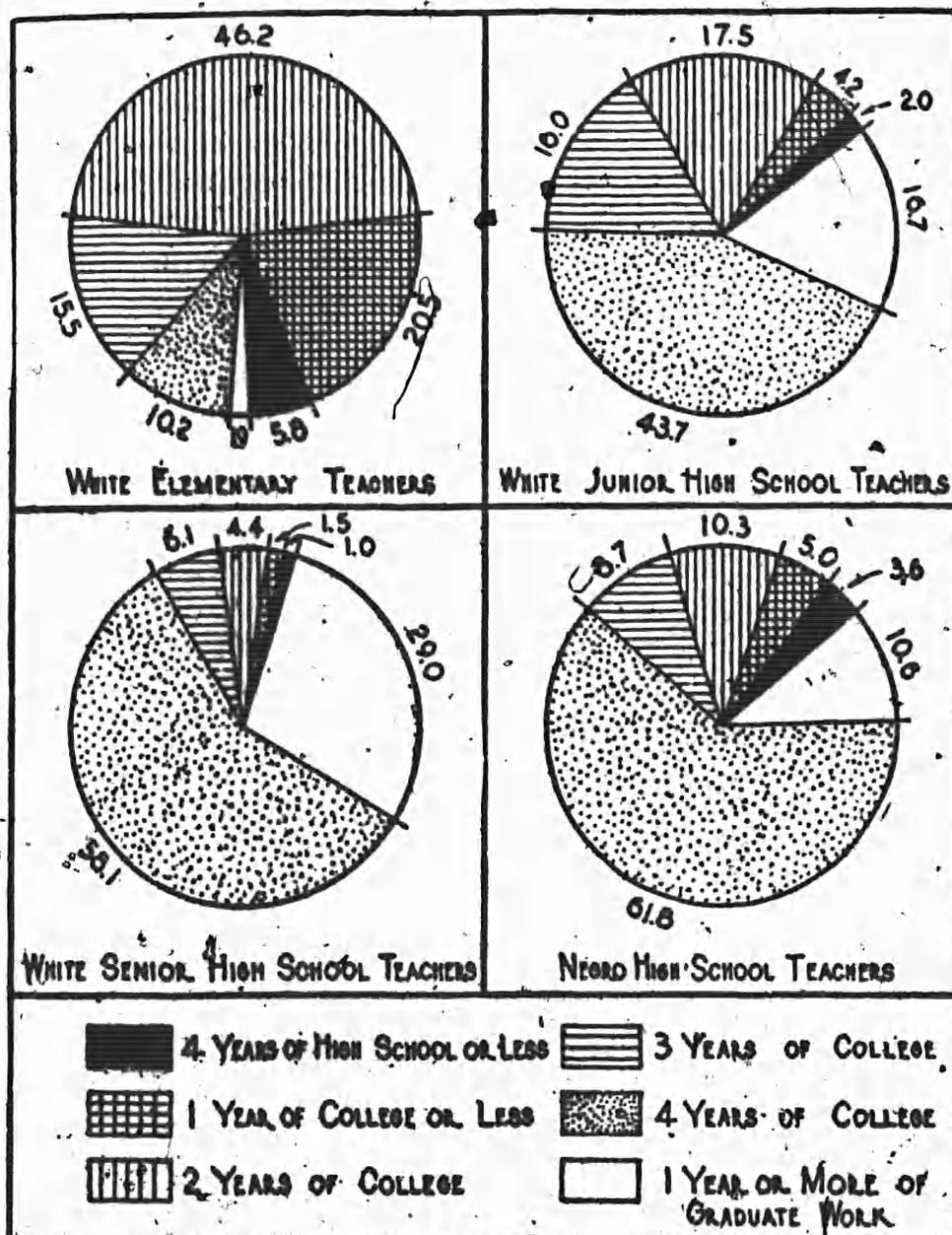


FIGURE 2.—Highest level of training of white elementary, junior and senior high school, and Negro high-school teachers in the United States, 1930-31. (Data for white teachers from table 2, p. 42; data for Negro teachers from table 30, p. 71, "Secondary Education for Negroes", which is Monograph 7, of Bulletin 1932, No. 17, "National Survey of Secondary Education.")

be sure, some of the teachers with less than 4 years in college were teachers of special subjects in which particular skills were required that were often acquired in other ways than through formal college work. Nevertheless, in 1930-31 a fourth of the junior high school

teachers did not report any education beyond 2 years of work on the college level.

On the other hand, the extent to which the education of junior high school teachers exceeded that of elementary teachers in 1930-31 may be seen by two comparisons. Three-fifths of the junior high school teachers had had 4 or more years of college work, compared to one-eighth (13.1 percent) of the elementary teachers. One-sixth (16.7 percent) of the junior high school teachers had had 1 or more years of graduate work, compared to only 1.9 percent of the elementary teachers. These comparisons illustrate very well the desirability of larger backgrounds in dealing with educational comparisons. If only this paragraph were read by some one interested in the junior high school he might well exclaim, "Splendid! What a well-educated group of teachers in the junior high schools!" Lest anyone be given such an impression, it is well to remind him at this point of two things: First, that the preceding section has shown that the elementary teachers with whom the comparison is made were very inadequately educated, and, second, that the percentages tell a very different story when the more logical comparisons are made with high-school teachers of this and other countries.

It is not possible to compare the percentage of junior high school teachers who met the minimum standard for junior high school teachers with the 73.6 percent in the elementary group who met the minimum standard of 2 years of college work because there is no generally accepted minimum standard for junior high school teachers. If the elementary minimum is taken as the standard 93.9 percent of the junior high school teachers met the standard. If as has been proposed by some, the standard of 3 years of college-level work were the accepted minimum for junior high school teachers, then 76.4 percent of the junior high school teachers would have met that standard. If the same minimum is used for both the junior high schools and the senior high schools, which is the case in many places, then only 60.4 percent (3 out of every 5) junior high school teachers met in 1930-31 the minimum standard of 4 years of college work.

Variations by States in the education of junior high school teachers.—The percentages in table 2 and in the comparisons which have been given are for the entire country but, except as bases of reference, they are not as significant as are the percentages within the several States for the reason that the States determine what standards shall be accepted and enforced. The highest levels of training for junior high school teachers in 1930-31, in each State are reported in table VII, appendix, volume II of the Survey report. That table shows the great variation of standards and indicates the States in which the greatest effort will have to be made in order to bring junior high school teachers up to the minimum standard of 4 years

of college work. The States in 1930-31 in which a majority of the junior high school teachers up to the minimum standard of 4 years of training reported less than 4 years of college work were: Alabama, Arkansas, Connecticut, Delaware, Idaho, Illinois, Iowa, Maine, Massachusetts, Montana, Nebraska, New Hampshire, North Dakota, Oregon, Rhode Island, and Vermont. In some of these States the percentage was distinctly more than 50, and in Maine nearly 80 percent of the junior high school teachers had had less than 4 years of college work.

While it is less important in terms of immediate action needed, it is encouraging to present the other extreme. In the following States 75 percent or more of the junior high school teachers had 4 or more years of college work in 1930-31: Arizona, California, Missouri, Nevada, North Carolina, Oklahoma, and South Carolina.

Both of these lists indicate that the amount of education possessed by junior high school teachers is determined by the standards accepted by the State and is not due to any such factors as geographical location, wealth, sparsity of population, or industrialization.

In spite of the fact that these comparisons indicate conditions far from ideal, they also supply the basis for some justifiable optimism regarding the upgrading of the junior high school teaching staff. Enough progress was made in the period of expansion following 1920-21 so that the picture can be materially affected by steady pressure on the two-fifths with less than the minimum of 4 years of college work accepted for high-school teachers. An upgrading of that two-fifths by as little as 1 year's college work would reduce the fraction to less than a fourth, whereas if the education of the two-fifths could be increased by 2 years the fraction failing to meet the minimum of 4 years of college work would be only one-sixteenth.

Such an upgrading of those below the minimum and graduate education for some of the three-fifths who have already met the minimum standard would yield immediate and very noticeable results in improving the educational preparation of America's junior high school teachers.

HIGHEST LEVEL OF TRAINING OF SENIOR HIGH SCHOOL TEACHERS IN 1930-31

Various explanations have been advanced for the different standards which exist in the educational preparation considered necessary for elementary and for secondary teachers. Whether it is a hold-over of the class system of society in which the elementary schools were for the masses and the secondary schools for the classes, or a result of the closer relationship (college-preparatory) of the secondary school to higher education with a resulting emphasis upon scholastic attainments, or whether it is the result of standardizing

and accrediting agencies, or whether it is the result of other causes or combinations of causes, the fact remains that it has been accepted quite generally that teachers in the academies and the secondary schools should have at least a college education or its equivalent. The general acceptance of this standard is indicated very distinctly by the data in table 2 on the highest level of training of high-school teachers. In 1930-31 only 12.9 percent of the senior high school teachers had less than 4 years of college work: Nearly three-fifths (58.1 percent) of the senior high school teachers reported 4 years of college work as the highest level of their training. In other words, 3 out of every 5 teachers in this group barely met the generally accepted minimum amount of educational preparation expected of senior high school teachers. Three-tenths of the senior high school teachers in 1930-31 (29 percent) reported one or more years of graduate work.

Comparison with elementary and junior high school teachers.—The percentages just given for senior high school teachers compared very favorably with similar percentages for elementary teachers and for junior high school teachers, but again the reader must be reminded that the favorable margin was not because the senior high school teachers as a group were so well educated but because the elementary and junior high school groups with which they were compared were so inadequately educated.

In terms of the percent of teachers with less than 4 years of education on the college level the relative standing of the three groups can be expressed in three easily remembered common fractions— $\frac{7}{8}$, $\frac{3}{8}$, and $\frac{1}{8}$. Seven-eighths of the elementary teachers, three-eighths of the junior high school teachers and one-eighth of the senior high school teachers had less than 4 years of college work as educational preparation for teaching (87.9 percent, 39.6 percent, and 12.9 percent).

The differences were even greater in the percentages of each group which reported 1 or more years of graduate work in 1930-31. The percentage of elementary teachers was only 1.9, of the junior high school teachers 16.7, and of the senior high school teachers 29.

It can safely be inferred from these comparisons that in 1930-31, when the data for the total groups of elementary, junior high school, and senior high school teachers were obtained, there were three distinctly different standards with respect to the amount of educational preparation considered necessary for teaching in the three school divisions.

Variations by States in the education of senior high school teachers.—The data on the highest level of training for senior high school teachers in each State in 1930-31 are presented in table VIII, appendix of volume II of the Survey report. The percentages in that

table confirm the statement that the standard of 4 years of college work was very generally accepted. Only 4 States (Arkansas, Maine, Virginia, and Wisconsin) had as much as 20 percent of the senior high school teachers with less than 4 years of college work, while 19 States and the District of Columbia had less than 10 percent of the senior high school teachers with less than 4 years of college work. In Idaho, Kansas, and Nevada the percents were 5 or less.

The distinctions are equally great, and in the case of this group more significant, in the number of senior high school teachers in the different States who reported 4 or more years of graduate work. California and the District of Columbia had approximately two-thirds of the senior high school teachers and seven States—Arizona, New Jersey, New York, Pennsylvania, Rhode Island, Washington, and West Virginia—had more than a third of their senior high school teachers reporting 1 or more years of graduate work. A further analysis of the data for separate States shows the effect of State programs and State standards. The case of California furnished an interesting example. For approximately 25 years California has required some graduate work and some supervised practice teaching on the graduate level as a prerequisite for beginning teachers in its high schools. Meeting these preservice requirements meant that the new high-school teachers during that period have had, in most cases, 1 or more years of graduate work. In 1930-31, 45.2 percent of the senior high school teachers in California had 1 year of graduate work, 17.2 percent 2 years, 3.1 percent 3 years, and 2.6 percent more than 3 years of graduate work. Of all the senior high school group in California with graduate work, two-thirds reported only 1 year of graduate work. This may be interpreted that two-thirds of those with graduate work had taken no more than was required by the State standard. In the District of Columbia 63.8 percent of the total senior high school group reported 1 or more years of graduate work and of the group with graduate work 58 percent—three-fifths—had had 2 or more years of work on the graduate level.

In contrast to California's 22.9 percent and the District of Columbia's 37 percent of the total high-school teaching group with 2 or more years of graduate work in 1930-31, 22 States had at that time less than 5 percent of their high-school teachers with this amount of graduate work.

The distribution of the senior high school teachers in terms of the highest level of their training (column 4, table 2) shows what a significant difference a year's upgrading of all high-school teachers would make. If that could be accomplished for the country as a whole only 6.8 percent would have less than 4 years of college work and 87.1 percent—seven-eighths of the group—would have 1 or more years of graduate work. This would put the senior high school

group in a favorable position for comparison with other professions as far as length of preparation is concerned.

The effect of State standards in raising the level of education is very evident in the data from each State. If the minimum standard is set so as to require 4 or more years of college work for all "new" teachers it affects not only the new entrants but has a tendency to upgrade the teachers with less than the accepted minimum already in service. Two studies conducted by the research division of the National Education Association show encouraging progress in raising standards for public-school teachers.^a For the school year 1927-28, 1,532 cities with populations of more than 2,500 reported the number of years of training required beyond high-school graduation for newly appointed high-school teachers. The percentages were: 1 year 2.5; 2 years 4.2; 3 years 0.6; 4 years 80.4; 5 years 3.1; no specified amount 0.5; and no report 8.7. Data from 1,489 cities with populations of more than 2,500 for the year 1930-31 gave the following percentages: Less than 1 year 0.1; 1 year 0; 2 years 0.9; 3 years 0.9; 4 years 94.6; 5 years 3.4; and 6 years 0.1. These percentages show for the 3 years between 1927-28 and 1930-31 a marked decrease in the number of cities permitting new high-school teachers to begin teaching with less than 4 years of college work. (This change is even more marked when the percentages for the 1927-28 study are converted to percents of the number replying, the method used for 1930-31.)

DEGREES HELD BY PUBLIC-SCHOOL TEACHERS

Another measure of the amount of educational preparation of public-school teachers is the number of degrees held by the teachers in the different groups. This does not show the different amounts below the level of 4 years of college work, but it serves as a check for the upper levels of training because the number with the bachelor's degree should approximately correspond to the "4 years of college-work group", the number with the master's degree to the number reporting 1-year of graduate work, and the number with the doctor's degree to those who have 3 or more than 3 years of graduate work. Obviously the correspondence will not be an exact one, because not everyone who spends 4 years in college completes all of the requirements for a bachelor's degree, nor does everyone who spends 1 year in graduate work secure a master's degree, or in 3 years a doctor's degree. Sometimes the graduate work will be done in two or more institutions and the courses taken will be determined by some imme-

^a Practices affecting teacher personnel, Research Bulletin of the National Education Association, vol. VI, no. 4, September 1928, p. 216.
Administrative practices affecting personnel, Research Bulletin of the National Education Association, vol. X, no. 1, January 1932; p. 8.

diate professional need rather than the requirements for an advanced degree. On the other hand, the possession of the degree indicates something more than mere attendance at an institution for the time required for that degree. It shows a certain balance of courses and a standard of scholarship satisfactory to the institution.

A summary of the percentages of public-school teachers with bachelor's, master's, and doctor's degrees for the United States in 1930-31 is given in table 3. The data in this table support the following general statements regarding the degrees held by public-school teachers in the United States in 1930-31: (1) The number of elementary teachers with bachelors' degrees increased as the size of the community increased; (2) the percentage of elementary teachers with bachelor's degrees was much smaller than the percentage of junior high school teachers with that degree; (3) the percentage of junior high school teachers with a bachelor's degree was much smaller than the percentage of senior high school teachers with the bachelor's degree; (4) an insignificant number of elementary teachers had master's degrees; (5) about one-fifteenth of the junior high school teachers and about one-sixth of the senior high school teachers had master's degrees; (6) not enough elementary teachers had doctor's degrees to warrant their tabulation; and (7) the percentage of junior high school and senior high school teachers holding doctor's degrees was negligible, being only one-tenth of 1 percent and four-tenths of 1 percent, respectively. (One senior high school teacher in each 250 seems a negligible proportion.)

TABLE 3.—The degrees held by public-school teachers in the United States distributed according to the size of community and the percent of elementary, junior high school, and senior high school teachers holding each degree, 1930-31

Size of community and educational division in which elementary teachers work	Percentage holding each degree		
	Bachelor's degree	Master's degree	Doctor's degree
1	2	3	4
Rural schools (1- and 2-teacher open country).....	2.6	0.1
Consolidated schools (3 or more teachers—open country).....	9.4	.3
Villages, less than 2,500 population.....	7.8	.3
Cities 2,500 to 9,999 population.....	11.8	.4
Cities 10,000 to 99,999 population.....	12.5	.6
Cities, more than 100,000 population.....	18.2	1.6
Total elementary teachers.....	10.0	.6
Total junior high school teachers.....	53.7	6.9	0.1
Total senior high school teachers.....	55.0	15.5	.4

Comparison of degrees held with years in college.—The percentages in table 3 furnish some interesting comparisons with those in tables 1 and 2. In making these comparisons it is assumed that a

teacher holding a master's degree also has a bachelor's degree, and that a teacher holding a doctor's degree probably has both a bachelor's and a master's degree. There are, of course, some teachers holding doctor's degrees who did not take a master's degree en route to the doctor's degree (probably not more than 10 percent) but very few holding either the doctor's or the master's degree who do not also have the bachelor's degree, since it is the usual basis upon which graduate standing is established.

Table 2 shows that 12.1 percent of the elementary teachers in 1930-31 reported that they had spent 4 or more years in college work, and table 3 that 10 percent reported that they held a bachelor's degree. Thus about a sixth of the elementary teachers who had spent sufficient time in college-level work had for some reason not completed the requirements for a bachelor's degree. Similarly, 60.4 percent of the junior high school teachers spent 4 or more years in college, and 56.7 percent reported that they held bachelor's degrees; and 87.1 percent of the senior high school teachers had spent 4 or more years in college, and 85 percent reported bachelor's degrees.

It would seem from these comparisons that the junior- and senior-high-school teachers who spent 4 or more years in college more consistently completed the requirements for a bachelor's degree than did the elementary teachers. The secondary teachers also exceeded the elementary teachers in the percentage reporting 1 year of graduate work who also reported having a master's degree.

The situation with respect to the teachers who reported having earned doctors' degrees presents a different aspect of the problem. It is quite evident from the data in tables 2 and 3 that relatively few public-school teachers who spend long enough periods in graduate work to secure doctor's degrees do actually obtain them. Considering only those of the senior high school group who reported 3 or more than 3 years spent in graduate work, only one-seventh reported having doctors' degrees. The fraction is probably even smaller than one-seventh because in some institutions it is possible to obtain a doctors' degree in 2 years of graduate work, although it is not usually done in less than 2½ or 3 years.

The small percentage of senior high school teachers who earned doctor's degrees is not a reflection upon their ability to do so as much as it is upon their failure to plan their graduate work with the doctor's degree as one of the possible results. Oftentimes graduate work is taken during service as a teacher and the courses taken are determined upon such bases as: Immediate help in connection with a teaching problem; immediate bearing upon a course then being taught by the graduate student; an interesting or well-known instructor; a convenient hour; and other such reasons. Granting that

such work is of professional value to most of the teachers who take it (as reported in pt. VI, vol. V), it could in many cases have been planned and organized so that it would have had most of the values actually obtained from the unrelated courses and also could have satisfied the course requirements for a doctor's degree.

These statements should not be interpreted to mean that 3 years spent in graduate work without earning a doctor's degree are necessarily less valuable than if the degree were earned. There are many instances in which the reverse is true. For example, a teacher may change or want to change the nature of his work and use 1 or more years of graduate work in getting ready to do that new work as professionally as possible, or it may be more valuable for a certain teacher to obtain the points of view of two or three faculty groups than to stay longer in one institution and meet the requirements for a doctor's degree in that institution. On the other hand, there are many teachers who are deeply interested in teaching but who do not care to do the research or investigation which has been required. This objection is being met in part by the development of new degrees for which the emphasis is more strongly professional. (See pt. VI, vol. III.) Allowance must also be made for that group of teachers who are giving satisfaction as teachers and whose service will be improved by periods of graduate work but who do not have the specific abilities usually required to earn a doctor's degree.

Nevertheless, if more public-school teachers in any of the groups could so plan their graduate work that it would result in a larger proportion of earned doctor's degrees it is highly probable that the result would be a general upgrading of the teachers on the lower levels of educational preparation, a more scholarly and systematic preparation for the teachers with the doctor's degrees, an enriched teaching service, and a decided increase in the professional status of teaching and in the respect accorded teachers. It is readily admitted that the possession of a doctor's degree does not necessarily indicate adequate preparation for teaching. It indicates the amount of preparation but the quality of the preparation depends upon the nature of the work done and its professional appropriateness.

SECTION 3. HIGHEST LEVEL OF TRAINING OF NEGRO TEACHERS

Need for a special study of Negro teachers.—According to the 1930 United States census nearly a tenth (11,891,143) of the total population were Negroes. More than a tenth of the children of school age were Negroes. A large majority of the Negroes in the United States live in the District of Columbia and the 16 States

in which separate school systems are maintained for white and Negro children. The National Survey of the Education of Teachers gathered its personnel data about the public-school teachers of the United States by means of a data sheet (Inquiry No. 1—previously described) to be answered by the teachers, supervisors, and administrative officers in the public-school system. Replies were received from 13,569 Negro teachers in 44 States. If these replies had been incorporated with the 463,141 replies received they would have had little effect upon the total picture because of the very great disparity in the size of the groups. There were only a few groups in which the number of Negroes was large enough to justify a separate tabulation. In all the tables where the Negro teachers were not reported separately there were no opportunities for discovering the points of greatest need in the training of Negro teachers.

It was therefore decided to make a separate study of the problems connected with the education of Negro teachers and since the problems connected with the standards for Negro teachers are more acute in the States in which separate school systems are maintained for Negroes and since more than 86 percent of the replies from Negroes were from those States it was decided to confine the study of Negro teachers to the District of Columbia and the States of Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. The results of that separate study were reported in volume IV of the final Survey report.¹ Only enough of the data on the highest level of training of Negro teachers will be included here to indicate more clearly the special teacher education needs of this large and important group. Because the number of replies received from Negro teachers was relatively small (as a result of failures in the methods of distributing the blanks and failures to answer and return them) it was not possible to make all of the studies for Negro teachers that were made for white teachers nor was it possible to use in all cases the same divisions of the groups. Furthermore, it is probable that selective elements entered more strongly among the Negro teachers than among the white teachers so that the data obtained from the 11,574 Negro teachers who returned the blanks probably present a picture which is better than would have been obtained if a larger percentage of returns had been received.

The highest level of training of Negro elementary teachers, 1930-31.—The data on the highest level of training of Negro elementary teachers were obtained on the same form as the data for

¹ Callver, Ambrose. Education of Negro Teachers. National Survey of the Education of Teachers. U. S. Office of Education, Bulletin 1933, no. 40. Government Printing Office, Washington, 1933.

white teachers. (See p. 36.) For purposes of comparison with other studies the levels of training were tabulated in different groups from those used for white teachers. A summary of the replies on the highest level of training of Negro elementary and high-school teachers for 1930-31 is given in table 4.

TABLE 4.—Highest level of training reported by Negro elementary and secondary teachers¹ distributed according to the percentage in communities of different sizes, 1930-31

NEGRO ELEMENTARY TEACHERS²

Highest level of training	Size of community					Total
	Open-country schools	Villages less than 2,500 population	Cities 2,500 to 9,999	Cities 10,000 to 99,999	Cities of more than 100,000	
1	2	3	4	5	6	7
4 years of high school or less.....	34.8	22.5	16.4	10.9	6.8	22.8
6 weeks to 2 years of college.....	51.2	59.6	59.4	58.5	59.7	54.7
3 to 4 years of college.....	12.2	17.4	22.8	30.7	31.4	20.7
1 year or more of graduate work.....	.8	.5	.4	1.9	2.1	1.1
Total number involved.....	2,672	1,261	701	1,266	1,913	8,808

NEGRO HIGH-SCHOOL TEACHERS³

4 years of high school or less.....	20.2	3.1	3.9	3.0	0.7	3.6
6 weeks to 2 years of college.....	22.1	17.6	22.0	12.7	10.6	15.3
3 to 4 years of college.....	44.9	74.2	67.8	76.8	70.8	70.5
1 year or more of graduate work.....	2.8	5.0	6.3	7.5	17.8	10.6
Total number involved.....	109	159	205	400	545	1,418

¹ Because of the limited number of replies received from Negro teachers in junior high schools that group was included with the senior high school teachers.

² Adapted from table 3, vol. IV, National Survey of the Education of Teachers, p. 11.

³ Part of table 18, vol. IV, National Survey of the Education of Teachers, p. 33.

Some of the conditions revealed by the percentages of Negro elementary teachers with various amounts of educational preparation in communities of different sizes indicate an urgent need for some corrective measures. More than a fifth (22.5 percent) of the total Negro elementary group had only 4 years of high-school education or less as preparation for teaching. Because the picture presented by these data is better than that which actually existed, it is probably true that between a fourth and a third of the Negro elementary teachers in the United States in 1930-31 did not have more than a high-school education. The open-country schools had the largest percentages of the teachers with the least education while the larger cities had the larger percentages of the teachers with 3 or more years of college work.

Comparison with white elementary teachers.—The sharpest difference in the training for Negro elementary teachers and for white elementary teachers in 1930-31 was in the much larger percentage of

Negro teachers at the low end of the distribution with 4 years of high-school education or less. The reported percentages were 22.5 for Negroes and 5.7 for white elementary teachers. If allowance is made for the selective elements, it is probably not an overstatement to say that the percentage of Negro elementary teachers with no more than high-school education was five times as great as the percentage of white elementary teachers.

In contrast to this difference are the percentages of both groups of elementary teachers with 3 or more years of college work—27.6 for white elementary teachers and 21.8 for Negro elementary teachers. The percentages of elementary teachers with 1 or more years of graduate work were also quite comparable. These comparisons are also shown in figure 3.

Highest levels of training of Negro high-school teachers.—The highest levels of training for Negro high-school teachers are shown in table 4 for four levels. As was true for Negro elementary teachers, the most significant fact shown by these data is that nearly a fifth (18.9 percent) of the high-school teachers had had 2 years or less of college work in preparation for teaching. When to these teachers are added those in the next group with 3 years of college work the fraction becomes more than a fourth of the Negro high-school teachers with less than 4 years of college work. The tendency to employ more of the teachers with 4 years or less of high-school education to teach in high schools was most marked in the open-country high schools where a fifth of the Negro high-school teachers had had no more educational preparation than the students they were teaching. There was also a noticeable tendency for the larger cities to employ more of the high-school teachers with some graduate work.

Comparison with white high-school teachers.—The differences between the educational preparation of Negro and white high-school teachers in 1930-31 were smaller than in the case of elementary teachers. As was true for elementary teachers, the most significant differences were at both extremes. The percentage of Negro high-school teachers with 2 years of college work or less was larger (18.9 to 6.9) and the percentage with 1 or more years of graduate work was smaller (10.6 to 2.9) than for white high-school teachers. The differences would be slightly less than those indicated if the white junior high school teachers were included in the percentages for white teachers. The data in table 4 show that the educational preparation of Negro teachers would be greatly improved and would compare more favorably with that of white teachers if the situation revealed in 1930-31 could be changed in two ways. There should first be a determined drive to eliminate, either by replacement or

upgrading, most of the teachers at the low end of the distribution—those whose educational preparation is so obviously inadequate. In the second place, constant encouragement should be offered to the more capable of the Negro teachers with bachelor's degrees to add 1 or more years of graduate work to their professional equipment.

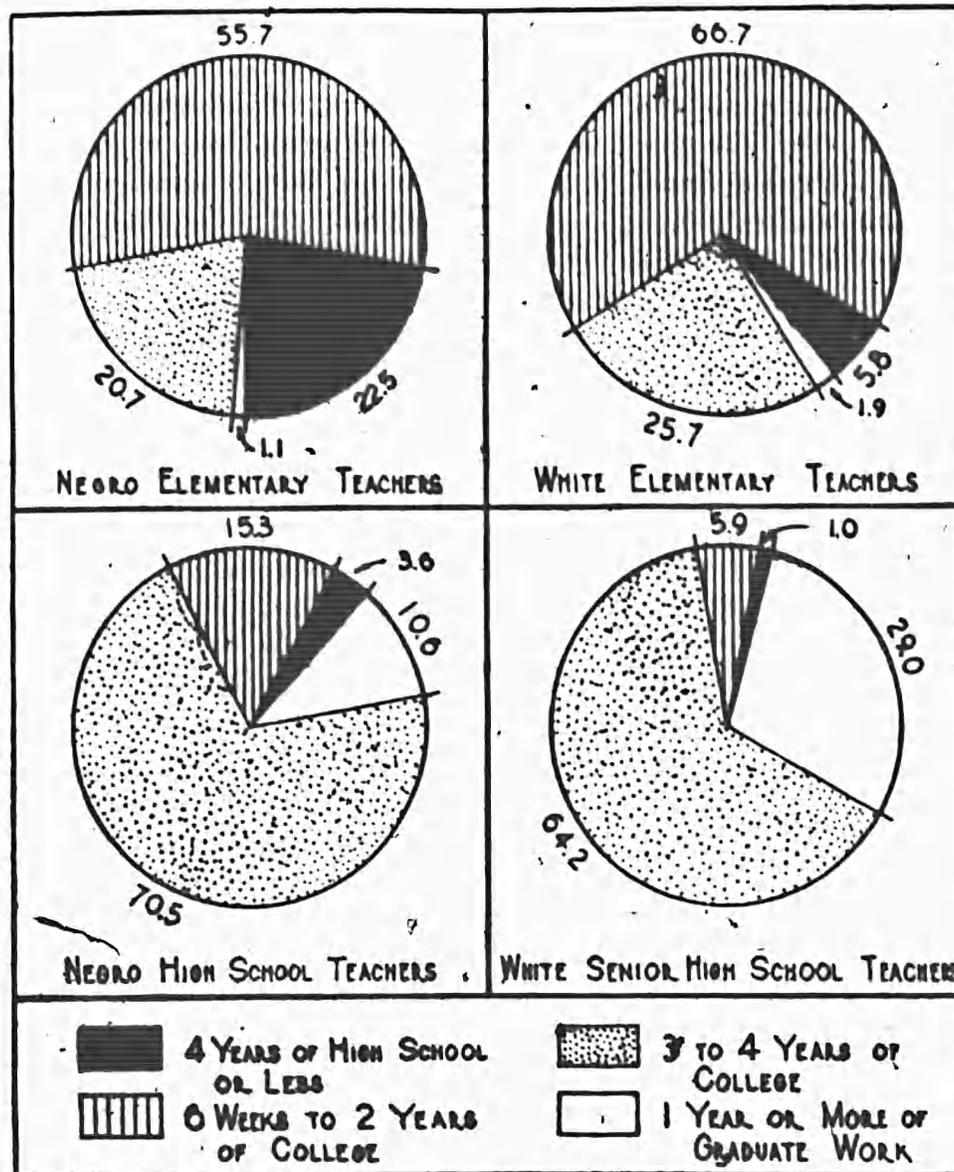


FIGURE 8.—Highest level of training of white and Negro elementary and high-school teachers in the United States, 1920-31. (Data for white teachers from table 2, p. 42; data for Negro teachers from table 4, p. 53).

A year's upgrading obtained by these two groups would present a very different percentage picture. The diagrams in figure 3 will assist in appreciating the differences between the two groups.

Degrees held by Negro teachers.—Data reported on degrees held by Negro teachers are given in volume IV of the Survey Report, pages 14 and 32. Eight and seven-tenths percent of the Negro ele-

mentary teachers reported in 1930-31 that they held bachelor's degrees. This compares very favorably with the 10 percent of white elementary teachers who reported having bachelor's degrees. Among the Negro high-school teachers 69.3 percent had earned bachelor's degrees but only 4.3 percent had master's degrees. These figures are comparable to 76.5 percent and 12.9 percent for white high-school teachers. Ten and six-tenths percent of the Negro high-school teachers reported in 1930-31 that they had had 1 or more years of graduate work and yet only 4.3 percent reported having master's degrees. The low percentage who had completed the requirements for an advanced degree may be due to the loss of some credit because of undergraduate deficiencies which had to be "made up" during the graduate year and thus delayed the master's degree.

The data on the amount of education of Negro teachers presented in volume IV and in this section show that Negro teachers did not have as much education in preparation for teaching as did corresponding groups of white teachers. They also show that those responsible for the development of teacher-education programs for Negro teachers should give immediate attention to increasing the amount of educational preparation which will be accepted as the minimum for admission to teaching in the elementary and in the secondary schools.

SECTION 4. COMPARISONS WITH EUROPEAN PRACTICES

Value of such comparisons.—Since the days of Horace Mann there has always been a controversy over the value to American educators of a knowledge of the educational practices in other countries. One hundred years ago, in 1834, a communication appeared in the January number of *American Annals of Education and Instruction* under the topic "Prussian Schools" which showed that this controversy not only existed then, but that it provoked both arguments and emotion.

Mr. Eppros: Why say, *almost ashamed*, when you look at the Prussian common schools? For my part, I do not believe it any crime for an American to blush. If not an evidence of virtue, I would take that glow of shame as the precursor of reform, in whatever may be wrong,—of completeness, wherever there may be defect. A face of brass is an ill omen, as well in the Republic as the individual. Vanity is as fatal to getting and keeping right, when it is the "esprit de corps", as when it is the spirit of the man. "Seest thou a man wise in his own conceit?—there is more hope of a fool than of him."

Yes, sir, if you can make the people—the sovereign people—The Republic—see and feel that they are *exalted* in the very matter of their self-glorying, *the education of the people*, by one of the old European dynasties—by an *absolute monarchy*—you will do something effectual in the cause you serve—you will soon have something worthy to be recorded in the "Annals"—you will have triumphed over *self-conceit*, the grand hindrance to all our good designs. I know not how much more power for good the *republic* may have than the

monarchy; but this I am sure of, self-conceit must *peisy* that power. The proverb may be safely varied, admitting the monarchy to be the poorest of all institutions. *Seest thou a republic wise in its own conceit?*—There is more hope of a fool than of IT.

One reason why I value the "Annals" is because it brings us wisdom from abroad. It is not all on our side the water.

— T. T. —

The discussion of 1834 was in part provoked because certain educational leaders in the United States were proposing plans for the education of teachers by the States. That same year New York appropriated money for the first time for the education of teachers in the academies and 5 years later the first State-supported normal school was established in Massachusetts. During the century of educational progress from that day to this, educational reforms and adjustments have been introduced in the United States as a result of educational practices or theories originating in Europe. Volume V, part I, of the final Survey report indicates several of these influences in the field of the education of teachers.⁹ No student of comparative education believes that the educational practices of one country can be adopted by another country without taking into account the many differences which exist between the two countries—the policy should be one of adaptation rather than adoption. There have been, ~~are~~, and must continue to be, many elements in the educational development of one country which contain helpful suggestions for the educators of other countries. Many such suggestions have been obtained from the United States as well as received by us as is evidenced by the influence of our school systems upon China, Russia, Turkey, Iraq, and other countries.

In order to make available a brief and recent description of programs for the education of teachers in Europe a study was made of present practices in the education of teachers in England, France, Germany, and Sweden.¹⁰ A few of the findings from that investigation which bear upon the question under discussion, namely, the amount of educational preparation of teachers in the elementary and secondary schools will be given for purposes of comparison.

AMOUNT OF EDUCATION OF TEACHERS IN ENGLAND

The amount of education of elementary teachers in England.—In England, as in the United States, the elementary teachers have

⁹ Mangun, Vernon L. *The American normal school—its rise and development in Massachusetts.* Warwick & York, Inc. 1928. p. 39.

¹⁰ Frazier, Ben W. *History of the professional education of teachers in the United States.* National Survey of the Education of Teachers vol. V, pt. I. U.S. Office of Education, Bulletin 1933, no. 10.

¹¹ Alexander, Thomas; Carr, John W., and others. *The training of teachers in Europe.* National Survey of the Education of Teachers, vol. V, pt. VIII. U.S. Office of Education, Bulletin 1933, no. 10. Quoted statements not otherwise acknowledged in this section are from pt. VIII, vol. V.

less educational preparation than do the secondary teachers, and those with the least education are more frequently found in the rural and village schools. About 75 percent of the elementary teachers in England are certificated teachers. "Although in the past certificates have been granted without any requirement as to previous preparation, the present policy is to require at least 2 years of training of a college standard before the examination for the certificate can be taken. 'Uncertificated' teachers usually have at least a secondary education, although there still exists a small group of 'supplementary' teachers whose only qualifications are age, physical fitness, and approval by inspectors." This would show a condition quite comparable to that in the United States so far as the education of the teachers now in service is concerned.

In terms of present standards, however, the new elementary teachers in England probably will begin teaching with more educational preparation than will the elementary teachers in the United States. Elementary teachers in England are now being prepared either in the training colleges in which the courses are 2 or 3 years in length or in the training departments of the universities which offer a year of professional education after the prospective teacher has earned a university degree. Those elementary teachers who prepare for teaching in the second type of institution have a preservice education which is about equivalent to a master's degree. There is an increasing tendency for elementary teachers in England to prepare in the university training departments.

The amount of education of secondary teachers in England.—The secondary teachers of England, with the exception of those who graduate from the honors courses, are not as well educated as those of the other European countries studied. Nevertheless they have a more substantial preparation than elementary teachers and as a group are as well or better educated than our high-school teachers. Three-fourths of the high-school teachers in England are university graduates. Counting those who took "honors courses" and those who had a graduate year's work in the university training department, it is probable that a large proportion of the three-fourths had an educational preparation which is the equivalent of a master's degree in the United States. So that while a smaller percent (75 instead of 87.1) had a college or university degree a much larger percent had the equivalent of 1 or more years of graduate work.

The present tendency in England is to put all teacher education on a university level. Scotland has already gone far toward reaching that goal.

AMOUNT OF EDUCATION OF TEACHERS IN FRANCE

The amount of education of elementary teachers in France.—The elementary teachers in France are prepared in the 176 State-controlled normal schools (88 for men and 88 for women). The courses in these normal schools are 3 years in length. Admission to the normal schools is determined by the candidate's ability to pass a selective examination (written and oral).

The total number of years spent in school by a prospective elementary teacher varies, since some are successful with the examination at the completion of the higher elementary schools. The typical preparation requires 10 or 11 years in the lower and higher elementary school, 3 years in the normal school and at least 2 years of probationary teaching under inspectors. In terms of years spent, the elementary teacher in France has about the equivalent of our junior college graduates, but because of the selective examinations at 4 or 5 points, the actual educational preparation of French elementary teachers is more nearly equal to that of the "4-years of college work" group in this country, a level of education which in 1930-31 had been attained by only an eighth of our elementary school teachers.

The amount of education of secondary teachers in France.—"The secondary school system of France is not superimposed upon the elementary school but runs parallel with it. The aim of secondary education is to train an intellectual *élite* for cultural, professional, and social leadership." The preparation of teachers for the secondary schools is therefore much more thorough and extensive than for teachers in the elementary schools and the emphasis is very largely upon the thorough mastery of one subject-matter field. A very high degree of selection is maintained by means of the extended period of preparation required and also by the series of difficult competitive examinations.

The typical preparation of a secondary teacher in France includes the following stages:

- (a) A 6-year period of general work in the lycée at the end of which the student takes the first half of the baccalaureate examination.
- (b) A seventh year in the lycée continuing the general education but also starting specialization and work in psychology, logic, ethics, and metaphysics. At the end of this year the second part of the baccalaureate examination is taken. About 30 or 40 percent of the students pass this examination. It is usually attained at the age of 18 or 19. Some prospective secondary teachers remain in the lycée 2 or 3 years for further study before entering the competition of the university work, or before attempting the examination for entrance to the *École normale supérieure*.

- (c) A minimum of 2 years' work in the university studying for licence d'enseignement which is the minimum requirement for entering the profession of secondary teaching. The licence "has been likened to the American master's degree, but the standards are considerably higher. The examinations are strongly selective as is shown by the fact that less than half of those attempting the examinations are able to pass."
- (d) A third year of university work for those who wish to attain the highest rank in secondary teaching—the agrégation—in order to get the diplôme d'études supérieures. To obtain the diplôme the candidate continues his specialization, must write an acceptable thesis and, if he has not had teaching experience, take the stage pédagogique—a short course in educational theory, observation and practice.
- (e) A final competitive examination for the agrégation in which only the more capable of these candidates succeed and qualify for full professorships in the lycée.

If the preparation necessary to secure the license in France is considered the equivalent of that required by the master's degree in this country, then less than 25 percent of the senior high school teachers in the United States in 1930-31 had the equivalent of the minimum educational preparation for secondary teachers in France. (Twenty-nine percent reported 1 or more years of graduate work, but only 15.5 percent reported masters' degrees.) If the comparison is made with the preparation required for the agrégation, the difference is even more pronounced.

Fully as much time, effort, and ability are required in preparation for the agrégation as are required to earn the doctor's degree in this country, and probably more, though the work for the doctor's degree emphasizes research more than that for the agrégation. A comparison of maximum preparation for secondary teachers may be made by recalling that in 1930-31 only 2.9 percent of the senior high school teachers in the United States reported "3 or more than 3 years of graduate work" and that less than half of 1 percent reported the possession of a doctor's degree.

AMOUNT OF EDUCATION OF TEACHERS IN GERMANY

The amount of education of elementary teachers in Germany.— One of the most important of the many educational changes which have been made in Germany since the World War has been the steady improvement in the educational and professional status of the teachers in the elementary schools (Volkschulen). With variations among the different States there are two general patterns followed by prospective elementary teachers. Both are based upon a thorough education in the Gymnasium of 9 years and the successful passing of an "extensive leaving examination or Reifeprüfung which must be passed to enter training at the university level."

The first and most approved pattern is by way of the universities for teacher training (Hochschulen für Lehrerbildung) which have recently been developed in Prussia under the Hitler government. The prospective elementary teacher takes a 2-year course in one of these institutions, passes a first State examination, serves as a probationary teacher for 1 or 2 years with continued training under supervisory officials and then passes a second State examination—highly professional in nature. "Under most favorable circumstances the candidate cannot hope to receive permanent appointment before the age of 24 or 25."

The second pattern usually calls for a 3-year course at a pedagogical institute (school of education), either a part of, or affiliated with, a university. The State examinations and the probationary period of in-service training are the same as for the graduates of the universities for teacher training.

If, with the more rigid selection of candidates, the 13 years in the Volksschule (4) and in the Gymnasium (9) carry the prospective elementary teacher to an educational level comparable to the completion of the junior college in this country, then the 2-year or 3-year course beyond that and the 2-year period of probation with continued in-service preparation would carry elementary teachers in Germany to a point beyond the level of "4 years of college work." In 1930-31 only 1.9 percent of the elementary teachers in the United States reported more than 4 years of college work.

The amount of education of secondary teachers in Germany.—
"One of the main aims of secondary education in Germany is to give an intensive academic training to a select group of capable young people; hence the preparation given teachers of the secondary school provides a standard of academic training which is equaled in few countries and excelled in none."

The elementary and secondary education of prospective secondary teachers in Germany is the same as just described for elementary teachers. The period of study and specialization (usually in a major and two minors) in the university extends over 8 to 12 semesters. "The work for the doctor's degree—including the customary university examinations and the printed thesis—is usually completed before the State examination is attempted." After passing the first State examination (Staatsprüfung) dealing with academic materials the candidate spends 2 years in a seminar located in a secondary school. During that time he observes and practices under supervision and continues his study for the second State examination dealing with professional preparation.

The present standard for the amount of education expected of secondary teachers in Germany is, therefore, a doctor's degree plus

a period of supervised internship or practice. The senior high school teachers in the United States in 1930-31, as was previously stated, reported 2.9 percent with 3 or more years of graduate work and only 0.4 percent with doctor's degrees. The comparison is helped but little if the faculties of the junior colleges are added to the senior high school groups. Less than 1 percent of the members of the combined groups had doctors' degrees in 1930-31.

AMOUNT OF EDUCATION OF TEACHERS IN SWEDEN

The amount of education of elementary teachers in Sweden.—Sweden trains teachers for the elementary schools in two types of institutions: First, instructors for the primary grades—the first 2 years of the elementary school and for certain types of small schools—are trained in an institution offering a 2-year course, the primary normal school; and, second, teachers for the elementary grades above the second year are prepared in teachers colleges which offer 4 years of training.

The primary normal schools “constitute the weakest element in the Swedish system of teacher training.” The course is 2 years in length and is based upon a varied amount of preparation extending from the completion of the elementary school to graduation from the gymnasium, an amount of schooling varying from 8 to 12 or more years. Admission depends upon the results of a state examination.

The teachers colleges admit students from the upper fourth of those who pass the state entrance examination. These colleges provide a 4-year course.

“At the end of the period of training candidates must pass a final examination which is under the joint supervision of the institution and the central board of education. Graduates must be at least 21 years of age before they can enter the highest classification (ordinaire), which entitles them to permanent appointment.”

Comparisons between the amount of education of elementary teachers in Sweden and in the United States are difficult because entrance to the professional schools is based upon results of an entrance examination instead of the completion of a fixed number of years of work in elementary and secondary schools. It has been estimated that the graduates of the primary normal schools correspond to the teachers in the United States who are prepared in the training classes of the high schools and in the county normal schools and that the graduates of the teachers colleges in Sweden are comparable to the graduates of the normal schools and teachers colleges in this country. Since there may be a difference of more than 2 years in the amount of education a prospective elementary teacher

in Sweden may have at entrance to a teachers college that range in amount would equal the difference between the 2-year normal-school course and the 4-year teachers-college course. Because of the selection at entrance and at the close of the course, the graduates of the Swedish teachers colleges are probably more comparable in their mastery of subject matter to the graduates of teachers colleges in the United States than to the graduates of normal schools.

American elementary teachers compare more favorably in the extent of their education with the elementary teachers of Sweden than with those of other countries.

Amount of education of secondary teachers in Sweden.—As is true in most of the European countries, the secondary teachers in Sweden are a much more highly educated group of people than are the elementary teachers. Prospective secondary teachers are educated in the universities (now coeducational) and in the Higher Teachers College for Women at Stockholm.

Candidates must be graduates of a gymnasium and must pass the student examen, which is highly selective on the subject-matter side.

The courses vary in length according to the university degrees obtained (Filosofie Kandidat, 3 to 4 years; Filosofie Magister, 4 to 5 years; Filosofie Licentiat, 7 to 8 years; and Filosofie Doktor, 8 to 9 years).

“After completing the courses the prospective teacher spends a year of practice teaching (provår) and then spends 2 additional probational years before permanent appointment. The master teacher (lektor) in Sweden usually waits 4 or 5 years after completing his preparation before he receives permanent appointment at an age which varies from 31 to 37 years.”

If, as claimed, the prospective secondary teachers in Sweden who have completed the gymnasium and passed the entrance examination have an education equivalent to the completion of the junior college in the United States then the lowest level at which a secondary teacher may enter secondary teaching in Sweden (Filosofie Magister with the rank of assistant master) would be the equivalent of 2 or 3 years of graduate work in this country. This does not include the year of practice teaching which is a definite part of the professional preparation. In 1930-31 only 8.8 percent of American senior high school teachers reported 2 or more years of graduate work. If the comparison is made with the preparation of the master teachers (lektors), with what would equal 6 or 7 years of graduate work, the only basis which can be used is the 1.4 percent of the senior high school teachers who in 1930-31 reported more than 3 years of graduate work.

DIFFERENCES IN THE AMOUNT OF EDUCATION OF TEACHERS IN THE UNITED STATES AND FOUR EUROPEAN COUNTRIES

Higher professional status of teaching in Europe.—There is little doubt that teaching and teachers stand in higher repute in most of the European countries, and especially in the four studied, than is true in the United States, even though the people of this country believe more strongly in the desirability of universal education. One explanation which has been advanced is that the general attitude toward teachers and the work of teaching in European countries has been set by the better-prepared teachers in the secondary schools and the traditional association of the secondary schools with the upper and more privileged classes, whereas the standards in the United States have been more fundamentally influenced by the elementary schools. There are several other explanations for the increased prestige of teachers in European countries which are discussed in volume V, part VIII, chapter I, and will be merely mentioned here. Overpopulation and increased numbers of university graduates have intensified competition for desirable positions and made possible a continued increase in standards. Teaching has also been made attractive to capable persons by means of very secure tenure, economic security at a level which permits a standard of living comparable to other professional groups, high social prestige, and a consciousness of performing a patriotic service.

As a result of these and other factors teaching is certainly more entitled to be called a profession in the four countries studied than in the United States.

Present standards for elementary teachers.—In comparing present standards for the amount of education required of elementary teachers in the United States and in the countries studied it appears that, with the exception of Sweden, the elementary teachers in the other three countries are now expected to have as much preservice education as is required in the States of the United States in which the standards are highest and more than is generally accepted as necessary in the majority of States.

Present standards for secondary teachers.—The standards for the amount of time spent in pre-service education of secondary teachers in England are the only ones in the four countries studied which can in any sense be called comparable to those of the United States. In value and quality of work done the English secondary teachers with honors degrees have a preparation equivalent to at least a master's degree in the United States. In the other three countries, France, Germany, and Sweden, the teachers in the secondary schools have much more educational preparation before beginning to teach than have secondary teachers in this country. In fact, the secondary teach-

era in those countries possess such thorough and extensive educational preparation that they may well be compared on that item with the faculties of our better staffed colleges and universities.

There has been during the decade just past a tendency in some of the European countries to decrease the difference in the amount of pre-service education required of elementary and secondary teachers by increasing the amount for elementary teachers. This educational change has undoubtedly been influenced by political changes which have enhanced the position of the common people.

A difference between standards in the amount of education for elementary and secondary teachers has developed also in the United States, even without the class distinctions of the older countries. In this country the problem of raising the standards of educational preparation for public-school teachers to a point where they will compare favorably with those of Europe has four phases. In the first place the distinction between standards for elementary and secondary teachers must be removed. In the second place the level of education required for all new teachers must be raised. In the third place all teachers with inadequate preparation must be upgraded. In the fourth place teaching must be made socially, economically, and professionally attractive enough to make the first three phases possible.

SECTION 5. RECOMMENDATIONS FOR INCREASING THE AMOUNT OF EDUCATIONAL PREPARATION OF AMERICAN TEACHERS

It is one thing to know that a certain educational practice is unsatisfactory and should be changed; it is another thing to know what should be done to improve it; and still another thing to get the improvement made. An educational reform, like all reforms affecting a group, must start with the realization on the part of that group that the practice under consideration is failing to do what is expected of it. This realization must be sharp enough to arouse a determination to make some change in the practice. Following these initial steps it is necessary to discover the elements of the practice that should be changed, what the changes should be, in what order they should be made, and the best methods by which to effect them.

The data gathered by the Survey on the amount of educational preparation of American teachers and the discussions in this chapter and in the other volumes of the report have contributed to the first two steps—a realization that the situation is unsatisfactory and the determination that something should be done to better it. The data have also indicated in many instances the elements most in need of reform, and, directly or by implication, some of the changes which

should be made and the methods by which to make them. In order to bring some of these reform steps into sharper relief some recommendations are being proposed which the Survey staff believes will improve present standards and facilitate the general improvement of the American public schools. Unless otherwise specified it is understood that the proposed changes would be initiated, organized, and controlled by the regularly constituted educational authorities of the several States and that the necessary modifications would be made by each State to fit existing legal, educational, social, and financial conditions.

Most of these recommendations are for immediate action (by law or by State board regulations).—

1. The amount of educational preparation required of all new teachers should equal or exceed the present generally accepted minimum standards of 2 years of college work beyond the completion of a standard high school for teachers in the elementary and rural schools and 4 years of college work for teachers in the secondary schools. Every State which has not already accepted these or higher standards should officially designate them as the minimum amount of pre-service educational preparation which will be accepted for certification of teachers and at the same time should set a date in the near future when the goal of a minimum of 4 or more years above high school for elementary teachers will also be enforced. The nearness of that date to the present should be determined in each State by its general educational and economic conditions and by the present level of the educational preparation of its teachers and the amount of upgrading needed.

The American school system is one continuous system rather than two parallel systems as are found in some of the European countries. It is arranged in a variety of administrative patterns, but in each one the work of the elementary grades serves, in a very real sense, as the foundation for the work of the secondary schools. Not only does it serve as a foundation, but in the work presented and in the quality of the presentation it determines the range and quality of the work which may be done in the secondary schools. Since the quality of the work in the elementary schools depends largely upon the educational and professional preparation of the teachers it is important that elementary teachers be as well prepared as possible. There is no reason to believe that elementary teachers whose educational preparation is equal to that of secondary teachers (though different in content) cannot render as valuable service to education and to American social progress as that of the secondary teachers. It is, therefore, recommended that as rapidly as possible the States

approach the ideal of having all public-school teachers meet the same standard for the amount of pre-service education. This ideal will, of course, have to be realized gradually and at different rates for the several States. Two steps can be taken immediately.

- (a) All high-school training classes, county normal schools, and 1-year curricula in other institutions preparing teachers should be discontinued.
 - (b) State certification laws or regulations should be amended to specify dates by which new teachers in the different groups shall be expected to meet a standard which is one step nearer to the goal of equality in preparation for all groups. These amendments should affect rural, elementary, junior, and senior high-school teachers. This recommendation refers to equivalence in the amount and quality of the educational preparation, but does not imply identity of content.
2. Besides making sure that all new teachers have the desired minimum of educational preparation it is equally necessary to provide that all teachers now in service shall, by a fixed date, meet the same minimum requirements. Exceptions should be made for those teachers who will reach the retirement age within 4 or 5 years of the date fixed. As was proposed for new teachers, the nearness of the date to the present should be determined by each State in terms of its needs and abilities.
- (a) Temporary or short-term teachers' certificates issued to individuals with less than the minimum amount of education should not be renewed. Teachers holding such certificates should be required to meet the standards set for new teachers before being recertificated.
 - (b) State, county, and city school systems should adopt one or more of the administrative procedures which will make it possible for teachers in service, whose education is below the approved standard, to upgrade themselves without such undue hardships—physical, financial, or professional—as will interfere with the effectiveness of their work. Devices which can be used to accomplish this purpose are: Sabbatical leaves of absence; relief from non-teaching duties while working for an advanced diploma or degree; employing relief and substitute teachers who carry part or all of the teacher's work while he is securing additional preparation; use of cadet teachers to provide selected teachers with time for advanced study; and salary increments for additional preparation.

8. In the States and cities in which separate schools are maintained for Negroes equal standards should be approved for the education of Negro teachers as are accepted for the education of white teachers. This means equivalence in the amount and quality of the work, but not necessarily identity of content for areas in which present conditions differ for the two races.

(a) Immediate attention should be given to the replacement or upgrading of the large group of Negro elementary teachers (22.5 percent) with no more than a high-school education.

(b) Immediate provision should also be made for the in-service upgrading of Negro elementary and secondary teachers whose educational preparation is less than the minimum standards of at least 2 years of college work for elementary and 4 years for secondary teachers.

4. State programs for the equalization of educational opportunities and for the more equitable distribution of the burden of the support of public education should include the teacher's preparation as one of the elements in the basic formula upon which such programs are based.

Such programs should provide for the following results, so far as the amount of professional preparation of teachers is concerned:

(a) A closer approximation to equality of salaries, equipment, and working conditions between rural and urban positions in order that the rural and village schools may secure teachers with the same amount of educational preparation as those in the cities.

(b) The consolidation, wherever feasible, of the small educational units (especially the rural schools) into larger units in order that better prepared teachers may be attracted and retained. As at present organized the rural schools (1- and 2-teacher schools in the open country) have by far the largest proportion of the young inexperienced teachers with less than the approved minimum of educational preparation.

5. Wherever satisfactory provisions for security of tenure, adequate salaries, and retirement allowances have not been made these elements should be introduced into State and city programs in order that their effect upon the permanency of teaching as a profession may be utilized in raising standards.

6. Provision for the upgrading of teachers in service should not be concerned entirely with the removal of the group of teachers at the low end of the distribution of educational preparation.

Encouragement to secure additional educational equipment should be given to all teachers in service even if they have met the accepted minimum standards. Upgrading which affects the entire group makes progress much more rapid than when only the lowest part of the group is affected.

7. States should sponsor programs to inform school-board members as to the possibilities, during periods of financial depression, of increasing standards for the educational preparation of teachers without increasing costs and in some instances even with decreased costs. Many such opportunities have been lost because the employing officials were not aware that the few dollars saved by employing poorly educated teachers were but a transitory and a pitifully insignificant reward for relinquishing some hard-earned educational gains and for pushing their schools backward instead of forward.
8. Even though the responsibility for programs for the education of teachers rests with the individual States, a Nation-wide effort should be made to reduce the inter-State differences in standards for the education of teachers. Greater uniformity in quantitative standards is desirable because of the increasing migration of families from one State to another and also because of the desirability of raising the educational level of the citizens in the States with the lowest educational standards.
 - (a) Some of the differences may be removed or diminished if State departments of education will maintain more definitely formulated "approved lists" of States whose certificates will be accepted, listing the certificates of each State that will be accepted and under what conditions. The development and yearly revision of such lists would do much to acquaint each State with its relative standing among the States in its immediate area and the other States of the Nation.
 - (b) Variations among States will also be reduced if those responsible for the development of teacher-education programs and for the certification of teachers in the several States will cooperate with the professional and regional accrediting and standardizing agencies in their efforts to raise standards for teachers. All such agencies serve a wider area than a single State and are therefore more sensitive to inter-State differences.
 - (c) Whenever Federal funds are made available to the several States for purposes of equalizing educational opportunities and the burden of supporting those opportunities, a portion of the funds should be set aside for equalizing

the educational preparation of the teachers. The portion of the fund set aside for this purpose should be so distributed that it will serve two purposes: First, to assist States to bring the education of all their teachers up to the generally approved minimum standard; and, second to encourage States to employ teachers with more than the minimum amount of educational preparation. The funds distributed for the second purpose should be enough more per teacher to remove any incentive to continue receiving funds for the first purpose any longer than is absolutely necessary.

9. Those persons in each State who are primarily responsible for the teacher-education program of that State should initiate and promote systematic campaigns to increase the public's understanding of the place of the teacher in the public schools and the desirability of having teachers as well prepared as those rendering other professional services. Such campaigns will almost certainly result in higher standards for teachers and in greatly increased public confidence in and respect for teachers. This increased prestige of teachers will be an important factor in encouraging more of the very capable young men and women to take the necessary time to secure a more nearly adequate educational background before beginning a teaching career. This has been a very potent factor in raising and maintaining high standards for teachers in European countries.

These campaigns to inform the public concerning the desirability of increasing the amount of educational preparation of teachers should include data upon such phases as:

- (a) Amount of education possessed by teachers in other countries.
- (b) Amount of preservice education required of teachers in the States and cities of the United States in which the highest standards prevail.
- (c) The desirability of having larger percentages of teachers, especially high-school teachers, with more education on the graduate level. Junior colleges in the United States have accepted the master's degree as the minimum amount of preparation for their teachers. The same standard should soon be accepted for high-school teachers.
- (d) The desirability of a higher degree of specialization in the fields of instruction in the secondary schools and the realization that such specialization would result in increased numbers of doctor's degrees.

- (e) The professional value of increasing the standards for selection to the teaching profession in order that the increased amount of education may be obtained by teachers with increased ability to use it profitably for the improvement of education.
- (f) The ultimate gains to be obtained from selecting the teachers with the most educational preparation when the other elements in their qualifications are equal and the ultimate losses from encouraging competitive bidding for positions and from selecting teachers upon bases other than professional qualifications.
- (g) The desirability of providing for those who have chosen teaching as a career, working conditions which will encourage them to remain for longer continuous periods in the same position. This would involve the development of favorable attitudes toward such practices as: Equal salaries for teachers with equal preparation and experience in elementary and secondary schools, and in rural and urban schools; more nearly equal salaries for persons with equal amounts of educational preparation and experience who serve as teachers or supervisors or administrators; salary differentials for any positions requiring more extensive or more difficult preparation than other positions in the same school and similar practices which would tend to encourage capable persons to prepare fully for a specific type of work and to plan to make that work a life career instead of changing to another type of work whenever a slight salary increase could thereby be obtained.

Other proposals could be added to this list which would assist in raising the level of educational preparation of American teachers. They appear to be more appropriate, however, in connection with the problems presented in subsequent chapters, a fact which gives occasion to repeat the observation that most of the larger problems connected with the education of teachers are complex and interrelated. Therefore the proposals just made should be considered in the light of the proposals made for the solution of the other large problems presented in this volume.

CHAPTER III
MAKING THE PREPARATION OF TEACHERS
MORE PROFESSIONAL

INTRODUCTION

If a teacher knows a subject can he teach it?

Can he teach it with equal success to children of different age groups?

Is a public-school teacher expected to be well informed in fields in which he does not teach?

Does the relative value of methods and teaching techniques vary with the length of the teacher's preservice education?

Should the curriculum for teachers be largely prescribed or should elective privileges be allowed?

Is the public-school teacher expected to be a leader in his community in activities other than educational?

How can the effectiveness of different methods of educating teachers be determined?

What new methods are being used to prepare teachers for the public schools?

These are but a few of the scores of similar questions which are constantly arising whenever the problems of educating teachers are under consideration. This chapter will give a description of the professional elements in the education of teachers and ways in which those elements may be made more effective. It is probably wise, at the beginning of the discussion, to bring up the question which is raised more frequently than any other, namely, "Are there any distinctive elements in the education of a teacher which are not found in the education of any well-educated person?" This question in various guises is asked frequently by uninformed persons, by taxpayers intent upon reducing taxes, by enthusiastic teachers who are anxious to have as much of the student's time as possible, and by a few others not yet convinced that the science and art of teaching have developed to a degree which justifies including professional elements in the prospective teacher's preservice education.

Even though the question is raised frequently there is little doubt in the minds of most citizens and none in the minds of most teachers

that a teacher does need to know something about the place of the school in society, the nature of the children being taught, the difficulties in learning the different subjects, the most effective methods of presenting certain information or of developing certain skills, the standards of accomplishment which should be expected, the methods of adjusting school work to individual needs and similar information which is distinct from the knowledge of the specific subject taught. Given the chance to choose between a teacher who knows those professional matters and one who does not—other things being equal—there would never be any doubt as to the selection. The question is, therefore, not whether a teacher should have special preparation for his work but instead, what he should have, how much he should have, and when he should have it. Too frequently the question is put in a form which confuses the issue as when some biased enthusiast states, "If I had to choose between a teacher who has a scholarly knowledge of his subject but has had no instruction in how to teach it and one who has a thorough knowledge of how to teach his subject but does not know his subject, I'd choose the first." Of course, the only answer needed on such an occasion is, "Who wouldn't?" If the issue is put as a choice between all subject matter or all method there can be only one answer if for no other reason than that it is impossible effectively to study and master methods of teaching a subject without a knowledge of the subject matter to be taught. Fortunately the choice does not have to be between the extreme points of this issue. If a straight line represents at one of its extremities "all subject matter and no methods", at the other, "no subject matter and all methods" and the points between the extremities proportional blends of subject matter and methods the solution of this issue can be at any one of the infinite number of points which make up the line. There is little doubt in the minds of most students of the problems of educating teachers that the solution should be at a point distinctly toward the subject-matter end of the line.

The preceding chapter presented the importance of having the amount of education of American public-school teachers increased. There has been so much justified criticism of the lack of scholarship on the part of our teachers that the need for more educational preparation for all teachers cannot be questioned by anyone who studies the data gathered regarding the highest level of training of the teachers in the different school divisions. *Because they were discussed in chapter II the need for and the desirability of a scholarly mastery of the subjects to be taught by a teacher are taken for granted in the discussions of this chapter which will be concerned with the more distinctly professional phases of the teacher's work.*

As explained in chapter I, in determining the scope of the Survey it was necessary to select a few of the many important and controversial issues for investigation. The selected few have been reported upon in more or less detail in the five preceding volumes of the report. A number of the Survey studies included one or more phases of the question to which this chapter is devoted. At this point it is again necessary to select. If reference were made to all the studies which touched the professional elements in the teacher's education this chapter would be prohibitively long and confusing in its mass of details. To avoid these two undesirable results the Survey findings which bear upon a teacher's professional education will be reviewed as they assist in the interpretation of eight major issues:

1. The relationship of general and professional education in the preparation of teachers.
2. The number and distribution of the "professional elements" in the education of teachers.
3. Election versus prescription in the education of teachers.
4. The relation of the professional preservice education to the inservice education of teachers.
5. Some other conditioning factors in the professional education of teachers.
6. The professional education of rural teachers.
7. The professional education of Negro teachers.
8. Comparative practices in the professional education of teachers.

Each of these will be discussed in terms of its more important professional issues. In this way it is hoped to present most effectively the Survey findings and proposals related to the major problem of improving the professional education of American teachers.

SECTION 1. THE RELATIONSHIP OF GENERAL AND PROFESSIONAL EDUCATION IN THE PREPARATION OF TEACHERS

The principal issues involved.—The question of the relative importance of the distinctly professional elements in the preparation of teachers has appeared regularly in our educational literature during the past hundred years. It has been the subject of much discussion and many debates, especially among those responsible in any way for the education, employment, or supervision of teachers. Probably no question affects so many phases of a teacher's education. Because this question involves so many variables no generally satisfactory answer has been developed. The data assembled by the Survey on this question, while they do not suggest its answer, do help to bring some phases of the question more clearly into perspective and show their interrelations with other phases of the education of teachers.

Three phases of the teacher's education.—The question discussed in this section may be thought of as having three principal variables—general cultural education, specialized material to be taught, and the distinctly professional elements concerned only with the work of the teacher.

The place of general education in the preparation of teachers is relative and cannot be determined without considering the nature and amount of the other two variables. Everyone admits that the teacher should be a well-informed, cultured person; that he should have a scholarly mastery of the subject matter he is to teach, and that he should have an understanding of the educative process and a mastery of the necessary teaching skills appropriate to his field of work and to the age of the students taught. There would be much less discussion of the relative amount of each of these three kinds of equipment for the teacher if the period of preparation were extended so that the professional education could be added after the general and cultural education had been obtained. When, however, as is now the case, all three phases of the teacher's equipment must be obtained during a period of 2, 3, or 4 years of undergraduate study (the period frequently associated with the acquisition of general cultural education) the competition for time becomes more intense and the question of how the available time is to be distributed becomes very important. The question is further complicated in this country by the fact that there is no commonly accepted amount of education which represents the minimum for general education. Some maintain that the completion of a standard high-school course should represent the end of general education and the beginning of special and professional education. Others insist that the dividing line should be the close of the junior college, which would be comparable to the end of secondary education in Europe. Still others insist that it should be the completion of a 4-year college education. Law, medicine, and the ministry have raised their standards until, in the better schools, the professional work is largely in graduate schools. Although the preparation for secondary teaching in most of the European countries is on a graduate level, the upgrading process will have to continue for some time in this country before proposals to raise the professional preparation of teachers to the graduate level will be taken seriously. Until that time arrives, the prospective teacher's undergraduate years will have to carry the responsibility of providing for all three phases of his preparation. Naturally, under such conditions any solution accepted must represent a compromise since, in a given period of time, it is not possible to do as thorough work in any one of the three phases as could be done if the entire period were devoted to but one of the three phases.

COLLEGES AND UNIVERSITIES IN THE EDUCATION OF TEACHERS

There is a rather widespread feeling on the part of many leaders in the field of the education of teachers that there has been a sharp distinction between the teacher-training practices of the normal schools and teachers colleges on the one hand and the colleges and universities on the other. The former were supposed to be giving major emphasis to the distinctly professional phases of a teacher's education to the serious neglect of the general informational and cultural phases, while the colleges and universities were supposed to emphasize those phases to the serious neglect of the professional elements. The findings of the National Survey of the Education of Teachers provided some valuable data upon the extent and nature of the differences which exist between these two groups of institutions.

Extent to which colleges and universities educate teachers.—In 1930-31 there were in the United States approximately 1,000 institutions of higher education (exclusive of State and municipal normal schools and teachers colleges) which, if not definitely preparing teachers, offered courses enabling their graduates to obtain teacher's certificates. Of the "new" teachers in 1930-31 who were in attendance at institutions of higher education the preceding year, one-third of the elementary, seven-tenths of the junior high school, and four-fifths of the senior high school teachers were attending junior colleges, colleges, and universities. The sum of these fractions represents nearly half of the "new" teachers recruited that year from all higher institutions. Of course, these proportions differ greatly among the States, but they do show that the education of public-school teachers is not the unique responsibility of any one type of institution. It is also evident that any institution or group of institutions, large numbers of the graduates of which enter teaching, must give serious consideration to the problems of educating teachers even though their names and traditions would seem to remove them from the responsibilities of professional schools. Survey findings, as well as those from other studies, indicate that nearly half (46 percent) of the graduates of representative colleges and universities entered some form of educational work. This means that a large majority of the institutions in this group had more of their graduates enter teaching than any other field of work, and in nearly half of the institutions more graduates entered teaching than entered all other fields of work combined.

The number of students involved, without any regard to the importance of the work they are to do, makes it imperative that every effort be made to prepare these prospective teachers as well as possible in the time available.

The number of teachers prepared in colleges and universities makes it apparent that any proposals for improving the amount or quality of preparation of American teachers must consider the curricula for teachers which are offered in these institutions.

This conclusion is extremely significant in two of the larger problems in the education of teachers, namely, the professional nature of the teacher's preparation and the adjustment of teacher supply and demand. The first of these is discussed in this chapter and the second will be presented in chapter IV.

PATTERNS FOR THE EDUCATION OF TEACHERS

Similarity among types of institutions.—Not only did the Survey reveal that the colleges and universities prepared nearly half of the "new" teachers recruited in 1930-31 from institutions of higher education but also that there was much similarity in their programs for the education of teachers. There was wider variation among institutions within any group than existed between any two groups. The similarity was found in the form or pattern of the entire curriculum for teachers as well as in the content of the courses. A few illustrations will make this evident. In the study of the curricula of teachers colleges and of colleges and universities as presented in the catalogs, the plan of having majors and minors was used in both groups. The median amount of work required for the major in the teachers colleges was 26 semester-hours with a range from 2 to 89 semester-hours. Among the colleges and universities the median was 25 semester-hours for the academic subjects and the range was from 15 to 80 semester-hours.

Among the teachers colleges the median amount of work in education and psychology was 16 semester-hours, in special methods 4, and in practice teaching 7—a total of 27 semester-hours. Among the colleges and universities the median amount of work in all education and psychology courses for the academic majors was 18 semester-hours and in special methods and practice teaching 6—a total of 24 semester-hours.

One hundred percent of the teachers colleges required work in education and psychology and in practice teaching, while 97 percent of the colleges and universities required work in education and psychology and 81 percent in practice teaching.

The general impression was obtained that the teachers colleges had adopted and adapted the major and minor form of organization, as well as many of the courses and sequences of courses of the liberal arts colleges, and that in turn the liberal arts colleges had taken over the more traditional pattern in education, psychology, and practice teaching of the teachers colleges.

General differences among types of institutions.—Even though, as just stated, there are marked similarities among the several groups of institutions in their programs for the education of teachers, there are, nevertheless, some respects in which differences were found frequently enough to indicate that they are typical of the groups and not due to institutional variation. Reference to three or four of these differences at this point will assist in understanding the remainder of this chapter.

The first is the difference in homogeneity of the student body. In the normal schools and teachers colleges a large majority of the students expect to enter teaching as a permanent career, while this is much less true of the students of the liberal arts colleges in which many are expecting to become lawyers, doctors, ministers, engineers, business men, journalists, housewives, nurses, salesmen, skilled workmen, or to enter other occupations into which college-trained persons go. The immediate effect of this difference is that the diversity of occupational interests among the students causes the instructors to make the material of instruction more general and prevents the professional concentration which is possible in an institution in which all the students are preparing for the same field of work.

A second difference is in the greater emphasis placed upon the development of actual teaching skills in the normal schools and teachers colleges as compared with the colleges and universities. This was shown by the different provisions made for practice teaching and in the amounts of practice teaching required of prospective teachers. In general, the normal schools and teachers colleges required practice teaching of all students, while about a fourth of the colleges and universities did not require it of prospective teachers. The normal schools and teachers colleges required one or two more semester-hours of practice teaching than did the colleges and universities.

A third difference is in the attitude toward teachers and teaching on the part of the faculty members of the normal schools and teachers colleges when compared with the attitude of faculty members of colleges and universities. This was ascertained in several ways and will be discussed in greater detail at a later point. It is sufficient at this time to say that the faculty members of the normal schools and teachers colleges considered the preparation of teachers as the primary aim of the institution while the faculty members of the colleges and universities considered the acquisition of knowledge as the primary aim.

With regard to these and other differences, however, the conclusion must be repeated that the differences among institutions in ~~any~~ group were greater than the differences between the groups.

Effect of beginning point in the curriculum pattern.—There has been much discussion of the value and content of curricula of different lengths, and it is obvious that more can be done in the preparation of a teacher in a 2-year curriculum than is possible in 1 year. It is equally obvious, although less frequently recognized, that more can be done in the preparation of a teacher in a 2-year curriculum which follows completion of the junior college than can be done in a 2-year curriculum which follows completion of the high school. The complexity of the problem may be indicated by listing some of the curriculum patterns which may be found in this country each demanding a different treatment.

1. A 1-year curriculum for teachers given: (a) In the last year of a high-school course; (b) as a post-high school or fifth year of a high-school course; (c) in a county normal school; (d) in a normal school, teachers college, college, or university; or (e) in a graduate school.
2. A 2-year curriculum for teachers given: (a) In the first 2 years of a normal school or teachers college; (b) in a junior college; (c) in the first 2 years of a college or university; (d) in the last 2 undergraduate years of a teachers college, college, or university; (e) in a graduate school.
3. A 3-year curriculum for teachers given: (a) In a normal school, teachers college, college, or university; (b) as a 2-year curriculum during the first 2 years of college followed by a period of teaching and then a third year of preparation; (c) as a continuous 3-year course following the completion of the junior college; (d) as a 2-year curriculum during the last 2 undergraduate years followed by a period of teaching and then by a year of graduate specialization; or (e) entirely on the graduate level.
4. A 4-year curriculum for teachers given: (a) as a continuous curriculum in a teachers college, college, or university; or (b) as a 2-year curriculum during the last 2 years of the undergraduate period followed by teaching experience and then by 2 years of further work on the graduate level.
5. A 5-year curriculum for teachers given: (a) as a 4-year curriculum during the undergraduate years and followed either immediately or after teaching experience by 1 year in the graduate school; (b) as a 2-year curriculum during the last 2 undergraduate years followed by 3 years of graduate study which may be taken as a continuous period or which may follow some teaching experience or which may be interrupted one or more times by teaching experience.

These are but a few of the possible combinations of general and professional education and experience which must be recognized, at least so far as individual cases are concerned, no two of which

require the same courses or the same content. A further illustration of the difficulties involved can be shown by the case of the teacher who has completed a 2-year course for elementary teachers and decides after several years of teaching experience to complete the work for his bachelor's degree. In order to be prepared for teaching at the close of the 2-year period he had to take the required courses in education, psychology, and practice teaching and to omit certain subject-matter courses which he would have studied had he taken the 4-year curriculum. When he returns should he as an experienced teacher with junior standing register for freshman subject-matter courses which he missed and, if so, should he be in the same classes as the freshmen? What responsibilities should he have for further work in the training school and in technical courses in education and psychology? These questions and the many others which arise in such a case are all made more complicated if the teacher, after his experience in the elementary school, should decide he wished to prepare to teach some subject in a high school. This is not an unreal case. Such cases have occurred frequently and it is certain that, as the upgrading process for teachers continues, they will occur in increasing numbers.

Adjustment to the junior college.—In adjusting curricula to the needs of teachers, the problems which result from increasing the amount of preservice educational preparation and from the upgrading of the education of teachers in service are among the most important and most difficult now confronting those in charge of preparing curricula for teachers. Problems almost as complicated and equally pressing have arisen in connection with the rapid development of junior colleges in the United States. The Educational Directory of the United States Office of Education for 1935 lists 448 separately organized junior colleges. In addition to these there are the numerous cases in which the first 2 years of the curricula of colleges and universities are organized as more or less independent units on the pattern of the junior colleges so that the students finishing those 2 years of work present the same problems educationally as those who complete the work of the separate junior colleges. There are no available data to indicate the number of students who complete a junior college course or its equivalent as part of their educational preparation. It is without doubt a large and increasing number.

The problems which this situation presents in the education of teachers are such as these:

Since the generally accepted level of preservice educational preparation is still only 2 years above the completion of high school, should junior colleges be expected or permitted to prepare teachers and, if so, under what conditions?

Should the junior college work be considered as the completion of the prospective teacher's general education and should professional work begin with the third year in college?

Should any professional courses be given during the junior college period for students expecting to become teachers?

If the professional preparation of a teacher is to begin at the completion of the junior college, should the professional curriculum be 2 or 3 years in length? If 3 years, should the 3 years be consecutive or should there be a period of teaching between the second and third years, i. e., between the completion of the undergraduate course and the beginning of graduate work?

If a prospective teacher knows at the close of high school that he intends to become a teacher, would it be better for him to go 4 years to a professional school or 2 years to a junior college and then 2 years to a professional school?

The complexity of the problems in the adjustment of the teacher's general and professional preparation and in the adjustment of professional curricula to the junior college is indicated in figure 4, which shows some of the possible ways that a prospective teacher may spend 4 years in preservice education.

GGGGG	GGGGG	GGGGG	OOOOO		
GGGGG	GGGGG	GGGGG	TTTTT		
GGGGG	GGGGG	OOOOO	OOOOO		
GGGGG	GGGGG	TTTTT	TTTTT		
OOOOO	OOOOO	GGGGG	GGGGG		
OOOOO	OOOOO	TTTTT	TTTTT		
TTTTT	TTTTT	GGGGG	GGGGG		
TTTTT	TTTTT	OOOOO	OOOOO		
OOOOO	OOOOO	OOOOO	OOOOO		
TTTTT	TTTTT	TTTTT	TTTTT		
OOOOO	OOOOO	XXXXX	GGGGG	GGGGG	
OOOOO	OOOOO	XXXXX	TTTTT	TTTTT	
TTTTT	TTTTT	XXXXX	GGGGG	GGGGG	
TTTTT	TTTTT	XXXXX	OOOOO	OOOOO	
OOOOO	OOOOO	XXXXX	OOOOO	OOOOO	
TTTTT	TTTTT	XXXXX	TTTTT	TTTTT	
OOOOO	OOOOO	XXXXX	GGGGG	XXXXX	GGGGG
OOOOO	OOOOO	XXXXX	TTTTT	XXXXX	TTTTT
TTTTT	TTTTT	XXXXX	GGGGG	XXXXX	GGGGG
TTTTT	TTTTT	XXXXX	OOOOO	XXXXX	OOOOO
OOOOO	OOOOO	XXXXX	OOOOO	XXXXX	OOOOO
TTTTT	TTTTT	XXXXX	TTTTT	XXXXX	TTTTT

Code:
 GGGGG—a year of general education.
 TTTTT—a year of technical professional preparation.
 OOOOO—a year of combined general and professional preparation.
 XXXXX—1 or more years of teaching experience.

FIGURE 4.—Some of the general curriculum patterns for teachers who spend 4 years beyond the high school in preparation for teaching.

There was a general impression among those working with the problems of the place of the junior college in the education of teachers that its contribution should be to raise the level of the initial or beginning point for the prospective teacher's professional preparation and that junior colleges should not attempt to prepare teachers even on the 2-year level.

The effect of curriculum patterns upon subject sequences.—There are a number of prescribed sequences in most curricula for teachers. In general, these are of three kinds.

The first is within a subject-matter field in which the work of one course is necessary for the mastery or understanding of another. Examples of such sequences are: First-year French and second-year French; algebra and calculus; physiology and health education.

The second is the service or supplementary sequence in which the content of one course aids in the study of another course or saves time and unnecessary duplication in the presentation of the second course. Examples of such service sequences are: English composition and short-story writing; psychology and the techniques of teaching; measurement and educational statistics; and courses for teachers in the several subject-matter fields, classroom management, and practice teaching.

The third kind of sequence is in the method of presentation in a series of courses in any field in order to throw increasing responsibility upon the initiative of the student. Such sequences are designed to offer a constantly increasing challenge to the student's intellectual curiosity and to develop his ability to study independently. An example would be a series of three courses in any field, in the first of which the student would attend lectures and be examined upon assigned readings, in the second have a term paper or report to prepare, and in the third be allowed to participate in an honors or reading course in which he would take almost complete control of his study program.

These sequences all involve the element of time, although some require no more time than 2 consecutive terms or semesters. The second and third kinds require more time and must therefore be given more attention in arranging the general patterns for curricula for the education of teachers. For example, if psychology is to present material which will be used by the instructors of all of the professional subject-matter courses and if these in turn are to be given in any sequence—between the time at which the psychology course is taken and the beginning of practice teaching—a period of at least 3 years is required. Even with 3 years available and if the psychology can be taken in the first semester of the first year there are only 3

semesters between that course and a practice teaching assignment in the first semester of the third year. This is one of the strong arguments for the introduction of some of the professional courses in the first year of a 4-year curriculum for teachers and for a 3-year professional curriculum extending through 1 year of graduate work if the junior college years are devoted entirely to general education.

CONTACTS WITH THE MAJOR FIELDS OF KNOWLEDGE FOR TEACHERS

A teacher's need of general information.—A teacher needs to be a well-informed person for a number of reasons. He must merit recognition among the informed persons in his community if he is to be among the leaders of that community. He needs a breadth of information and interests if he is to work understandingly on educational issues with the variety of persons who make up a school community. He needs a variety of intellectual interests as the basis for his recreational reading. He also needs a wide scholarly knowledge of as many fields as possible in order that what he teaches may be accurate, interesting, and productive of a desire to learn more about it.

One measure of a teacher's general information is the number of years spent in educational preparation—it being generally conceded that the more years spent in study the better informed the individual. Another measure of a teacher's general education is the number of the larger fields of organized knowledge in which he has had systematic courses. Thus while it is agreed that a college graduate will generally be a better-informed person than a high-school graduate, it is not at all certain that two college graduates will be equally well informed even if they are equal in ability and intellectual industry. One may be highly specialized in his preparation and know very little outside of his own field, while the other may be less highly specialized and more widely informed in a number of fields.

High-school teachers require a specialized knowledge of the field in which they teach and elementary teachers require a less highly specialized knowledge, but of more fields. Both high-school and elementary teachers need as much general information as it is possible to acquire in the time devoted to their professional preparation, if for no other reason than that it supplements and enriches their teaching. This is especially true for the elementary teachers, for whom much of the material acquired in obtaining a general education is usable in one or more of the elementary-school subjects.

Contacts with the principal fields of knowledge.—In the curriculum studies conducted by the National Survey of the Education

of Teachers (see vol. III, pts. II and III) several checks were made to ascertain the extent of the teacher's general knowledge. The most effective of these was the analysis of the permanent record cards of approximately 4,000 graduates of teachers colleges, colleges, and universities who in 1931-32 prepared for teaching. The cards gave a record of what each student took in high school and the specific courses taken in college. This is a more accurate picture than catalog prescriptions or suggested curricula. Every effort was made to secure an adequate sampling of the prospective teachers majoring in the principal fields of instruction. These records were from institutions selected as representing better practices in the education of teachers; hence, whatever conditions are revealed, it is safe to assume that conditions throughout the country are certainly not any better.

The extent of the contacts with the major fields by prospective teachers not majoring in those fields is shown in table 5 for 20 teachers colleges and 24 colleges and universities. The percentages in table 5 give a composite picture of the informational background of prospective teachers as measured by the courses taken in high school and college. In the light of present conditions, with the increased amount of enforced leisure, it is very significant that only about a third of the teachers from teachers colleges, colleges, and universities in 1931-32 had had work in fine arts, either in high school or in college. The proportions of prospective teachers who had had work either in high school or in college in some of the other subjects were as follows: About a fourth in commercial education, a fourth in home economics, an eighth in industrial arts, about a third in music, two-fifths in economics, three-fifths in political science, and one-half in sociology. These are all fields in which teachers need to be well informed—fields destined to become increasingly important in the creative use of leisure time for increasing numbers of persons.

Contacts with related fields of knowledge.—The transcript of student records were also analyzed to ascertain the extent to which the students majoring in certain fields took courses in related fields as well as in the larger fields of general knowledge.

TABLE 5.—The extent of nonspecialized contacts with the principal fields of knowledge made by 1,000 prospective teachers from 24 universities and colleges and by 1,000 prospective teachers from 20 teachers colleges

Field	20 teachers colleges					24 colleges and universities ¹			
	Number of graduates out of 1,000 who did not major in field	Percent who took course in high school	Percent who took course in college	Average number of credits taken by those who contacted the field in—		Number of graduates out of 1,000 who did not major in field	Percent who took course	Average number of credits taken by those who contacted the field	
				High school	College				
	1	2	3	4	5	6	7	8	9
Agriculture.....	1,000	20	10	8.0	6.5	984	9	9.5	
Art.....	990	13	30	8.1	5.7	965	37	5.2	
Commercial education.....	921	43	23	12.5	6.5	975	25	8.9	
English.....	810	100	99	30.1	16.7	780	100	45.7	
Foreign language:									
Classical.....	967	71	12	19.5	11.2	986	86	34.1	
Modern.....	973	64	47	17.0	12.0	953	92	22.2	
Home economics.....	998	86	19	11.8	5.4	937	26	10.3	
Industrial arts.....	998	13	15	12.0	6.7	1,000	13	9.4	
Library science.....						1,000	4	2.3	
Mathematics.....	928	99	47	22.2	7.3	932	100	25.3	
Music.....	990	27	51	7.5	5.5	943	30	5.9	
Philosophy.....	1,000	1	13	8.0	7.7	1,000	33	5.0	
General psychology.....	998	8	23	4.6	2.8	1,000	74	5.8	
Religion.....	1,000	3	9	6.0	5.9	1,000	32	6.2	
Biological science.....	976	63	80	6.1	6.7	967	62	12.8	
General science.....	946	33	11	7.6	9.6	927	50	8.5	
Physical science.....	970	73	33	9.7	6.0	960	88	14.7	
Geography.....	1,000	20	34	6.5	5.1	961	25	6.2	
History.....	932	98	84	12.9	5.6	825	100	22.1	
Economics.....	1,000	24	41	5.0	4.4	986	44	6.3	
Political science.....	1,000	68	36	5.9	12.5	961	57	6.2	
Sociology.....	1,000	18	49	4.7	7.0	961	84	6.7	
Education and educational psychology.....	998	8	100	9.2	7.1	988	100	12.7	
Special methods.....	998	1	78	7.7	3.8	888	74	4.9	
Student teaching.....	998	1	90	5.0	4.1	888	74	4.5	
Miscellaneous.....	1,000					1,000	53	9.4	

¹High-school and college contacts combined.

NOTE.—This table should be read as follows: Of the 1,000 prospective teachers from the 20 teachers colleges whose record cards were analyzed none majored in agriculture, 20 percent took courses in agriculture in high school, and 10 percent in college. The average number of credits taken in high school was 8 and in college 6.5. Of the 1,000 prospective teachers from the 24 colleges and universities 984 did not major in agriculture and of those 9 percent took courses in agriculture (either in high school or college) for an average of 9.5 credits.

Forty-eight prospective teachers of fine arts, a sampling from 20 teachers colleges taken in 1931-32, showed that only 27 percent had had any college courses in commercial education, 40 percent in home economics, 40 percent in industrial arts, 25 percent in mathematics, 19 percent in economics, 46 percent in sociology, and 4 percent in philosophy. These are all fields in which art is used or in which material is presented of supplementary value to the teacher of fine arts besides being subjects which contain information of value to all teachers regardless of the field of specialization. The extent of contacts made by 80 prospective teachers of fine arts graduating from colleges and universities in 1931-32 was even less than that just described.

Ninety-three prospective teachers of commercial education who graduated in 1932 had had college courses as follows: 2 percent in agriculture, 37 percent in art, 36 percent in modern language, 19 percent in home economics, 7 percent in industrial arts, 68 percent in geography, 57 percent in political science, 55 percent in sociology, and 30 percent in psychology. These are also fields which are closely related to commercial education or with which every teacher should have some contact. As was true with the teachers of art, the contacts of commercial teachers with other fields were no better in the colleges and universities than in the teachers colleges.

Patterns of contacts with related and general fields for the other special subjects—agriculture, home economics, industrial arts, and music—were quite similar to those for art and commercial education. There was also no distinctive difference between the teachers colleges and the colleges and universities.

The picture is no brighter when the more academic subjects such as mathematics, English, biology, and similar fields are studied. The transcripts of 96 prospective teachers, majoring in mathematics, who graduated in 1932 from 24 selected colleges and universities showed that only 16 percent had had any college work in art, none in commercial education, 1 percent in home economics, 3 percent in industrial arts, 27 percent in music, 49 percent in biology, 35 percent in economics, 36 percent in political science, 26 percent in sociology, and 43 percent in philosophy.

A similar analysis for 99 prospective teachers of chemistry from the same institutions showed that only 2 percent of them had had any college work in agriculture, 12 percent in art, 2 percent in commercial education, 8 percent in home economics, 4 percent in industrial arts, 10 percent in music, 38 percent in economics, 41 percent in political science, 38 percent in sociology, and 28 percent in philosophy.

The patterns for prospective teachers in chemistry and mathematics in the teachers colleges were equally irregular, as were also the patterns for most of the students majoring in the academic subjects in both groups of institutions. The conclusion may be drawn that prospective teachers from all types of institutions in 1931-32 had had a very limited contact with the principal fields of knowledge and also with fields closely related to the fields of major specialization.

Survey courses in the education of teachers.—Another measure of the extent of the prospective teacher's contact with general fields was obtained by studying the use of survey and orientation courses in normal schools and teachers colleges and in colleges and universities. Among the teachers colleges supplying information on their curriculum practices, 49 of the 145 claimed to have one or more orientation courses, defined as courses which cover large areas of human

knowledge. Educational issues were also included among those submitted to the teachers of representative courses in these institutions to ascertain the attitude of these teachers toward survey and orientation courses. In general, these instructors voted for about 10 percent of a 4-year program to be devoted to survey orientation courses and about 18 percent in addition devoted to the usual introductory courses, limited in scope to subjects designed for general informational values. The fields in which these instructors believed that orientation and survey courses could be most profitably given were history, English literature, English composition, sociology, health and hygiene, English speech, art, economics, general literature, general psychology.

Returns from the colleges and universities educating teachers indicated that 45 percent of the 301 institutions had introduced at least one orientation course. The reactions of the presidents of these institutions and the instructors of representative courses indicated an attitude favorable to the use of orientation courses to the extent of about 13 percent of the 4-year curriculum. The fields favored for orientation courses by more than half of this group were history, English literature, composition, sociology, economics, general literature, speech, philosophy, general psychology, and art. The general impression gained from the several survey studies was that this type of course was increasing in popularity for use in curricula for teachers.

LIBRARY FACILITIES AND THE EDUCATION OF TEACHERS

Another measure, although in some ways an indirect one, of the general as well as the professional education of teachers is the adequacy of the library facilities provided by the institutions in which teachers are prepared. The study of the library facilities of 50 teachers colleges, 6 normal schools, and 29 liberal arts colleges made by Dr. Douglas Waples and reported in part IV of volume V of the Survey report indicates that in general the library facilities of the normal schools and teachers colleges were distinctly inferior to those of the group of colleges with which the comparison was made. The statement is no less important when the reservation is made that the liberal arts colleges were older and better established than were the teachers colleges, because even if the colleges represented the best of their groups, which they certainly did not in all cases, the teachers colleges and normal schools should have that "best" as a goal.

Of 652 selected titles in Hilton's list of important reference books, the average number in the normal school and teachers-college libraries was 333 and in the liberal arts colleges 450. The only one of

the eight fields included in the list in which the teachers colleges had a larger average than the liberal arts colleges was in educational psychology and then by a mere 1.6 percent of the books listed in that subject.

The size of the library was naturally affected by the age of the institution. The average age of the liberal arts colleges was 100 years and of the teachers colleges 47 years. While the average age of the colleges was twice that of the 50 teachers colleges, the average number of volumes in the libraries was four times as large—107,096 to 27,719. This significant difference is partially explained by the fact that the average annual library expenditure per student in the liberal arts colleges was \$36.30 (range \$8.40 to \$92), while the average of the normal schools and teachers colleges was \$14 (range \$1 to \$25).

If these conditions are general—and it is believed that the data for the normal schools and teachers colleges are typical—it is evident that many institutions in which teachers are prepared are seriously handicapped in their attempts to provide prospective teachers with rich backgrounds of cultural information, or to develop in those prospective teachers habits of reading and independent study which will continue after college.

Another study conducted by Dr. Waples on the reading interests of teachers and prospective teachers shows that there is ground for concern over the reading habits of public-school teachers. This study, reported as part V, volume V, of the Survey report, investigated the degree to which teachers were interested in reading about various topics (60 were submitted) which dealt with "depression" and other topics of national and international interest as well as certain other topics frequently discussed in a group of American periodicals between July 1931 and January 1932.

When these 60 topics were arranged in the order of their greatest interest to women teachers the 6 most interesting were personal health, personal development, getting along with other people, interesting places in the United States, interesting places abroad, and travel and outdoor life. Among the lowest fifth of the 60 topics occurred the following: Economic and industrial planning, pacifists, conscientious objectors, stabilization of business, corruption in politics, and tariff problems of European countries.

The men teachers were slightly more interested in the "depression topics" than were the women teachers, although the difference was small.

The topics submitted to ascertain reading interests were also evaluated in terms of their social significance, and the extent to which teachers were interested in reading about socially significant topics was compared with the extent to which other groups—pro-

fessional and nonprofessional—were interested in those topics. The groups included were prospective teachers in teachers colleges and colleges and universities (men and women), men teachers (two groups), women teachers (four groups), doctors, lawyers, farmers (college graduates), salesmen (college graduates), housewives, business women, office clerks, stenographers, sales clerks, electricians, steam fitters, policemen, structural-iron workers, and domestics. The results of the comparisons are indicated in the following paragraph in the final report: "Taken as a whole, the foregoing evidence is far from encouraging. True, students in teachers colleges did not differ greatly from students in general in their attention to important social issues, but what inspires grave concern is the fact that students in general and important groups of teachers in particular were not much more intelligent than a cross section of the population at large. This condition must be changed before the schools can effectively oppose the drift of social inertia."

EXTRACURRICULAR ACTIVITIES IN THE EDUCATION OF TEACHERS

Value of extracurricular activities in the education of teachers.—It has long been recognized that not all of a person's education at college is obtained in the classroom, laboratories, and the library. The educational value of extracurricular activities is now so generally conceded that there is more discussion over the questions of whether they are extra and how best to regulate them than whether they belong in the college period. Many of these so-called "extracurricular activities" make no small contribution to the general information of the college man or woman and in a number of cases they supply fields of enjoyment and understanding which are so general as to serve as areas of common discourse. To be sure, most students know something about and may have some proficiency in such activities as baseball, football, tennis, basketball, golf, hockey, bridge, chess, and dancing before going to college, but they should have opportunity while there to increase their proficiency and understanding of these, under conditions which should raise standards for sportsmanship and recreation. This increased proficiency and understanding is certainly as important, if not more so, for prospective teachers as for other leaders. In order to ascertain the extent to which prospective teachers had opportunities for participating in the more common of the extracurricular activities and the extent to which they took advantage of these opportunities, data sheets were sent to all of the institutions of higher education cooperating with the Survey. The study by Ben W. Frazier and Walter Greenleaf, based on these reports, forms part III of volume V of the Survey report.

Athletic activities.—In 1932, 497 cooperating institutions indicated provision for intercollegiate sports as follows: 422 provided for basketball, 357 for tennis, 322 for football, 285 for track, 215 for baseball, 121 for golf, 85 for swimming, 66 for wrestling, 55 for rifle teams, 51 for boxing, 37 for hockey, 23 for volley ball, 12 for archery, 10 for crew, and 2 for bowling. Included in the above totals are the following number of institutions providing the activities on an intercollegiate basis for women: Archery 11, baseball 6, basketball 72, boxing 1, golf 4, hockey 17, rifle teams 7, swimming 8, tennis 73, track 15, and volley ball 7.

Basketball, tennis, football, track, and baseball are the only athletic events which are found on an intercollegiate basis in most of the institutions. For some of the other activities the equipment is too expensive for most institutions, while other activities do not provide the spectacular conditions needed for intercollegiate contests.

It is far more significant that these 497 institutions made much more nearly adequate provision for their programs of intramural sports. The most remarkable thing about the programs reported for intramural sports was the extent to which provision was made for women students to participate in the entire range of activities. In six of the activities—archery, basketball, hockey, swimming, tennis, and volley ball—more institutions made provision for women than for men. In contrast to the figures showing intercollegiate sports for women the following definite provision for intramural sports programs for women indicates the general attitude on this question: Archery 236, baseball 217, basketball 361, bowling 35, boxing 2, crew 7, football 5, golf 122, hockey 227, rifle teams 30, swimming 222, tennis 379, track 133, volley ball 268, and wrestling 5.

The reports submitted indicated that the whole program of physical education and recreation as well as the intercollegiate athletics were quite generally considered as part of the institution's program of instruction. The majority of coaches were regular members of the faculties.

There was also evidence to show that the programs of athletic extracurricular activities were similar among the different types of institutions. This was especially true as between the teachers colleges and the colleges and universities. The programs in the normal schools were neither so varied nor so generally provided as in teachers colleges or colleges and universities. This was due to the smaller proportion of men in the normal schools and the smaller number of students. This difference was not so noticeable in the programs for intramural sports. The conclusion is justified that prospective teachers in the normal schools and teachers colleges have opportunities for participation in the more common sports to approxi-

mately the same extent as do the students in other types of institutions. Two exceptions to this were found in the normal schools and junior colleges, in both of which groups the provisions for swimming and golf were distinctly less numerous than were those in the teachers colleges and colleges and universities.

There was no evidence to show that teachers as a group need be less proficient or less well-informed in matters of athletic sports as a result of their college experiences than other college-trained groups.

Nonathletic extracurricular activities in the education of teachers.—Four-fifths of the cooperating institutions held assemblies or chapel exercises once a week or oftener and more than half of them (54 percent) required attendance. A larger percentage of the teachers colleges held assemblies, and a larger percentage of denominational colleges required attendance than did other types of institutions. It also appeared very evident that the teachers colleges were more consciously using the assembly periods as educative agencies—both to promote a professional school spirit and to give students demonstrations and practice in the programming and organization of school assemblies. There was evidence of a tendency to have students assume charge of a proportion of the assembly periods.

In the institutional provisions for religious organizations, for dancing, dramatics, game rooms, and social parlors (for "dates") there was little significant difference among the types of institutions, except that a much smaller percentage of denominational colleges provided floors for dancing and a smaller percentage of normal schools provided social parlors.

Three sets of data were obtained for the institutions cooperating in this section of the Survey concerning the most frequently found extracurricular activities. The provisions made for each activity, the extent to which students participate in each activity, and the estimated value of each activity for teachers were reported in volume V, part III, for the different types of institutions.

The facilities provided in the largest proportion of the institutions were naturally for activities usually found and those which do not require costly extra equipment. The five for which provision was most frequently made were dramatics, school paper, religious organizations, debating and glee clubs.

In general, the number of students who participated in extracurricular activities was considerably smaller than the number who should have participated. For example, in 138 normal schools and teachers colleges reporting, there were only four activities in which three-fourths or more of those who should participate did so. Those were general associations, class organizations, men's intramural athletics, and women's intramural athletics.

Those reporting the data on extracurricular activities were asked to rate each type of activity in terms of its value to prospective teachers. The results of those estimates from the 138 normal schools and teachers colleges may be shown by the following arrangement of the 25 activities in the order of their estimated value: 1, intramural athletics for women; 2, student council; 3, chorus; 4, orchestra; 5, assemblies; 6, intramural athletics for men; 7, bands; 8.5, dramatics; 8.5, glee clubs; 10, paper; 11.5, debate; 11.5, honorary societies; 13, general associations; 14, class organizations; 15, subject-matter clubs; 16, religious organizations; 17, literary societies; 18, magazine; 19, dances, parties; 20, intercollegiate athletics (men); 21, annual; 22, social and miscellaneous clubs; 23, intercollegiate athletics for women; 24, sororities; and 25, fraternities.

On most of the items there was unexpectedly close agreement between those reporting for the normal schools and teachers colleges and those for the colleges and universities. The activities on which there was greatest disagreement were: Religious organizations, which the college and university group ranked first as against sixteenth; orchestra, ranked thirteenth instead of fourth; class organizations, twenty-fourth instead of fourteenth; student council, eighth instead of second; chorus, ninth instead of third; and magazine, eleventh instead of eighteenth. The denominational influence among the colleges and universities undoubtedly accounts for the greatest of these differences and direct usefulness in teaching for most of the others.

With these extracurricular activities as with athletics there seems to be no reason why teachers should be lacking in experience so far as opportunities to participate in them goes. If as a group they are lacking in these contacts, it is probably because institutions preparing teachers failed to emphasize the value of such activities.

Conclusion concerning the general education of teachers

Data collected by the National Survey of the Education of Teachers showed that teachers in the United States were generally deficient in the contacts made in high school and college with the larger fields of organized knowledge; in their contacts with the special fields, such as art and music which are certain to play an increasingly important part in their work as teachers as well as in their lives as individuals; in their reading interests and habits; and in their participation while in college in the extracurricular activities which as teachers they will be expected to stimulate, organize, and perhaps direct. In most respects these lacks are not the result of the failure of institutions of higher education to provide facilities, but are, instead, due to the failure of institutions to guide the prospective teachers among their students into these desirable experiences.

The present status of the general education of our teachers is not so much a failure of higher education as it is a failure to provide professional and vocational guidance for prospective teachers.

SECTION 2. THE AMOUNT AND DISTRIBUTION OF THE "PROFESSIONAL" ELEMENTS IN THE EDUCATION OF TEACHERS

Earlier in this chapter it was pointed out that the teacher's professional preparation consisted of three large types of equipment—general information, specialized knowledge of the specific fields to be taught, and technical equipment—a knowledge of education and psychology and skill in teaching. It is extremely difficult and perhaps undesirable to discuss even these large classifications separately as if they were mutually exclusive when it is readily admitted that the interrelations are numerous and intimate. In order to be able to give the increased emphasis to the component parts of each type of equipment which is possible in the separate treatments, the risk is run of giving a false impression of "separateness." Section 1 of this chapter has presented the discussion of the teacher's general education and certain aspects of his specialized knowledge of the subject to be taught, so far as the subject-matter part is concerned. This section will present the more "distinctly professional elements" primarily involved in the knowledge of the specific subject matter to be taught and the ways of teaching it—those elements which are needed by a teacher but not by a member of another profession or by a "well-educated man or woman."

General pattern for "professional" work.—In any curriculum for the education of teachers the technical or distinctly professional courses may be expected to furnish at least the following seven elements of professional equipment:

1. Professional orientation.—This should disclose to the prospective teacher the place of education in society, its relationship to other professions and the opportunities for service in the principal fields of educational work. This orientation must necessarily be given as early as possible because of its value in making the final choice of the professional curriculum to be followed.
2. Essential professional tools.—Those professional skills and concepts which are required by all teachers and which are frequently used in other courses for teachers should be included in professional "service" courses and given as early in the curriculum as possible.
3. A sympathetic understanding of the physical, mental, and social characteristics of the children or adults to be taught.
4. The essential teaching methods and techniques appropriate to the subject or grade which the teacher is preparing to teach.

5. A knowledge of the organization and management of class instruction in the types of school in which the teacher expects to be placed.
6. Opportunities for acquiring a "safety minimum of teaching skill" through observation, participation, and actual practice under supervision. This should be given late enough in the curriculum to enable the student to practice with as much of his entire equipment as possible.
7. Equipment of the individual teacher with an integrated (working) philosophy of education and teaching and the contributions which he may be expected to make in his field of work. This course should naturally come during the term or semester just before graduation.

There are, of course, other purposes to be served by courses in education and psychology, and all of these seven principal ones can be elaborated and supplemented, but the seven are presented as representing the minimum essentials of a teacher's professional preparation. It is probable that a majority of the institutions preparing teachers would claim that they provide for all of these professional elements. Since the study of the curricula for teachers showed that the direct provision for these elements varied from almost no formal course work to more than half of the entire curriculum, and since it is now generally conceded that for teachers professional preparation is not an unavoidable by-product of any collegiate education any more than it is for lawyers or physicians, it is hoped that the presentation of survey findings on present practices with respect to these seven elements will bring out the important issues more clearly and assist those responsible for the education of teachers in making desirable adjustments. Each of the seven types of professional equipment will be discussed separately, although, as will be pointed out, there is overlapping of the essential content.

PROFESSIONAL ORIENTATION OF TEACHERS

Attitude of faculties toward professional orientation courses.—Nine-tenths of the teachers of the most frequently given courses for teachers (representative courses) in the selected normal schools and teachers colleges either approved or approved with reservations the two proposals that prospective teachers should be introduced to current theories of education (93 percent) and that prospective teachers should be made intelligently critical of new theories of education (90 percent). The corresponding votes by the teachers of representative courses in the selected colleges and universities were 89 percent and 86 percent. These percentages indicate a very close agreement between the teachers in these two groups of institutions as to the

desirability of professional orientation. Both groups recommended that a proportion of the time be set aside for orientation courses for teachers. The agreement does not appear, however, in practice.

Orientation courses in education.—An analysis of the transcripts of courses taken by 1,457 prospective teachers in normal schools and teachers colleges in 1931-32 showed that more than three-fourths of them took general survey courses in education. The range of credits earned varied from less than a semester-hour to 16 semester-hours, but the medians for the several groups were around 3, 4, and 5 semester-hours, which indicates that most of the students took only one such course.

Among the normal schools and teachers colleges the general survey courses ranked third in point of the percentage of the students taking them. The only two taken by more students were general psychology and observation and practice teaching.

The situation among the colleges and universities was decidedly different. In the 10 most frequently prescribed courses for prospective secondary teachers in 57 selected colleges and universities "introduction to teaching" was tenth and was prescribed by only 26 percent of the institutions. In the analysis of a sampling of the transcripts courses taken by prospective secondary teachers graduating from those institutions in 1931-32 "introduction to teaching" ranked tenth among the students majoring in the academic subjects, being taken by 20 percent of them, and thirteenth among the students majoring in the special subjects, only 11.5 percent of whom took it.

According to these data fewer than a fifth of the prospective secondary teachers in the colleges and universities took a course designed to provide professional orientation, whereas such a course was taken by more than four times that proportion of students in the normal schools and teachers colleges.

EDUCATIONAL "SERVICE" COURSES FOR TEACHERS

Growth of education and psychology.—During the two decades just past the fields of education and psychology experienced very rapid development. Scientific procedures from other fields were applied to both education and psychology and a number of distinctive techniques and instruments for measurement and investigation were developed and widely used. Graduate schools of education grew rapidly. Fields were subdivided and specialization narrowed. The immediate result of this development has been a tremendous increase in the amount of technical information which public-school teachers are expected to know. For example, they are now expected, in addition to having more information in more teaching subjects, to know: Child psychology, the psychology of teaching and learning, the prin-

ciples of curriculum construction, the psychology of character formation, the use and interpretation of tests and scales, the educational statistics necessary to perform simple experiments and to read professional journals, the history and philosophy of education, and the potentialities and responsibilities of the teacher and the school with regard to the existing social order. Even to meet this partial list of expectations is a large order, the filling of which would require time—more time than has been added to teachers' curricula if there were no other claims on that time. The teacher cannot be expected to be a specialist in each of these fields, but he must know something about each of his responsibilities.

Development of educational "service courses."—Certain fields of information, including fundamental principles and techniques are so frequently used by teachers that they may very well be given in "service" courses early in the teacher's preparation in order to avoid the necessity of reteaching them in each of many courses in which they are used. This plan makes it possible to master them more effectively because they can be reinforced by their application in other fields. There are at least two fields in which such "service" courses have been developed and used. Those are educational psychology and measurement.

All of the normal schools and teachers colleges selected for special study in the analysis of curricula for teachers prescribed work in education and psychology in amounts ranging from 4 to 26 semester-hours and with a median of about 15 semester-hours. In the programs of the prospective teachers, graduating from the 20 of these institutions in which the permanent record cards were studied, educational psychology was taken by a larger percentage of the students majoring in academic subjects than was any other subject in education—by more even than took observation and practice teaching. The order was reversed for students majoring in the special-subject fields. For both groups the percentage taking educational psychology was about 89 and the median amount taken was about 5.5 semester-hours. In addition to the number taking educational psychology, about 15 percent had had courses in general psychology for a median amount of 3 semester-hours.

Nearly two-fifths of the prospective teachers from the normal schools and teachers colleges had had one or more courses in tests and measurements. Among the colleges and universities included in the curriculum study educational psychology was prescribed more frequently than any other subject in education (63 percent). The amount of work in education and psychology prescribed by the colleges and universities was slightly less than was prescribed by the normal schools and teachers colleges, and when it is considered that

fewer colleges and universities prescribed it, the difference between the two groups in this respect is more significant.

In the analysis of the education courses taken by prospective secondary teachers graduating from the colleges and universities from which the transcripts of student records were studied, educational psychology was taken by the highest percentage of students among the majors in the academic subjects (85 percent) and general psychology next (76 percent). For those who majored in the special subjects, educational psychology was third (75 percent) and general psychology fourth (65 percent). About a third of these prospective secondary teachers took courses in tests and measurements.

The colleges and universities gave somewhat more emphasis to general psychology and to tests and measurements than did the normal schools and teachers colleges.

Services rendered by these courses.—If these courses are to function as service courses they may be expected to supply some of the material which will, through its use, give a professional tone to all subsequent preparation for teaching.

Thus, the initial work in educational psychology for teachers who do not plan to be specialists in psychology may be expected to provide them with a general understanding of man's place in the biological world, typical stages in his development, his distinctive mental characteristics, his emotional characteristics, the interrelations of his physical and mental well-being, the importance and range of individual differences, and the laws of learning and habit formation. Similarly, an initial course in tests and measurements should acquaint the prospective teacher with fundamental concepts and purposes of measurement in education and provide him with an understanding of and ability to use the simpler measurement and statistical techniques which are now so generally known and used that one cannot read intelligently the necessary literature of his educational field unless he knows them.

Once these two "foundations" have been given, all subsequent courses can use them without time being taken to develop or redevelop the principle or technique to be applied.

KNOWLEDGE OF THE INDIVIDUALS TO BE TAUGHT

It is essential that a teacher have a sympathetic understanding of the characteristics of the individuals he is to teach. In many respects this phase of his professional equipment might very well be an integral part of each of the other six phases. It is certainly equal in importance to the scholarly knowledge of the material to be taught and probably more important in determining the teacher's success or failure. For this reason it is isolated in this discussion

for the sake of emphasis even though it cannot be provided for in isolation. Naturally the problem varies for the different school divisions but the responsibility of knowing the characteristics, limitations, and possibilities of those being taught is just as great whether the teacher is working with nursery-school children, sixth-grade children, or adults in vocational rehabilitation classes.

Special courses have been developed with the primary purpose of supplying some of the essential elements of this understanding of children, youths, and adults. Such titles as "child psychology", "child development", "psychology of atypical children", "psychology of the preadolescent period", "psychology of adolescence", "character education", "mental hygiene", and many others have developed in recent years. They are found most frequently, however, in the larger graduate schools of education and have not been generally incorporated in the undergraduate curricula for prospective teachers.

Because of the way in which the courses of the kind just described were tabulated, it is not possible to give the percentages of normal schools and teachers colleges which prescribed courses in child psychology or in the psychology of adolescence. Such courses were quite generally offered and were included under educational psychology. Less than 10 percent of the institutions gave courses in either character education or educational biology.

Among the prospective secondary teachers graduating from the selected colleges and universities less than 5 percent took courses in the psychology of adolescence and about 7 percent took courses in the psychology of childhood. More of the prospective teachers in the special subjects took courses in the psychology of childhood than did those majoring in the academic subjects.

It is evident from the Survey findings that this phase of the teacher's equipment must be a responsibility of other courses in education and, for that matter, of other subjects than education. At best, courses of the kind just discussed are able to provide only a foundation for the desired understanding of the child or of the adolescent. They, like the "service" courses, serve best by supplying background for the professional interpretation of the work of other courses. This background should include a more specialized study of a particular age group than could be given in the educational psychology. "service courses" and would present for each group the physical, mental, and emotional characteristics, the discovery and correction of abnormal developments, the general characteristics of the next-younger and next-older age groups, the diagnosis of behavior and learning problems, and an understanding of the contributions which may be expected from the various kinds of specialists in this general field. There must also be frequent opportunities to observe individ-

uals of the age to be taught and in situations similar to those which the prospective teacher will encounter.

Every teacher should develop a reasonable degree of expertness in applying pertinent facts and principles of physiology, sociology, and social case work, comparative biology, and clinical psychology to the diagnosis and understanding of the personality of students.

THE PRESENTATION OF EDUCATIVE MATERIALS

As previously stated a teacher, in addition to being a well-educated person with a scholarly mastery of the field to be taught, must know the most effective methods of presenting his field to the age-group he is to teach. This knowledge of methods involves a reorganization and a revaluation of the subject matter in his field in the light of the fundamental purposes of education, his understanding of the pupils, and the teaching and learning difficulties for that age-group with the subject matter he is presenting.

How may this knowledge of method best be acquired? When should it be given? By whom? How much time should be devoted to courses in methods? Are there general methods which apply with almost equal validity to all subjects? A number of related questions are familiar to those who have been concerned with the education or supervision of teachers. Probably no single phase of a teacher's education has been the subject of more discussion. It is also probable that no other phase, unless it be practice teaching, has divided the leaders in this field into more sharply defined groups or has resulted in a greater diversity of practice. In presenting the Survey data and the recommendations of the staff upon the question of the place of methods in the education of teachers it is desirable to show present practices as far as they were revealed by the data and also to present the principal attitudes toward them since sufficient data are not available to show the superiority in practice of any one plan for solving the problem.

Faculty attitudes toward methods.—Among the 63 "issues" submitted to the teachers of representative courses in the selected normal schools, teachers colleges, colleges, and universities several statements were included which were designed to reveal the attitudes of the teachers of the courses most frequently taken by prospective teachers as to the place and value of "methods" in a teacher's educational preparation. They were asked to express their approval or disapproval with or without reservation; and an "index of approval" for each group—the normal schools and teachers colleges, and the colleges and universities—was developed which ranged from +200 for complete approval without reservations through an equally

divided opinion at zero to -200 for complete and unqualified disapproval.

Upon the issue, "the elimination of all special methods courses and the inclusion of special methods in subject-matter courses", the two groups were equally divided in their opinions as shown by the index of approval of -25 for the colleges and universities and -28 for the teachers colleges. A small majority in each group disapproved the plan; this may be interpreted as indicating that a small majority of each group favored separate special methods courses. This conclusion was confirmed by the votes upon the issue, "the provision for special methods courses in the major subject", which both groups approved with indexes of +68 for the colleges and universities and +96 for the teachers colleges. (Another way of expressing the extent of this approval would be to say that 70 percent of the college and university instructors and 80 percent of the teachers college instructors voted "yes" or "yes with reservations" on that issue.)

A third issue on this topic was "the teaching of special methods by subject-matter professors rather than by professors of education." A majority of both groups of instructors approved this proposal, +38 for the colleges and universities and +103 for the teachers colleges. While both indexes were positive the difference of 65 points between the two groups indicated a very much stronger conviction on this issue by the teachers-college teachers than by those in the colleges and universities.

Another interesting difference between these two groups was obtained in the vote on the issue, "growth in teaching skill developed on the job rather than during the preservice period." On this issue the index for the college and university group was +101 and for the teachers colleges +63. That vote, combined with the very strong approval given by the two groups (+141 and +125, respectively) to the proposal that "the mastery of subject matter is the first essential in the education of teachers", would indicate that the large majority of instructors in both groups of institutions were not greatly concerned over the problem of method of teaching.

It is difficult in the light of those votes to explain the approval of the proposal that college instructors of subject-matter courses should frequently teach demonstration lessons in the practice schools (62 percent of the college and university group and 70 percent of the teachers college group approved this either with or without reservations).

The issue, of all 63 submitted, which caused the greatest difference in the vote of the two groups was "the professionalization of practically all subject-matter courses." The college and university group registered distinct disapproval as shown by an index of -60 (68

percent voted either "no" or "no with reservations"), while the teachers college group was slightly in favor of it, +37, a difference of 97 points.

The attitudes of teachers of representative courses on these issues explains some of the existing confusion of practice in the matter of providing for this phase of a teacher's professional development.

Present practice with regard to methods courses.—In the study of catalog prescriptions in normal schools and teachers colleges, 50 percent of prescriptions for academic majors included "special methods and professional courses in the major" with a range of 1 to 14 semester-hours and a median of 3.6 semester-hours, while 74 percent of the prescriptions for special-subject majors included such courses with a range of 1 to 40 semester-hours and a median of 5.9 semester-hours.

Among the colleges and universities 54 percent prescribed general methods and 44 percent special methods. These were fourth and fifth, respectively, among the 10 most frequently prescribed courses in education.

The opposite emphasis was found when the courses taken by prospective teachers who graduated from the two groups of institutions were obtained from the transcripts of student records. About 60 percent of the students in normal schools and teachers colleges took special methods, about 10 percent general methods, and less than 5 percent primary methods or intermediate methods. In the colleges and universities, courses in special methods were taken by 64 percent of the majors in academic subjects and by 86.7 percent of the majors in special subjects and general-methods courses were taken by 60 percent and 44 percent, respectively, of the same groups.

This would indicate that smaller percentages of the colleges and universities prescribed methods courses and that larger percentages of the prospective teachers took courses in both special and general methods than was the case among the normal schools and teachers colleges.

Organisations for presenting methods.—There are almost as many plans for providing prospective teachers with the knowledge of the most effective methods of teaching different subjects to different age groups (special methods) as there are institutions in which teachers are prepared. There are four plans which in one form or another are the ones most frequently followed in this country.

PLAN A

This plan calls for the organization of special methods courses separated from the subject-matter courses but considered as courses in the subject-matter department and taught by a member of that department who is or becomes the departmental specialist in the

teaching problems in his subject, and who assumes the principal responsibility for preparing prospective teachers for practice teaching in his field.

PLAN B

This plan calls for the organization of special-methods courses separated from the subject-matter courses but considered as courses in the education department and taught by a member of that department who is or becomes the specialist in the teaching problems in that subject and who assumes the principal responsibility for preparing prospective teachers for practice teaching in that field.

NOTE—Modifications of plans A and B occur when the separate methods courses are taught in the subject-matter departments but by a member of the department of education, and when they are taught as courses in the department of education by members of the subject-matter departments. These modifications may result in slight changes in emphasis but not in any fundamental differences.

PLAN C

This plan uses general-methods courses either organized separately or united with observation, participation, and practice teaching. These courses are obviously taught in the education department and by a member of the education staff.

This plan may consist of a combination of the general-methods courses and special methods in the different subjects or it may depend entirely upon the general-methods courses—separate from or united with practice teaching.

PLAN D

The fourth plan provides for no separately organized special-methods courses but expects the necessary instruction on the most effective methods of teaching each subject to be presented by the subject-matter teachers as an integrated part of the subject-matter courses. This plan is commonly referred to as the "professional presentation of subject matter" or as "professionalized subject-matter courses."

Plan A in some of its modifications, involving separate special-methods courses in each teaching field and taught in the subject-matter department, is the most frequently used plan. It is also the plan approved by the largest percentage of the instructors of representative courses. The Survey presents no comprehensive data on the actual extent to which these different plans were used but the impression was gained from visits to institutions, conferences with instructors and other sources that plan C was second in frequency

and plan B third. Plan B was found in a number of the larger university schools of education.

Plan D, the integration of methods and subject matter, is probably used much less frequently than the others as the plan followed by an institution. It is, at present, more likely to be found in separate departments where a teacher or a departmental group has decided to try this plan of giving the special "methods" for that department.

Other plans for providing instruction in methods.—The many variations and combinations of these plans in force in the institutions preparing teachers in the United States reflect differences of opinion concerning the value of this type of work and also adjustments to such variables as size of the institution, proportion of students preparing to be teachers, length of curricula, State certification regulations, practice-teaching facilities, adequacy of support, and other factors. Some of these plans represent rather sharp breaks from any of the prevailing practices. A few of these were described in volume III, part III. The realignment and reorganization of subject-matter departments and the absorption or integration of much of the work of educating teachers with that of the entire university as at Chicago will call for a new attitude toward teaching on the part of many of the subject-matter teachers. Responsibility for method elements will be much more widely distributed among all members of the faculty.

The adoption of "activity units" as the basis for the organization of increasing proportions of the teachers-college curriculum at Milwaukee will probably result in a different relationship between subject matter and methods in that institution and any others adopting the "activity" idea on the college level.

It is assumed that those subject-matter and professional elements which are considered necessary for the understanding and guiding of approved "units of activity" will be presented at the time needed and by the persons best prepared to present each element. Under such conditions all the elements are but "means" to an activity "end" and have significance neither as subject matter nor as method.

In New College, at Teachers College, Columbia University, the curriculum is organized around certain larger areas of human interest which are integrated by means of a system of seminars. Separate courses in the major fields of knowledge are offered and special courses are organized to provide information or skills required of teachers or needed for intelligent participation in the central and in the area seminars. In such an organization there is no separation of subject matter and methods. The two are interwoven in the seminar discussions and in the preparation for the

many practical contacts which New College students have with teaching situations at all times during their preparation.

Advantages and disadvantages of plan A—Separate methods courses in the subject-matter departments.—Among the advantages claimed for this plan are:

1. The instructor is more likely to have in his field a scholarly mastery of the subject matter which is more difficult to master and takes longer to obtain than the method elements.
2. It leaves the subject-matter instructors free to give undivided attention to the teaching of their subjects. It is maintained that this makes for efficiency and economy of time for both the subject-matter teacher and the teacher of methods. Material can be arranged so as to provide a related, continuous, and cumulative development more easily than is the case when both subject matter and methods are presented in the same course.
3. It leaves the subject-matter courses open and equally valuable to students who do not expect to teach.
4. It tends to develop specialists in the teaching problems of each subject-matter field who will give attention to these phases of professional education because their success and reputation as teachers depend upon the effectiveness with which they present the methods of teaching their subjects.
5. Both the subject-matter teachers and the methods teachers under plan A are in the same departmental organization and are more likely to represent the same point of view than under plan B.
6. Some methods topics, general in their application within the field, can be taught in a separate methods course thereby saving time over having them presented in several of the subject-matter courses. It is also possible to include in separate methods courses some general topics such as the general objectives for teaching the subject in different school divisions, methods of testing and marking, the history of the subject, special room or laboratory equipment, and similar topics which might otherwise very easily be neglected because they would not be the peculiar responsibility of any one of the separate specialized courses in the departmental offerings.
7. It is easier to obtain one teacher who combines a knowledge of subject matter and methods than several such teachers for each subject.
8. The special-methods courses, if properly conducted, help to coordinate around professional objectives the various separate courses given in the department and to coordinate and integrate the subject matter drawn from other related subjects or departments.

Among the principal disadvantages of plan A may be listed the following:

1. The subject-matter teachers of methods are frequently so much better informed in the subject-matter content of such courses than they are in the teaching problems and materials that these courses become review subject-matter courses and the methods phases are neglected.
2. The methods instructors in this plan often do not know enough about education, psychology, and teaching to prepare their students adequately for practice teaching. It takes time to master the field of methods as well as subject-matter fields.
3. Methods courses presented as part of the subject-matter departmental offerings reduce the time which may be devoted to the study of the subject matter of that field. In some of the special-subject fields this amounted to medians of more than 6 semester-hours.
4. In this plan it is necessary for the teacher of special-methods courses in any field to know the entire range of the subject-matter field and also the teaching problems for the entire range of positions for which teachers are being prepared. This double responsibility usually means the neglect of certain areas in one field or the other.
5. If the responsibility for supervision of students during practice teaching is borne by the methods teacher the time required is often so great that only a very small teaching load can be carried or else the supervision is not done.
6. This plan, by having different persons responsible for a prospective teacher's subject matter, his special methods of teaching that subject matter, his theories of education and his practice teaching, makes it extremely difficult to locate the responsibility for his failure or success as a student teacher. The plan encourages a shifting and a shedding of professional responsibility.
7. The separation of subject matter and methods of teaching that subject matter involved in this plan places most of the responsibility for integrating these two phases of professional preparation upon the individual student. As a result he frequently arrives at his period of practice teaching well prepared in subject matter and well equipped with teaching methods but quite unable at first to use effectively the two sets of equipment at the same time.
8. This plan provides no professional incentive for the teachers of regular subject-matter courses to follow their students' work either in the training school or during their first teaching experience after graduating. Most of the special-methods teachers

carry too heavy a teaching and supervisory load for the pre-service group. They are then unable to do any in-service supervision of recent graduates. Both of these results represent direct limitations to the professional vision of the faculty members.

Advantages and disadvantages of plan B—Separate-methods courses in the education department.—Most of the advantages and disadvantages claimed for plan A are equally appropriate for plan B. Only those in which a difference in the argument exists will be mentioned at this point.

Among the advantages the second, third, fourth, sixth, and seventh apply almost equally as well to plan B as to plan A. (See p. 104.)

The first advantage also holds, but with the emphasis reversed. Instead of the teacher of special methods being more likely to know the subject matter better than the teaching problems he is more likely under plan B to have a thorough knowledge of the teaching and the educational elements, but a less thorough knowledge of the subject matter of the field for which the methods courses are offered. (While this may be listed as an advantage so far as the methods side is concerned, it is, of course, a disadvantage on the subject-matter side.)

The same type of reversal occurs with respect to the fifth advantage. In plan B the teachers of special methods, as members of the education department, are more likely to represent the point of view of that department and the point of view which is in operation in the practice and demonstration schools than are the methods teachers in plan A. This, it is claimed, makes the induction period for practice teachers shorter and easier.

The eighth advantage claimed for plan A—namely, that the separate-methods courses help to integrate the several courses of the department or the work of the department with other departments—is rarely true in plan B, unless the education-department teacher of special methods is also a subject-matter specialist and thoroughly familiar with the content of all the courses offered in that subject in the institution.

Among the disadvantages mentioned in connection with plan B, in which the separate-methods courses are taught by members of the education department, four correspond to the fourth, fifth, sixth, and seventh given for plan A. (See pp. 105-6.)

As was true for the advantages in which a difference existed the statement of the first and second disadvantages of plan A can be used for plan B except that the terms "subject matter" and "methods" must be interchanged.

Under plan B the teachers of the special methods for a particular subject-matter field are so much more conversant with the

teaching problems than with the subject matter of the field that the courses are likely to become pragmatically deviceful with little direct association with the appropriate subject-matter background. The form of instruction is emphasized and the content neglected. Such courses do not command the respect of the subject-matter teachers.

The second disadvantage of plan B is the reverse of the second disadvantage presented for plan A. The practice teachers are inadequately prepared for their work in the practice schools because they have had their methods fully (often too fully) presented but not related to the appropriate subject-matter material.

The third disadvantage listed against plan A may not always be true of plan B. If the time given to methods in plan B is counted as part of the offerings in education and not in the subject-matter department it may not reduce the time allotted to the study of subject matter. If counted as part of the subject-matter offerings regardless of where it is given it is the same for plans A, B, and C.

The lack of professional incentives for the subject-matter teachers to cooperate in the supervision and follow-up of their students is even greater in plan B than in plan A. It is easier to shift the entire responsibility for all such professional elements to the department of education.

Besides the eight disadvantages just listed for plan B at least two others should be mentioned.

9. Plan B, by placing the special-methods courses in the department of education, tends to widen the professional gulf which now too frequently separates the field of education from the subject-matter fields. In some institutions in which plan B is used the isolation is almost complete.
10. Plan B encourages the employment of experienced teachers and supervisors as teachers of special methods courses, especially in those subjects which are taught in the elementary and secondary schools. These instructors are usually successful, often unusually successful teachers, but are almost certain to have only a limited part of the scholarly background in education and psychology and especially in the subject matter of the field which the teachers of such courses should have. Courses in special methods taught by such teachers are often composed too largely of the classroom devices which proved effective in their own teaching experience.

Advantages and disadvantages of plan C—General-methods courses with or without special-methods courses.—Plan C, as previously explained, may take a variety of forms, depending upon whether or not it is combined with special-methods courses or with the work of the practice and demonstration schools and whether the

special-methods courses are taught by teachers in the subject-matter departments or the education departments. The essential difference between plan C and either plan A or B is that the course in general methods is made the foundation for the special-methods courses and presents all those elements which are appropriate for all courses but not the peculiar responsibility of any. The advantages and disadvantages listed for plan C are similar to those presented for the two preceding plans, except that there are enough differences between plan C and either plan A or plan B so that several of the arguments for and against it do not hold without certain additional reservations.

The advantages claimed for plan C include the second, third, fourth, sixth, and seventh (see p. 104) listed for plan A. The other three advantages listed may be similar to those for plan A or plan B according to whether or not the general methods in plan C is connected with special-methods courses given in and by the subject-matter departments or the education departments.

Besides the eight advantages presented its advocates maintain that the course in general methods presents so much of the foundation material dealing with teaching problems that the time devoted to special methods may be materially reduced. Courses in special methods may be confined largely to applications and illustrations of the general principles of teaching in the several subjects.

A tenth advantage claimed for a plan involving a foundation course in general methods is that it tends to give more unity to the methods of teaching advocated by the different departments throughout the institution—a more uniform application of the principles presented in the general-methods course and less confusion among the students and in the practice school.

Plan C is subject to most of the disadvantages or weaknesses that were listed for plan A or plan B but, as mentioned in the discussion of its advantages, the variety of forms in which it occurs makes slight rewordings necessary in order that these may apply to any particular form. In general the third, fourth, fifth, sixth, seventh, and eighth disadvantages of plan A (see pp. 105-6) and the first, second, ninth, and tenth disadvantages of plan B (see pp. 106-7) apply to plan C organizations.

A question should be raised concerning the claim that the course in general methods reduces the time necessary for special methods. This may be true for the institution as a whole but it is rarely true for the total program of individual students. In other words, the special-methods course in a certain subject may be shortened but it will rarely be shortened by as much time as the student spends in

the general-methods course. The two courses take more time from the subject-matter fields than the organizations proposed in plans A or B.

Still another limitation of the general-methods part of plan C is concerned with the claim that such a course tends to give more unity to the methods of teaching advocated by the different departments of the institution. Opponents of this plan believe that a general-methods course does do just that and thereby overemphasizes form of presentation and often serves as a deterrent to adaptations and the use of initiative in instruction, especially in the special-subject fields.

The advantages and disadvantages of plan D—the professional treatment of subject matter.—Plan D is different enough from the three preceding plans so that fewer of the statements of the advantages and disadvantages can be listed without some modification or explanatory comment. For that reason, as well as the more important reason that plan D has been and still is one of the “controversial issues” in the education of teachers in this country which has produced as much discussion as any other issue, the claims for and against this plan will be presented in greater detail than was done for the other more commonly used plans.

In the discussion of this plan it should be borne in mind that the two distinctive features are the absence of separately organized methods courses and the integration of the necessary professional elements with the appropriate content in subject-matter courses. One or two general reservations should also be made. Plan D assumes that the teachers of the integrated courses in this plan will be primarily interested in the preparation of teachers and that their loyalties to either subject matter or methods will be subordinated to the larger issue. It is also necessary under plan D to have a few courses in which the emphasis upon the methodology side is greater than on the subject-matter content. Examples of such courses are those dealing with the problems of teaching primary reading or handwriting—subjects in which the principal objectives are the acquisition of initial skills. In those subjects the prospective teacher must be prepared to guide the establishment of correct or efficient habits in the formation of those skills.

The advantages of the professional treatment of subject matter which are usually presented by those who believe in this method may be listed as follows:

1. The teacher of professionally presented subject-matter courses is more certain to know both the subject matter and the professional material of the courses. The probability that he will know one side well and the other inadequately is less than for the other plans.

2. This plan does not prevent periods of concentrated work on subject-matter content or upon professional elements which is an advantage claimed for the other plans. It does make it possible to combine the two phases in such ways as to make one reinforce the other. This plan does not prevent a united and continuous development of the course. It merely changes the criterion from a logical organization of subject matter to the efficient preparation of teachers.
3. This plan also tends to develop specialists in the teaching problems of each subject-matter field and it also develops more of them because every subject-matter teacher in a professional school for teachers becomes such a specialist. As was true for the other plans, the professional success of the teachers of these integrated courses will depend upon the success with which they combine the scholarly presentation of the subject matter of their fields with the appropriate information about the teaching of that material to pupils of the age or school division for which the students are preparing to teach.
4. Because plan D requires every teacher in a subject-matter department to be also a teacher of methods for his special field, it is highly probable that departments will agree upon policies concerning approved teaching procedures. This makes for greater departmental unity and effectiveness in the preparation of teachers.
5. By having certain professional elements, general in their application to all courses in a department, given in connection with the first course taken in that department, the prevention of duplication of these elements is possible as in the other plans.
6. In plan D each teacher of professionalized subject-matter courses will know enough about the subject matter and professional content of the other courses in his department to be able to draw upon the work of the several courses to supplement the work of his course and will also be able to avoid duplicating the professional work which his students have had in other courses in the department.
7. In plan D the functional integration of subject matter and method is made as the related materials are presented. The responsibilities for establishing the necessary "working relationships" between units of subject matter and the approved methods of teaching them are assumed jointly by the teacher and the students. In plans where the methods courses are organized separately from the subject-matter courses the students are expected to carry most of the responsibility for that integration. One value of the plan D arrangement is that the practice teachers

are able to use from the first all their teaching resources in the subjects they are assigned to teach. It tends to shorten the transition period between initial participation and responsible room teaching.

8. One of the most important advantages of plan D is that it makes possible—in fact it makes almost necessary—a closer relationship between subject-matter instructors and the demonstration and practice schools. Under this plan the various subject-matter teachers are required to assume their share of such responsibilities as: The making of courses of study for the training school, the preparation of demonstration lessons, the assignment of practice teachers, the supervision of practice teachers, and the determination of whether or not students satisfy the practice-teaching requirements for graduation.
9. Under plan D the time devoted to separately organized general and special methods courses in the other plans is given to the subject-matter departments. Thus they have direct control over more of the student's time than in any of the other plans, with the exception of plan A.
10. The supervision of practice teaching in this plan is distributed among all of the subject-matter teachers. This not only makes the load lighter on each one, but makes it possible to have the practice teacher supervised by the subject-matter specialists with whom he prepared for that teaching, as well as by the critic teacher for the grade or subject in which he is teaching.
11. Plan D decreases by at least one person the number who may be held responsible for the successes and failures of practice teachers in the training school. If the practice teacher shows weakness either in mastery of the subject matter he is teaching or in ability to present it in acceptable form there is no question as to the department responsible for his inadequate preparation or for recommending him as ready for practice teaching. It is less easy to shift responsibilities for professional preparation of prospective teachers in plan D than in the other plans.
12. Not only does plan D encourage a closer relationship of the subject-matter departments with the training school but it encourages all teachers of professional subject-matter courses to follow more of their graduates into the field. There are three beneficial results of such follow-up by the teachers of professionally treated subject-matter courses. It helps the beginning teacher to get a better and quicker start and to avoid bad teaching habits and initial failures. It assists the institution to evaluate the effectiveness of its work in preparing teachers for the kind of work they will be called upon to do. Its greatest value

is in its in-service development of the teachers of the professional subject-matter courses, who from that supervision are made aware of the professional needs of the work in all the types of positions to which their students go. Innumerable other benefits are received such as: Learning to know the interests of children of different ages in their subject; understanding the teaching and learning difficulties at different grade levels; and obtaining a great variety of concrete illustrations for the professional principles they introduce into their courses.

13. In plan D all the teachers in the institution are perforce interested in and informed about the principles and technique of teaching, the application of psychology and philosophy to the improvement of the effectiveness of teaching, and the results of objective investigations in the realm of teaching. This body of constantly growing professional knowledge serves in a very real way as a medium of discourse in which the instructors of all departments, no matter how varied their content, may "speak the same language"—an area of common understanding which may readily lead to community of professional goals and ideals.
14. Plan D results in a rigid evaluation of the content of each professional subject-matter course. The teachers are interested in presenting as much useful subject matter as possible and yet realize that this must be done along with its appropriate professional material. Because the effectiveness of the teacher is judged in terms of the success with which he presents both elements he is forced to weigh the actual and relative value of each element which he includes in his course. Under such conditions, little time will be devoted to mere devices with limited application.
15. The gap between the subject-matter teachers and those in the departments of education and psychology which has been referred to in connection with the other plans is lessened under plan D. Members of the departments of education and psychology are contributing members of every subject-matter department and in turn every teacher of a professional subject-matter course is a member of the departments of education and psychology as well as a member of the supervisory staff of the practice school.
16. The employment of experienced teachers from the public schools as teachers of general or special methods, which is possible and frequently practiced in plans B and C is as definitely discouraged under plan D. The teacher of a professional subject-matter course must first of all know his subject in a thorough and comprehensive way—a scholarly equipment which does not result merely from experience as a teacher. Teaching experience makes

a valuable contribution to the teacher's knowledge of the professional elements. It is not sufficient in itself, however. The experiential elements must be organized and evaluated in terms of principles of education and psychology which have much wider validity than can be obtained from the experience of one individual.

17. If the methods elements are taught by each subject-matter teacher as required by the plan D type of organization it encourages the development of methods adapted to each major field of instruction and moreover encourages adaptation to each specialized field within the larger field. Regardless of the extent to which a field is developed and subdivided there can be this adaptation.
18. Because the subject-matter courses in plan D are so definitely designed for teachers they are by virtue of that fact less well adapted for persons intending to prepare for work other than teaching. Such courses, therefore, tend to attract students who in their professional ambitions and purposes at least are homogeneous. This homogeneity of purpose makes possible faster progress than is true when the instruction must be adjusted to a variety of major interests.
19. Plan D decreases the temptation to introduce courses or large units of courses dealing primarily with review material—material which is contained in elementary or secondary courses which the students may have to teach after graduation, but which they probably took as pupils in the lower schools. The instructors of professional subject-matter courses know so much more subject matter than they can possibly impart in the time available that they will be unwilling to spare the time for review work. If such review work is necessary, it must be needed by some individual students and not by others—it should therefore be put upon an individual noncredit remedial basis.
20. The introduction of the professional elements with the appropriate subject matter is more certain to show the value of the suggestions on methods and thereby command the attention and respect of the prospective teachers than is the case when the method elements are presented in separate courses and out of their proper setting.
21. It is much easier to utilize demonstration lessons in connection with courses in which both the subject matter of the demonstration and the method of its presentation can be prepared and discussed in the same course by the same instructor. The situation need never arise in which the subject-matter class is ready but the methods class has not covered the needed elements, or vice versa.

22. The presentation of both subject matter and methods in the same course saves much time which is used in "professional stage-setting" when the two elements are offered separately. For example, in the discussion in a methods course of the most effective method for presenting a certain difficult unit of subject matter a considerable amount of time must be taken to review the details of the subject-matter unit and show why it is difficult to teach—in other words, set the subject-matter stage before the professional discussion will be appreciated. If, on the other hand, the teaching difficulties and the ways of meeting them were given when the unit of subject matter was first presented the student would have all the details in mind and probably would understand the professional comments better and in addition would save the time of the later review.
23. Another time-saving element in the professional treatment of subject matter is that it is possible oftentimes to substitute professional questions which serve the purpose of questions which would be asked in a regular subject-matter course and at the same time introduce needed professional elements. For example, the questions after studying a modern novel: "Would you recommend this story to junior high school pupils?" "Which characters (or incidents) would they probably enjoy most?" "Why?" would produce as much thinking and much of the same thinking about the story as would such questions as: "What was the author's purpose in writing this story?" "Which is his best character?" "Why?" To the extent that this is true such professional elements can be introduced without taking any time from the subject matter.
24. There are some topics in almost all subject-matter courses which may be presented on the college level in much the same way as they would be presented on the secondary level. Whenever this may be done the instructor may at the beginning or close of the period call attention to that fact and thereby give a professional demonstration which takes no additional time.
25. Still another way in which time may be saved by combining the professional and the subject-matter elements in the same course is in the use of tests and examinations. Standardized tests and scales when the range of accomplishment is wide enough may be used for diagnostic purposes in the class and the method of giving, scoring, and interpreting the results may all be demonstrated when the test is given. Types of examinations and examination questions used in the class may serve as models for form and methods of marking. Thus the record of accomplish-

ment for the class may be used as a means of professional instruction.

The disadvantages of plan D are somewhat better known than the advantages since some of them are the disadvantages not merely of plan D, but of all plans for the professional education of teachers which involve any elements other than a general education and a knowledge of the specific subject matter to be taught.

The disadvantages and opposing arguments which are peculiar to the combination of subject matter and professional elements essential to plan D are the ones which will be most fully presented here.

1. One of the most frequently listed disadvantages of plan D is that the courses, because they are designed primarily for teachers, are not equally appropriate for students expecting to enter other fields of work. This same limitation holds for all professional schools when the courses are compared with the more general courses of the arts college type. The issue does not arise, however, to anything like the same degree in those professions in which professional preparation starts on the senior college or graduate level. In the preparation for those professions the professional work follows the completion of the general education period. In preparing teachers the professional work accompanies general education and competes for time with it. If the institution prepares other groups besides teachers plan D will require two or more divisions of some of the classes. In smaller institutions this adds materially to the cost.
2. Another serious difficulty connected with the successful operation of plan D is the difficulty of finding teachers who are adequately equipped to teach such professional courses. In comparison with the teachers in some of the other plans teachers in plan D require almost double preparation. They must first of all know their subject-matter field in the same scholarly way that is required of the teachers of separate subject-matter courses and in addition they must know much of the professional material which is expected of the teacher of a separate course in the methods of teaching that subject. Of the two phases the thorough knowledge of his subject is the more important because the professional elements accumulate more rapidly as a result of such professional activities as observations and demonstrations in the practice school, supervision of practice teachers, follow-up of graduates, and other contacts with the actual teaching problems which are made in such courses.
3. If each teacher is expected to present not only the subject matter of his field but also the most effective methods of presenting it

there is a probability that the professional elements will vary from subject to subject and from teacher to teacher within the same fields because of the differences in the professional preparation which the instructors had. Plan C with its course in general methods will produce greater unity of teaching methods throughout an institution than will any other plan.

4. The professional treatment of subject-matter courses requires a more difficult and time-consuming although more varied teaching schedule than other plans. In plan D instructors are expected to provide for observations and demonstrations in the practice school, to make supervisory visits when their students are doing practice teaching in either campus or off-campus schools, and to do some follow-up work with recent graduates. Under other plans these time-consuming but professionally enlightening responsibilities are concentrated on the methods teachers and the majority of the subject-matter teachers assume few if any such obligations.
5. Those not in favor of plan D maintain that it does not insure closer agreement between the subject-matter teachers and those of the education department because the subject-matter teachers and not the teachers in the education department are held responsible for the methods. The opposite result is claimed by those favoring plan D (N.B. item 15). This seems to be one of the items in plan D which depends upon the spirit of the staff rather than the form of organization.
6. The professional treatment of subject matter tends to limit the orderly way in which either the subject matter or the methods may be presented. A series of related lessons may have to be interrupted by a demonstration or observation in the training school which must come at the time when the training-school class arrives at the topic requested for a demonstration.
7. It is usually claimed that to teach methods in connection with practically every course will take more time than to concentrate the professional elements in a separate course. This is undoubtedly true if every instructor repeats material which is general in its application and if all students take the same courses. This disadvantage should be considered with the ways in which the plan saves time and a balance struck between the two sets of claims.
8. The fact that each course under plan D becomes more or less a complete unit tends to decrease the need for departmental unity and cooperation. This assumption would be almost as appropriate for the separately organized courses in either subject matter or methods if the course itself instead of the welfare of the students were the criterion of value.

9. Another disadvantage of plan D is that the shortage of teachers in the different fields who believe in professional treatment of subject matter and who are also equipped to teach such courses makes it difficult to introduce the plan. It is practically impossible to adopt the plan and put it into immediate operation on an institution-wide basis. Some teachers will be able to start at once while others will have to be prepared in service—allowed to obtain either their knowledge of the professional elements or of the subject matter as they teach the course.
10. Another disadvantage attributed to plan D is that by leaving the professional elements to each subject-matter teacher they will be taught “incidentally and therefore accidentally.”
11. Another weakness associated with the introduction of the professional elements in the subject-matter courses is the difficulty of finding teachers of the professionally treated subject-matter courses who will be familiar with the professional elements at all school levels. This difficulty is as great for any teacher of special methods also. The fact that many more such persons are required under plan D is another phase of the difficulty of securing “plan D teachers.”

It is not thought that the lists of advantages and disadvantages of the professional treatment of subject matter—the essential element in plan D—contain all of the elements on both sides of this controversial issue. It is believed that the more important and the most frequently mentioned ones are included.

Report of the Commission on the Social Studies on this issue.—This issue has added significance since the appearance of the Conclusions and Recommendations of the Commission on the Social Studies of the American Historical Association which places great stress upon the importance of the teacher in the improvement of instruction in the social studies and upon the integration of scholarly subject matter with appropriate methods. A short quotation from that report will present the issue of the professional treatment of subject matter from another source and from another angle. After discussing the tendency to separate methods from content the report includes the following significant paragraphs:

5. In the measure that method is dissociated from appropriate content or knowledge of pupil growth, education becomes shallow, formal or capricious, or all three. There is no procedure that can render substance unnecessary; there is no technique of classroom legerdemain that can take the place of scholarly competence; there is no device of instruction that can raise the quality of the educative process above the purpose, the knowledge, the understanding, the vision of the teacher who employs it.

6. When the nature of the social sciences, as system and flow of thought, is taken into account, it becomes evident at once that methodology, however useful

and indispensable when developed in relation to content and purpose, is utterly incompetent in itself to organize, control, and direct the teaching process. Even in the mind and work of the purest methodologist some frame of reference, not method, dominates organization and emphasis. These considerations are particularly applicable to teacher-training institutions, curriculum makers, and persons engaged in the supervision of social-science instruction.

7. Since methodology, if considered intrinsically, is inseparable from the content of thought in the field involved, it cannot be organized successfully into a separate discipline and be made the peculiar possession of a teacher, a supervisor, or even a teacher-training institution.

8. Methodology, if it revolves around its own center, becomes an intellectual operation akin to that of the Sophists of ancient Greece or of the minor scholastics of the Middle Ages; if it advances to the center of the substance with which it deals, it becomes a relevant aspect of purposeful activity.

9. In concluding this criticism of the contemporary emphasis on formalistic method the commission would point out that this emphasis, as indicated in chapter VII, represents in some measure a reaction from an equally formalistic emphasis on knowledge in the colleges and universities and a wide-spread disregard of the psychological problems involved in the teaching and learning processes. Many a college education has been filed away in a drawer of notes and notebooks, there to gather dust and be forgotten. Knowledge, like method, if ineffectively related to significant purpose, is sterile.¹

Principal characteristics of the professional treatment of subject matter for teachers.—Like all new procedures, the professional treatment of subject matter has met with its principal opposition from those who have studied it and do not approve its principle or who consider it impracticable and those who do not understand it fully, but who are quite well satisfied with the methods of teaching and with the content of their courses as they are at present. In order to assist both of these groups, as well as others interested in this major issue in teacher education, a summary statement of the principal characteristics of the professionally treated subject-matter course is included in essentially the form used in the preliminary report on the Survey, and its findings made before the American Association of Teachers Colleges and other organizations meeting with them at Minneapolis, February 1933.²

The principal characteristics of a professionally treated subject-matter course for teachers are as follows:

It is first of all *subject matter*—accurate, scholarly, and of a degree of difficulty to challenge students at the level the course is offered, comparable in most of its contents to the content of similar courses offered to students other than prospective teachers in colleges and universities. It is in no sense a review of material included in elementary or secondary school courses.

In the second place, it is taught by an instructor who has a scholarly command of his field and in addition to scholarship has secured, either by experi-

¹ Conclusion and Recommendations of the American Historical Association Commission on the Social Studies. pp. 71-73, New York, Chas. Scribner & Sons, 1934.

² Twelfth Yearbook, American Association of Teachers College, 1933. p. 99.

ence or extended observation of teaching in the public schools and in the practice and demonstration school a sensitiveness to the problems of teaching his subject to children of different ages and varied interests. He should also know enough about the history and philosophy of education, educational psychology, tests and measurements in his subject, and other similar professional material to be able to apply that information in his questions, in his illustrative comments, in his special assignments, in his demonstration lessons, in his examinations, in his supervision of practice teachers—in other words, in his teaching. This professional “flavoring” need take but a relatively small proportion of the total time of the course.

In the third place, it is subject matter selected, whenever opportunities for selection exist, because the unit chosen will have more direct or indirect effect upon the work of the prospective teachers taking the course than other units which might be selected. This selection cannot be made except by instructors whose knowledge of the subject is sufficiently thorough to supply material from which to choose and who at the same time know the work of the public schools well enough to supply the criteria for those choices.

In the fourth place, it is subject matter selected for teachers who should be leaders in their communities, who should realize the important role the schools will be called upon to play in molding citizens for a complex and changing civilization, who should be made conscious of the part the subject matter of that course can take in that molding, and who should develop personal interests which will contribute to their intellectual, social, and recreational life as individuals. The subject matter of the course should contribute, whenever possible, to some or all of those ends.

In addition to the characteristics listed, a subject-matter course for teachers will be more certainly and better adapted to the needs of those teachers if it is given in an educational unit which has: (1) All instructors, working with the prospective teachers, whole-heartedly interested in the work of educating teachers and active in attempting to increase the efficiency of teachers and the esteem in which they are held; (2) training school facilities affording ample opportunity for observation, demonstration, practice teaching, and some simple experimentation; (3) curricula organized in terms of the needs of specific groups of teachers rather than because of any previously set subject-matter requirements—curricula which will make it possible to become teaching-service minded rather than subject-matter minded; (4) students selected in terms of their interests and probable capabilities as teachers; and (5) an adequate set-up providing the prospective teachers with the basic content of education and psychology in such form and at such times that it can be applied and illustrated in the subject-matter courses without the need for reteaching it in those courses.

Incomplete as is this statement of professionally presented subject matter, it may assist in thinking about the question, “Just what are the distinctive characteristics of courses for the education of teachers?” Those who believe that there are none and should be none will accept little of what has just been presented. Those who believe that professional education has distinct characteristics may be stimulated to thought, discussion, and perhaps experimentation by this discussion. In that event, it is equally significant to all institutions preparing teachers—normal schools, teachers colleges, colleges, or universities because if the idea has merit, the merit is independent of the name or organization of the school in which the work is done.

ORGANIZATION AND MANAGEMENT OF CLASS INSTRUCTION

There are a number of elements essential to the professional equipment of all public-school teachers which should be obtained before or parallel with the period of practice teaching. They are not usually presented in the educational orientation or service courses and no subject-matter department or any courses in the departments should be held especially responsible for them. These professional elements include the understanding of: The principles and problems involved in group instruction at different levels; obtaining a propitious start; preparation and adjustments of daily programs of work to fit different types of school organizations; handling "home rooms" and "study periods"; adjustment of class work to individual differences; classification and promotion of pupils; the keeping of records and the making of reports; school discipline; school house-keeping; the teacher's part in extracurricular activities; the organization of parent-teacher associations and the classroom teacher's relationship to the teaching profession and to other teachers—professional ethics. These and other topics are obviously not the special responsibility of any subject-matter department, and yet they cannot be ignored or left to chance.

The most approved method of caring for this group of elements is to include them in a course in classroom management—called by various titles—which will include all these professional "orphans" and which will be given during the semester or term preceding the beginning of practice teaching. It need not be an extensive course; but if required of all students, the items included in it may be omitted from all of the professionally treated subject-matter courses.

OBSERVATION, PARTICIPATION, AND PRACTICE TEACHING

Present status of practice teaching in the education of teachers.—There is probably no professional phase of a teacher's preparation upon which there is more agreement in theory and more diversity in practice than the development of necessary teaching skills during a period of supervised practice teaching.

About one-sixth of the universities, colleges, and junior colleges participating in the Survey offered practice teaching but did not require it. The remainder required it. Nearly all of the normal schools and teachers colleges required it (table 11, vol. III, pt. IV). From four-fifths to all of the institutions prescribed observation and/or practice teaching in their catalog announcements, but the transcriptions of courses taken by the graduates intending to teach showed that in 1932 about 30 percent of the graduates of the colleges and universities and about 12 percent of the graduates of teachers

colleges had not had practice teaching. (In a few cases the students were exempted from practice teaching because of previous teaching experience.)

Further differences were found in the practices of these two groups of institutions in the amount of practice teaching required and in the types of facilities provided. Among the colleges and universities the range in clock-hours of practice teaching reported was from 18 to 815 and from 38 to 500 among the normal schools and teachers colleges. The median number of clock-hours of practice teaching showed that the normal schools and teachers colleges provided for nearly twice as much for the secondary teachers as did the colleges and universities and about a third more for the elementary teachers. Even though these differences are significant as group differences the range within any one group of institutions is so wide that it is fully as significant. For example, the difference between the median semester-hours for practice teaching for elementary teachers in colleges (4.5) and teachers colleges (6.5) was 2 semester-hours while the range between the teachers college with the smallest number (3) and the largest number (14) of semester-hours for practice teaching for elementary teachers was 11, or five and one-half times the difference between the two groups.

The colleges and universities, in addition to requiring less practice teaching, have somewhat fewer facilities for practice teaching. Normal schools and teachers colleges are more likely to have practice and demonstration schools under their control and located on or near the campus than other types of institutions in which teachers are prepared. The majority of colleges and universities depend for their practice-teaching facilities upon affiliated schools controlled by agencies outside the college or university.

The cumulative result of these several differences indicated that practice teaching occupied a more important place in the professional curricula for teachers in the normal schools and teachers colleges than in the colleges and universities.

Attitude of staff members toward observation and practice teaching.—In the expression of opinions on the educational issues submitted to the teachers of representative courses several issues involved practice teaching. The instructors of both groups—colleges and universities, and normal schools and teachers colleges—voted very positively in favor of the proposal that "provision for practice teaching should be given in situations typical of surrounding regions." Both groups favored the minimum standard of 90 clock-hours of student teaching, although the instructors in the normal schools and teachers colleges were decidedly more in favor of this than were those in the colleges and universities. Both groups favored very

strongly the proposal that there should be "frequent opportunity for students in all college courses to observe in the training school", with the normal schools and teachers colleges being slightly more favorably inclined toward it than the other group. The vote upon the issue of the "superiority of good demonstration to practice teaching in the preparation of teachers" showed an interesting division of opinion among the instructors of both groups of institutions. Each group was about equally divided on this issue. Fifty-five percent of the college and university instructors voted "yes" with or without reservations and 53 percent of the normal school and teachers college instructors voted "no" with or without reservation. The expression of opinion is of added interest in the light of the Survey returns, which showed that only about one-tenth of the instructors in the colleges and universities and about two-fifths in the normal schools and teachers colleges arranged for regular or occasional demonstrations taught by training-school teachers.

Professional significance of the training school.—As was pointed out in the discussion of the professional treatment of subject-matter courses, the training school is one of the most important of the elements of professionalization. Its frequent and regular use by staff members is one of the surest indications of the prevalence of professional ideals among the staff members and also one of the surest means of developing the professional equipment of the teachers who use it.

Besides serving as an index of professional attitude and as a means of promoting the professional development of faculty members the training school serves in four other very important capacities.

1. It is the means of providing, under competent supervision, for the development of that degree of teaching skill essential for the beginning teacher—a degree which will protect the pupils from the exploitation resulting from poor teaching during the teacher's first year of teaching and which will at the same time protect the teacher from initial failures and from the formation of undesirable teaching habits.

2. Evidence of ability to fulfill successfully the practice-teaching requirements serves as the final and most significant measure of a student's fitness to graduate and to receive a certificate to teach.

3. The training school also serves as the most reliable check (which can be controlled by the institution) of the professional effectiveness of the curricula for teachers and of the specific courses within the curricula. If most students are unable to teach successfully certain fields in the training school, there should be a careful study of probable reasons and, if possible, a fixing of responsibilities for the failures.

4. The training school also serves as a means of demonstrating different methods of subject organization, of teaching, and of school organization. These functions serve teachers in service as well as students in residence. In some cases experiments may also be conducted in training schools, although it is not easy to combine practice features and experimental features in the same training school, especially if it is small.

Occupying a position of such professional importance in the preparation of teachers the use of the training school is certain to be the subject of much controversy. The very great variety in practice with respect to its use is evidence of the truth of that statement. Some institutions make no attempt to offer any practice teaching, while others do not attempt to meet the American Association of Teachers Colleges minimum standard of 90 clock-hours of practice teaching. Some institutions meet the 90 clock-hours standard by including observations and periods of graded participation in the 90 hours. At the other extreme, some institutions provide almost a year's work in observation, participation, and practice teaching and consider the 90 clock-hour minimum as "ridiculously inadequate." Observation of teaching is spread over the entire length of the curriculum by some and concentrated in a 2- or 3-point separately organized course by others. Some institutions provide for a gradual and "graded" induction period by means of so-called "participation activities" which represent partial responsibility for a period of teaching, and others start practice-teachers immediately with teaching responsibilities. Some institutions concentrate the period of practice teaching, and others divide it into shorter periods followed by periods of professional study motivated by the practice-teaching experiences. Some institutions give all the practice teaching in the campus training school, others use the campus school for demonstration purposes and for initial participation and give the practice work in affiliated schools. One State is experimenting with a plan requiring a period of at least 5 weeks' practice teaching in some rural school because such a large percentage of all the graduates of the normal schools and teachers colleges are compelled to take their first positions in the rural schools.

There is slight exaggeration in the statement that there are as many patterns for the use of the training school in the education of teachers as there are institutions in which teachers are prepared. The logical conclusions from such diversity are that present conditions are undesirable and contain many unjustifiable makeshifts or that practice teaching is really of no vital consequence in programs for the education of teachers. In the light of the data presented in volume III of the Survey report and the agreement of the large majority of instructors the second conclusion is untenable. That

being the case, there is evidently pressing need for a concerted attack upon such problems as: What is the optimum amount of practice teaching needed for the several types of teaching positions? What is the most effective pattern for practice teaching? (Dr. Marshall's study indicated that distributed periods of practice were most effective.)⁶ What are the most efficient methods for providing the necessary supervision of the student teacher's initial teaching? Should training school conditions be typical of the schools in the communities in which the students will teach or should they be typical of the better schools in the area served or should they approach as nearly ideal school conditions as it is possible to make them? How much responsibility should subject-matter teachers take in constructing curricula for the training schools and in the supervision of practice teachers? These problems should be studied by States, by institutions, and by individuals; and whenever and wherever it is possible to do so controlled experimentation in this field should be encouraged and the results widely distributed.

PROFESSIONAL SUMMARY AND INTEGRATION COURSES

Even if it can be assumed that the prospective teacher has been professionally oriented, provided with the needed educational and psychological concepts and techniques, given an understanding of the individuals to be taught, equipped with a satisfactory knowledge of how, professionally, to present his subject matter, prepared for the problems of class instruction and given the opportunity to develop the required degree of teaching skill during a period of supervised practice teaching, there is a seventh professional element needed in his preparation. He must be led to consolidate these experiences into a personally accepted "working philosophy" for the profession he has selected, an understanding of the place of education in the social and political structure and of his place and responsibilities in education, which will serve as the basis for his professional decisions and be the basis for his professional ideals.

To be sure, the practice teaching experience in itself is an integrating experience in which the prospective teacher is forced to utilize all of his professional equipment, but his immediate attention is so focused upon the mastery of certain teaching skills that "he fails to see the woods for the trees." This final integration of all the elements in a teacher's preparation is far too important to be left to chance. Any institution which considers the preparation of teachers as one of its principal functions should plan very definitely to provide this seventh phase of a teacher's preservice professional preparation.

⁶ Marshall, Edna M. *Evaluation of types of student-teaching*. New York, Teachers College, Columbia University, 1932.

A course which will perform this function need not be long or elaborately organized—probably should not be. It can combine some of the content of such courses as “history of education”, “principles of the content of such courses as “history of education”, “educational philosophy”, “educational sociology”, and “the State school system” essential to the development of the “working philosophies” for which the course is organized.

Concluding statement of professional elements in the preparation of teachers

The discussion of the distinctive professional elements in the education of teachers has been presented in greater detail than other topics in this summary volume because they constitute the area in which the largest number of troublesome controversial issues are found and because they are the elements, which in the long run will determine whether or not teaching is to be a profession and therefore whether or not the preparation of teachers is to be a professional task or an uncertain and varying byproduct of general education.

For these reasons any effort to bring these issues more sharply into the thinking of all students interested in the preparation of teachers for the school systems of the United States seems justified.

SECTION 3. ELECTION VERSUS PRESCRIPTION IN THE EDUCATION OF TEACHERS

Present practice with respect to election and prescription.—The extent to which curricula for teachers should be prescribed is another of the major issues involved in the larger issue of how to improve the professional preparation of American public-school teachers. The extreme position on this question is that those responsible for the preparation of a teacher for a specific kind of position should know the best possible preparation for that position and prescribe that preparation in its entirety. Such a position assumes a number of conditions, however, which do not prevail in this country. It assumes that all students will start the prescribed curriculum with approximately the same preprofessional preparation and that all positions of a given type involve the same work, are organized in the same way, and present very similar instructional and extraclass problems. The other extreme with no prescription is obviously a repudiation of all claims for special preparation for teaching. Practice in the United States ranges almost from one of these extremes to the other.

An analysis of the catalog prescriptions in 66 representative normal schools and teachers colleges showed that 89 percent prescribed “restricted electives” (a definite amount of work required

in a given field but the student to choose the courses in that field) ranging from 2 to 101 semester-hours with a median of 31 semester-hours. Ninety-one percent of the same institutions provided for free electives ranging in amount from 1 to 79 semester-hours with a median of 39 semester-hours.

An analysis of the prescriptions and electives in a selected list of 57 colleges and universities showed very similar conditions. The data for restricted electives among colleges and universities are not quite comparable to those among normal schools and teachers colleges because in the study of the colleges and universities the prescription of a certain number of points within a specific field with the student left free to choose the courses was not considered a restricted elective. Only when the student was allowed a choice from two or more different fields was it considered a restricted elective. Among these institutions restricted electives were required in about 60 percent of the cases, ranging from 3 to 70 semester-hours with a median of 15. Free electives were allowed in practically all institutions in amounts extending from 1 to 66 semester-hours with a median of nearly 30 semester-hours. Thus nearly two-fifths of the work in colleges and universities was subject to student selection.

Attitude of instructors on election and prescription.—The instructors of representative courses in both groups favored very strongly and to almost an identical degree the proposal that "electives should be included in each curriculum designed to educate prospective teachers in order to provide for the varied interests and aptitudes of students." The attitude toward the proposal for a "high prescription in 4-year curricula with few elective privileges permitted" was disapproved by 63 percent of the college and university instructors and by 44 percent of the teachers college instructors. Both groups, however, approved "practically a total prescription in 2-year curricula for teachers", the teachers-college instructors being more favorable toward it than the instructors in the other types of institutions.

In expressing their judgments concerning the proportion of the curriculum which should be prescribed and the proportion to be left free for election, the two groups agreed quite closely that nearly a fifth of the curriculum for teachers should be free electives and that from 60 percent (colleges and universities) to 75 percent (teachers college) should be definitely prescribed.

The rather close agreement between these votes and the actual prescriptions in the catalogs of the institutions studied suggests that the instructors are either satisfied with present practice or that present practice reflects their judgments on these issues.

How elective privileges were used by prospective teachers.—The two most generally approved arguments for free electives in the

education of teachers are that they enable the students to adjust their courses to their previous preparation and also that they enable students to supplement their general cultural education and to develop their special avocational or creative interests and abilities. The data obtained from the transcripts of students' records from representative institutions in 1932 indicated that neither of these results was satisfactorily achieved. Students tended to concentrate their work in the older academic fields both in high school and in college and to take more than the prescribed amount of work in the major and minor subjects, and in education and psychology. It was also evident from the small numbers of students who took work in the special-subject fields, such as art and music, and in the fields of sociology, economics, and political economy, that those prospective teachers were little concerned with their general education or with the development of their special interests and abilities. The following distribution of the general pattern of work taken in high school and college by 1,000 prospective teachers from 24 colleges and universities will show the concentration in some fields and the neglect in others. Of all the work taken by those prospective teachers in high school and college, 17.8 percent was in English, 16.4 percent in foreign languages, 14.8 in social studies (history 10.9, political science 1.4, sociology 1.4, economics 1.1), major subject 12.7 percent, science 10.7 (physical 5, biological 4, general science 1.7), mathematics 9.8 percent, education 8 (general education and educational psychology 5.3, special methods 1.4, student teaching 1.3), miscellaneous 3.9 percent (miscellaneous 1.9, religion 0.8, geography 0.6, philosophy 0.6), special subjects 2.7 percent (home economics 1, commercial education 0.9, industrial arts 0.4, agriculture 0.3, library science 0.1), psychology 1.7 percent, and fine arts 1.5 percent (art 0.8 and music 0.7).

English, foreign language, social studies, the major, science, mathematics, and education comprised 89.2 percent of all the work taken by a representative group of prospective teachers from a selected group of institutions.

Major and minor requirements for teachers.—A large proportion of the prescriptions for teachers consists of the major and minor requirement and the courses in education, psychology, methods, and practice teaching.

The plan of organization which requires students to select major and minor fields of concentration and prescribes specific courses and minimum amounts of work in the majors and minors is nearly universal among the institutions educating teachers in this country. It

* These phases of the education of teachers are presented in greatest detail in sec. 1 of this chapter and in vol. III, pt. II, chs. VI and VII and pt. III, chs. IV, V, and VII, of the Survey report. Office of Education Bulletin 1933, no. 10.

is an unquestioned tradition among most of the colleges and universities, and apparently was adopted with equally unquestioning faith by the teachers colleges when they increased the length of their curricula to 4 years and became degree-granting institutions. The agreement in the general pattern is indicated by the fact that in 1932 the 57 selected colleges and universities whose catalogs were analyzed demanded for a major in the academic subjects a median of 25 semester-hours and in the special and vocational subjects 35 semester-hours. The corresponding figures for 66 selected normal schools and teachers colleges were 26 and 32. The special and vocational majors varied more widely than the other majors for the two reasons that most of them have certain skill elements which must be mastered as well as the informational content and that they are subjects not generally or extensively studied by students in the high schools.

Aside from indicating the similarity of curriculum organization between the teachers colleges and the colleges and universities the general agreement in major requirements in these two groups is of little consequence. The fact that the range in the major requirements within any one type of institutions is so great is, however, a matter for serious concern. Why should one college, for example, require a major in music of 18 semester-hours and another institution in the same group require 80? When ranges of this magnitude exist, what happens to the other elements in the teacher's professional preparation? Among the selected colleges and universities in which this problem was studied the ranges in the prescribed work for some of the subjects were: Biology, 15 to 55; commercial education, 18 to 64; English, 18 to 41; history, 18 to 36; and physical education (men), 21 to 60. The ranges in the normal schools and teachers colleges were equally extreme in most of the subjects.

About half of the colleges and universities require a first minor and about a fifth of them require a second minor. From three-fourths to nine-tenths of the normal schools and teachers colleges require a first minor and about a fourth of them a second minor. First minors, when required, usually demand somewhat more than half as much work and second minors about two-fifths as much work as majors in the same field.

The prevalence of this type of curriculum organization is particularly significant when it is remembered that most of the elementary teachers will be expected to teach 8 or 10 subjects, each of which could be considered a major responsibility, and that most of the high-school teachers will do their first teaching in small high schools, in which they will be expected to teach three or more subjects, often quite unrelated in content.

The concept of teaching competency and prescribed courses.—One apparently inescapable result of the major and minor type of organization is the impetus it gives to the development of departments, with the resulting tendency to add instructors, multiply courses, increase specialization, and lose professional perspective. If the prescription of courses for teachers continues to remain within the control of major departments (including education and psychology), there is little hope that the curriculum patterns for prospective teachers will be any better adapted to their professional needs than they are at present.

If, on the other hand, the curricula for teachers could be based upon a thorough acquaintance with the work that the teachers will be called upon to do, and also the things which they should be able to do in order to improve existing conditions, then the prescriptions could be made in terms of providing the best preparation, regardless of majors and minors, in the time available for the specific kind of position for which the teachers are preparing. This concept of "competency" in the field if used as a basis for constructing professional curricula for prospective teachers, can do much to correct the present limiting effect of the vested interests of departments which so often interfere with the larger purpose of preparing competent teachers.

Differentiation of curricula for teachers.—An application of the concept of teaching competency and one form of prescription is involved in the practice of differentiated curricula for teachers preparing for different types of positions, as, for example, a curriculum 2 years in length for rural teachers or a curriculum for special teachers and supervisors of music. Such specially designed curricula make possible a more direct application of the content of subject-matter courses and professional courses to the specific needs of the teachers for whom the curricula are organized. The extreme position on this issue provides for differentiation in practically all subjects in the curriculum, such, for example, as arithmetic for rural teachers, arithmetic for primary teachers, arithmetic for intermediate teachers, and arithmetic for junior high school teachers. In practice the number of groups to be cared for and the number of small classes which would result make it necessary to have some of the courses common to two or more differentiated groups. Furthermore, there are some subjects in which the differentiated elements are so few and the common elements are so many that several groups can take the course at the same time and the differentiated elements be cared for by a few special meetings in which the class is divided into groups with common interests for special discussions and explana-

tions. Then there are also some courses which all teachers need for general background material. Such courses may advantageously be taken with other groups of teachers, principals, and special teachers.

The extent to which differentiation of curricula is followed in the preparation of teachers in the United States is shown in the reports by Dr. Rugg and Dr. Peik on the curricula for the preparation of teachers (vol. III, pts. II and III). In the analysis of catalogs of 66 normal schools and teachers colleges 170 different titles of curricula were found, only 42 of which were offered in 5 percent or more of the institutions. These curricula also varied in length from 1 to 5 years—the rural curriculum being the only one offered in 5 percent or more of the institutions on a 1-year basis.

The situation is fully as complicated among the colleges and universities, especially the latter, among 41 of which there were 52 different curricula offered in 10 percent or more of the institutions. Many of these in both groups of institutions are curricula for the preparation of teachers in a special subject such as English, mathematics, history, and chemistry.

Among the educational issues submitted to the several groups of administrators and teachers two bore very specifically upon the question of differentiation. The first of these was "The program of teacher education should be general rather than specialized; teachers should be trained with but slight attention to specific positions or levels—in other words, we should educate teachers, not specialists, such as primary teachers, physical-education teachers, or mathematics teachers." Presidents, special-subject instructors, and education instructors in colleges and universities and the entire teachers-college group voted as not favoring this proposal. The instructors of the academic subjects were about evenly divided on the issue, 51 percent favoring and 49 percent voting against it.

Another issue submitted to obtain opinions on this problem was that "further differentiation of curricula beyond the required teaching major and the special methods, observations, and practice teaching which are included in the usual prescriptions in psychology and education is necessary for secondary teachers of academic subjects." On this issue the academic instructors again were divided (48 percent for and 52 percent against), while all the other groups approved it by favorable votes ranging from 66 percent to 93 percent.

It is evident that the principle of differentiation of curricula is generally approved by those working directly in the field of educating teachers. Data to show the extent of differentiation were not readily available; and, because of the large number of curricula offered, and the fact that each type of curriculum had several patterns caused by differences in their length and the type of institution in which they were offered, it was decided not to study this problem more in-

tensively. Variations in terminology and in the content of courses bearing the same titles made it impracticable to attempt a study of even the elements common to different curricula, let alone the courses and the content items which were distinctive for each curriculum.

One obvious result of differentiation of curricula, if the differentiation really affects the content of the courses and is not merely a pattern of courses, is that institutions with small enrollments must restrict the number of curricula offered or else diffuse the instructional services to a point of ineffectiveness.

Institutional concentration or specialization in the education of teachers.—The principles of differentiation and specialization can be very logically applied to State programs for the education of teachers. One or more institutions (depending upon the number in the State) can be designated to prepare teachers for specific types of positions and especially for those positions for which there is a limited demand or for which special instructional equipment is required. For example, one institution, in addition to its principal work of preparing teachers for the regular public-school positions, could specialize in the preparation of special teachers and supervisors of fine arts. While all institutions preparing public-school teachers would have to have some courses in fine arts, this one institution could develop a larger staff, provide more laboratories and studios, and offer more highly differentiated courses. The concentration of the prospective special teachers and supervisors in one institution would provide a group of students large enough to make such specialization possible. This practice has been extensively and successfully followed for a number of years in Massachusetts, New York, New Jersey, Pennsylvania, and California and to a less degree in a number of other States. It is of value in the control of the supply of teachers, as will be shown in the following chapter, but it can be justified also on the basis of increased efficiency in professional preparation of teachers and in economy of operation.

SECTION 4. RELATION OF PRE-SERVICE EDUCATION OF TEACHERS TO IN-SERVICE EDUCATION OF TEACHERS

"Initial perfection" vs. "safety minimum" concepts.—Some of those responsible for the education of teachers have planned curricula so that prospective teachers may, at graduation, be able to accept a teaching position and start work in the fall with no more attention from administrative and supervisory officers than is given the experienced teacher in the same building. The result of this plan of teacher-education is to emphasize the mechanical and formal elements of teaching with a review of the subject matter to be taught. The

insuring of initial perfection in those more readily observed characteristics of the beginning teacher takes so much time that there is little left for exposure to new levels of knowledge which will supplement and enrich the subjects to be taught, and which furnish the basis for continued growth in scholarship.

The other extreme is the belief that if a teacher knows his subject well he can teach it or can learn very quickly "on the job" how to teach it.

The first plan denies the children the inspiration which comes from sound scholarship and the second exploits them during the period in which the teacher is learning to teach.

A third position is one of the many which may be assumed between the two extremes. It is the concept of a "safety minimum of teaching skill" for the beginning teacher, which has already been suggested. It proposes to provide the beginning teacher with no more skill in class instruction than is necessary to prevent exploitation of the children and to avoid the danger of initial failure on the part of the teacher and to spend all the time possible in the acquisition of a thorough, comprehensive, and professional knowledge of as many fields as possible. This plan assumes that the teacher will continue to grow while he teaches and that he will grow more certainly and more rapidly in the line of perfecting his teaching techniques than he will in the mastery of his subject. The "safety minimum" concept does not suggest that any less time be spent in preservice preparation. It suggests that the time available be spent differently with greater emphasis upon securing a scholarly background and less upon the perfection of the mechanical elements of teaching. This proposal does not imply that the teacher should have lower standards of what may be considered the art of teaching. It is expected that high standards will be obtained from demonstrations by master teachers.

The "safety minimum" concept does not suggest that any more time be devoted to the in-service preparation of teachers. It suggests merely that the time devoted to the in-service education of teachers be differently distributed and that its emphasis be changed. A little more attention should be given during the first month or two of the new teacher's work to make sure that he has a safe minimum of teaching skill and that he does not develop bad teaching habits. After this period the in-service emphasis should shift to one of stimulation—encouragement to grow, to experiment, or to develop new units of teaching material.

Present attitudes toward in-service education of teachers.—As was explained in chapter I, the period of rapid educational expansion which followed the World War was also a period of extensive upgrading for teachers in service. During that time much of the so-

called "in-service" education of teachers was in the nature of courses carrying credit toward some advanced diploma or degree. As teachers become generally better prepared the need for "credit courses" becomes less and the demand for "professional stimulation" courses increases. This change was reflected by Survey data obtained in connection with the study of in-service education and of summer sessions. In the special studies of in-service education of teachers' an expression of opinion of the value of various kinds of in-service education was obtained by Anna M. Fuda from more than 1,500 representatives of city superintendents, high-school principals, junior high school principals, elementary principals, high-school teachers, junior high school teachers, and elementary teachers. Thirty-three different forms of in-service education were included, and each was studied as to its estimated value and as to the agencies best able to provide the service.

The means of in-service education studied were: Teachers' meetings, supervision, committee work, visiting days, leaves of absence, informal discussion, experimentation, reading circles, exchange of teachers, research projects, educational clinics, demonstration teaching, contributions to educational literature, membership in professional groups, teacher self-rating, group extension classes, correspondence study, summer schools, regular academic-year study, late afternoon, evening, and Saturday classes, short field trips for study, educational exhibits, libraries, museums, bibliographies, circulars and bulletins, school surveys, substitute teaching, teachers' examinations, press books, magazines and newspapers, radio, cinema, and participation in civic affairs. Each of these in turn was divided into its most frequently used forms, and those were evaluated. For example, of the 22 kinds of teachers' meetings, those that discussed "specific objectives related to separate units of the school program", "standards for evaluating elementary achievement (teaching efficiency)", and "local educational policies, for example, homogeneous grouping of children, directed study, activity programs", were the three rated of most value by the administrative officers. The classroom teachers agreed with the administrators on the first, but thought that "general educational objectives", "methods of teaching related to separate units or courses of the school program", and "modern educational movements" were next in order of value. Both groups believed that teachers' meetings were most effective when conducted by the local school system, next by professional organizations, and third by State departments of education. As the most effective agencies for conducting teachers, meetings, teachers colleges, normal schools, colleges, and universities received altogether less than 10 percent of

the vote. This is one of the most significant findings of the study. The evaluation of the means of promoting in-service development of teachers will repay careful study by the institutions educating teachers.

Effect of certification on in-service education of teachers.—Mark E. Stine made the study of the effect of existing certification laws upon the in-service education of teachers. Many States have regulations that certain certificates can be renewed only after a certain amount of advanced study has been done. The same condition is also imposed for the exchange from one type of certificate to another. Nearly two-fifths (39.2 percent) of the total number of kinds of renewable certificates required some in-service education for renewal and nearly half (47.7 percent) of the total number of kinds of exchangeable certificates required some in-service education before the exchange could be made. Life certificates were granted in all but five States when the Survey data were obtained, and more than half (54.6 percent) of the various kinds of life certificates were issued on bases involving some form of in-service education.

Another of the in-service education studies attempted to discover the relationship between permanent certification and continued professional development. This study, made by Walter A. Zaugg, disclosed a definite tendency to make permanent certification depend upon approved educational training, both pre-service and in-service. There were, however, at the time his data were collected (1931) 18 States in which potentially permanent certificates could be secured wholly or in part by examinations. Nine States at that time invalidated "permanent" certificates if they were not used for stated periods of consecutive years. Thirty-one States exercised no control over the professional life of the teacher after the permanent certificate was granted, while 14 States required that extra professional training be taken during the probationary period for some forms of permanent certification, and 6 States attempted to control the entire service life of the teacher through a system of certificate renewals based on definite types of professional growth.

Two other studies in this group made by Francis J. Brown and Lalla H. Pickett ascertained the extent of the in-service programs for teachers conducted by colleges and universities and by normal schools and teachers colleges.

In general the in-service programs of both groups are quite similar in scope and include most of the 33 activities listed above. There was evidence that many of the elements in the programs were considered of little value by teachers. Such elements should be made more helpful or be omitted from the programs. There was also evidence that institutional programs of in-service education should be planned to cover a period of years, and that the classroom teachers,

the administrative and supervisory officers, and representatives of the institutions should cooperate in the formulation of those programs.

One of the most extensive and successful of the in-service education programs which has been conducted in this country is the one by the United States Federal Board for Vocational Education (now part of the United States Office of Education). As new fields, vocational and agricultural education were forced to develop rapidly and to start with teachers not all of whom were professionally prepared for the specialized tasks of vocational education. The planned manner in which teachers were prepared and encouraged to grow on the job is a matter of much interest and value to anyone concerned with the preparation of teachers.

PLACEMENT AND FOLLOW-UP SERVICES FOR TEACHERS

One means, generally recognized but little used, of improving the professional preparation of American teachers is the provision of systematic placement and follow-up services for the students who complete courses for teachers. It is important that a prospective teacher be prepared for a specific type of position, but it is also very important that he have the opportunity to teach in that type of position and under supervised conditions which will assist him in making the necessary initial adjustments successfully. If some responsibility for helping to get the student placed in the proper position and for the supervision of his early teaching is definitely assumed by the institution in which he was prepared, it will have at least these beneficial results: It will extend the length of professional preparation; it will provide the young teacher with supervision from specialists with whom he has worked; it will add to the efficiency of the school system in which he teaches; it will afford an opportunity to follow the work of outstanding graduates and assist in their professional advancement; and it will also have a direct value to the institution, because the initial successes and failures of the graduates supply the most valuable measures of the successes and failures of the curricula for teachers and a most reliable basis for curriculum revisions. To be sure the institutions in which teachers are prepared are not the only agencies interested in the satisfactory placement of teachers. Fully half of the State departments of education provide some form of placement service for teachers.

Adams found in 1932 that 87 percent of the normal schools, teachers colleges, colleges, and universities cooperating in his study made definite provision for the placing of their students in teaching positions.⁶ The findings of this study made in cooperation with the

⁶ Adams, Walter H. The placement of students in teaching positions as carried on by higher educational institutions, including normal schools, teachers colleges, colleges, and universities. Abilene Christian College, Texas, 1933.

National Survey of the Education of Teachers, supplemented by those of Brogan⁷ and Conger,⁸ support the criticism that institutions which prepare teachers have been primarily concerned with the problems of securing teaching positions for their graduates and have quite generally neglected the other elements—the adjustment, evaluation, and follow-up parts of the total postgraduation program of service. If these services were performed more systematically and by more of the staff members of more of the institutions, it is reasonable to expect that many of the present regulations and prescriptions concerning the preparation of teachers would be changed. The changes would be dictated by a wider and more recent knowledge of the work to be done by the graduates of the institution and not by the enthusiastic salesmanship of major departments or special instructional groups.

The use of the concept of "teaching competency" as a criterion for the construction of curricula for teachers would be relatively easy for an institution with a comprehensive program of placement, adjustment, evaluation, and follow-up. The staff members of such an institution would be aware of the demands of the field and sensitive to the needed changes in the curricula. The use of this criterion would be extremely difficult if not impossible for an institution without such a postgraduation program.

SUMMER SESSIONS IN THE IN-SERVICE GROWTH OF TEACHERS

Summer sessions since their beginnings in this country a little over 60 years ago have played an increasingly larger and more important part in the in-service education of teachers, both in raising the level of the general education of teachers and in improving the professional nature of their preparation. The Survey study of the present role of summer schools in the professional preparation of American teachers⁹ indicated that during the years immediately following the World War the emphasis in the summer schools was largely upon the upgrading of the amount of education of teachers in service. In 1931 it was estimated that more than a fourth of all the teachers in the United States attended summer schools. Replies from the directors of summer schools who cooperated in the study indicated that in 1931 the emphasis was shifting toward the professional growth of teachers in service without as much emphasis upon credits and degrees except for the regular students who, in increasing numbers, were using the summer schools as a means of shortening the period of pre-service

⁷ Brogan, Whit. The work of placement officers in teacher-training institutions. Teachers College, Columbia University, 1930.

⁸ Conger, N. Professional adjustment service rendered by teacher-training institutions. State teachers college, Durant, Okla., 1930.

⁹ Foster, Frank K. Summer sessions for teachers. Vol. III, pt. V, of the Survey Report. Office of Education Bulletin, 1933, no. 10.

preparation. Opportunities to work for degrees and to meet the in-service educational requirements for extending the validity or raising the grade of teachers' certificates, however, were still considered of primary importance by the majority of the summer-school directors.

In addition to the increased demands for opportunities for superintendents, principals, supervisors, teachers, and other educational workers who desired further professional work (no credit desired) and courses for persons who sought intellectual improvement (no credit desired), there was a pronounced demand for courses in music, education, physical education, library training, and research and experimentation—newer fields of work for which teachers were preparing while continuing to teach.

The upgrading function of the summer school changed in a very important respect between 1920 and 1930. After the World War the upgrading was largely required and was directed toward meeting minimum standards. By 1930 the saturation point for those minimum standards was approaching and the emphasis had shifted to a voluntary upgrading beyond the prescribed minimum and in many cases into the graduate level of work. Such "super-minimum" upgrading may be considered as one means for and evidence of continued professional preparation of teachers in service. The development of courses and other facilities for encouraging this continuing professional stimulation should become a major concern of summer schools, even though periodic increases in the minimum standards for teachers may for those periods again bring the quantitative element into prominence. This sequence may easily become a series in which the period of voluntary upgrading sets the foundation for the prescribed increase in minimum standards which is then followed by another period of voluntary upgrading. It could continue in this manner until an agreed-upon or proved point of diminishing returns is reached.

GRADUATE WORK IN THE EDUCATION OF TEACHERS

The indication from the summer-school returns was that by 1931 there was a strong tendency to increase the emphasis on work for graduate degrees in summer school. The increased interest of teachers in securing masters' and doctors' degrees was also indicated by the study of 142 graduate schools made for the Survey by Dr. John.¹⁰

This study showed a remarkable development in graduate courses for teachers and particularly in some fields of education between 1900-1901 and 1930-31. The fields of education which developed

¹⁰ John, Walton C. Graduate work in the education of teachers. Vol. III, pt. VI, of the Survey Report. Office of Education Bulletin, 1933, no. 10.

most on the graduate level during that period were: Educational sociology, tests and measurements, supervision, methods, and research courses and seminars. The periods of most rapid development differed for different subjects. The increase in the number of courses of the seminar or research type was very marked during the 30 years, particularly between 1920 and 1930. "The increase in the number of all courses, from 132 in 1900 to 1,636 in 1930, is indicative of the increasing emphasis on the professional training of the teacher; and the growth in the number of courses open to graduates only (56 in 1900 to 606 in 1930) is indicative of higher standards of training through a general upgrading of educational courses to the graduate level."¹¹

The opinions of deans of colleges of education and heads of departments of education were obtained concerning the extent to which graduate schools had exerted an influence upon the undergraduate work of teachers. It appeared that in general the graduate schools had not restricted the development of undergraduate curricula nor prevented experimentation where desired. It appeared also from the replies of the heads of undergraduate units of education and from the heads of graduate units of education that both groups were substantially in agreement concerning the desirability of the following changes in the work for teachers on the undergraduate level: "More responsibility should be placed on the student"; "higher standards of scholarship should be demanded"; "incompetent students should be weeded out before attempting graduate study"; "the undergraduate program of education should be built on a deeper and more general foundation"; "2 full years or more of academic work should be required before the professional courses in education are begun"; "there should be a sufficient background of biology, sociology, and economics"; "professional courses should be limited to the last 2 years of the undergraduate school or may be deferred until the graduate school years"; "professional courses should be reduced in number"; students should have experience in research"; "teaching experience (at least 1 year) should be required before the student takes up graduate work in education"; "methods courses should be integrated with the work in observation and practice teaching"; "library facilities should be improved"; "selective tests in the use of the English language should be given to students looking forward to graduate work in education."

Graduate work as continued professional preparation.—Graduate work for teachers may be looked at from two angles. The first considers graduate study as a continuation of the period of professional preparation during which the teacher may supplement his previous

¹¹ Ibid., p. 449.

preparation. The second considers graduate work as a distinctly different element in the teacher's preparation emphasizing research about education rather than the acquisition of additional teaching skill or teaching materials. It appears obvious from the list of suggestions just reported from those in charge of graduate and undergraduate units in education that the second of these points of view—the research side of graduate work—predominated. There is little doubt concerning the desirability of having a public-school teacher able to conduct research studies in his special field of teaching if the time spent in preparing him to conduct such studies is not out of all proportion to the value received. In other words, the teacher's primary responsibility is to teach and if training in research produces a greater improvement in his teaching than would the same amount of time spent in other phases of his professional preparation or in obtaining additional knowledge of the subjects he teaches the research emphasis in graduate work for teachers is justified. Public-school teachers should be open-minded about their work and ready to accept or try out new methods of teaching or new subject-matter content when such methods or content arrangements have resulted from researches in those fields. It is not necessary that a teacher be a trained research worker in order to have this attitude toward educational experimentation. It is conceivable that too much interest in educational research may even interfere with the efficiency of the teacher's classroom work.

The extent to which graduate work for teachers should emphasize research is one of the controversial issues in which traditions play a more important part than scientific evidence. It is an issue which should command the attention of all institutions educating teachers. The very marked recent tendency to develop professional degrees such as bachelor of science in education (B. S. in Education), master of education (Ed. M.), and doctor of education (Ed. D.) may be construed as evidence that those responsible for the education of teachers are becoming conscious that graduate work for teachers may mean an extension of professional preparation and need not stress research in the traditional manner. At the time the Survey study of graduate work was made 22 institutions were granting the Ed. D. degree.

If graduate work for teachers is to be pointed largely in the direction of research, such work may well be considered an essential and integral part of preservice preparation; if, on the other hand, it is to be considered as a period of continued professional preparation it may very well be taken after a period of experience, long enough to reveal the teacher's special interests, aptitudes, and deficiencies in order that the period of graduate work may be used to develop the interests and aptitudes and remove or diminish the deficiencies.

SECTION 5. SOME OTHER CONDITIONING FACTORS IN
THE PROFESSIONAL EDUCATION OF TEACHERS

THE PREPARATION AND ATTITUDES OF FACULTY MEMBERS

Importance of faculty attitude toward teaching.—Few will question the statement that the attitude of the faculty members of an institution toward teachers and teaching is one of the strongest determinants of the nature of the professional work offered in that institution. If the majority of the staff members in an institution believe that the only essential equipment for a teacher is a thorough mastery of the subject or subjects he is to teach, the curricula for teachers in that institution will stress subject-matter courses and give as little as possible of professional elements. If, on the other hand, the majority of the faculty of an institution believe that teaching is a work requiring special preparation and special information, as law and the ministry require special preparation and special information, then the curricula for teachers will stress subject matter but will select it and present it in terms of its professional value.

The difference in the faculty attitudes toward teaching as a profession was one of the elements in which the colleges and universities differed most noticeably from the normal schools and teachers colleges. This difference is explained, though it is thereby none the less significant, by the fact that the institutions in the second group were established especially for the education of teachers and so may be expected to have a more united attitude toward that work than institutions in which teaching is but one of many occupational interests. The attitudes of administrators and faculty members of these two groups of institutions were included in several of the Survey studies¹² and have been referred to in the discussion of other topics in this volume, especially in the earlier parts of this chapter. Reference will be made here to only two sets of data on this question—the aims of the institutions as expressed by the administrative officers and the aims of the instructors of representative courses in the two groups.

Aims of institutions.—Of the 25 aims submitted to the administrative officers of all cooperating institutions, the five which were reported as most generally accepted or most generally provided for in the normal schools and teachers colleges were: (1) Education of teachers (knowledge, skills, etc.); (2) knowledge of subject matter (particularly in a special field); (3) specific or professional and technical training (occupational); (4) command of fundamental processes (oral and written speech, numbers); and (5) cultural de-

¹² Vol. III, pts. II, III, and VII, and Vol. V, pts. I, III, and IV.

velopment of prospective teachers. The five reported as most generally provided for in the colleges and universities were: (1) knowledge of subject matter (particularly in a special field); (2) liberal education—a general rather than a specialized education; (3) command of fundamental processes (oral and written speech, numbers); (4) scholarly and scientific attitudes; and (5) morality and character.

It is significant that both groups included among the first five aims the knowledge of subject matter and the command of the fundamental processes, and it is equally significant that neither of the distinctly professional aims—the education of teachers and provision for specific or professional and technical training—were included among the first five aims of colleges and universities. They ranked sixth and sixteenth, respectively, in that group.

Attitudes of instructors of representative courses.—Another indication of the attitudes of institutions toward the professional preparation of teachers was obtained by asking the teachers of representative courses in the different institutions selected for special study to indicate which aims from a list of 84 submitted pertained to their courses. The six aims which were approved by the largest percentage of instructors of representative courses in normal schools and teachers colleges were: Acquisition of facts or meanings (83 percent); knowledge of the principles of the subject (80 percent); aims and problems of the subject (71 percent); background for teaching purposes (68 percent); proper appreciation of contemporary (62 percent); and correct methods of study (59 percent). Four of these six aims, the first, second, third, and fifth, were included in the top six by the instructors of representative courses in colleges and universities and in the same relative positions with percentages of acceptance of 82, 77, 67, and 50. The other two aims in this list were: The subject's place in the social heritage (54 percent), and breadth of view (50 percent), which ranked seventh and eighth, respectively, among the normal schools and teachers colleges. It is noteworthy that the instructors of representative courses in the two groups were in such close agreement upon the aims for their courses and that the aims which were approved by the largest percentages were nonprofessional aims which would have been just as appropriate for courses in an arts college, or a professional school for any other professional group, as for teachers. The instructors of representative courses in the normal schools and teachers colleges did include "background for teaching purposes" among the first six aims, whereas it ranked sixteenth among the aims for the instructors in the colleges and universities. Aside from this one difference there was little evidence in the votes of the

instructors of representative courses to indicate that the teachers in the normal schools and teachers colleges held attitudes toward the aims—professional and otherwise—of their courses which were different from those held by instructors in colleges and universities. This corroborates similar observations made in section 2 of this chapter, which deals with the attitudes of staff members toward the professional treatment of subject matter.

Relation of faculty preparation and experience.—Survey data on the educational preparation and experience of faculty members are presented in detail in volume II, part III, chapter III. It is obvious that there are many ways in which a faculty member's attitude toward teaching may be affected, and quite clearly the type of institution in which he did his own undergraduate work would be but one of the many elements affecting that attitude. About seven-eighths of the faculty members of all types of institutions in which teachers were prepared in 1931-32 obtained their bachelor's degrees from State universities or land-grant colleges, denominational colleges or universities, or private nondenominational colleges or universities. This would indicate that the faculties of the institutions preparing teachers in 1931-32 were in a large majority of cases graduates of liberal arts colleges, either separately organized or as separately organized units of universities. Furthermore, the majority of the faculty members received their bachelor's degrees in institutions of the same type as those in which they were then teaching. These two facts provide a further explanation for the close agreement in attitudes among the faculties of different types of institutions. The State universities and land-grant colleges and the private nondenominational universities were the institutions which granted four-fifths of the master's degrees and more than nine-tenths of the doctor's degrees.

Another element in determining a faculty member's attitude toward the preparation of teachers is whether or not he has had experience as a teacher in the elementary or secondary schools. Even though the normal schools and teachers colleges in 1930-31 supplied two-thirds of the elementary teachers, nearly half (45.4 percent) of the instructional staff members of those institutions had had no experience as elementary teachers. Between two-thirds and three-fourths of the faculty members of other institutions of higher education had never taught in elementary schools.

The situation was little different with respect to teaching experience in the secondary schools. More than two-fifths (42.3 percent) of the faculty members of all cooperating institutions were without teaching experience in the secondary schools. This, of course, does not mean that those staff members were unsympathetic toward teaching or secondary teachers, but it does mean that many of them were

teaching their subjects to prospective high-school teachers of those subjects with little first-hand knowledge of professional problems which confront secondary teachers.

Faculty attitudes toward courses in education.—The attitudes of faculty members toward education as a field of study and toward courses in education should be clearly distinguished from their attitude toward teaching and teachers as discussed in the preceding paragraphs. Oftentimes faculty members in institutions educating teachers will express derogatory opinions of or otherwise evince antagonistic attitudes toward courses in education and yet consistently maintain that they are strongly in favor of special preparation for teaching. The distinction involved is the difference between professional preparation which consists only of knowledge of subject matter and professional preparation as it has been presented in this report. The point of view of the faculty members who believe in preparation for teaching but not in the more definite professional aspects is well expressed in the Report of the Committee on Required Courses in Education of the American Association of University Professors.¹³ This report is concerned primarily with separate courses in education taught by professors of education. Its criticisms do not apply so directly to such professionally treated subject-matter courses as were proposed in section 8, of this chapter.

In the votes of instructors of representative courses upon different educational issues comparisons were made of the attitudes of instructors of academic subjects, special subjects, and education and psychology. With the exception of the votes on the issue that "The education of teachers should be under the control of the professors of education and psychology" the attitudes of the instructors of academic and special subjects were in general agreement with the attitudes of the instructors of education on issues involving professional preparation of teachers. The academic instructors opposed the above issue as strongly as the education instructors favored it. The instructors of special subjects were about evenly divided—45 percent favored and 55 percent opposed. Dr. Peik in summarizing the votes on the issues involving the attitude of staff members toward education made the following observations:¹⁴

(3) That the general criticism that college and university instructors have an attitude decidedly unfavorable to the development of professional work and professional attitude toward their future work on the part of prospective teachers is not revealed in these reactions.

Any institution in which differences relative to teacher education are unduly accentuated, especially if they are introduced into the classes, thereby really

¹³ American Association of University Professors. Report of committee on required courses in education. Reported in summary form in Bulletin of the American Association of University Professors. Vol. XIX no. 3, March 1933.

¹⁴ Peik, W. E. Teacher education curricula in universities and colleges. Vol. III, pt. III, ch. VI. National Survey of the Education of Teachers. Office of Education Bulletin, 1933, no. 10.

disqualifies itself as a suitable place to develop teachers, for teachers should graduate with a balanced respect toward the need of broad and specialized scholarship, breadth of interests, a professionalized attitude toward teaching, and a belief in the need of and a substantial background for developing teaching into a fine art. After all, the superintendents and supervisors will in the long run almost unconsciously settle the issue because of the increasing desire to secure teachers who possess the above characteristics and qualifications and who are able to begin a job of teaching without trial-and-error performances which so often characterize the unselected, the untried, the untrained, and unprofessionalized and which so frequently end in complete or partial failure during the initial year or two of teaching.

A teacher's attitude toward the need for professional preparation for teaching is very influential in determining the content and method of presentation of his courses for teachers. When this is more fully realized administrators and instructors will keep some of the larger professional issues constantly in the open encouraging investigations, free discussion, and an open-minded willingness to cooperate in developing curricula for prospective teachers in terms of the work they should be able to do as teachers.

SELECTION AND GUIDANCE OF PROSPECTIVE TEACHERS

Granted an institution with adequately prepared staff members who are interested in the task of preparing teachers for the public schools, with satisfactory support, physical plant, practice-school facilities, and library, there is still one element which can determine the extent of its success in the preparation of teachers. That element is the student body. The ability and interest in teaching of the students determines in a very real way the extent and quality of the teacher-education program of any institution.

Selection of students for teacher-training courses.—There has been persistent criticism, and not without foundation, that the students who enter normal schools and teachers colleges and who elect the teacher-preparatory curricula in other types of institutions are as a group inferior in ability and personality to those who select other professions and lines of work. There are, naturally, exceptions to this statement for institutions and for many individuals among those who choose teaching as a life work, but they only make the truth of the observation all the more obvious. This situation has been generally true throughout our history although it seems to be less true now than at any previous time.

A cooperative undertaking of a representative group of normal schools and teachers colleges and of land-grant colleges and universities has contributed some much-needed data on this issue since 1931. The institutions in these two groups have given their entering students the same tests—a general intelligence or ability test and certain subject-matter tests. The results of these examinations have furnished comparable data on the relative abilities of the students going to normal schools and teachers colleges and those going to

colleges and universities.¹⁵ In 1933, "the scores made by liberal arts college entrants on the psychological examination were approximately one quartile deviation higher than those for teachers-college entrants." This means that for that year three-fourths of the teachers-college entrants received scores below the median of the college entrants. In 1933-34 these measurements were repeated for the entering classes and it was found that "the median for the liberal arts colleges exceeds that for the teachers colleges by approximately three-fourths of the quartile deviation of the distribution of scores for the teachers colleges. At both Q_3 and P_{90} the differences are equally large." This shows that there is still opportunity for a higher degree of selection for students expecting to teach and especially so for those toward the upper end of the distribution of ability. These represent a problem of recruiting rather than selection.

The extended and intensive study of college students in Pennsylvania which was made under the direction of the Carnegie Foundation showed that the students attending the normal schools and teachers colleges of Pennsylvania were as a group inferior in the abilities measured and in their high-school records to those who went to the colleges and universities.¹⁶

Another study of a cooperative nature was made in New York State. As a result of a testing program set up by the normal schools and teachers colleges and the dissemination of information to the high schools that only students who made the best records in high school were desired as prospective teachers the following statement by Dr. Oscar Hertzberg was possible at the beginning of the second year.¹⁷

(a) Not only did all the institutions show a decided increase in the quality of the admitted over the rejected applicants in 1933, and the 1933 admitted group over the 1932 admitted group, but, on the basis of high-school scholarship averages the whole applying group for 1933 was of better quality than the admitted group of 1932.

This statement is the more remarkable because it shows what can be accomplished by a cooperative attack on a problem by high-school principals and those in charge of institutions preparing teachers.

Other instances could be given to show that wherever the problem of raising standards of admission has been earnestly attempted the results have been very gratifying both in keeping out the weakest students and in attracting more capable ones.

¹⁵ Studies made for the Teachers College Personnel Association by Dr. J. D. Heilman of the State Teachers College, Greeley, Colo.

¹⁶ Learned, William S. Study of the relations of secondary and higher education in Pennsylvania. Twenty-eighth Annual Report of the Carnegie Foundation for the Advancement of Teaching, 1933.

¹⁷ Hertzberg, Oscar H. An analysis of the effort of the New York State teacher-training institutions to improve their product through better selection. Mimeographed report, January 1934.

The financial depression has helped to make teaching relatively more desirable to relatively more capable persons than at any other period in our history. The reasons for this have already been presented and will be discussed further in the next chapter. However, its general effect upon the selection of prospective teachers may be summarized by the statement that it is easy now to inaugurate systems of selective admission to curricula for teachers and that a higher standard can be enforced than has previously been possible.

But though it is easy to introduce a system of selective admission in the sense that those interested in the preparation of teachers are ready to accept it, it is not easy to administer such a system once it is inaugurated. The principal difficulty in its administration is the lack of definite, reliable, and valid measures which will predict a high-school graduate's success as a teacher. Numerous studies of this problem have been made and it still remains unsolved.¹⁰ There is rather general agreement, however, that if as many measures as possible are applied the selection can be more accurately made than if only one or two measures are used. The most typical procedure is to admit students on the basis of possessing a diploma from an accredited high school. If instead of that one measure, the institution required a record of courses taken and grades made in both elementary and high schools, certification from the high-school principal concerning character and personality traits suitable for teachers, a complete health examination (preferably given at the institution), a general ability examination and some achievement tests in pivotal subjects given at the institution, a personal interview, and a declaration of desire and intention to teach, it has been shown that a student's probable success in the institution and as a teacher can be foretold with much more accuracy than is possible when only one or two such measures are used.

Guidance and elimination of prospective teachers.—A program of selective admission is only the first step in securing more capable recruits to teaching. After students have been admitted and allowed to begin their professional preparation the institution should make every effort possible to assist them in selecting the type of work for which they are best fitted and in which there will be the best chance for them to secure employment. This guidance cannot be given without early and frequent contact with teaching situations. Without opportunities to observe the work of master teachers in the different school fields and at the different levels the prospective teachers cannot make their choices except on a very academic basis.

¹⁰ Many of these studies are listed in the selected bibliography on the education of teachers, vol. I and in vol. V, pt. II, of the Survey Report, Office of Education Bulletin, 1923, no. 10.

One phase of guidance which is usually not associated with it is the elimination of students from professional curricula. It is just as important to discover that a student lacks certain abilities or traits needed by teachers in the field he has chosen, and if they cannot be supplied, to see that he is directed toward some other line of work and as early as possible, as it is to help him select the kind of teaching he is fitted to do. There should be several points in any curriculum for teachers at which the question should be raised, Which students are qualified to continue their preparation to be teachers? The close of the junior college period and the beginning and the close of the practice-teaching period are three especially strategic points for the elimination of the professionally undesirable or unpromising.

Adequate preparation for teaching demands more than scholarly mastery of the subject matter to be taught and the technical knowledge and skills used in teaching. It requires the development of those traits of personality which are usually found in the leaders in any community—enthusiasm, sympathy, sense of humor, sociability, public spirit, energy, and the other elements which go into the composite known as “leadership.” Teachers in this country will be expected to assume leadership in their communities in a much more positive way than in the past. The period of preservice preparation should afford to a selected group of intellectually capable students a varied and extensive preparation in the activities which develop personalities and make teachers interesting individuals.

NEED FOR MORE ACCURATE MEASUREMENT OF TEACHING MERIT

The reason why so many issues in the education of teachers in this country remain controversial has been explained in other sections of the report.¹⁰ Definite ideas of what constitutes successful teaching in different types of positions have not been developed and naturally enough there are no satisfactory measures of teaching success in those positions. After listening to an educator's “tale of woe” about not having any accurate measures of teaching success which would check the relative value of two curriculum patterns for educating teachers, a nationally known authority in educational measurement replied, “If the educational leaders would agree upon the elements which constitute successful teaching we could develop measures for those elements.” This statement is probably true but fixing the primary responsibility does not solve the problem. Those responsible for the preparation of teachers need the help of the special-

¹⁰ Vol. V, pt. II, and vol. VI, pt. I.

ist in measurement in conducting controlled experiments to determine which traits and abilities produce the largest amount of approved progress in the largest number of pupils in a given amount of time. In other words, agreement upon the desirable characteristics of teachers cannot be reached without more quantitative evidence of the effectiveness of the different major elements which comprise the total equipment of a successful teacher.

Institutions primarily interested in the preparation of teachers should set up long-term experiments to test the value of one or more of the elements involved in the professional equipment of teachers. These could be conducted in a single institution but could be much more effectively organized as State projects in those States in which there are several normal schools or teachers colleges. In such States a number of the factors, such as control, method of support, general curricula, high-school preparation of students, general attitude toward education, and other elements are more likely to be comparable than when institutions in different States have to serve as experimental controls. It is improbable that any of these experiments will solve even one, let alone all, of the problems in teacher education but two beneficial results are certain to follow. In the first place, any such experiment carefully organized and systematically followed would help to solve the problem being studied and the accumulation of evidence from several such studies may give a satisfactory solution. For example, the study over a 4-year period of the value of distributed practice teaching compared with concentrated practice teaching made by Dr. Edna Marshall²⁰ in one small institution does give evidence in favor of distributed practice which must be accepted until other studies under other conditions in other States result differently. Should they support Dr. Marshall's conclusions it would be possible to take this problem out of the realm of the controversial. This would also settle a number of related problems concerning the place of other subjects in the curriculum.

The second certain result from such long-term experiments is that they would serve most effectively as means for the professional stimulation of faculty members in the institutions conducting the experiments and in those serving as the controls. The organization of the experiment, its periodic evaluation, the discussion of the findings and their effect upon the work of all related divisions of the institutions cannot help but make all faculty members professionally critical of the work of the institution and of the place of their courses

²⁰ Marshall, Edna. Evaluation of types of student teaching. Teachers College, Columbia University, New York. 1932.

in the total program. This value alone would justify such experiments even if the first values were not equally certain to result.

In this connection any experimental colleges or teachers colleges established to try out more radical or more comprehensive curriculum changes in the education of teachers such as those at New College, Teachers College; Milwaukee State Teachers College; the State Teachers College at Montclair, N. J., and others should be encouraged and allowed to contribute in any way they can to the solution or clarification of any of these issues. Too much must not be expected from such innovations in the span of a year or two. Students have to be selected, faculties have to be trained, and adjustments have to be made in the light of the work of the first graduates. At best, such experiments involve 5 or more years before the first evaluations can be made with any assurance that the new in the experiment has had a chance to affect the product.

SECTION 6. THE PROFESSIONAL PREPARATION OF RURAL TEACHERS

Special importance of the professional preparation of rural teachers.—The preceding discussions concerning the need for general education and the distinctive professional elements in a teacher's preparation apply in theory to rural and urban teachers alike. The reason for a special section devoted to the professional preparation of rural teachers is that in practice very few of the standards which are approved for urban teachers are applied to the education of rural teachers. In volume V, part VII of the Survey Report, Prof. Mabel Carney discusses the importance of the rural teachers to the social, economic, and educational welfare of the United States and presents a detailed report and recommendations on the education of rural teachers. The size and significance of this problem is realized when it is recalled that there are still more than 175,000 1- and 2-teacher schools in the United States, attended by more than 5,000,000 children, and taught by nearly 200,000 teachers; that most of the rural school teachers are inadequately prepared and inexperienced; that rural school terms are shortest and rural school salaries are lowest; and that rural communities because of their relative isolation (fewer now than formerly, of course) need more educational and social leadership from their teachers than do the urban communities.

The problem of securing better teachers in the rural schools, as shown in chapter II, is one of upgrading for those in service as well as better preparation for those who start. More than three-fifths (61.5 percent) of the teachers in rural 1- and 2-teacher schools in 1930-31 who supplied data to the National Survey of the Education

of Teachers had had but 1 year or less of college work as their educational preparation for teaching and less than a tenth (9.5 percent) had had more than 2 years of college work. These percentages should be compared with the corresponding percentages of 9.2 percent and 43.8 percent for the elementary teachers in cities of 100,000 population and more.

Another phase of the problem of preparing rural teachers which makes it of general concern is the number of teachers who prepare to teach in some special field in an urban school system but who are permitted by certification standards and forced by oversupply conditions or city regulations on experience to accept positions in rural schools until they can secure appointment in a city system. Should such teachers be prepared to teach in a rural school as well as in the position which they expect to have and, if so, when and where should the rural preparation be obtained and to what extent? This temporary placement in the rural schools is so general in some of the States that at least one State has decided that the preparation of all elementary teachers must include some study of rural problems and a period of practice in a rural school.

Present practices in the professional education of rural teachers.—The analysis of differentiated curricula offered in the institutions cooperating in the Survey showed that "rural curricula" of various lengths (1 year above the high school to 7 years above in some of the universities) were reported as offered in 17 percent of the universities, 18 percent of the colleges, 50 percent of the junior colleges, and in the large majority of normal schools and teachers colleges. Data obtained from other sections of the Survey would indicate that many of these so-called "rural curricula" were merely suggested patterns of courses with 2 or 3 special courses in rural education.

In the special inquiry conducted by Professor Carney in 1932-33 she found that 124 of the 179 institutions replying gave a course in rural sociology or rural life and that 98 institutions gave a course in nature study designed for rural teachers. These were the only two courses given in more than half of the institutions. Rural school teaching, organization, and management was given in only 73 of the 179 institutions. In the same study it was found that "97 of the institutions were operating 394 1- and 2-teacher schools in country districts and 8 such schools on the campus." In addition to these 1- and 2-teacher schools some practice was provided in village and consolidated schools but it was shown that not all of the normal schools and teachers colleges included in the study provided rural school practice and not all of those who did provided enough for all of the students who should have had it. Practice-teaching facilities were not quite so well provided for in the universities, colleges, and junior

colleges as in the normal schools and teachers colleges. This difference was probably greater for rural-practice facilities than for urban.

The distinctive professional elements in the education of rural teachers.—One of the much discussed issues in the preparation of rural teachers has been the extent to which the preparation should be different from that of the elementary teachers who expect to teach in a graded school. Everyone admits that the rural teacher's work is different but there is no such agreement as to how much of it is different and just which elements are different. For example, it is readily admitted that the daily program of an ungraded rural school is different from that of a school room in which there is only one grade, and that the community responsibilities and the supervision of the extracurricular activities are different from those of a grade teacher, but it is also readily admitted that, except for time limitations, teaching children to read, multiply, or interpret American history present much the same educational problems in the city as in the rural areas. It is also generally admitted that there is much more that is common to the work of the rural and urban teacher than is different.

The solution of the problem of differentiation of curricula for rural teachers is complicated by the fact that rural teachers fall into three distinct groups: (1) Those who are unable, because of inadequate preparation or limited ability, to secure positions other than in rural schools; (2) those who prepare for work in a city school system and are compelled to serve a probationary, experience-getting period in the rural schools; and (3) those who select the field of rural teaching as the one which they intend to follow for a professional career.

The problem so far as the first group is concerned can be easily solved by eliminating that group from the rural schools and, for that matter, from all schools although they would probably do less damage under the closer supervision of a city school system than if allowed to teach in the rural schools.

The problem for the third group is not so troublesome and will be worked out by the specialists in rural education if conditions for rural school teaching can be made sufficiently attractive to draw enough capable young teachers to this field to make differentiated curricula possible.

The problem of the second group causes the most discussion among those responsible for the education of teachers. If a teacher is intending to be a kindergarten and primary teacher in a city system but may have to teach 1 or 2 years in a rural school the time used to prepare for the rural work is time taken from preparation for kindergarten-primary work and yet failure to make any preparation for the rural work means an unjustifiable imposition of professional

incompetence upon the rural community. What constitutes the minimum program in the rural work for such a teacher becomes a problem of professional concern to the entire faculty groups of all institutions preparing teachers because the Survey data revealed the possibility that graduates from any department of any such school may secure a rural school position in most of the States.

A minimum program to prepare for rural school work and not decrease the adequacy of the teacher's preparation in his chosen field was proposed by Professor Carney. This program could be taken during a 6 weeks' summer session or during a term preceding graduation and should include units for orientation in rural life, rural school organization and control, some special techniques peculiar to the rural schools, some observations of well-taught rural schools and, if possible, some actual practice in a rural school.

Part, at least, of this "minimum" program need not be considered peculiarly rural. The unit dealing with rural life or rural sociology can be considered today as essential a unit of information for the city teacher as for the rural teacher since it is extremely desirable that the city teacher have a sympathetic understanding of rural sociology and rural economics as well as that the rural teacher understand urban life and problems. Professor Carney proposed that these two ends be served by an integrated rural-urban orientation course which would be required of all students.

Other factors affecting the professional preparation of rural teachers.—Before it will be possible in this country to improve to any great extent the professional preparation of rural teachers several other changes which will make rural teaching more attractive to more capable persons will have to be made. Methods of supporting rural schools will have to be changed to provide longer terms, better salaries, better school buildings, better living conditions for the teachers, and better instructional equipment—in short, conditions more nearly equal to those of the cities. Supporting units will have to be changed and usually enlarged and funds must be so distributed that rural districts will not be encouraged or permitted to contract with the lowest bidder or the local resident without regard to whether or not his preparation is adequate in amount and specifically adapted to the difficult work of rural teaching.

Another change which would have far-reaching effects upon the professional efficiency of rural teachers and upon the kind of persons attracted to this field of service would be the development of more extensive supervisory and special-teacher services for rural schools. If rural teachers could have the same stimulation to grow professionally and receive the same help from special teachers of music, art, physical education, industrial arts, agriculture, and other

subjects as are received by the teachers in progressive city school systems many of the better, more conscientious, and professionally minded of the rural teachers would remain in the rural schools. The professional isolation in many of these positions is as much of a deterrent to continued service in the rural schools as are social isolation, low salaries, and long hours.

State and institutional officials and instructors interested in having teachers better prepared for the rural schools and in having those specifically prepared teachers employed in the rural schools and in having them remain in rural schools should first wage vigorous campaigns to increase certification standards, improve working conditions in the rural schools and develop systems of special educational services for the rural and village communities. As these reforms are accomplished the challenge of rural teaching will attract more capable recruits who will be willing to prepare as adequately in general education and special professional elements as will those going into other types of teaching.

SECTION 7. THE PROFESSIONAL EDUCATION OF NEGRO TEACHERS

This section will be short for three reasons: (1) Practically all of the discussion of the preceding sections of this chapter dealing with principles and theories applies equally to Negro and white teachers; (2) many of the present practices in the professional education of Negro teachers have been modeled very closely after those for white teachers and so are subject to most of the same limitations and criticisms; and (3) many essential data were not available because such a small percentage of data sheets were returned, especially from faculty members of institutions of higher education for Negroes. Mention will be made of those elements in which the Negro group differed noticeably from the white group.

Negro teachers were prepared in public and private normal schools, teachers colleges, colleges, universities, and land-grant colleges. Most of the elementary teachers were prepared in normal schools and most of the high-school teachers in private colleges and universities. Of the Negro high-school teachers with a bachelor's degree 68 percent were from that group and 21 percent from State universities and land-grant colleges—89 percent from those two groups of institutions. This would indicate that the high-school teachers at least were prepared very largely by institutions representing the liberal arts college point of view. Even so, the evidence obtained indicated that the education received was far from liberal and was confined very largely to the traditional academic subjects, especially English, mathematics, social science, and science. Very limited contacts were

indicated for the special subjects, art, music, health and physical education, sociology, political economy, and similar subjects. For many of the elementary teachers, as was shown in chapter II, any contacts with the subjects just mentioned could have been obtained only in high school or in the brief periods of preparation beyond high school. Very little work in those subjects was offered in high schools for Negroes.

The professional elements in the education of Negro teachers.—Data from 4,896 Negro teachers who answered the question indicated that in 1930-31 the median number of semester-hours in education was 28.62. Since more than three-fourths of the Negro elementary teachers that year had had only 2 years of college training or less, this median represents for many of the elementary teachers half or more than half of the work above the secondary schools, and while it may not have been too much it restricted very sharply the possibilities of securing additional material on the college level in subject-matter fields. The median number of semester-hours credit in education for Negro high-school teachers was 26.8, which was about the same as for a subject-matter major.

From an analysis of the catalogs of 20 institutions educating Negro teachers there appears to have been an unjustifiable expansion of separate courses in education—70 distinct course titles mentioned 601 times. The fields of education most frequently represented are elementary education, general education, general survey, educational psychology, general psychology, rural education, secondary education, professionalized education, methods in special subjects, and observation and practice teaching. It is evident from the list of courses reported from catalogs of the selected institutions that all of the seven types of work in the distinctly professional preparation of a teacher are provided in some at least of the institutions. The only fields represented in all of the institutions were general education, professionalized education, and observation and practice teaching. A study of the course descriptions indicates that in a majority of these institutions the courses in education were organized as separate courses, and were not very closely connected or integrated with the work of the subject-matter departments. In this respect, however, they are not different from most of the institutions for the preparation of white teachers.

A special study of practice-teaching facilities of institutions of higher education for Negroes submitted by E. C. Russell as a master's thesis at the University of Michigan, 1932, showed that a number of the institutions made little or no provision for practice teaching. The range for those in which it was provided extended from 10 to 360 clock-hours. In many instances the college exercised no

control over the practice-teaching facilities. The limitations of practice facilities are shown by the fact that two-thirds of the Negro elementary teachers reporting to this Survey and approximately half of the high-school teachers had no credit in practice teaching. A few institutions were found in which excellent facilities were provided and good cooperation was obtained between the college faculties and the practice school. In too many of the institutions, however, the practice teaching bore little relation to the work of the college departments.

Educational aims of institutions for higher education of Negroes.—The same 25 aims as were reported in an earlier part of this chapter were submitted to the administrative officers of 18 institutions for the education of Negro teachers. In the order in which these aims were provided for in the institutions, it is interesting that “knowledge of subject matter (particularly in a special field)” ranked first; followed in order by “command of the fundamental process (knowledge and skill involved in the tools of oral and written speech and number)”; “education of teachers (knowledge, skills, and traits involved in differentiated curricula for prospective teachers)”; “morality and character training (to insure judgment in terms of individual and social ideals)”; “training for life needs (the more practical subjects)”; “scholarly and scientific attitudes (development of scholarly attitudes, interests, and ambitions, scientific inquiry into truth).” Considering the fact that these institutions include universities, land-grant colleges, liberal arts colleges, as well as teachers colleges, it is significant that the education of teachers ranked third in the list of aims. The other ranking aims agree more closely with those of the white liberal arts colleges than with the teachers colleges.

Election and prescription in the education of Negro teachers.—From the data obtained concerning course requirements in 22 representative institutions for the education of Negro teachers the major field and the first and second minors accounted for 52 semester-hours and the courses in education and psychology for 22 semester-hours. These with the restricted electives and required courses in special education left about 15 semester-hours for free electives. The curriculum patterns for 15 fields in which prospective teachers majored were reported from the catalog analyses of 22 representative institutions.²¹ An analysis of the data presented showed the same range in courses as was found among institutions for the preparation of white teachers. The special-subject fields, commerce, business administration, and home economics, industrial arts, music, required the largest amount of time for the

²¹ National Survey of the Education of Teachers, vol. IV, table 48.

major and had a correspondingly restricted set of contacts with other fields.

The following statements from Dr. Caliver's summary and the study of curricula for the education of teachers show some of the distinctive problems for this group.²²

It may safely be inferred that the cause of much of the variation and overexpansion in curricula discussed in this chapter was due to extreme departmentalism.

Evidence is also seen in the data here presented of a tendency to accept the regular liberal arts college curriculum as an adequate program for the preparation of teachers.

Another need that may be inferred from the data presented in this chapter and in chapter III is that of coordination and integration within secondary education. This refers not only to teaching combinations found in high schools but also to the secondary school work taken by the prospective teacher.

Preparation of faculty members of Negro institutions for the education of teachers.—The faculties of the Negro institutions preparing teachers in 1931-32 were not as well prepared as were those for the institutions preparing white teachers. There were more instructors with less than 4 years of college work (7.5 percent compared to 2.2 percent) and fewer with more than 1 year of graduate work (26.9 percent compared to 44). Six-tenths of the staff members of the Negro institutions had 1 or more years of graduate work compared to nine-tenths of the staff members of higher institutions preparing white teachers. These comparisons indicate a need for a general upgrading of the Negro faculties.

The analysis of the sources from which the faculty members of Negro colleges secured their bachelor's degrees showed that nineteen-twentieths of them secured their first degrees from liberal arts colleges or from colleges associated with universities and only 1 of each 20 from a State or private teachers college. This fact undoubtedly helps to explain the closeness with which the Negro colleges follow the pattern of the liberal arts colleges in the education of teachers.

The faculty members of Negro colleges carried a somewhat heavier teaching load than was found for other colleges. They also took much less part in the various educational organizations and activities which are open to college professors, and fewer of them wrote books or magazine articles in the 5-year period between 1926 and 1931.

Selection of students for Negro teacher-training curricula.—The problem of securing capable recruits for the work of teaching is more difficult in the Negro colleges than in the institutions preparing white teachers.

In States maintaining separate school systems for Negroes recent surveys have disclosed the fact that there are many areas in which

²² Caliver, Ambrose. Education of Negro teachers. Vol. IV, National Survey of the Education of Teachers. Office of Education Bulletin, 1933, no. 16.

there are no high-school facilities for Negro boys and girls within usable distances. Many of the Negro high schools are small and are taught by teachers with inadequate preparation who are forced to teach more hours and more subjects than could be well taught even if the teachers had excellent preparation and the schools were well supplied with books and instructional equipment. Under these conditions teaching with its relatively low salaries among the Negroes must compete with the professions and with business and industry for the limited number of capable young men and women who are able to secure a high-school education. This competition should not encourage a lowering of standards for admission to the curricula for teachers, otherwise a vicious circle of poorer students, poorer teachers, poorer schools, poorer students will be inaugurated.

SECTION 8. COMPARATIVE PRACTICES REGARDING THE PROFESSIONAL ELEMENTS IN THE PREPARATION OF TEACHERS

It is difficult to make comparisons of practices with respect to the distinctly professional elements in the preparation of teachers in the United States and European countries. Certain fundamental political, economic, and educational differences exist which would make it unlikely that some of the practices followed abroad could be adopted in this country even if they were recognized to be superior to those followed here because their successful operation would depend upon other changes which would not be approved. Some of these differences should be noted. Teaching in most of the European countries is considered as a stable, highly respected, satisfactorily rewarded permanent professional occupation. It is assumed that teachers will be well-educated leaders in the communities in which they teach and that they will have the amount and kind of educational preparation necessary to perform their several responsibilities satisfactorily. A high degree of selection for admission to teacher-preparing curricula and rigid selection and elimination throughout the period of preservice preparation is taken for granted. Final admission to teaching is based upon competitive State-controlled comprehensive examinations. The school systems are also so much more uniform in organization and content of instructional material that it is possible to prepare very definitely for specific types of work.

Another element which is affecting the preparation of teachers in European countries is the changed attitude toward the "common people" and the elementary schools in which they are educated. As the "common people" of these countries gained prestige and social importance the elementary schools were changed from institu-

tions in which approved materials were learned—memorized—to schools in which children were taught to think about modern social, political, and economic conditions. This required more and better and different education of the teachers and resulted in the general upgrading of the elementary teachers referred to in chapter II.

“Another very striking problem is the tendency in Europe in the training of elementary teachers to divorce absolutely the professional training of a teacher from his academic preparation. In the old normal school the attempt was made to carry forward the general education of a teacher along with his theoretical and practical training. This point of view is being rejected in many countries. The feeling is gaining ground rapidly that a teacher should have a rich academic background before ever attempting any sort of professional work and that the professional school should be 100 percent professional and not half academic and half technical, the notion being that to combine in a professional school straight academic courses with professional courses is fatal to good work in either field.

“Thus, we find the newer teacher-training institutions, especially in middle Europe, with curricula which are strictly professional. In this respect they are following the analogy to be found in the training of physicians. The attempt is made to assure the teacher control of general culture before permitting him to enter upon his professional studies, demanding in most cases the equivalent of what in America would be 2 years of college training. This is followed by a period of 2, or 3, or 4 years of professional preparation.

“Another characteristic of the situation in Europe is the emphasis upon training in service. It is tied up with the customary period of probationary teaching.”²³

In the light of these and other conditions practices can be enforced and results obtained which would not be possible here except in a few of the more educationally advanced States and local communities.

THE PROFESSIONAL ELEMENTS IN THE EDUCATION OF TEACHERS IN ENGLAND

The professional preparation of elementary teachers in England.—Elementary teachers in England are prepared in the training colleges and in the university training departments. The basic course in the training college is 2 years in length and is composed of 3 types of subjects: Professional, such as principles of teaching; general, such as English and mathematics; and practical, such as music and practical arts. If a third year is added to the course it is largely

²³ Alexander, Thomas, and others. The training of teachers in Europe. National Survey of the Education of Teachers, vol. V, pt. VIII. United States Office of Education Bulletin, 1933, no. 10.

given to specialization in some subject-matter field related to the elementary school work.

"The amount of subject-matter specialization is controlled by the regulations for the final examination. In addition to a test in general subjects, all teachers are required at the end of their training to take the examination in professional subjects and to demonstrate ability in the practical work: Music, gardening, handwork, and drawing.

"The course in observation and practice teaching as provided in the training colleges leaves much to be desired. The regulations require at least 12 weeks of teaching unless the candidate has had previous experience. Practice is usually arranged in public schools which are only partially under the control of the training colleges. Subject-matter teachers are responsible for the work in observation, and education lectures for the practice teaching. Since the board of education requires that candidates show satisfactory teaching ability before they can receive a certificate, the year of probation following graduation may be used as a period for practice teaching under the guidance of the school head and of the inspector."²⁴

The elementary teachers prepared in the university training departments take the 3-year university training followed by a fourth year of professional preparation which includes both educational theory and practice. "The work includes both a theoretical and a practical phase. The educational theory courses include those usually stressed in the training of teachers: Principles of teaching, special methods, educational psychology, history of education, and hygiene. The observation and practice teaching are conducted as in the training colleges. This work is rather loosely organized and not sufficiently controlled by the departments. Since professional training is superimposed on academic work, there is little integration between the subject matter learned during the first 3 years and the professional courses taken later. The work in observation and practice fails to integrate the subject matter and educational theory to the extent that this would be possible under a better organized system."

The final examinations for admission to teaching in the elementary schools of England are set by the institutions in a specified region. This makes for some uniformity within each of the 12 regions.

The faculty members of the university training departments are as well prepared as are those of other departments. This is not

²⁴ In this discussion and for those of France, Germany, and Sweden the quotations used unless otherwise specified are from the report prepared by Dr. Thomas Alexander and others for the National Survey of the Education of Teachers and printed as pt. VIII of vol. V.

true for the faculty members of the training colleges. "The relationship of the subject specialists to the observation and practice teaching is closer in the training colleges than in the university departments. In the former (training colleges) the distinction between the 'subject staff' and the 'methods staff' is disappearing, because of the fact that subject-matter teachers often demonstrate methods of teaching their subjects in the training school. In the university departments there is usually a complete separation between the work in academic subjects which takes place during the first 3 years of the course and the professional training which is given during the fourth year." Students entering curricula for the preparation of elementary teachers in either type of school must have passed the first-school examination which eliminates from a fourth to a third of those who attempt it. Further selection is resorted to by the several institutions from among the successful candidates. In this way the prospective elementary teachers are capable students with a good general education to the extent of the completion of an English secondary school.

The professional preparation of secondary teachers in England.— "There is very little distinction between the training taken by those elementary teachers who complete a university degree and then go through the professional year in a university training department (the 4-year course) and the preparation of a secondary teacher. In fact, many university graduates who have taken the 4-year course for elementary teaching accept work in the secondary school.

"This lack of differentiation between the training of elementary and secondary teachers is explained by the characteristic English emphasis on experience, personality, and scholarship. If a teacher has these, to the English mind, it makes little difference whether he has been trained for elementary or secondary teaching."

As a result of these attitudes the selective admission is the same, the practice teaching, probationary year, and the final examinations follow the same pattern as for elementary teachers. Two significant differences are that secondary teachers are not required to take courses in drawing, music, handwork, and physical training, and are encouraged to specialize in one or two subjects in the secondary field, especially those who have the honors degree before starting the year of professional work which follows graduation from the university.

From these accounts it is quite evident that those responsible for the preparation of teachers in England believe in professional preparation but consider it desirable to concentrate that preparation in a period following the completion of a satisfactory amount of general preparation and special study of the subject-matter fields to be taught.

THE PROFESSIONAL ELEMENTS IN THE EDUCATION OF
TEACHERS IN FRANCE

The professional preparation of elementary teachers in France.—Elementary teachers in France are prepared in normal schools entirely controlled by the State. Each of the 88 departments is required to maintain 2 normal schools—1 for men and 1 for women.

The course is 3 years in length and emphasizes subject matter very strongly. "About 50 percent of the student's time is devoted to the study of such subject-matter branches as French language and literature, modern foreign language, mathematics, history, geography, physical and natural sciences * * *. Since there is an attempt to professionalize the whole curriculum, educational theory is allotted only a small share of the required hours, about 5 percent.

"All students are required to spend a minimum of 50 half-days each year in observation and practice. Contact with the practice school is continuous throughout the 3-year course. The induction into teaching is graded as follows: First year, observation of teaching and reports; second year, observation and directed teaching; third year, independent teaching and conferences.

"The curriculum does not neglect the skills needed in teaching fine and practical arts. About 40 percent of the required hours is devoted to this type of training. The subjects included are drawing, music, manual work, and agriculture."

The professional emphasis is continued during a probationary period of 2 years with occasional conferences on teaching problems and a final examination which consists of teaching a demonstration class before a commission of State examiners as well as answering professional questions on school organization and teaching techniques.

The faculty members of the normal schools are highly trained specialists in subject matter, all of whom have had some teaching experience, most of them having taught in the elementary schools.

"The professors of the general academic subjects in the normal schools are required to participate in the induction of cadet-teachers into the practice work. Such contact with the training school should tend to influence subject professors to introduce professional material into their courses. The fact that a course in special methods is still given as part of the work of *Pedagogie* indicates that the subject-matter courses are not thoroughly professionalized. The attempt to have the subjects of general instruction treated from the standpoint of their use in the elementary schools is probably handicapped by the desire of some normal-school graduates to continue their study in the university. The normal-school professors wish to have their work accredited by the university; hence the courses are mainly academic in content."

The students in the French normal schools are highly selected by the written and oral examinations for the brevet élémentaire—the lowest rank of certificate and “arranged on a list according to excellence. Highest ranking students are then accepted for entrance to the normal school until the number of vacancies have been filled. Since the Government makes an appropriation for maintenance, instruction, and books for each student admitted, the number of places is definitely limited and competition for admission is very keen.”

Professional preparation of secondary teachers in France.—The extensive and highly selective education of prospective secondary teachers in France was outlined in chapter II. The professional elements in the preparation of these teachers are rather insignificant. An extended period of increasingly intensive specialization in a special field of subject matter is depended upon to produce the types of teachers needed by the secondary schools.

For those students who elect the classe de philosophie instead of the classe de mathématiques in the seventh year of their secondary schooling an emphasis is put upon the study of psychology, logic, ethics, and metaphysics and they must pass a highly selective examination (only 30 or 40 percent pass) upon the work in these fields. During the third year of university study the “candidates who have had no teaching experience are required to take the stage pédagogiques. This is a short course in educational theory—a total of 20 lectures and 5 weeks of observation and practice. In addition to taking the short course in educational theory, the candidate for the agrégation spends 3 consecutive weeks in observing the teaching of his subject and then participates for 2 additional weeks in actual teaching procedures, such as, class management, preparation of materials, and correction of written work. The teachers under whose supervision this work is done are selected and designated by the higher educational authorities.

Professional treatment of subject-matter courses and constant contact with the demonstration and practice school characterize the preparation of elementary teachers. In contrast to this emphasis in the normal schools there is little serious attention given to the professional phases of teaching in the preparation of secondary teachers. The École Normale Supérieure gives more attention to the professional phase of a secondary teacher's preparation than do the universities.

THE PROFESSIONAL ELEMENTS IN THE PREPARATION OF TEACHERS IN GERMANY

Professional preparation of elementary teachers in Germany.—The preparation of elementary teachers in Germany is a distinctly

professional process whether it is done in the new universities for teacher training—the Hochschule für Lehrerbildung (2-year course including vacation period) or in the universities (3-year course). Students admitted to these institutions are highly selected by means of examinations and such additional qualifications as health, race, public service, musical ability, and other requirements. The professional elements are very prominent in the universities for teacher training. "Since the student teacher has had a thorough training in general subjects during the secondary school period, the university curriculum is mainly professional (theory, practice teaching, methods and materials of school subjects). The most recent information on the curriculum of the Prussian university for teacher training indicates that the curriculum will fall into six large groups as follows: I. General theory of education, including psychology; II. Theory of the organization and teaching in the special fields and subjects; III. Practical training, including observation, practice, and participation; IV. Volk study; V. Physical training; VI. Fine and industrial arts.

"The course in observation and practice teaching seems entirely adequate. Universities for teacher training take over nearby public schools for observation and practice work. Through these the student teacher is kept in constant touch with actual school situations. Observation—both of school classes and other kinds of educational activities—begins in the first semester and is continuous throughout the 2 years. The wide range of activities included in the observation and practice work is worthy of note. Practice is not limited to classroom teaching but extends to all phases of the teacher's job. Observation tours are used as one means of advancing the educational experience of students. Often the amount and kind of practice teaching is adapted to the needs of the individual."

The professional elements are continued to the 2-year probationary period following the completion of the course. Training in service is continued during those 2 years under the instruction of school inspectors and the final qualifying examination is largely professional in nature consisting of a practical demonstration of teaching ability in three subjects in the elementary field and a conference based on the lessons taught.

The faculty members of these institutions are very highly trained in their special fields of work and in addition have had, in the large majority of cases, teaching experience in the elementary school.

"The thoroughly professional spirit of the staff is shown by the functional relationship of theory and subject teachers to the practical phases of the training program. Professors of educational theory and professionalized subject-matter courses spend considerable

time in the actual teaching of children. The practice school is the heart of the institution and is used by the professors as a place for demonstrating the theories presented in their courses."

The 8-year courses in the universities are not essentially different from those of the universities for teacher training. About 40 per cent of the student's time is devoted to philosophy, psychology, history of education, and the sciences allied to education. Much of the course is devoted to subject matter taught by professors who are interested in teaching and who do most of the teaching of children in the demonstration school. In the universities practice teaching is often done during university vacation periods which allows closer supervision by the faculty members and longer periods of consecutive teaching by the practice teachers.

Professional preparation of secondary teachers in Germany.—The secondary teachers of Germany are a very highly selected and well-educated group of men and women. The distinctly professional phases of their education are more definite than in the preparation of secondary teachers in France. While studying in the universities for the first State examinations, prospective secondary teachers must also prepare for an examination in philosophy which usually includes psychology and pedagogy. After these examinations are passed there is a 2-year period of practical and professional work in a seminar located at some selected secondary school. "During this period the student teacher has abundant opportunity for observation, participation, and practice under the supervision of capable teachers." After this practice period the candidate still has to prepare for and pass a second or pedagogical examination before he can be placed on the list for permanent appointment.

It is evident from these brief accounts that the institutions educating the elementary teachers and those educating the secondary teachers in Germany believe in the professional preparation of teachers and believe that it should be added to a satisfactory general education.

THE PROFESSIONAL ELEMENTS IN THE PREPARATION OF TEACHERS IN SWEDEN

Professional preparation of elementary teachers in Sweden.—The preparation of teachers for the elementary schools of Sweden is done on two levels. The primary normal schools prepare teachers for the rural and infant schools. The work of these schools is professionally motivated by periods of observation and practice teaching in each of the 2 years. During the second year five 45-minute periods per week are devoted to practice. Each normal

school must maintain an elementary school for observation and practice.

Teachers for the elementary schools proper are prepared in 4-year teachers colleges. Students admitted to these colleges are selected but have limited background in general education. For that reason the emphasis is placed upon a thorough mastery of subject matter. "About 11.5 percent of the student teacher's time is devoted to professional subjects. This includes observation, practice teaching, and educational theory. The course in observation begins in the second year, when 6 full days are given to concentrated work of this kind. During the second year about 1 hour per week is devoted to teaching, and the same amount of time is assigned for conferences on method. During the third year of training the same program is continued except that the amount of teaching is increased to 2 hours per week. In the fourth year the observation work is expanded to include visits to schools at a distance from the institution. The amount of time given to group teaching and conferences during this last year is increased to 4 hours per week."

Even though the percentage of time spent in education courses is not large the professional elements are distributed throughout the last 3 years of the course and much of the work in the subject-matter fields is taught by experienced teachers of children. "During 1927 the full professors (lektors) spent 17.4 percent of their service time in the teaching of children in the elementary grades."

Professional preparation of secondary teachers in Sweden.—The high degree of selection of secondary teachers in Sweden and the very extended period of preparation (8 or 9 years beyond the gymnasium) were outlined in the preceding chapter. As in France there is less emphasis upon the distinctly professional elements in the education of secondary teachers than in the education of elementary teachers.

* Very little work of a professional nature is included in the university course. The student may elect pedagogik as a study. If this is not done, the candidate satisfies the requirement in educational theory by taking a course which lasts 1 semester.

"The year of practical training which follows the academic preparation gives adequate opportunity for observation, participation, and practice. Usually about 10 candidates are assigned to a secondary school where they work under the supervision of master teachers. A candidate's actual teaching load is very light—about 6 hours per week—but he is expected to make careful preparation for this work. The minimum requirement in observation is from 10 to 12 hours per week. The candidate does teaching in not less than two nor more than four subjects—those in which he has had

academic preparation. In addition to following the schedule of observation and practice, the student teachers are expected to attend weekly conferences in which the faculty and students together discuss the work which has been done."

After this year of concentrated professional preparation (provår) is completed there is also the requirement of 2 additional probationary years which must be served under observation before the secondary teacher may expect permanent appointment.

PRACTICES WITH RESPECT TO PROFESSIONAL ELEMENTS IN THE PREPARATION OF TEACHERS IN FOUR EUROPEAN COUNTRIES

In England the standards for the preparation of teachers for the elementary schools vary. In the universities they are much the same as for the preparation of teachers for the secondary schools. The majority of the teachers for the elementary schools, however, have only a 2-year course above the secondary schools. The present tendency in Germany is to increase the standards for the preparation of elementary teachers so that they approach more nearly those for secondary teachers than has been true in the past even though there is still a difference of 3 or 4 years. In France and Sweden the standards for elementary teachers are very definitely lower (so far as amount of preparation is concerned) than those for the preparation of secondary teachers.

There is generally a greater emphasis upon the distinctly professional and practical phases of a teacher's preparation in institutions training elementary teachers than in those preparing secondary teachers.

There is also a noticeable tendency to separate the professional elements from the subject-matter courses and to concentrate the practical professional preparation in a relatively short period after the general and specialized subject-matter courses have been completed.

There is definite dependence upon in-service education as the means for providing the teacher with his professional equipment. This is often closely supervised during a probationary period following the completion of professional preparation.

SECTION 9. RECOMMENDATIONS FOR MAKING THE PREPARATION OF AMERICAN TEACHERS MORE PROFESSIONAL

The elements dealt with in this chapter seem to be more intangible than the elements involved in raising the level of the education of teachers discussed in chapter II. Perhaps the fact that so much of the thinking about the amount of the education of teachers is

expressed in terms of years gives rise to the impression that questions of the amount of a teacher's education are quantitative and definite, whereas those dealing with its professional aspects are qualitative and indefinite. The thoughtful student of teacher-education realizes at once that no such sharp distinction can be drawn.

The number of years spent in school without regard to the courses taken, the content of the courses, the way in which they are presented, and the quality and amount of work done by the student tells very little about the adequacy of his preparation. Neither do the courses taken or hours spent in education and psychology or in practice teaching tell very much about the professional nature of the teacher's preparation unless it is also known how those courses were presented and how they were connected with the courses in subject matter, the extraclass activities and the student's previous social, educational, and economic background. Even though these interrelations and interdependencies are admitted it still seems more troublesome to resolve the difficulties which have been presented and discussed in this chapter than was true for those presented in chapter II. The controversies seem to be more intense, the proposed solutions fewer and less generally tried, and there is less experimental and comparative evidence available than was found true for the issues involving the amount of preparation.

In spite of these differences—real and imagined—some recommendations are made with the expectation that they will clarify issues, or provoke further study and discussion or suggest desirable solutions and methods of procedure to those responsible in the several States for the development of the professional curricula for teachers.

Numerous proposals and recommendations have been stated or clearly implied in the discussion in this chapter. Many more have been made in connection with the detailed reports of Survey studies of separate phases of the professional preparation of teachers which appear in volumes II to V, inclusive, of the Survey report. For these reasons the recommendations given here will be in the form of a selected instead of a comprehensive list and will follow the general outline of the chapter.

The proposals and recommendations presented for this chapter, because of their professional nature, require consideration and action by professional groups more often than by laymen. They should receive the consideration of faculties of institutions educating teachers, of educational accrediting organizations, of State and National educational associations, and of State departments of education—in fact of all professional agencies directly or indirectly connected with the education of teachers. Whenever, as a result of these con-

siderations, action can be taken which will increase the effectiveness and at the same time the professional status of teachers and teaching, such action should be taken as soon as practicable.

One general reservation should be made for the recommendations on increasing the professional preparation of teachers. The preparation of teachers can be made more professional in three ways: (1) By decreasing the amount of time used for general education and substituting professional elements; (2) by integrating general and professional education and doing as much as possible of both in the allotted time; or (3) by increasing the total time so that the professional elements may be added without decreasing the amount of the teacher's general education. In the light of the data presented in chapter II showing the urgent need for increased amounts of education for American teachers the recommendations in this chapter are restricted to the second and third methods of increasing professional preparation.

(1) RECOMMENDATIONS CONCERNING THE RELATIONSHIPS OF GENERAL AND PROFESSIONAL EDUCATION

1. State departments of education and all organizations responsible for standards of teacher-education should make it clear through their regulations that teaching demands special professional preparation. They should also make it clear that the professional elements should be an addition to or an integration with, rather than a substitute for an adequate general education and an extensive and scholarly command of the specific subject-matter fields to be taught. This proposition has been accepted in principle by most of the States, but regulations which state or imply it have been expressed in such general terms that they have had little effect upon curricula in the institutions preparing teachers.

Standards and State regulations for the certification of teachers should be expressed in terms of total patterns which would insure the possession of the desired professional elements. Regulations expressed in such terms as "2 years of college work", or "15 semester-credits in education", or "a major of 24 semester-credits and a minor of 18 semester-credits" have been generally ineffective. Regulations can secure the desired result by either of two methods:

- (a) By specifying that students completing certain approved curricula in institutions approved by the State for the preparation of specific groups of teachers may be certified; or

(b) By specifying in the regulations the factors which will be considered in granting teachers' certificates. This would amount to a statement in the regulations of the standards which were used in approving the curricula and the institutions in the first plan. Such statements should indicate that certification would be based upon the consideration of: The total educational pattern of work (high school and college) in the fields to be taught; the number of advanced courses in the teaching field; the contacts with fields related to the teaching fields; the number and nature of contacts with major fields of knowledge and culture; variety, amount, and success in practice teaching; participation in extraclass activities—recreational, social, and educational; and other items indicative of professional interest and ability as a teacher. These factors would naturally vary for each type of position and each subject in the secondary field. Minimum amounts of work can be expressed for most of the items. These should be developed as indicated in the next recommendation, but certification should not be reduced to a clerical checking of requirements met, because the value of any one item depends upon the remainder of the pattern. For example, 18 semester-credits in college mathematics may be quite sufficient for a high-school teacher of mathematics if he had had 3 years of mathematics in high school and several courses in the physical sciences, whereas 30 semester-credits of college mathematics would not be sufficient if he had not had mathematics in high school.

This recommendation is tantamount to proposing that certification should be on an individual basis, that it should set minimum standards for the professional preparation of teachers for various kinds of positions, that it should be a selective process, and that it should serve as a check upon the extent to which institutions meet the approved standards of preparation for any type of position.

2. Minimum standards for the professional preparation of teachers for various kinds of positions should be set by the regularly constituted State educational authorities. This should be done, however, with the cooperation of the institutions in the State (public and private) whose graduates may apply for certifications as teachers. This recommendation assumes professionally competent leadership in the State departments of education.
3. As rapidly as practicable State departments of education and educational organizations interested in the education of teachers should secure wider agreement, inter-State and national if pos-

sible, on the minimum length of a professional curriculum for teachers, especially elementary and rural, and whether it should start at the completion of high school or at the completion of junior college. The present diversity of opinions and practices on this issue as shown in figure 4, page 81, result in a confusion which permits a lowering of standards. It is recommended that the minimum professional curriculum for elementary and rural teachers be made, for the present, 2 years and that it be based upon the completion of a junior college education. This should not be so interpreted that it would prevent the integration, over a 4-year period, of the junior college and the professional curricula or that the professional curricula should be composed entirely or even largely of courses in education. The minimum professional curriculum ~~for~~ secondary teachers should be 3 years above junior college. (The same reservations are made for this recommendation as were made for the one dealing with elementary and rural teachers.)

The two desired results of such arrangement or standardization are (a) to raise the general standard of the educational preparation of teachers, and (b) to insure a period of preparation long enough to provide the essential sequences of courses in subject-matter fields and to permit educational "service" courses to precede the courses in which the "service" elements are to be utilized.

4. The adequacy of the library in terms of the number, recency, selection, and accessibility of books and periodicals in relation to the curricula offered should be one of the most important elements in determining the approval of an institution for the education of teachers, because teachers must rely largely upon their ability to use such sources for their materials of instruction and because the library facilities available limit in a very real way the methods of college instruction and the development of professional and cultural reading habits among prospective teachers.

Standards for libraries which should serve as guides and as starting points have been prepared by the American Library Association, Rosenlof, Waples, and others. From the standpoint of insuring improvement in the professional preparation of public-school teachers the following matters should be considered by those responsible for the approval of the libraries in institutions educating teachers:

- (a) Because of the differences between the library facilities of the normal schools and teachers colleges and those of the liberal arts colleges shown in the Waples study (vol. V, pt. V), normal schools and teachers colleges as a group

should increase their library facilities, especially in fields other than education and psychology, until they compare more favorably with the better-equipped liberal arts colleges in their areas. This recommendation should apply also to many of the smaller arts colleges in which the library facilities are very inadequate. This recommendation involves the expenditure, over a period of several years, of more money for old and new books than will be required for upkeep purposes once the collection has been brought up to standard.

(b) Libraries in institutions in which prospective teachers are educated should be in charge of trained librarians who also are familiar with the teaching fields for which the institution prepares teachers and who will be interested primarily in the contribution which the library can make to the professional equipment of the prospective teachers. They should be able to teach students how best to use the wealth of little-used material in any library, to develop reading interests, to stimulate interest in and provide the necessary instruction in the development and use of public-school libraries and to cooperate with the staff members of the institution in the selection of recent books and in making the library an integral part of the instruction in the college courses.

(c) The number of books and periodicals needed by a college depends more upon the curricula offered and the length of the curricula than upon the number of students. This factor should be considered in the approval of library facilities. If the curricula offered in a large and a small college are the same the large college needs only to provide a few more copies of the duplicated much-used reference books. For this reason the expenditures should not be put upon an equal per student basis. The small institution should spend more per student and a larger proportion of its total budget for books and equipment in order to have equal facilities.

(d) Because teachers were found to have limited reading interests about topics of national and international concern, efforts should be made by librarians and by instructors in the social-studies fields to develop reading interests in such topics and to afford opportunities in classes and extraclass activities for discussion and exchange of ideas on problems in these fields.

5. The institutional program of extraclass or student activities and student-welfare services should be an important factor in the approval of any institution of higher education for the preparation

of teachers. Even though these activities may be thought of by some as outside the curriculum they are very essential elements in the professional equipment of prospective teachers. Teachers are frequently expected to organize, lead, or participate in some of these activities in their schools and among the adults in their communities. Furthermore, many of these activities add greatly to the teacher's information, interests, enthusiasms, health, recreational enjoyment, and poise—all of which are elements in a teacher's personality and important factors in his success and happiness as a teacher and his life as a citizen and community leader.

- (a) Whenever possible, extraclass activities should be sponsored and guided by appropriate departments of regular instruction, for example, athletics by physical education departments and plays by English and speech departments.
- (b) The primary responsibility for student activities must rest upon the college administration and faculty, but, whenever possible, the management of such activities should be delegated to students in order that the students may derive the value from such experience and also in order that they may know how to direct such activities in their work as teachers.
- (c) Because the majority of high-school teachers are expected to sponsor some of these student activities in high schools, institutions preparing teachers should equip prospective secondary teachers for this sponsorship. They should also attempt to discover for each student the type or types of extraclass activity with which he will need to be most familiar in the position for which he is preparing and to assist him within the limits of his abilities and interests to secure experience and proficiency in those activities.
- (d) All institutions educating teachers should see that provisions are made for developing in both class and extraclass activities the social personalities of prospective teachers and a sensitiveness to the approved amenities of educated people.
- (e) Programs of extraclass activities in institutions preparing teachers should be judged in terms of the range of activities open to students and of the extent to which students participate in each activity. Intramural programs with general participation are more desirable in the professional preparation of teachers than highly intensified and selective activities which limit the possibilities of participation to a few students.

(f) Institutions preparing teachers should maintain comprehensive programs of student-welfare services. These should include the fields of physical and mental health, educational, social and religious guidance, protection from unwholesome or dangerous living conditions, and self-help and financial assistance.

(1) Health services should start with the entrance physical examination and should continue with follow-up and corrective measures for all remedial defects. They should also provide for instruction in personal hygiene and, if necessary, for psychiatric services, medical treatment, infirmary and hospital care.

(2) College residence halls and dining rooms should serve as educative models of attractiveness, cleanliness, safety, and convenience. All other houses in which students are permitted to reside should be systematically inspected for these same items and rigid standards should be imposed especially for sanitation and safety from fire hazards.

(3) With tuition charges heavier and periods of preparation longer, the financial burden on prospective teachers has greatly increased. In order not to eliminate the capable but poor student who is a desirable recruit to teaching, all institutions educating teachers should increase their funds for scholarships and for loans to students and should provide, if possible, opportunities for self-help. Even the institutions which already provide student aid (two-thirds) and student-loan funds (three-fifths) probably should add to what they are now doing. (In 1931-32, 40 percent of the students in men's colleges earned part of their expenses while in college, and the number is increasing.)

Student-welfare programs should be educative and constructive as well as protective.

(2) RECOMMENDATIONS CONCERNING THE AMOUNT AND DISTRIBUTION OF THE DISTINCTLY PROFESSIONAL ELEMENTS IN THE EDUCATION OF TEACHERS*

6. Curricula for the preparation of teachers should make provision for the following seven phases of professional education:

(a) Professional orientation—the relationship of education to society and the possibilities open in educational service.

* Because this topic was discussed more fully in the body of the chapter than the other topics and because it is concerned largely with issues upon which there is much diversity of practice, sharp differences of opinion, and little scientific evidence, the recommendations will cover only the larger phases of the problem.

- (b) Educational "service" courses—the essential concepts and techniques used frequently in other courses and in educational literature.
- (c) An understanding of the children to be taught.
- (d) A knowledge of the essential methods of teaching for the grade or subject to be taught.
- (e) A knowledge of the organization and management of class instruction in various types of schools.
- (f) Acquisition of a "safety minimum" of teaching skill through observation, participation, and practice teaching.
- (g) A summarized and integrated "working philosophy" of education and an understanding of the individual's relationship to education and society.

These seven phases, as explained in the chapter, need not be handled in the same way, nor by the same departments, nor for the same amount of time, but they represent elements in a teacher's equipment which must be obtained sometime and somehow and if not obtained during the pre-service period will probably cause some loss to the children and some professional risks to the teacher during the time they are acquired in service. Elements (a), (b), (e), and (f) of this list are usually cared for in one or more separate courses, e. g., "introduction to education", "educational tests and measurements."

7. Because of the increased emphasis upon the individual child in modern school organizations all curricula for teachers should include at least a foundation course in the special characteristics of children or adolescents or adults according to the age group with which the teacher expects to work. This foundation course should include sufficient child psychology, for instance, so that the student who expects to teach in the intermediate grades may interpret the content of his subject-matter courses in terms of their value to him as a teacher of the intermediate grades and so that he will have a sympathetic understanding of his pupils—their interests and learning difficulties. The possession of this element of professional equipment has much to do with a teacher's success and happiness.
8. The problem of the most effective way of providing the prospective teacher with the essential methods of teaching his grade, subject, or field should be systematically studied by every institution which prepares teachers. Until more scientific evidence is available to indicate that one way of presenting this professional element is better than another, there is no basis for recom-

mending that any one method be used or even that all the instructors in a single institution should necessarily follow the same plan. There is justification, however, for recommending that steps be taken to make every college instructor whose courses are taken by prospective teachers conscious that the problem exists, that it affects his work and his students, and that any evidence he can gather on it, however little, is a contribution to education.

9. All institutions preparing teachers should be required to supply enough practice-teaching facilities to insure initial competency for all prospective teachers. The institutions should have control enough over the practice-teaching centers to approve the teachers with whom student-teachers are to be placed, to assign and supervise the work of student-teachers, and to modify the curricula for demonstration or experimental purposes.

(d) All prospective teachers should be required to have supervised practice-teaching before certification. As far as possible this teaching should be done in a situation typical of conditions in the better schools to which the students are likely to go upon graduation. This student-teaching should be flexible in amount so that those students who reach a satisfactory proficiency may be excused before the completion of the usual period, while others may be required to spend longer than the regular time.

(b) Practice-teaching facilities should be provided which will make it easy for subject-matter instructors to participate in demonstrations of teaching, cooperative supervision of practice teaching, group experiments, and other professional contacts with the training schools. Instructors, the majority of whose students are prospective teachers, should be expected to make these contacts.

(c) In order to facilitate the observation and demonstration of model teaching situations and the professional use of the training school by larger numbers of subject-matter teachers, one or more of the practice schools should be on or immediately adjacent to the campus.

(3) RECOMMENDATIONS CONCERNING PRESCRIPTION AND ELECTION IN PROFESSIONAL CURRICULA FOR TEACHERS

10. Curricula for teachers should be largely prescribed—the prescriptions differing in terms of the positions for which the prospective teachers are preparing. Prescriptions in preservice curricula for teachers should be designed to produce a “safety-

minimum competency" for each type of position. This means that curriculum patterns should be determined by the total range of services to be rendered by teachers and not by departmental regulations concerning major and minor requirements based upon subject-matter relationships instead of the teacher's needs. To the extent that these services are known it should be possible to prescribe the content and arrangement of the teacher's preservice preparation.

- (a) Prescriptions should provide for the following elements in a teacher's professional equipment:
- (1) Contacts with the major fields of knowledge and appreciation which contribute not only to his work as a teacher but also to the enrichment of his life as an individual;
 - (2) Command of the subject matter of his teaching field or fields—major and minor requirements for secondary teachers;
 - (3) Supplementary subject matter from fields related to his teaching fields;
 - (4) The seven distinctly professional elements from the field of education and psychology (recommendation no. 6);
 - (5) Desirable and necessary sequences in subject-matter and education courses;
 - (6) Gradations in difficulty and "intellectual challenge" in courses.
- (b) Prescriptions should be administered so that adjustments to individual needs and abilities can be made readily. Every college preparing teachers should determine in some reliable way what the student's intellectual equipment is at the time he begins his college course and should then provide the necessary remedial work or allow exemptions from prescribed work which he has already mastered. Work satisfactorily completed in high school by prospective teachers should be considered in a very real sense a part of the teacher's general and cultural education.
- (c) Whenever adequate achievement tests are available to measure the mastery of an area of knowledge needed by teachers for any type of position, evidence of such mastery should be substituted for the accumulation of course credits to fulfill requirements for graduation.
- (d) Because of the large number of high-school teachers who will have to do their first teaching in small high schools, curricula for high-school teachers should prescribe the initial competency in two or three teaching fields.

11. Teachers and administrative officers of institutions preparing teachers were in general agreement that curricula for teachers should allow the student some free electives. The median judgment of the group was that 20 percent of the total time should be used for free electives. The recommendations of individual instructors differed widely, as would be expected. Instructors in the special-subject fields as a group recommended less time for electives than the teachers of academic subjects.
 - (a) Elective privileges should be used under guidance to give the student opportunities to explore new fields, develop his special talents, widen his interests and contacts, and supplement his work in any phase of his teaching field in which he needs additional preparation or skill.
 - (b) Elective privileges should not be allowed to increase unduly the number of courses offered by the institution or cause a prohibitive expense because of small classes.
12. In institutions preparing teachers for more than one kind of teaching position the need for differentiation in some of the courses which appear in more than one curriculum should be considered. For example, a course in educational tests and measurements might be required of all prospective teachers and yet its content and points of emphasis could be made more directly valuable if one section were composed only of kindergarten-primary teachers, another of elementary teachers, and a third of secondary teachers, than would be possible in the same amount of time if all three groups were in the same class. The principle of differentiation was generally approved by teachers of representative courses who voted on it as one of the educational issues in the education of teachers. Its practical application to many courses depends very definitely upon the size of the institution and the number of prospective teachers in the different teaching fields.
13. In States in which there are a number of institutions approved for the preparation of teachers it is recommended that the preparation of teachers for certain types of positions be concentrated in designated institutions and that only a restricted number of "service" courses be given in those fields in the remaining institutions. This recommendation should apply especially to institutions preparing teachers in those fields in which there is a limited demand for new teachers or which require an elaborate and costly equipment. Examples would be special teachers or supervisors of art, music, commercial education, physical education, industrial arts, or home economics.

(4) RECOMMENDATIONS CONCERNING THE RELATIONSHIP OF PRE-SERVICE EDUCATION TO IN-SERVICE EDUCATION OF TEACHERS

14. Securing a "safety minimum competency" in teaching rather than "initial perfection" should be used as the goal for the preservice preparation of teachers, leaving to the in-service period the tasks of perfecting teaching techniques and continuing professional growth.

(a) Institutional programs for the education of teachers in service should serve the needs of three groups of teachers—

(1) those whose professional preparation is below the present accepted standard and who wish to "upgrade" themselves; (2) those who wish to prepare for another type of position; and (3) those who, even though their preparation meets present standards, wish to increase their knowledge or skill in some phase of their work or to add to their general outlook and cultural background. The first two of these groups can be cared for largely by the regular offerings of the institution. The third group will in many instances need new courses at different maturity levels and with slightly different professional purposes.

(b) Programs for the in-service education of teachers should be planned by the teachers to be served, in terms of the peculiar needs of the school system in which they are working, the plan to cover a period of several years and to make extensive use of teachers, supervisors, and administrative officers in the local system.

(c) Institutions preparing teachers should assume some responsibility for the satisfactory placement of their graduates. If, in addition to this service, they can provide some follow-up or "adjustment service" during the initial teaching period it will benefit the graduates, the communities in which they are teaching and assist the institutions in evaluating the effectiveness of their policies.

15. Summer sessions in institutions preparing teachers should be organized to render two principal services—the continuation, during a summer term, of the work of the regular year and the development of the new kind of courses required by the third type of teachers mentioned in recommendation 14 (a).

(a) Summer sessions should be made an integral part of the year's work in order that the courses offered may serve the teachers in service who wish to meet minimum requirements of educational preparation or who wish to meet the requirements for improved certification and at the same time may

serve resident students who wish to shorten the time required for a given degree.

- (b) Summer sessions serving experienced teachers should emphasize training-school facilities for demonstration purposes rather than for practice teaching.
 - (c) Summer sessions should take advantage of their unique opportunities to develop special courses for teachers in service who attend summer school for professional or cultural advancement and not to meet any imposed requirements. These could range in length from 2- or 3-day conferences to units covering more than 1 summer term, and they could range in content from informational entertainment to the most highly specialized and technical instruction.
16. Institutions offering graduate work for teachers should adapt the courses offered and the requirements for degrees to the functional needs of teachers in the various types of positions.
- (a) Unless it is a part of a post-junior college 3-year curriculum, graduate work for the master's degree on the part of public-school teachers should be concerned either with a continuation of general and professional education (increasing their teaching efficiency) or with intensive specialization and research in the field of special interest. In either case the graduate work should fill a recognized gap in the teacher's preparation, or assist him in changing work, or increase his general efficiency or develop an intellectual interest or meet some other personal need, rather than make a research contribution to education.
 - (b) When a 3-year curriculum for teachers is organized to follow the completion of the junior college, the third or master's-degree year should be considered an integral part of the curriculum and not a separate year's work.
 - (c) Graduate work for the doctor's degree for teachers and those working in the field of education should represent intensive specialization, during the latter part of the work, in a relatively narrow field. The intensive work for the doctor's degree for educational workers should be based upon a broad and cultural education, a thorough mastery of the general field in which the teacher is specializing, a knowledge of fields closely related to his special field, an understanding of the place of education in society and of the place of his special field in education; a command of the tools and principles of research, and a satisfactory knowledge of the foundation concepts of education and

psychology, sociology, economics, and other subjects affecting his work as a teacher.

(d) An institution should offer graduate work for teachers only if there is a demand from the area served by the institution and then only in those fields in which the faculty members are adequately prepared and in which the necessary library, laboratory, and other facilities are available. It goes without saying that responsibilities for teaching graduate work should not be added to a staff already carrying a full undergraduate load unless an increase in financial resources permits some of the instructors to be released for at least part-time attention to graduate courses. An exception to this recommendation should be made in cases where the first year of graduate work is added as an integral part of a post-junior college 3-year curriculum.

(e) Graduate work for teachers with its main emphasis upon research, which is primarily work for the doctor's degree, should be concentrated in a few of the larger, better-supported, and better-equipped institutions. This recommendation does not imply that graduate work in other institutions or, for that matter, undergraduate work should not use the results of research, require limited amounts of research from students, and develop an inquiring attitude toward present practices and an understanding of the simpler methods of finding solutions to professional problems.

(f) The present variety in patterns of work for graduate degrees and in the actual degrees awarded to persons in educational work should be subjected to further investigation with the possibility of securing in these matters at least greater uniformity.

(5) RECOMMENDATIONS CONCERNING OTHER CONDITIONING FACTORS IN THE PROFESSIONAL EDUCATION OF TEACHERS

ATTITUDES OF FACULTY MEMBERS TOWARD TEACHING AND EDUCATION

17. The faculty of any institution the graduates of which are recognized for certification should possess a high degree of contagious enthusiasm for teaching and a sincere interest in the students as prospective teachers in the public schools. Survey data would indicate that a majority of the staff members of many such institutions are not primarily or even seriously interested in the professional problems of educating teachers for different types of positions. Such indifference, if at all general in an

- institution, should be justification for omitting it from a State's list of institutions approved for teacher education.
18. In institutions preparing teachers more attention should be given by staff members, administrative and instructional, to the clarification of the theories or philosophies of education which control the institution's educational policies. The Survey study of educational theories was not made in order to prove that any one theory in this field is better than any other, but its results give evidence that there is such diversity of philosophies among the staff members of individual institutions as to prevent any common understanding of objectives and any concerted program for teacher education.
 19. In the present state of social, economic, and political affairs there is a peculiarly pressing demand that teachers and teachers of teachers be liberal and informed in these fields. The liberality should be the result of extensive information on all phases of the more important controversial issues in these fields. Solutions to these issues are now being demanded; but before solutions can be obtained, there must be frank discussion and constructive proposals based upon fundamental principles.
 20. A "working" philosophy of education which would clarify thinking about the important controversial issues in education, economics, and sociology is much too pervasive to be considered as the responsibility solely of the departments of education, economics, and sociology. Issues in these fields should be understood by the instructors in all departments and each instructor should be aware of the particular contribution which his courses can make toward clearer thinking on each of these controversies.
 21. The discussion of controversial issues should be based upon accurate and complete data and presented in a spirit of investigation, so that students, when they become teachers, will be able to present them in balanced perspective free from the traditional restraints which have so frequently prevented constructive discussion of many of these questions in public-school classrooms. The issues discussed and the extent of the presentation should be determined by the maturity and informational background of the students. The convictions resulting from such study and discussion with the more mature students should, whenever possible, motivate positive action on the part of teacher and students to influence practices in the direction of social, political, and economic stability and betterment.

PREPARATION AND EXPERIENCE OF FACULTY MEMBERS

22. The faculty members in any institution responsible for the education of teachers should be as well prepared academically as are those in the better-staffed institutions offering curricula of

the same length and on the same level. In addition to this preparation they should have the professional preparation which is required for the presentation of their subjects to prospective teachers. The master's degree or its equivalent should be considered the minimum requirement for the preparation of staff members of all institutions in which teachers are prepared. This standard should be enforced for all new appointments, but 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 be made for a few exceptions to provide for those experienced teachers or specialists who are eminently qualified and skilled as teachers but who do not have the required degrees.

23. Instructors of prospective teachers should be expected to maintain a sensitiveness to the professional problems which will confront their students. This may be obtained by visits to teaching situations of the kinds for which their students are preparing, by observations, and cooperative supervision of student teachers in their subjects, and by other contacts with the training schools.
24. 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 methods of presentation. 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.
25. 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.

26. Institutions of higher education preparing teachers in the United States should insure continued professional development of staff members during service by more extensive provisions for sabbatical absences, expenses to professional meetings, subsidies in time or money for research projects, and other similar means.
27. (a) Salary ranges for staff members in institutions educating teachers should be adopted in place of detailed salary schedules and the payment of salaries within the approved ranges should be upon an individual basis in terms of preparation, experience, and value to the professional program of the institution.
- (b) Salaries should be so arranged that the following large objectives may be realized: (1) The attraction of capable and desirable college teachers, (2) the retention of desirable members of the staff, and (3) the stimulation of staff members to maximum service and development.
- (c) Training-school teachers should have the same salary range as college instructors.
- (d) The salaries of outstanding teachers should approximate those paid to administrative officers.
- (e) Provision should be made for the retirement of staff members. Such provision should be financed jointly by the institution and the individual, the individual having full equity in the combined payments after the manner of the contracts provided by the Teachers Insurance and Annuity Association of America.

SELECTION AND GUIDANCE OF PROSPECTIVE TEACHERS

28. Institutions preparing teachers should maintain a program of student personnel and guidance services starting with selective admission and continuing through "freshman week", the period of choosing the line of special work, the choice of electives, social adjustments, and a follow-up of graduates. Such services should be in the hands of trained workers and should be based upon complete records. It is as professionally significant to find the correct field of specialization for teachers as it is to select the right persons for teaching.
- (a) Admission requirements to curricula for teachers should aim at the selection of capable students as shown by all prognostic measures, including aptitude tests and high-school scholastic records, excellent health records, and evidence of the possession of those personality traits and interests which are commonly associated with successful teachers and community leaders.

- (b) Institutions educating teachers should develop plans for discovering the most promising recruits for teaching and for interesting them in the possibilities for service in teaching. "Selective recruiting" should be used in addition to selective admission from among those who apply.
- (c) Admission to a curriculum for teachers should be interpreted only as admission with its implied opportunity to demonstrate the ability to carry on the work successfully and to develop an approved degree of skill in teaching.
- (d) The guidance program for prospective teachers should direct into other fields of work those students who do not show promise of developing the mastery of subject matter and skills or the personality traits required of teachers. Elimination of misfits is an important part of the selection and guidance program.
- (e) The guidance and student-welfare services for prospective teachers should assist them in acquiring or further developing the standards of behavior, good taste, and interests characteristic of cultured American men and women. This side of a teacher's personality is a very important part of his professional equipment and much can be done to develop it in the extraclass activities, in the social life provided, and in the standards maintained in the places of residence.

NEED FOR MORE ACCURATE MEASURES OF TEACHING MERIT

29. Many of the important and controversial issues in the education of teachers in the United States depend upon knowing in an accurate and detailed way just what constitutes "successful teaching" in the various kinds of positions and which characteristics of teachers make them successful. Because of this, all graduate schools and the research divisions of educational organizations and foundations should be encouraged to develop a measure or measures of teaching merit and then, after the most successful teachers are known, to make the analysis of teaching traits which make for teaching success. A detailed list of studies attempting some phases of this large problem and a description of an attempt to develop such a measure are described by Dr. Gilbert L. Betts in volume V, part II, of the Survey Report. The task of measuring teaching success is complicated by so many variables for which there are no satisfactory measures that the problem should become a major research problem, adequately subsidized for a long enough period of years to test the results of various types of teacher-

curricula. A hoped-for result from these investigations would be the discovery of one or two tests—simple, short, inexpensive, easily administered, quickly and accurately scored, reliable, and obviously related to teaching—which will measure a teacher's success. With such a measure many troublesome issues could be removed from the controversial group.

(6) RECOMMENDATIONS CONCERNING THE PROFESSIONAL EDUCATION OF RURAL TEACHERS

30. Because of the social, political, and economic significance of the rural population, the greater educational needs of the rural areas, the greater difficulties and special techniques needed in teaching an ungraded rural school, and the fact that nearly a fourth of the country's school children are involved, the preparation of rural school teachers should be made a major professional problem for many of the institutions educating teachers in the United States. Some of the more important phases of this problem which are of concern to those responsible for the curricula for rural teachers are:

(a) *Amount of educational preparation.*—Teachers in rural schools should be as well prepared (in point of time required for pre-service education) as teachers in urban schools. There are good reasons why they should have more preparation than many other teachers.

(b) *Special instruction for rural teachers.*—All rural school teachers, whether they expect to teach permanently in the rural schools or no longer than is necessary to secure a position in a city, should have direct instruction in the educational and sociological problems peculiar to rural school teaching.

(1) A minimum program of these distinctly rural features similar to the one proposed by Professor Carney in volume V, part VII, should be prepared and required of all prospective teachers whose certificates upon graduation will entitle them to teach in the rural schools.

(2) The unit of this minimum program which deals with an understanding of rural life or rural sociology should be required of all teachers. It is valuable as informational background for teachers whether they teach in urban or rural schools.

(3) The curriculum in rural education should include opportunities for observation and practice teaching in rural schools. The minimum program for all potential rural teachers should include observation of "model" rural

teaching and, if possible, some practice teaching in a rural school.

(c) *Rural staff.*—The minimum rural education program and the courses for students majoring in rural education should be taught by specialists in rural-school education.

(d) *In-service education.*—The rural staff members should assist in the placement and follow-up of rural teachers and cooperate in programs of rural supervision and professional stimulation.

81. State certification laws or regulations should provide the following protections to the rural schools:

(a) The minimum amount of educational preparation which will be accepted for certification of new teachers in the rural schools should immediately be made 2 years above completion of high school. In States in which the standard for other teachers is higher than 2 years above high school the same standard should be set for rural certificates.

(b) No certificate should be valid for teaching in a rural school unless the holder has had at least a prescribed minimum of special work in rural education. Conversely, if a teacher holds a certificate valid for teaching in rural schools it should not be valid for work in urban schools unless the teacher meets or has also met all the requirements for certification in the urban position.

82. State departments and institutions preparing rural teachers should cooperate in active campaigns to bring about the economic, political, and educational reforms needed in many States before rural school teaching can be made attractive to capable men and women as a professional career. Such reforms include: Larger units of support and control; increased State support for the equalization of educational opportunities; better rural school buildings, better living conditions for teachers; longer terms; higher salaries; and a more complete supervisory and special teacher service.

(7) RECOMMENDATIONS CONCERNING THE PROFESSIONAL EDUCATION OF NEGRO TEACHERS

Volume IV of the Survey Report gives a detailed account of the education of Negro teachers in the United States prepared for the National Survey of the Education of Teachers by Dr. Ambrose Caliver, senior specialist in Negro education in the United States Office of Education. It contains many specific conclusions and recommendations which should be consulted by everyone interested in the education of Negro teachers.

Many of the recommendations which have already been made in connection with the problems of improving the professional preparation of white teachers apply with equal force to the education of Negro teachers. There is, of course, no point in repeating all of them for any special group. Only those recommendations which seem to be of central importance or specifically concerned with Negro teachers are given here.

One general comment should be made concerning the recommendations here and in volume IV of the Survey Report. Considering the low point from which education among Negroes started a comparatively few years ago and the various disadvantages under which it has developed, the present status of Negro education should be a source of gratification to the leaders, white and Negro, who have brought it to its present position. The fact that the recommendations indicate that there is still much to be done should not be considered in any way a reflection upon the remarkable progress which has been made. These recommendations concern only those States and cities in which separate schools are maintained for Negroes.

83. Separate institutions for the education of Negro teachers and separate departments of education in colleges, land-grant colleges, and universities should concentrate their efforts at present upon the minimum program for the education of elementary and secondary teachers. The minimum program of offerings will make it possible, with any given amount of money, to educate larger numbers of teachers.

(a) Costly expansion should be delayed or confined to one or two institutions.

(b) Unnecessary duplication of work among institutions should be eliminated.

(c) Small institutions should be consolidated or else should restrict their offerings to a course which is largely prescribed and designed to equip teachers for only one or two types of schools.

84. Curricula for the education of Negro teachers should put more emphasis upon the social and biological sciences, upon music and art, upon industrial arts, and upon health and physical education—subjects which will be of more immediate value to the teachers than some of the more traditional and formal subjects which now occupy a disproportionate part of the prospective teacher's time.

85. The distinctly professional elements in the education of Negro teachers should be related more closely to the work to be performed by the teachers in service. Negro teachers have had enough, perhaps too many, semester-hours of work in education and psychology, but the analysis of representative courses

showed that most of that work was too academically presented to have much effect upon the schoolroom practices of the teachers. Practice-teaching facilities should be greatly increased and more intimately related to the professional work of all courses for prospective teachers. Courses in education should show the very great need for better teachers in the elementary schools and the opportunities for significant service in that field.

86. The idea of a safe initial competency in the various types of teaching positions should replace the dominant major and minor form of organization of curricula for teachers. Until the foundation work of the Negro elementary and secondary schools can be greatly strengthened the curricula for prospective teachers for the public schools should emphasize the actual materials which will be needed by the teachers in the field. However, courses which are merely reviews of elementary or secondary school subjects should be given as noncredit remedial work.

Curriculum patterns for preparing Negro teachers for specific types of work should be largely prescribed in order to insure the adaptation of the teacher's preparation to the needs of the local areas served and in order to make certain that essential subject-matter contacts are made which are often omitted when much of the curriculum is composed of free electives.

87. Institutions for the education of Negro teachers have the double responsibility of producing more teachers adequately prepared and also providing for the upgrading of the large numbers now in service with inadequate preparation. Extension courses, summer-session courses, short intersession courses, and special district conferences on teaching problems should be utilized in this upgrading program.
88. Programs of certification for Negro teachers which will provide for restricted certification (instead of blanket certification) should be adopted. A series of fixed dates should be set, at which times the certification standards will be successively raised. These should not be placed so far above the present standards at any one period as to discourage promising recruits from preparing to be teachers, but the ultimate goal should be stated and a date set for its achievement.
89. Institutions for the education of Negro teachers should establish the type of personnel services recommended in no. 28. Increased standards for admission to curricula for teachers and the recruiting of capable young men and women for teaching are extremely important at this time if progress in the preparation of Negro teachers is to continue.

40. Because such a large proportion of the Negroes in the United States are now in rural areas and because many of the leaders among the Negroes feel that the immediate development of the race will depend very largely upon its relationship to the various agricultural and industrial occupations, all Negro elementary teachers who may teach in a rural school should be taught enough about rural sociology, rural economics, and the management of a rural school to enable them to teach acceptably in a rural or village school. Courses in these subjects might well be studied by all Negro teachers. In this connection, the reader should refer to recommendation no. 32, which for this group applies not alone to equality of opportunity between rural and urban communities, but also to equality of educational opportunity between Negro and white teachers in the facilities provided to secure a professional preparation adequate to the important and significant tasks confronting them.

(8) SUGGESTIONS FROM COMPARATIVE PRACTICES IN THE PROFESSIONAL EDUCATION OF TEACHERS

For the reasons given in the earlier discussions of comparative educational practices it is undesirable to recommend definite changes on the basis of those practices. Social, political, economic, and educational conditions in the four countries studied differ from those obtaining in this country to such an extent that recommendations to adopt any of the prevailing practices could not be justified, except as goals toward which we might strive.

Teaching, especially in the secondary schools of those countries, has been made so desirable that very capable young men and women compete for the privilege of entering an extensive period of preparation for teaching and compete during that period of preparation to secure permanent appointment to the schools.

Another difference which may have suggestions of value for those constructing curricula for teachers in this country is the very much higher level of general education which the European teacher has before he does much with the distinctly professional elements in his preparation. In the United States we have followed the same plan in medicine and to a lesser degree in law and theology. It is possible that with more accurate instruments for measuring teaching success it may be found that some one pattern of distribution of the professional elements, even though the total time remains the same, would prepare more effective teachers.

Another significant difference is the greater extent to which prospective teachers in France, Germany, and Sweden are given their

professional training and their probationary period of teaching in schools related to the institutions of higher education. This plan puts a much heavier responsibility upon the in-service period for the development of the professional phases of a teacher's preparation.

(9) SUMMARY STATEMENT CONCERNING THE RECOMMENDATIONS FOR THE PROFESSIONAL PREPARATION OF TEACHERS

By this time it has certainly become apparent that it was, as was stated at the beginning of the chapter, impossible to separate the professional phases of a teacher's preparation from the quantitative. The attempt to do so, however, has shown that the problems of providing the right kind and amount of professional preparation for the different types of teaching positions are fully as important as are the problems of increasing the amount of work done in college and that they are probably more difficult to accomplish.

The recommendations just presented cover but a small proportion of the items involved in the professional preparation of teachers which are discussed in the preceding volumes of the Survey Report. Those which have been presented are also discussed in more detail in one or more of the separate studies. Persons interested in particular phases of the large problem of making the preparation of American teachers more professional should consult the appropriate sections in the other volumes of the report. (For outline of the special studies see ch. I, pp. 22-6.)

Many social and economic changes, some of them of a very fundamental nature, will have to be made before teaching in this country can be called a "profession" in the same sense as medicine, law, or theology. Nevertheless, there is no reason why significant progress in that direction cannot be made by introducing into curricula for teachers more of the special knowledge and skills required of teachers—the professional elements.

CHAPTER IV

CONTROLLING THE DEMAND FOR AND SUPPLY OF PUBLIC-SCHOOL TEACHERS

What caused the oversupply of teachers at the time this study was made?

Would there be an oversupply of teachers if only those with 2 years or more of training above high school were employed?

Would there have been a surplus of teachers without the retrenchments caused by the financial depression?

Would there have been an oversupply of teachers if those who entered teaching from other lines of work had not been permitted to do so?

Would there have been a surplus of teachers if married women had not been allowed to teach?

Can the supply of teachers be regulated or must there be recurring sequences of shortages and surplus?

Can the demand for new teachers be predicted?

What agencies should control the supply of teachers and how can they do it?

Since 1929 these questions and many similar ones have been asked by State superintendents and State commissioners of education, by school superintendents and others who employ teachers and other educational workers, by presidents and faculties of higher educational institutions in which teachers are prepared, and by hundreds of thousands of young men and women who have prepared to teach and have been unable to secure positions or who are now preparing to teach or who are considering teaching as a possible career. They are questions which have been asked before in this country but never by so many persons who are vitally interested.

SECTION I. THE OVERSUPPLY OF TEACHERS IN THE UNITED STATES

The problem of adjusting supply and demand among teachers is more than a problem of procuring positions for teachers who are prepared or of helping prospective teachers to decide for or against teaching as a career. Its solution affects the professional morale

of the million teachers, supervisors, and administrative officers in the public schools. The presence of large and rapidly increasing numbers of unemployed teachers cannot help but be disquieting to those who have positions and to those who employ teachers. Furthermore, almost every step which can be taken to control either the demand for or the supply of teachers tends also to affect the security or desirability of the positions already held by teachers. An example which has usually been given little or no consideration will make this result clear. If, in order to decrease the supply of new teachers, a State should raise the minimum amount of pre-service education for all new teachers from 2 years above high school to 3 years above high school and state very specifically that the standard was to apply to new teachers only and was not to be retroactive, the change, nevertheless, would be professionally embarrassing to all teachers in service with less than 3 years of education beyond high school. Many of them would feel called upon to secure the additional preparation while others would be anxiously conscious of the fact that the school system could secure better prepared younger teachers at lower initial salaries than they were being paid.

Rapid changes since the World War.—Another element which cannot be ignored in considering the problem of adjusting supply and demand among teachers is the rapidity as well as the extent of the recent changes in this matter. To pass in a decade from the extreme of having schools closed because there were no teachers—not even inexperienced high-school students with temporary certificates—to the other extreme of large surpluses of certificated teachers unable to secure any kind of educational employment has been a very disturbing experience for teachers and prospective teachers. It has added an emotional element of uncertainty and instability which has forced some very capable persons out of teaching and deterred others from entering. This factor has been particularly noticeable within the period since 1930. Altogether too many young people, during the years between 1926 and 1929, were advised and even encouraged to prepare for teaching only to find upon graduation that there were no positions open.

If a profession requires an extended period of pre-service preparation and if there can be no assurance that employment conditions will remain relatively the same between the time of choosing the profession and the time of entering it, the effect is naturally to lower standards of preparation or of the quality of the students, or to recruit teachers largely from the professionally adventurous.

The extent and rapidity of the change in supply and demand among teachers between the World War period and 1930-31 (the date for which the National Survey of the Education of Teachers data were gathered) have been described in the first two chapters

of this volume, as were also the conditions which produced the oversupply and which led to the proposals for a study, on a national scale, of the conditions concerning the education of teachers.

The oversupply of teachers in the United States in 1930-31.—Even though the oversupply of teachers and the inability to place recent graduates of institutions preparing teachers were two conditions which brought about requests for the national survey, it was found impossible with the time and funds available to make a detailed study of the unemployed teachers in the United States.

A number of factors entered into this decision which should be mentioned for the value they may have in any studies, State or national, of the oversupply of teachers.

In the first place, most of the statements of the oversupply of teachers were exaggerations—overestimates because the persons making them failed to consider all the factors involved. These estimates were sometimes made from "waiting lists" of teachers in a city superintendent's office or from the number of applications received for a particular vacancy.

Before an accurate estimate of the oversupply of teachers could be made there would need to be a sharp distinction drawn between "an oversupply of teachers with satisfactory preparation" and "the number of unemployed teachers holding valid certificates." Many of the teachers on waiting lists or applying for vacancies were inadequately prepared and should not have been included in the estimates. On this same point the number of teachers in service who have distinctly less than the approved amount of educational preparation and who are teaching on limited certificates should be subtracted from the number of employed teachers as their certificates expire unless they have obtained the required additional preparation before that time.

Other factors which should be included in all estimates of oversupply of teachers are:

1. The number of teachers who are teaching but who remain on waiting lists or apply for appointment to more desired positions in more desired locations. The number of such lists or of such applications for each individual teacher should be known in order to estimate the percentage of duplication.
2. The number of teachers who are unemployed or employed in some occupation other than teaching because they are waiting for appointment in a specific school system or because they were unwilling to accept the school positions which were offered them.
3. The number of teachers who have the special preparation required for each type of position. All estimates of the total number of unemployed teachers may be misleading if this factor is not considered. For example, there may be several hundred

teachers available to a school system and yet only two or three may be adequately prepared to teach chemistry and physics in a senior high school and none may be equipped to teach a special class for the hard-of-hearing. In other words, the number of unemployed teachers has significance only as it is stated in terms of the positions for which the teachers have satisfactory preparation.

4. The number of teachers whose professional preparation has been obtained recently enough to assure its "up-to-dateness." This applies particularly to those who return to teaching during "hard times" but whose preparation was obtained a number of years before.
5. The number of unemployed teachers in urban areas compared with the number in rural areas when estimates for an entire State are made. The number of available teachers with satisfactory preparation in the city school systems is always much greater than in the rural areas.
6. The normal rates at which the number of unemployed teachers will be reduced by such factors as marriage, retirement, illness, and death, and by the growth of the school population and the expansion of educational services.

It is evident to anyone who has attempted to obtain reliable data on the number of unemployed teachers that it is practically impossible to secure the data necessary for dependable estimates with such factors as those just listed unaccounted for in the estimates. There are few places where these data are recorded and kept up to date (except in some of the larger cities where special examinations must be passed by all who qualify for appointment.) Many institutions preparing teachers do not know the present addresses of some of the graduates of their teachers' curricula, let alone whether or not they are teaching. The lists of teachers' employment agencies contain many duplicate names. Most of the State certificate departments do not know what percentage of the teachers with valid certificates issued by the State are teaching in the State, are teaching in other States, are in the State but unemployed as teachers or are in the State but do not desire educational positions. Neither is there any way to know the number of States in which individual teachers have had their teaching qualifications accepted for certification.

One other important factor should be considered in this question and that is the effect of any change of standards upon oversupply. An increase in the required amount of pre-service preparation for all new appointments should decrease the supply by the number with less than that amount. Some argue that teachers who qualified to teach when one standard is in force should not be affected by later

changes in standards. If this were not done it would tend to sacrifice the interests of the schools and the children in them to the interests of a few individual teachers.

These facts explain why more detailed study of the oversupply of teachers was not made but they should not convey the impression that there has not been and is not now a serious oversupply of teachers. Even though the extent of the surplus would vary for different States and for different areas within States there is reason to believe that most States now (1934) have an oversupply of qualified teachers for the most common public-school positions. "Qualified" is interpreted here to mean the minimum qualifications as set by the several States. Instead of denying the existence of an oversupply because its exact extent could not be determined its existence has been accepted, and each State which attempts to deal with this problem will have to secure some of the data not now available before any intelligent measures can be decided upon.

It has also been admitted that States owed something of a prior obligation to recently and adequately prepared teachers among the unemployed so long as it can be shown that they are as desirable recruits to teaching as the more recent graduates.

SECTION 2. EDUCATIONAL FACTORS WHICH AFFECT SUPPLY AND DEMAND AMONG TEACHERS

Before giving the supply and demand data collected by the National Survey of the Education of Teachers the principal factors which affect the demand for new teachers and the supply of new teachers should be reviewed in order to show more clearly the scope and complexity of the problem and the limitations of the data presented.

Educational factors affecting the demand for teachers.—Factors are included in this list if they determine or indicate the number of teachers needed for any specific type of position in a State or educational unit. Obviously variations in any of these factors may result in decreased demands as well as in increased demands depending upon the direction of the variation. The more important of the factors which indicate the numbers employed and determine whether more or fewer teachers are needed are included in the following list:

1. The number of teachers, supervisors, and administrative officers actually employed during any year in the school systems of a State. These records should show the number by:
 - (a) School division or level, e.g., kindergarten-primary, intermediate, senior high school.
 - (b) Grades or subjects taught, e.g., fifth grade, or mathematics, or history.

- (c) Special types of supervisory and administrative positions.
- (d) Men and women.
- 2. Increases and decreases in the school population:
 - (a) By ages and grades.
 - (b) By communities.
- 3. Extension of the educational system to include new groups:
 - (a) Kindergarten, nursery, and preschool groups.
 - (b) Various forms of adult education.
- 4. Expansion of special educational services:
 - (a) Teachers of special subjects, e.g., art, music, physical education.
 - (b) Supervisors—primary, music, geography, health, home economics.
 - (c) Visiting teachers and special case-workers.
 - (d) School nurses, pediatricians, dentists, psychologists.
- 5. Increases and decreases in the size of classes per teacher.
- 6. Increases and decreases in the teaching load, especially in high school.
- 7. Increases and decreases in the average length of teaching service.
- 8. Age of retirement.
- 9. Whether or not leaves of absence are allowed and the proportion of teachers who are eligible and the proportion of those who take advantage of the privilege.
 - (a) Leaves of absence for study or travel.
 - (b) Maternity leaves.
- 10. Regulations governing the employment of married women and whether or not teachers who marry may retain their positions.
- 11. The extent to which teachers leave a State for employment in neighboring States.
- 12. The extent to which teachers leave teaching to enter other occupations or professions.
- 13. Mortality and illness among the teachers of any State.
- 14. Length of school term—whether one teacher may complete two contracts within a year.
- 15. Regulations concerning employment of full-time teachers for evening schools, playground supervision, and other part-time work.

Educational factors affecting the supply of teachers.—Factors are included in this list if they operate to indicate or determine the number of teachers for any specific type of position who are or will be available in a State or educational unit. These factors tend to make teaching more or less attractive to the capable persons desired as recruits. The list includes some factors which affect demand but which also make teaching a more desirable field in which to work. The more important of the factors which affect the relative attractiveness of teaching and the qualifications considered necessary for teachers and which therefore affect the supply of teachers are included in the following list:

- 1. Standards of the amount and nature of the preparation required for each type of position. Minimum certification requirements for each State for each type of position for which certificates are issued.
- 2. Admission requirements for each type of position:
 - (a) Scholarship record and intellectual ability.
 - (b) Age, health, personality, character, and interest in teaching.

- (c) Any special abilities, e. g., music for a special teacher or supervisor of music.
- 3. Special restrictions upon certain positions:
 - (a) Sex—kindergarten, nursing, coaching.
 - (b) Additional training, e. g., cardiac class or class for hard-of-hearing.
- 4. Number of unemployed teachers in a State, meeting existing standards for each type of position and holding a valid certificate to teach:
 - (a) Unemployed.
 - (b) Otherwise employed but desiring a teaching position.
- 5. Number of unemployed teachers in neighboring States meeting existing standards for each type of position, whose certificates have been or would be approved by the State:
 - (a) Unemployed.
 - (b) Otherwise employed but desiring a teaching position.
- 6. Number of students in higher educational institutions preparing to be teachers or whose programs of subjects would qualify them for teaching certificates:
 - (a) By types of position for which they are qualifying.
 - (b) By length of curricula being followed.
 - (c) By types of institutions in which students are preparing.
- 7. Relative desirability of teaching compared with other fields of work open to the same students in such matters as:
 - (a) Salaries—ranges, increments, stability, and opportunities for supplementing income.
 - (b) Vacations.
 - (c) Retirement provisions.
 - (d) Leaves of absence.
 - (e) Working conditions, such as size of classes, kinds of special help, nature of supervision, other means of professional growth and development.
 - (f) Social and recreational opportunities and restrictions.
- 8. Professional prestige accorded teachers—possibilities for positions of leadership.
- 9. Distribution of the school population:
 - (a) Rural and urban.
 - (b) Elementary and secondary.
- 10. Regulations regarding marriage, especially for teachers who marry while teaching.
- 11. Extent to which qualified teachers from other States are employed:
 - (a) From what States.
 - (b) In what types of positions.
- 12. Extent to which those from other fields of work qualify for teaching positions.
- 13. Extent to which former teachers return to teaching after periods of employment in other fields.
- 14. Security of tenure.

The two lists just given do not take into account the many other factors, economic, social, and political, which very definitely influence the demand for and supply of teachers. It has already been shown how the demands increased during a period of wide-spread prosperity and how the financial depression which started in 1929

brought almost immediate curtailment of educational services and reductions of staff. Even during periods of such retrenchments other occupations may be so much more upset that teaching gains in desirability by contrast, as was shown during the period 1930 to 1934.

Complexity of the problem of supply and demand in teaching.—When it is realized that a period of prosperity or a war or a financial depression or a period of wide-spread industrial unrest can so quickly and extensively influence many of the factors controlling supply and demand in teaching, it becomes apparent that the problem of adjusting supply and demand is one in which all the terms are variables. A solution is, therefore, not to be expected. Instead there inevitably must be continuing attempts to balance the demand factors and the supply factors in such a way that the one may approximate the other, with enough of a surplus on the side of supply to care for unforeseen emergencies without loss to the essential educational services.

The complexity of the problem is evident when one considers the number of facts which it would be necessary to have about each of the variables before any estimate could be made of its effect on the total equation over a period of years. Anyone familiar with the variations in American public-school systems, even within a single State, knows how difficult it would be to get a complete, accurately classified list of the teachers actually employed in different types of positions. Even in the elementary schools there would be many combinations of grades, and in some departmentalized elementary schools the teachers would be doing much the same work as teachers who would be classified as junior high school teachers. The task of assembling the needed data would appear hopelessly discouraging were it not known that such records—once the forms are established and the first set of records obtained—can be maintained as a continuing record system with but a small part of the first cost in time or money.

SECTION 3. TEACHER SUPPLY AND DEMAND CONDITIONS IN 1930-31

Value of a national study of supply and demand.—The difficulties which made it necessary to abandon any attempt to study unemployment among teachers in the United States have been explained. Nevertheless, it was deemed desirable to gather some data on supply and demand conditions which existed at that time, both for the light they would throw on the total teacher-training situation and for any trends they might show for the guidance of prospective teachers. Therefore the inquiry blank which was sent to all teachers in the

public schools contained a number of questions designed to supply data on this larger problem.¹

From the answers received the relative proportion of teachers and other workers in the different school divisions was shown for the year 1930-31—the year for which the data were obtained. Answers to other questions gave a detailed classification of the types of positions held in each of the school divisions and data on age, sex, marital status, experience, salary, educational preparation, and other items directly and indirectly involved in the supply and demand issue.

In addition to these data two sets of questions were inserted to give a more detailed picture of the action of some of the supply and demand factors as of that year. These two sets of questions are reproduced to aid in the understanding of the material of this section.

37. 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 -----

38. 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 -----

¹ Vol. II, pt. I, of the National Survey of the Education of Teachers report contains a description of this national inquiry directed to the teachers and other educational workers in the public-school systems. It contains a copy of the inquiry blank and the detailed tabulations of the answers received from nearly half a million teachers, supervisors, and administrative officers. Many of the tables in that part of the report contain the distribution of the replies by States, so that anyone interested in conditions in a particular State or section of the country should consult the tables in vol. II.

Answers to these questions made at about the same time by individual teachers and mailed directly to the Survey office in Washington, D. C., gave in highly comparable form information on three phases of this problem—extent of mobility, causes for demand, and sources of supply. These three phases will be presented separately and in sufficient detail to show the picture for the country as a whole. Only occasional comment by way of illustration will be made concerning conditions in the several States. A number of very well organized and complete studies of the problems of supply and demand in teaching have been made for separate States, particularly for California, Iowa, Indiana, Minnesota, Ohio, and Pennsylvania. These State studies, while they contained many interesting and valuable suggestions for other States, were all different enough in the material presented or in the way and time at which it was collected to make comparisons very difficult or impossible. The data obtained by the National Survey of the Education of Teachers are more comparable, especially for the States in which the number of replies indicated an adequate sampling of the teaching population. On the other hand, the National Survey data lack the completeness of the State returns and are not so accurate for individual States, but they do show the total situation in a way not possible from the separate studies.

TEACHER MOBILITY AND ITS EFFECT ON SUPPLY AND DEMAND

Two terms used in the discussion of this topic should be defined because of the special way in which they are used in this section. A "new" teacher, as defined by the two sets of questions—items 37 and 38—reproduced above, is "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 "new" teachers to the total number of teachers in the same type of position in the State or school unit for which the "mobility ratio" is computed. If, for example, a State had 2,000 senior high school teachers and 500 reported themselves as "new" to their positions for that year, the "mobility ratio" would be 500:2,000, or 1:4, which can be read as "1 of every 4 senior high school teachers in that State was 'new', i. e., was teaching in his present position for the first time." Neither term is literally descriptive, since some "new" teachers were experienced teachers who had just moved; and some of the "new" teachers did not represent any "mobility", because they were teaching for the first time and therefore had not "moved." Since, however, other terms would also have to be defined and used according to definition, and because earlier tabulations were made with these terms, they will be used as defined.

National "mobility ratios."—The first three items in table 6 show the "mobility ratios" for the United States for elementary teachers distributed according to sizes of communities and for junior high school and senior high school teachers.

Comparisons among the three total groups, elementary, junior high school, and senior high school, are shown in columns 8, 9, and 10 of table 6. In 1930-31, 51,181 of the 244,618 elementary teachers who answered questions 37 and 38 of the inquiry form were "new" to their positions, which made a "mobility ratio" for all elementary teachers of 1:4.8. This means that approximately one of every five elementary teachers in 1930-31 was a "new" teacher. Similarly the "mobility ratios" for junior high school teachers was 1:6.7 and for senior high school teachers 1:4.9. The similarity between the ratios for the elementary and the senior high school teachers is interesting because while it might seem that one group was about as "mobile" as the other an analysis of reasons for the changes in positions and the sources from which the "new" teachers were drawn showed differences in a number of important respects.

Effect of size of community on "mobility ratios."—The effect of community size upon the tendency of teachers to move to new positions is very clearly shown by the regular and rapid way in which the "mobility ratio" decreases as the size of the community increases. The "mobility ratio" for teachers in the open country 1- and 2-teacher schools (the rural schools) was 1:2.5, indicating that in those schools in 1930-31 two of every five rural teachers were "new" in the positions they then held. In sharp contrast to this ratio is the "mobility ratio" of 1:20.2 in the cities with populations of 100,000 and more, which means that in the larger cities only 1 elementary teacher in every 20 was a "new" teacher.

This tendency for teachers to accept positions in larger cities was partly caused by the higher salaries in the larger places but also by the fact that the larger cities afforded better living conditions, more social and recreational opportunities, and more professional stimulation. The final effect of this tendency is to enable the cities in each size group to select the most capable teachers from the smaller or less wealthy communities, with the rural schools providing for most of the initial experience and retaining more than their share of those teachers unable to secure appointments in village or city school systems.

Variations in "mobility ratios" by States.—When the "mobility ratios" were computed for individual States nearly the same range was found among the States as was found among cities of different sizes. For example, the "mobility ratios" for elementary teachers in some of the States and the District of Columbia in 1930-31 were

TABLE 6.—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 teachers or schools	Villages less than 2,500 population	City 2,500-9,999 population	City 10,000-59,999 population	City 100,000 and more population	Total elementary teachers		
	3	4	5	6	7	8	9	10	
Total number responding to question.....	59,454	18,237	28,708	44,908	60,004	294,618	24,361	84,823	
Total number "new" teachers.....	28,003	3,416	4,187	4,803	3,035	41,131	4,361	17,367	
Ratio of "new" teachers to total.....	1-3.6	1-8.9	1-6.6	1-10.0	1-20.3	1-4.6	1-5.7	1-4.9	
REASONS OPERATING DEMAND:									
Predecessor died.....	0.8	1.0	1.0	1.4	2.0	0.7	1.0	0.8	
Predecessor retired.....	0.4	7.2	4.5	4.5	3.7	0.0	3.6	3.0	
Predecessor entered college.....	8.0	0.2	4.3	2.4	1.2	0.4	6.1	5.4	
Predecessor married.....	13.7	17.4	22.3	23.3	13.9	10.4	13.6	12.7	
Predecessor left to teach somewhere else in the State.....	51.1	41.3	28.4	21.6	20.3	42.2	28.0	23.3	
Predecessor left to teach in another State.....	2.1	2.1	4.2	4.6	1.7	2.2	7.6	9.8	
Predecessor entered another profession or occupation.....	4.9	4.8	4.4	3.3	1.6	0.5	7.3	9.1	
Held newly created position.....	2.8	2.6	4.6	4.9	1.6	3.6	4.6	3.5	
Other reasons created position.....	2.3	12.6	15.5	16.5	16.8	23.9	20.3	18.2	
Other reasons creating demand.....	4.7	4.7	6.8	10.5	16.9	8.2	7.5	6.6	
SOURCES OF SUPPLY:									
College or university in same State.....	8.8	16.1	12.5	12.3	13.7	11.0	23.0	28.1	
Teacher-training class, normal school, or teachers college in same State.....	37.5	22.1	23.2	23.3	23.0	25.0	11.1	7.2	
Another school system in same State.....	42.2	40.5	40.9	34.6	20.4	40.5	31.3	31.4	
College or university in another State.....	1.3	1.4	3.0	3.4	2.6	1.7	7.3	7.6	
Teacher-training class, normal school, or teachers college in another State.....	1.2	1.3	1.8	2.0	1.6	1.4	1.8	1.2	
Another school system in another State.....	2.1	3.2	7.9	10.8	6.0	4.4	10.4	10.7	
A position other than in educational work.....	4.7	6.7	2.7	2.6	10.2	5.0	5.5	6.2	
Leave of absence.....	0.7	0.7	1.1	1.6	0.3	1.1	1.3	1.7	
Return to teaching, having some occupation other than education the past year.....	5.7	4.4	3.8	3.3	4.2	5.1	3.6	3.5	
Other sources of supply.....	4.9	4.6	4.3	5.1	12.3	4.8	4.1	3.4	
Percent of new teachers.....									

Note.—In using this table it should be remembered that the percentages in the body of the table dealing with the factors of demand and supply are percentages of the "new" teachers in each group and not percentages of the total number of teachers in each group. In comparisons between any 2 groups the percentages should be multiplied by the ratio of group 40 percent of the total group (1:2.6) were "new" teachers. Thereafter, the percentage of the total rural-school group of teachers who entered college in 1929-30 was 8 percent of all percent, or 3.3 percent, whereas by a similar calculation only 0.34 percent of the elementary teachers in cities with population between 10,000 and 50,000 entered college last year. Thus, the proportion of rural teachers who entered college in 1929-30 was nearly 10 times that of the elementary teachers in the cities of 10,000 to 100,000 population instead of the 244 times suggested by comparing the percentages (3.0 and 1.4) as given in the table.

as follows: Washington, D. C., 1:16; Rhode Island, 1:15.6; Massachusetts, 1:13.8; Maryland, 1:10.8; New Jersey, 1:10. The five States at the other extreme of the distribution were: North Dakota, 1:2.15; South Dakota, 1:2.2; Montana, 1:2.4; Colorado, 1:2.42; and Wyoming, 1:2.43. The differences between these two groups are largely the result of differences in urbanization, density of population, and industrial development, but the resulting differences in the "turn-over" among the teachers are very great and make very different problems in adjusting supply and demand in the several States. The "mobility ratios" for the individual States also showed that the problem of mobility was a State problem and not a national or even an "area" problem. For example, the "mobility ratio" in Massachusetts was 1:13.8 and in the adjoining State of New Hampshire it was 1:4.6. Significant differences were also found between adjacent States in other sections—California (1:6.5) and Nevada (1:2.5), Indiana (1:7.2) and Illinois (1:4.1), Louisiana (1:6.9) and Mississippi (1:3.6), and Maryland (1:10.8) and Delaware (1:5.9). Such differences indicate that other factors or the combinations of other factors are more important in determining the proportion of "new" teachers in a State than is its geographical location.

Relation of "mobility ratio" to supply and demand.—Before presenting the Survey data on supply and demand the relationship between the number of "new" teachers and supply and demand should be presented. The number or proportion of "new" teachers in a State does not represent the number of new or additional teachers needed by that State to replace teachers not teaching and to provide for the newly created positions. The number of "new" teachers includes the large number of teachers in the State who moved from one position to another in the same State. Such moves do not affect the number of additional teachers needed. They do have an effect upon the position for which a "new" teacher is needed. For example, a fifth-grade teacher in a large city may retire, thereby creating a "demand" for one "new" teacher. The immediate position will probably be filled by a teacher in service in another city and his position in turn will be filled by a teacher from another and smaller city, so that several teachers may change positions as a result of the resignation—each receiving a promotion and the vacancy will probably appear finally as a vacancy in a rural school. Thus, 1 vacancy would have resulted in moves which made 4 or 5 teachers "new" teachers the following year, but would have been a "demand" for but 1 teacher and would have been met by a "supply" of 1 new rural school teacher.

Failure to keep this distinction always in mind has resulted in some of the overestimates on the number of additional teachers needed at any time, which will be discussed at a later point in this chapter.

DEMAND FOR TEACHERS IN THE UNITED STATES IN 1930-31

Data on demand for teachers collected by the National Survey of the Education of Teachers.—Replies were received from 73,879 "new" teachers—elementary, junior high school, and senior high school—to the question concerning the one reason, of the ten submitted, that explained the demand for their services for the year 1930-31. This number was slightly more than one-fifth of all the teachers who returned the inquiry forms. The distributions of the principal reasons causing the demand for the "new" teachers of that year are presented in table 6, page 202, for elementary, junior high school and senior high school teachers and by community sizes for elementary teachers.

Factors in the demand for elementary teachers in 1930-31.—The percentages given in column 8 for the causes of demand for the total group of "new" elementary teachers show very clearly that by far the most important cause was that the predecessor left to teach somewhere else in the same State. This factor accounted for more than two-fifths (42.2 percent) of the vacancies that year and yet did not increase the demand for additional new teachers since the teachers who moved within the groups filled as many vacancies as they left. The factor which created the largest demand for additional new teachers was that the predecessors married and left teaching. This was the reason for 16.4 percent of the cases—approximately a sixth of the vacancies among elementary teachers. The percentage does not, of course, show the number of elementary teachers who married—merely those who, because of marriage, gave up teaching either voluntarily or because of school-board regulations against the employment of married women.

The other causes for the demand for elementary teachers were reported as follows: Predecessor died, 0.7 percent; predecessor retired, 6.0 percent; predecessor entered college, 6.4 percent; predecessor left to teach in another State, 3.2 percent; predecessor entered another profession or occupation, 6.5 percent; predecessor left on leave of absence, illness, etc., 8.6 percent; hold a newly created position, 8.8 percent; and other reasons creating demand, 6.2 percent.

So far as the total group of elementary teachers is concerned, the demands for new additional teachers amounted to 54.6 percent of the "new" teachers in the rural and elementary schools of the United States in 1930-31. (Teachers who left to teach elsewhere excluded.)

In terms of the total group the demand for additional teachers was for a little more than half of the "new"-teacher group and since the "new"-teacher group was approximately a fifth of the total group the demand for additional teachers was about a tenth of the total group (a half of a fifth). The teachers comprising that tenth were obtained from a variety of sources, as will be shown in the discussion of that topic.

Effect of size of community on demand for elementary teachers.—

The data on the effect of the several causes of demand for teachers in communities of various sizes showed a number of interesting differences. In the first place they showed the marked tendency to move toward larger cities. Not only did the percentages of those who left to teach elsewhere in the same State decrease from 51.1 percent among the rural teachers to 20.3 percent in the largest cities but when these were multiplied by the "mobility ratios" to show the effect upon the total group the tendency was even more marked. Nearly a third of all rural-school teachers left to teach elsewhere in the same State compared to only 1 percent in the larger cities. This shows the heavy burden of "transiency" which the rural schools are compelled to carry.

Four other general conditions concerning the causes of demand as shown in table 6 are significant. The first was the very much larger proportion of teachers from the rural, consolidated, and village groups who entered colleges than did so from the larger cities. (This condition was probably caused by the lower standards of preparation for the teachers in the rural and village schools and the desire to reach the approved minimum for work in the cities.) The second was the much larger percentages of teachers in the smaller communities who left teaching to enter some other occupation. (Probably caused by lower salaries and less desirable working conditions.) In this connection it is also significant that the number of teachers who left teaching in order to enter other lines of work was, for the country as a whole, so small. Only 6.5 percent of the vacancies in 1930-31 were caused by such changes of occupation. In terms of the total group of elementary teachers it meant only 1 in each 77 changed occupations. The third was that the percentage of newly created positions was roughly the same for the several groups except for the largest cities. This would indicate that the school population in the rural and village areas was growing, if anything, slightly more rapidly than in the larger cities. The fourth was the comparatively small number of elementary teachers who left one State to teach in another State—only 3.2 percent for the total group of "new" elementary teachers, or less than 1 percent of all elementary teachers.

State variations in demands for elementary teachers.—In the more detailed report of the supply and demand data in volume II the answers to the questions which indicated the causes of demand were distributed by individual States.* Those percentages will be serviceable for State studies and will serve as the bases for comparisons with neighboring States, with States in the same area, with States of the same industrial development, with States of the same size, wealth, or density of population. Such comparisons are interesting and may be helpful in selecting the factors which have the greatest effect upon supply and demand in teaching. On the other hand, interstate comparisons have serious limitations. There are many other elements which enter into the adjustments of supply and demand among teachers, such as educational traditions, wealth, crop failures, and a variety of others which make comparisons inaccurate and sometimes unfair unless they are understood when the comparisons are made. Furthermore, the returns from some of the States were more representative than from others in which a smaller proportion of answers were received.

The principal value of interstate comparisons of the causes of demand for new teachers is that they may bring unnoticed issues into the open. For example, if the percentages for two similar adjacent States differ very noticeably on one or two items the officials in both States might well ask themselves "What has caused the difference?" "Is the difference in the direction of progress?" or "If the difference is to the disadvantage of either State, what can be done to correct it?"

Two illustrations will show the variations in the causes for the demand of the "new" teachers among the States. Four States reported that 10 percent or more of the "predecessors" of elementary teachers "left to teach in another State"—Delaware, 11.3 percent; Idaho, 12 percent; Nevada, 10.8 percent; and New Hampshire, 15.2 percent—while six States reported less than 1.5 percent resulting from that cause—California, 1.2 percent; Kentucky, 1.4 percent; Mississippi, 1.2 percent; New York, 1.4 percent; Ohio, 1.4 percent; and Texas 1.4 percent. As previously explained, these percentages are not comparable without being adjusted by the "mobility ratios" for the several States but there is enough difference between the extremes to raise some interesting conjectures as to this element in the demand for new teachers—an element accounting for 10 percent or more of the vacancies in some States and but little more than 1 percent in others.

* National Survey of the Education of Teachers, vol. II, pt. I, tables 25, 26, 27, Bulletin 1933, no. 10. Office of Education, U. S. Department of the Interior, Washington, D. C. These tables were also presented in the issues of *School Life* for January, February, March 1932.

Three of the States reported that 10 percent or more of the vacancies for elementary teachers were caused by predecessors who "entered another occupation or profession"—Maine, 11.2 percent; Mississippi, 10.9 percent; and South Carolina, 11 percent—while four States reported fewer than 4 percent resulting from this cause—California, 3.7 percent; District of Columbia, 3 percent; Massachusetts, 3 percent; and Rhode Island, 1.7 percent. When these were adjusted to percentages of the total elementary teaching force which left teaching for some other occupation the extreme percentages would be Mississippi 3 percent and Rhode Island 0.1 percent. Three of every hundred teachers in Mississippi in 1929-30 left teaching for some other occupation or profession while the ratio in Rhode Island was at the rate of one in each thousand. This shows that the loss to other fields of work was an important problem in one State and an entirely negligible one in another.

Reference to these State variations will later be made in the proposals for controlling the factors which influence the demand for new teachers.

Factors in the demand for junior high school teachers in 1930-31.—The answers to the questions on the causes of the demand for junior high school teachers are shown in table 6, page 202 for the 5,381 "new" junior high school teachers who returned the inquiry blanks. The following general statements can be made concerning the demand for junior high school teachers in 1930-31:

1. The "mobility ratio" was lower than for either the elementary or senior high school teachers. This meant that a smaller proportion of the total group of junior high school teachers were "new" that year than was true for the other two groups and that the junior high school group was therefore more stable in its personnel.
2. Relatively fewer of the junior high school teachers retired, entered college, or married and left teaching than of the elementary or senior high school teachers.
3. A much smaller proportion of the "predecessors" of the junior high school "new" teachers left to teach somewhere else in the same State—about half as large as for the other two groups when corrected for the differences in the "mobility ratios."
4. The percentage of "new" teachers holding a newly created position was decidedly greater for the junior high school group than for the elementary teachers. It was not quite so high as for the senior high school teachers.

State variations in the demand for junior high school teachers.—The same wide variations existed among the States on practically all of the causes of demand for junior high school teachers. One or two illustrations will show the extent of these differences. Tennessee

and Indiana with nearly the same "mobility ratios" had in 1930-31 34.1 percent and 18.5 percent, respectively, of the vacancies for junior high school teachers caused by the creation of new positions. Thirteen of the States that year had 25 percent or more of their "new" junior high school teachers holding newly created positions and at the other extreme, 6 States had percentages of 10 or less. In general, the States in which the largest percentages of "new" junior high school teachers held newly created positions were more densely populated and had more large cities than those with the smaller percentages of "demand" from this cause.

In comparing the number of junior high school teachers who "left to teach elsewhere in the same State" the range extended from 48.8 percent of the "new" junior high school teachers in Alabama to only 8.4 percent in Connecticut. When these are expressed as percentages of the total junior high school groups in those States they indicate that 15 in every 100 junior high school teachers in Alabama moved to other positions in Alabama and only 1 in every 100 in Connecticut. On this same point 10 States had a third or more of their demand for "new" junior high school teachers caused by teachers moving within the State while 6 States had less than a fifth from the same cause.

Factors in the demand for senior high school teachers in 1930-31.— Because the "mobility ratios" for the elementary and the senior high school teachers are so nearly the same, the percentages given in columns 8 and 10 of table 6 are comparable. They indicate somewhat fewer vacancies among high-school teachers because "predecessors" married and left teaching, a smaller percentage leaving to teach elsewhere in the same State and a considerably larger percentage leaving to teach in other States. The most significant difference between the senior high school and the elementary teachers was the larger percentage of "new" teachers who held "newly created positions", showing that the number of pupils in the high schools was increasing more than in the elementary schools—twice as rapidly. None of the other elements showed significant differences.

State variations in the demand for senior high school teachers.— In the light of the fact that the senior high school teachers were better prepared so far as amount of education was concerned, than either the elementary or junior high school teachers, it is interesting that the same wide variations were found among the States in the number of "predecessors who entered college." In 3 States 10 percent or more of the senior high school vacancies were caused by senior high school teachers leaving to enter college—Delaware, 10.7 percent; Kentucky, 11.7 percent; and Utah, 10.6 per-

cent—while in 7 States the percentages were less than 2—California, 1.9 percent; Connecticut, 1.4 percent; District of Columbia, 0 percent; Massachusetts, 1.2 percent; New Jersey, 1.2 percent; New York, 1.5 percent; and South Carolina, 0.8 percent. Some of the States in which the smallest percentages of senior high school teachers entered college were those in which the preparation of the teachers was the highest. These were shown in *volume II*.

Another illustration of the reason why studies of the demand for new teachers must be made in terms of conditions in each State is shown in the number of "new" senior high school teachers who held newly created positions—necessitated by increases in enrollments, additional services, smaller classes, or reorganizations which called for more teachers. The general statement for the country at large indicated that a fifth of the "new" senior high school teachers in 1930-31 held new positions. In 13 States less than 10 percent of the "new" senior high school teachers were in newly created positions and in 6 States 25 percent or more were in such positions.

SUPPLY OF TEACHERS IN THE UNITED STATES IN 1930-31

Data collected by the National Survey of the Education of Teachers on the supply of teachers.—This discussion could more appropriately be called an analysis of the sources of supply from which the "new" teachers in 1930-31 were obtained. The data collected by the National Survey of the Education of Teachers in answer to the questions in item 38 of the inquiry blank (see p. 199) showed where the "new" teachers were the preceding year but did not show how many other teachers were available from the same sources who were not placed. In other words, the Survey inquiry did not obtain the total number available and so was unable to show the difference between that total and the number used—i. e., the oversupply of teachers for that year. In spite of that limitation the data obtained did show how many "new" teachers were employed from the several sources and thereby furnished valuable data for the use of those responsible for programs of educating or certificating teachers in any State. The distributions of the answers by the "new" teachers to the question, "Where were you last year?" are given in table 6, page 202, for elementary teachers (by communities of different sizes) and for junior high school and senior high school teachers.

Factors in the supply of elementary teachers in 1930-31.—Since it was indicated in the study of "demand" for elementary teachers that the largest group of predecessors "left to teach elsewhere", it was to be expected that almost an equal proportion of the "new" teachers would report that during the preceding year they were

teaching in some other school system. Nearly half (44.9 percent) of the "new" elementary teachers in 1930-31 were teaching during the preceding year, and two-fifths (40.5 percent) were teaching in school systems in the same State. This two-fifths of the "new" teachers employed in the elementary schools that year represented "teacher turn-over" but did not represent the addition of any new teachers to the total group. This group which moved within the same States represented slightly more of the "new" elementary teachers than were obtained from all institutions of higher education (39.1 percent). These two "sources" for "new" teachers accounted for 84 percent of the group.

Three other important facts concerning the sources from which "new" teachers were obtained were: (1) Only 5 percent were recruits from positions other than in educational work; (2) only 5.1 percent were former teachers who "returned to teaching, having some occupation other than teaching the preceding year"; and (3) a fourth (26.4 percent) of the "new" elementary teachers were obtained from teacher-training classes in normal schools and teachers colleges, compared with 12.7 percent from all other higher institutions.

The insignificant proportion (1.1 percent) of the "new" elementary teachers who were "on leave of absence" the preceding year is not a complete picture, because some of the teachers who reported that they were in an institution of higher education the preceding year were also on leave of absence. Other studies indicate that the practice of granting leaves of absence to public-school teachers was followed in about half of the cities in the United States but that only about one-tenth made any salary allowance for the time absent.

Effect of community size on supply of teachers in 1930-31.—Several generalizations about the supply of elementary teachers were supported by the data presented in table 6, page 202. In the first place, it was clearly evident that the rural schools and villages were taking a larger proportion of students from educational institutions as new teachers than were the cities, especially the larger cities. When the percentages in table 6 are adjusted to the mobility ratios it is seen that 15.4 percent of all rural teachers were in educational institutions the preceding year, compared to only 2.1 percent of the elementary teachers in cities of 100,000 population and more. Pronounced as is this difference, it still does not tell the whole story, because a proportion of the teachers included in the 2.1 percent for the larger cities were experienced teachers who had been in colleges obtaining additional work, while most of the 15.4 percent in the rural schools were the inexperienced teachers just through some teachers course—probably but 1 or 2 years in length above the high school.

In the second place, the fact that about the same percentage of the "new" elementary teachers was obtained from other school systems in the same State for each of the size-groups of the communities, with the exception of the largest cities, showed very clearly the tendency to move from smaller to larger places until the largest cities are reached. In terms of the percentages of the total groups obtained from this source, the rural schools got 16.8 percent of all their teachers in 1930-31 from other schools—usually less desirable rural schools—while in the largest cities only 1 percent of the elementary teachers were teaching in other cities in the same State the preceding year. Lest this seem unreasonably small, it should be recalled that in the larger cities the total "new" group of elementary teachers was only 5 percent (mobility ratio of 1:20.2).

In the third place, when teachers were recruited from "a position other than in educational work" or when teachers "returned to teaching, having some occupation other than education the past year," it was clearly shown that the rural and village schools received much more than their proportional share of "new" teachers from those sources. The proportion of "new" elementary teachers received in 1930-31 from these two sources (10.1 percent) may be considered the proportion recruited from other fields of work. The total exceeds the percentage of "predecessors" who left teaching for some other form of work (6.5 percent), indicating that the "supply" exceeded the "demand" or that teaching attracted more individuals from other fields of work than it lost to them. A disturbing question has been asked in this connection on which the Survey had no data, "Did education lose some of its best teachers and administrative officers to other fields and receive in return mostly those unable to succeed in other fields?"

State variations in the supply of elementary teachers in 1930-31.—The percentages of "new" elementary teachers obtained in 1930-31 from the several sources of supply are distributed by States in table 25, volume II, part I of the Survey Report. They showed the same wide variations by States as by size of communities. This corroborates the conclusion previously drawn that the problems of supply and demand among teachers must be solved on a State basis. For instance, eight States (Kentucky, Mississippi, Ohio, Oklahoma, South Carolina, Tennessee, Texas, and Utah) received 20 percent or more of their "new" teachers in 1930-31 from colleges or universities in the same State, and six (Connecticut, Maine, Maryland, New Hampshire, New Jersey, and Oregon) received less than 2.5 percent from such sources. In comparison, the dominance of the normal schools and teachers colleges as sources of supply for elementary teachers was shown by the fact that 27 of the States in 1930-31 ob-

tained 20 percent or more of their "new" elementary teachers from the normal schools and teachers colleges. (The District of Columbia, Maryland, and Rhode Island each received more than half of their "new" elementary teachers that year from normal schools and teachers colleges in the same State.)

In 1930-31 the States also varied widely in the percentage of "new" elementary teachers obtained from school systems in other States. Arizona, Delaware, Massachusetts, Nevada, and Wyoming each received 15 percent or more of their "new" teachers from school systems in other States, while Alabama, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Nebraska, New York, Ohio, Pennsylvania, and Texas each received less than 3 percent from that source.

Factors in the supply of junior high school teachers in 1930-31.—The sources of the "new" junior high school teachers of 1930-31 are shown in table 6, page 202. They differed in at least two important respects from the sources of the "new" elementary teachers in the same year. In the first place the proportion drawn from the colleges and universities was more than double that from the normal schools and teachers colleges—30.5 percent from the former and 12.9 percent from the latter group of institutions. In the second place a smaller percentage of the "new" junior high school teachers was drawn from other teaching positions in the same State (31.8 percent) and a larger percentage from school systems in other States (10.4 percent) than was true for the elementary teachers (40.5 percent and 4.4 percent).

The percentage of "new" junior high school teachers who held positions other than educational the preceding year and the percentage who "returned to teaching having some occupation other than education the preceding year" were significant because of their smallness, being less from both sources than was true for either the elementary or the senior high school groups.

State variations in the supply of junior high school teachers in 1930-31.—Variations among States in the sources from which they secured their "new" junior high school teachers in 1930-31 were greater than for elementary or senior high school teachers. These wider variations may have been caused by the small number of returns which were received from some of the States and also by the fact that the junior high school as a form of school organization has been much more widely adopted in some States than in others. For these two reasons, particularly the first, detailed comment on State differences will not be made. Anyone desiring the data by States for this group of teachers may find them in volume II, part I, table 26 of the Survey Report.

Factors in the supply of senior high school teachers in 1930-31.—The only significant differences in the sources from which the "new" senior high school teachers were drawn in 1930-31 and those for the junior high school teachers were the larger percentages of "new" teachers drawn from the colleges and universities rather than from the teachers colleges (36.7 percent compared with 8.4 percent) and a somewhat stronger tendency to draw new high school teachers from teaching positions in other States.

About a third of the "new" teachers for the junior and the senior high schools in 1930-31 were drawn from other teaching positions in the same States and so did not represent an additional supply of secondary teachers.

State variations in the supply of senior high school teachers in 1930-31.—From the fact that more than four-fifths of the "new" senior high school teachers who were in institutions of higher education the preceding year were in colleges, universities, and teachers colleges in the same States it seems that the States were quite self-sufficient in preparing their senior high school teachers. There were 6 States, however, in which more "new" senior high school teachers were obtained from institutions outside of the State than were obtained from institutions within the State and 10 others in which the percentages from institutions outside the State were 50 percent or more of the percentages from institutions within the States.

The relative number of "new" senior high school teachers obtained from teachers colleges varied from 20 percent of all "new" teachers in Michigan to less than 1 percent in Connecticut, Idaho, Maryland, and Washington. At the time these data were collected the 4 last named States had normal schools with less than 4-year curricula or restricted them to preparing teachers for the elementary and junior high school fields. The relative number received from teachers colleges is also affected by the number of the colleges and universities in a State in comparison with the number of the teachers colleges. For example, Ohio and Michigan are comparable States in many respects. They have nearly the same "mobility ratios" for "new" senior high school teachers. Ohio has but 2 teachers colleges and more than 40 colleges and universities compared with Michigan's 4 teachers colleges and 17 colleges and universities. Only 3.9 percent of the "new" high school teachers in Ohio in 1930-31 were obtained from teachers colleges within the State in contrast to the 20 percent in Michigan.

Another element in which there was wide variation was the number of "new" senior high school teachers obtained from other States. For the total group 10.7 percent of the "new" teachers were teach-

ing in another State the preceding year. Five States received 80 percent or more from other States and 6 others more than 20 percent. In 8 of the 11 States in which the percentages of "new" senior high school teachers obtained from other States were 20 or more the percentage received from other States was greater than the percentage of "predecessors" who left to teach in other States. It is interesting to note that a high percentage of teachers leaving the State was usually accompanied by a high percentage of new teachers obtained from other States. Since the States in this group are so scattered, it would be difficult to find a cause for this. (The 11 States were Arizona, Connecticut, Delaware, District of Columbia, Montana, Nevada, New Hampshire, New Jersey, New Mexico, Rhode Island, Wyoming.)

OTHER FACTORS AFFECTING SUPPLY AND DEMAND AMONG TEACHERS

The elements affecting the supply and demand among teachers for which the Survey collected data in items 37 and 38, page 199, are those which have most effect upon the demands for and the supply of teachers for any year. There are other elements in the total situation which very directly affect the number of new teachers needed and the number available. These were included in the lists at the beginning of this section and must be considered in any attempt to adjust the supply of and demand for teachers in any State. Data were collected by the Survey, primarily for other purposes, which, however, assist in presenting the supply and demand situation among teachers as it was in 1930-31.

Number of educational workers in different fields.—The inquiry blank sent to all teachers, supervisors, and administrative officers in public schools secured the proportion working in each of 58 classifications. The numbers in each of these classifications for 1930-31 were distributed for the principal school divisions (nursery school, kindergarten, elementary school, junior high school, senior high school, junior college, evening school, city, county, and State). These are given in volume II, part I, table 2 of the Survey Report. The number reporting in each classification and the percentage of the total group for those groups in which a thousand or more replies were received are given for convenience in table 7. These data, and especially the more detailed data in volume II, make possible more accurate estimates of the probable needs for new teachers in specific fields of educational work than have heretofore been made. They should be corrected for each State before programs for the education of teachers are completed.

TABLE 7.—Distribution of white personnel in selected fields of work, 1930-31¹

Main work	Number reporting	Percentage of the total number answering
1	2	3
Teacher of grades.....	344,725	77.0
Continuation school.....	3,334	.7
Teacher:		
Agriculture.....	2,008	.4
Art and drawing.....	5,483	1.2
Commercial.....	10,536	2.4
Health.....	8,577	1.9
Home economics.....	9,271	2.1
Industrial arts.....	6,810	1.4
Music.....	6,823	1.4
Trades and Industries.....	1,117	.2
Vocational.....	1,987	.5
Teacher of:		
Deaf.....	1,123	.3
Mentally defective.....	3,513	.7
Other special classes.....	1,586	.4
Supervisor:		
General.....	1,354	.3
Music.....	1,280	.3
Principal.....	17,205	3.8
Assistant principal.....	2,452	.5
Superintendent.....	5,348	1.2
Librarian.....	1,768	.4
All others ²	12,641	2.9
Total.....	447,917	100.0

¹ Detailed distributions for 32 other classifications by school divisions are reported in vol. II, pt. I, table 2 of the Survey Report.

² Includes: 401 visiting teachers, 410 teachers of naturalization, 480 vocational teachers, 420 teachers of crippled children, 551 teachers of cardiac classes, 338 teachers of speech defectives, 113 teachers of mentally gifted, 387 teachers of disciplinary classes, 551 supervisors of art and drawing, 57 supervisors of exceptional children, 237 supervisors of home economics, 225 supervisors of commercial subjects, 288 supervisors of industrial arts, 802 supervisors of health, 84 supervisors of trades and industries, 118 principals of schools for the mentally handicapped, 66 principals of schools for the physically handicapped, 178 deans of boys, 535 deans of girls, 280 assistant superintendents, 53 business managers, 19 building and grounds superintendents, 422 attendance officers, 182 cafeteria managers, 64 dietitians, 265 school physicians, 95 school dentists, 853 school nurses, 836 athletic coaches, 168 psychologists, 346 vocational guidance specialists, 140 research or survey specialists, 760 teacher clerks, and 1,578 others not included in the 53 classifications.

The most striking fact revealed by the distribution in table 7 is that nearly four-fifths of the total group were classroom teachers, and that when the teachers of special subjects were added, the total percentage whose main work was teaching was 91.3. In addition to these, many supervisors did some regular teaching as did also many principals and assistant principals, some superintendents and other workers, such as librarians, school nurses, coaches, and psychologists so that the actual work of instruction was the direct or indirect concern of about 95 percent of the public-school personnel.

Detailed data of this kind should be available to all institutions preparing teachers and to all State officials responsible for the issuance of teachers' certificates.

The effect of teachers' salaries on supply and demand among teachers.—The salaries paid teachers, actually and relatively, have without doubt much influence upon the supply of adequately prepared teachers for any specific type of position. This does not mean that teachers as a group are mercenary. It merely means that the

salary determines the types of individuals who will take the required amount of preparation and be satisfied to render continued service for the salaries offered. Salary levels for teachers also control or greatly influence other factors in the supply of teachers.

As teachers' salaries are increased (either in actual amounts or relatively by the decrease of salaries in other occupations open to teachers or prospective teachers) there is a double effect upon the adjustment of demand and supply. The demand is decreased because some of the teachers already in service remain in teaching or remain longer in teaching. At the same time the increased salaries attract more recruits to teaching. The immediate result is more than the usual number of new teachers for fewer than the usual number of vacancies. This double acceleration of the oversupply of teachers happened in the United States during the years immediately following the World War.

Teachers' salaries during the World War period lagged far behind the salaries of other groups. In the years following 1919-20, however, teachers received a succession of delayed increases which brought their salaries in 1928-29 to levels which were, actually and relatively, higher than they had ever been before in this country. At that time the same thing was true about the salaries paid workers in other fields, since the preceding decade had been one of general expansion. A caution should accompany the above statement about teachers' salaries in 1928-29. Before the World War teachers were so poorly paid that to say that they were better paid in 1928-29, both in dollars and purchasing power, is not saying that they were paid too much or even enough, because the increases were computed upon such a low base. Teachers were relatively better paid than at previous times, because their salaries had by that time been increased by the increments which many others got during the war period but which they were beginning to lose by 1928-29.

For some of the same reasons which made teachers' salaries lag behind those of other groups in obtaining the increases, they also lagged behind those of other groups in receiving reductions. Those who received the inquiry blank were asked to report their salaries for 1930-31.

No special salary study was planned by the Survey for the reason that the National Education Association, through its Research Division has rendered a significant service to American teachers by its biennial surveys of the salaries paid different groups of teachers in cities of various sizes. These surveys informed teachers and school administrators of salary conditions in other cities of comparable size in the same and other sections of the country and played an important role in helping to obtain the delayed salary increases during the decade after the World War. The survey data on

salaries for the year 1930-31 served two purposes—a check upon the salary data from other studies and a record of salaries paid to public-school workers before serious salary retrenchments were started for the school year 1931-32. Some public-school authorities expected the salary reductions imposed on teachers to correct the oversupply by making teaching less attractive, thereby reducing the supply and, by forcing some out of teaching, thereby increasing the demand. These results were, however, not realized. Salaries in other fields of work were reduced before teachers' salaries (because of the lag previously mentioned) which left teaching relatively more attractive than many other occupations and continued to increase the supply, but the lower salaries did tend to dissuade the most promising recruits from selecting teaching as a career. The lowered salaries also forced some teachers into other fields of work; but unfortunately, many of those who left were the younger, more capable teachers who, because of preparation, personality, and general ability, could most successfully meet the competition of other fields. Both of these results tended to decrease the general efficiency of the teaching personnel, while one counteracted the other so far as affecting the oversupply of teachers was concerned. Instead of the general salary reductions a wiser solution would have been to hold teachers' salaries to the 1930-31 levels (they were then not high enough when compared with other professions), select the most capable and the best prepared from among the present oversupply, and limit the number and improve the quality of the persons to be prepared for teaching.

Little is gained in presenting in detail the salary data in connection with this discussion. Median and quartile salaries for men and women, for school years of different lengths, are distributed by States for teachers in rural schools, cities with 10,000 to 100,000 population, junior high schools, and senior high schools, in volume II appendix, tables XX, XXI, XXII, and XXIII of the Survey Report. These tables yield such facts as the following:

Twenty-seven of the forty States in which rural teachers reported salaries for 9-month terms had median salaries of more than \$100 a month for women teachers. Only 2 of the 40 States had median salaries for that group of less than \$75 per month.

Twenty-one of the thirty-one States in which teachers in cities from 10,000 to 100,000 population reported salaries for 10-month terms had median salaries of \$125 or more per month for women teachers. The range of the median salaries was from \$1,059 to \$1,868.

Seventeen of the twenty-nine States in which junior high school teachers reported salaries for 10-month terms had median salaries of

\$175 or more per month for women teachers. The range of the median salaries was from \$1,375 to \$2,729.

Fourteen of the twenty-six States in which senior high school teachers reported salaries for 10-month terms had median salaries of \$200 or more per month. The range was from \$1,407 to \$2,808.

Some of the generalizations previously shown in studies of teachers' salaries were supported by the Survey data. These were:

1. That teachers' salaries increased as the size of the community increased.
2. That teachers in 1- and 2-teacher rural schools received less than teachers in consolidated schools.
3. That men teachers received on the average \$100 to \$200 per year more than women teachers in the elementary schools, and from \$200 to \$300 per year more in secondary schools.
4. That senior high school teachers received higher salaries than junior high school teachers and that junior high school teachers received higher salaries than elementary-school teachers.
5. About half of the village and city schools were operated for 9 months and the remainder for 10 months. A few small schools were open only 7 months and a negligible number for only 6. Eight months was the typical term for rural schools.
6. In median salaries paid there was wide variability among the States, the highest being more than twice the lowest.

The effect of tenure and retirement provisions on supply and demand.—These two elements in the supply and demand situation were not included in the Survey studies because of recent complete studies under the auspices of the National Education Association.²

These elements have both operated to increase the supply of teachers by making teaching more attractive. The retirement provisions which have been introduced by about half of the States and by a number of separate cities should have operated to increase the demand for new teachers by making it easier for teachers to retire. Data reported in table 6, page 202, for 1930-31 showed that only 6 percent of the predecessors of the "new" elementary teachers retired, and the proportion for the junior and senior high school groups was only 3.6 percent. When these were adjusted to represent percentages of the total groups they were 1.3 percent, 0.5 percent, and 0.8 percent of each group. This means that at the rate teachers retired in 1929-30 only 1.1 percent of the teachers in the elementary, junior and senior high schools retired. In other words, relatively few teachers remained in teaching long enough to reach the retirement age. Present indications are that this number will increase rather than diminish.

Data on the age of teachers in different school divisions, years of experience, transiency (number of different positions held), teaching

² N. E. A. Research Division. Current issues in teacher retirement. Research bulletin, vol. VII, no. 5, November 1930. N. E. A. Department of Elementary Teachers. The Economic Welfare of Teachers sixth yearbook, 1931.

load, and other items involved in whether or not teaching will attract sufficient persons of desirable ability were obtained from the answers to the inquiry sent to all teachers and reported in volume II, part I of the Survey Report. Many of these elements should be known by those responsible for programs for the education of teachers, but they do not enter so directly into the problem of determining each year's demand and supply as some of the other factors. Some of the data will be used in the later proposals for adjusting supply and demand but otherwise will not be reported in this summary. Five facts should be mentioned because of their general application to the problem of supply and demand.

Seven-eighths of all rural school teachers in 1930-31 were women. Nineteen-twentieths of all other elementary teachers, three-fourths of the junior high school teachers, and nearly two-thirds of the senior high school teachers were women.

There is a very heavy loss to the teaching personnel during the early years of teaching experience, which makes the replacement problem heavier than would be the case if a larger proportion prepared for teaching as a profession and expected to make it a life career.

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.

The length of teaching experience increased as the size of the community increased from the rural districts to the larger cities, with very clear evidence that many cities are not assuming their share of responsibility for initiating inexperienced teachers.

About nine-tenths of the secondary-school teachers were teaching one or two subjects, although many of them were required to teach three or more during the first years of their experience, and the median teaching loads of over 25 clock-hours per week and of more than 30 clock-hours for a third of the teachers indicated that many of the high-school teachers were carrying loads usually considered inconsistent with effective instruction.

SECTION 4. ESTIMATES OF TEACHER SUPPLY AND DEMAND

Estimating the oversupply of teachers.—The difficulties of obtaining a record of the oversupply of teachers on a national basis were explained at the beginning of this chapter. The time and expense involved in getting even a good estimate seemed out of proportion to the use which could be made of the data; therefore, as previously stated, no attempt was made to obtain a record of unemployed teachers. Even a mere count of the unemployed teachers such as

would be obtained by a census enumeration would have been difficult and expensive and would have been of practically no value for the reasons already given. Any State, city or county desiring an enumeration and a personnel record of unemployed teachers could secure the necessary data much more readily than it could be obtained from a larger area with its different terms, school organizations, and standards of preparation. Even for such a unit the task would not be a small one and would be of but passing value unless it were remade at frequent intervals, in order to keep it up to date.

If a city has its own "approved list" or "waiting list" of unemployed and available teachers and, by official or semi-official pronouncements, has obligated itself to employ those on the list in order as vacancies occur, the city will have the necessary records on each applicant. Such applicants usually belong to a "limited oversupply," since they probably will not accept teaching positions elsewhere for fear of losing their turn. A large number of the better qualified unemployed teachers were probably in that class.

It has been assumed that most of the city school systems have satisfactory records of available teachers, even though the lists contain some duplications where teachers have applied for positions in several cities. It has further been assumed that in making and maintaining these eligibility lists the superintendents have been frequently and forcibly reminded of the oversupply of teachers and of the greater opportunity to select teachers with exactly the preparation, personality, and experience desired. These superintendents undoubtedly have selected teachers from the lists whom they will want to employ whenever the appropriate positions become vacant or can be established.

A third assumption has been made with respect to the oversupply of teachers, namely, that State, county and city superintendents of schools will, whenever possible, reduce the size of classes, add new educational services and restore suspended services, and make other changes to increase the general efficiency of the schools, which will require more teachers and specialists. Such changes should be used to reduce the number of adequately prepared unemployed teachers.

A fourth assumption is a necessary accompaniment of the third, namely, that institutions preparing teachers will not continue to do so at the same rate or that they will not use the increased demands resulting from the changes suggested in the third assumption as an excuse for increasing the number of teachers prepared. In either case the reduction of unemployment among teachers would be very temporary and the oversupply would quickly become as demoralizing as at present.

Allowing an oversupply of teachers to correct itself by increasing the oversupply until the chances of satisfactory placement are so

few that people are no longer willing to make the necessary educational preparation has been proposed as a normal solution. Even if this were economically sound (and it is no longer considered so), it would be very undesirable educationally. It wastes or misdirects the educational preparation of thousands, if not hundreds of thousands of young men and women, prevents them from making adequate or timely preparation for some other field of work, and breaks down the professional morale of the entire group, employed as well as unemployed. All this is very difficult to justify when the teachers only are considered. How much more difficult it is to justify when the effect upon the millions of school children whose educational opportunities are thereby reduced is considered!

Estimates of teacher supply.—State officers of education primarily responsible for the formulation of programs of teacher education and teacher certification should have the responsibility of estimating the rate at which qualified unemployed teachers for different types of work can be employed by the school systems in the State and also the number of teachers for each school division and for each subject and for each type of special work that will be needed each year over a period extending at all times at least 10 years into the future.

Such estimates require not only accurate and detailed records but require them for a period of years in order that trends may be established indicating the rate of change and the directions of the change. The data collected by the National Survey of the Education of Teachers will help to establish the 1930-31 points in any indication of trends in supply and demand in teaching. Data on the items described in section 2 of this chapter are presented by States in a number of instances in volume II of the Survey Report.

The use to which these data may be put can be illustrated by the data for the whole country as presented in table 6, page 202. (Same as table 28, vol. II, pt. I). Using the data for all elementary teachers as presented in column 8 the following calculations can be made for conditions which existed in 1930-31. Of the 244,618 elementary teachers who answered the questions on supply and demand 51,131 were "new" to their positions that year—20.9 percent of the elementary teachers were "new". Of these "new" teachers 44.9 percent were teaching in another school system the preceding year, 39.1 percent were in institutions of higher education, 5 percent held positions other than in educational work, 1.1 percent were on leave of absence, 5.1 percent returned to teaching, having had some occupation other than education the past year, and 4.8 percent were obtained from all other sources. The sum of the percentages drawn from all these sources (except those teaching the preceding year) was 55.1. This represents the maximum percentage of "new" teachers employed that year from all sources other than transfers from other

school systems. Accordingly 55.1 percent of 20.9 percent, or 11.5 percent of all elementary teachers in 1930-31, were additional teachers in that they were not teaching the year before.

If conditions had remained relatively the same for 1931-32 the United States would have needed "new" elementary teachers from the institutions of higher education and other sources (except other school systems) to the extent of approximately 11.5 percent of the total number of elementary teachers. Because the answers received were only 50 percent of all inquiries sent out it would be necessary to double the number of answers to represent the total number for the country. Therefore 11.5 percent of $244,618 \times 2 = 56,262$, the number of "new additional" elementary teachers employed for 1930-31.

By the same method the number of "new additional" teachers employed in 1930-31 in the junior high school was 8.7 percent of the entire group or 6,286, and in the senior high school 11.8 percent of the entire group or 20,032. If allowance is made for the fact that the percentages of "new" teachers might have been slightly higher had all returns been received it is probable that the number of "new additional" teachers employed in 1930-31 did not exceed 85,000.

One other calculation must be made before these data can be used as guides in the development of programs for the education of teachers. The three percentages—11.5 for elementary teachers, 8.7 for junior high school teachers, and 11.8 for senior high school teachers—represent the proportions of the total number of teachers employed in each group in 1930-31 who were not teaching the preceding year and so may be thought of as "new additional" teachers for that year. By using the percentages in table 6, page 202, it is possible to obtain the proportions of these "additional" teachers supplied by institutions of higher education. For example, 11 percent of the "new" elementary teachers in 1930-31 were in colleges or universities in the same State the preceding year, 25 percent were in teacher-training classes, normal schools, and teachers colleges, 1.7 percent were in colleges and universities in another State, and 1.4 percent were in normal schools and teachers colleges in another State—a total of 39.1 percent in higher institutions the preceding year. Thirty-nine and one-tenth percent of 51,131 "new" teachers is 19,992, which is 8.2 percent of the total number of elementary teachers who answered the inquiry, and indicates that about 1 in 12 of the elementary teachers in 1930-31 had been in some institution of higher education the preceding year.

Similar calculations for the junior high school teachers show that 6.4 percent of all junior high school teachers who answered the inquiry were in institutions of higher education in 1929-30 (43.4 percent of

5,381=2,335) and 9.2 percent of senior high school teachers (45.1 percent of 17,367=7,833).

From these data can be drawn two additional conclusions on conditions as they were in 1930-31. The first is that all higher educational institutions supplied less than three-fourths of the "additional new" teachers employed that year and the second is that seven-eighths of those from all institutions (88 percent, were supplied by institutions in the same States in which the new teachers were employed.

Another set of simple calculations yields some interesting estimates of the number of "new" teachers, supervisors, and administrators drawn from all institutions of higher education in 1930-31. Because answers were received from approximately half of the total group the numbers reported as in higher institutions the preceding year should be doubled to represent the total number of teachers obtained from that source. If round numbers, 40,000 new elementary teachers, 5,000 new junior high school teachers, and 15,000 new senior high school teachers, or a total of 60,000 teachers, were obtained in 1930-31 from institutions of higher education. Because teachers represented more than four-fifths of the total group answering the inquiry on supply and demand it is a conservative estimate that the total number of additional public-school workers—teachers, supervisors, administrative officers, and others—drawn from educational institutions in 1930-31 was not more than 75,000. (Five-fourths of 60,000 teachers.) This represents about one-twelfth of the total group—the proportion supplied that year from all institutions of higher education.

In 1930-31 normal schools and teachers colleges "graduated" about 50,000 students from courses entitling them to some form of teaching or administration certificate, 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 work). During the same year another 10,000 or more prospective teachers were prepared in city normal schools and teachers colleges, county normal schools, and high-school teacher-training classes. This total of 120,000 teachers does not represent an additional supply of that many new teachers. Some of those listed as graduates were teachers in service who completed work for a diploma or a degree that year. Such teachers would not represent additions to the supply because they were already employed. Their number should therefore be subtracted from the total 120,000. There are no adequate data for estimating the number of those employed graduates. Some estimates obtained ranged from 5 percent to 40 percent with very evident variations among States and types of institutions. If, therefore, the total number of "graduates" were reduced by as

many as 15,000 to make allowance for this group the supply would still be 30,000 in excess of the demand. (120,000 "graduates" reduced by 15,000 employed "graduates" left 105,000 new additional teachers to meet a demand for 75,000, which left 30,000 graduates unable to secure positions.)

Overestimates of the number of new teachers needed.—Without question some part of the oversupply of teachers in the United States in 1930-31 was the result of overestimates of the number of additional teachers needed each year. During and after the World War statements were made that the average "teaching life" of American teachers was between 4 and 5 years. Such statements may have been justified for the period between 1914 and 1919 or 1920 and especially for the teachers in rural schools and the smaller cities and villages. On the basis of such statements, those responsible for the preparation and for the certification of teachers estimated that additional teachers were needed each year to the extent of a fourth or a fifth of the entire teaching group and established programs intended to furnish new teachers in sufficient numbers to meet that demand.

Conditions affecting the supply of teachers changed so rapidly from 1921-22 to 1927-28 that the use of any such ratio as one-fourth or one-fifth for new additional teachers needed became an annually increasing overestimate, even though the schools were expanding rapidly in services and in personnel. The rate at which the ratio of new teachers to the total group changed is obvious when the one-fourth or one-fifth of 1920 became one-tenth or one-twelfth by 1930-31. The "supply" probably overtook the "demand" in 1927-28 and since then the oversupply has been mounting at the rate of 20,000 to 30,000 a year. To be sure not all of those added each year were satisfactorily prepared—many of them had less than 2 years of educational preparation beyond a 4-year high school but if they were granted any kind of a teaching certificate they added to the supply as certainly as if they were adequately prepared. Unfortunately those teachers with the least preparation were often the ones selected for positions by school boards with limited professional vision.

Supply and demand estimates for States.—For reasons which should be apparent from the preceding discussions of State variations, these national figures cannot be used as bases for constructing a teacher-education program for any State without making the adjustments necessitated by the items upon which the State varies from the national figures. They do show, however, that the teacher-education load upon institutions preparing teachers was much less than had been generally considered and that the number of "new addi-

tional" teachers employed each year from the various sources was decidedly less than usually estimated.

The data on the supply and demand factors collected by the Survey and reported for each State in volume II, part I, tables 25, 26, 27, can be used in the way just illustrated for the country as a whole. It must be remembered that the conditions reported were for the school years 1929-30 and 1930-31 and cannot be used as representative of conditions in 1935-36 unless the various items have been checked, to ascertain what, if any, changes have occurred and the direction and amount of the changes.

In computing the percentages and numbers for any particular State a few points should be considered which did not enter the calculations for the United States as a whole.

In the first place the number of teachers who are accepted from teaching positions in other States becomes a factor which must be considered by a State, but can be disregarded when conditions for the country as a whole are concerned. Obviously a teacher's move from one State to another has the same effect on supply and demand nationally as when a teacher moves from one city to another within a State. In most of the States this factor has affected "turnover" but not supply and demand because the number of teachers who "were teaching the preceding year in another school system in another State" was about balanced by the number of "predecessors who left to teach in another State." The proportion of "new" teachers obtained from this source, however, is a matter which can be controlled by any State and so must be considered in all estimates. If a State has been receiving about 10 percent of its "new" teachers from teaching positions in other States and can continue to attract an equal number of desirable recruits and wishes to continue the practice, the difference between the number so attracted and the number who leave the State to teach elsewhere becomes a "supply" of that many teachers and reduces by that number the demand upon institutions of higher education and other sources.

In the second place a State may also modify its supply and demand problem by regulating the number and kinds of teachers who will be certificated from institutions of higher education in other States. Even though the number of teachers obtained from institutions of higher education in other States is relatively small, especially for elementary teachers, there were about a fourth of the States in which 15 percent or more of the secondary teachers were obtained from colleges and universities in other States. In those States any change of policy on this element would affect the number of new teachers to be supplied from other sources within the State.

In the third place a State can, by means of legislation, regulation, or certification, control any of the sources of supply for "new additional" teachers. Therefore, standards should be set for each of the sources of supply before any program of teacher-education is developed and put into operation. For example, if high-school training classes are to be abolished by a fixed date or if all normal schools are to become teachers colleges and all curricula 4-year curricula by a given date these plans should be known as far in advance as possible in order to see that the required number of teachers will be available as needed. A State regulation to the effect that a teacher's certificate shall become invalid if not used during a period of years, e.g., 5 consecutive years is a means of regulating the supply of new teachers who return to teaching from other occupations.

The total effect of these differences is to make clear the fact that a State program for the education of teachers cannot be formulated without considering existing standards for the State at the time and also any changes in standards which have been decided upon or which will probably be made during the period covered by the program.

Ten-year planning periods desirable.—The reason why a program for the education of teachers should extend over a period of years is obvious when it is remembered that teachers in increasing numbers are taking 4 and 5 years of preservice educational preparation. That period may also be followed by a year or more of cadet teaching or even by unemployment before the graduate can start to demonstrate the effectiveness of the preparation, and this should be studied over a period of at least 3 years. Thus it would require a period of 7 or 8 years before students, selected for teaching this year, could secure their preparation and demonstrate their effectiveness, and 9 or 10 years before the entering classes of 3 consecutive years could do so.

A further argument for a 10-year program is the availability every 10 years of census data.

It is of course understood that any such program would need to be revised, probably every 2 years in the light of as many data as are available.

It is also evident from the preceding material that any such 10-year plan must consider the effect of each of the principal elements involving demand and supply since many of them are so intimately related that a change in one affects several others. In a number of elements the relationship is so close that a change in one may even negate another.

A formula for estimating demand for teachers.—The interrelationships of the principal variables in the problem of adjusting

the supply of new teachers to the demands may be understood more clearly if they are arranged in the form of an equation even though the equation assumes rather forbidding length.

There is little purpose in attempting to ascertain the number of teachers needed from institutions of higher education at any period except as it is done for teachers of a particular type of position which is recognized by specific certification. For example, it is of little help in guiding students to know that 500 new teachers will be needed by the public schools of a State next year without knowing how many of them will be needed in the rural schools, elementary schools, secondary schools, and in what subject-matter fields in the secondary schools. The same is true for supervisors, principals, and other educational workers.

It is therefore recommended that estimates of the number of recruits to education be computed for those groups in which there are specific curricula and specific certification.

The problem of estimating the number of elementary teachers needed for the ensuing year from institutions which prepare them can be illustrated by the following formula:

$$a + b + c + d + e + f + g + h + i + j - k - l - m - n - o + p = X$$

- a. The number of teachers who have been and will be retired during the year.
- b. The number of teachers who died or stopped teaching because of illness.
- c. The number of teachers who stopped teaching (not on leave of absence) to continue their professional preparation.
- d. The number who married and stopped teaching.
- e. The number of teachers needed for new educational services in the elementary field.
- f. The number of teachers who resigned or were dismissed for inefficiency or other causes.
- g. The increase or decrease in the number of teaching positions because of an increase or decrease in the school population or because of increases in the average daily attendance.
- h. The increase or decrease in the number of teaching positions caused by decreases or increases in the size of classes per teacher or in the teaching load.
- i. The difference between the number taking leave of absence (+) and the number returning from leave of absence (-).
- j. The difference between the number of teachers who left to teach in another State (+) and those employed from other States (-).

- k. The difference between the number of teachers who entered another occupation or profession (+) and the number employed from another occupation or profession (-).
- l. The number of teachers recruited through examinations, cadet teaching, and other sources.
- m. The number of teachers eliminated because of the withdrawal or curtailment of elementary school services.
- n. The number of teachers who returned to teaching having some occupation other than teaching in the meantime.
- o. The number of unemployed elementary teachers whose preparation is acceptable in quality, quantity, professional nature, and recency and who can be absorbed each year without disrupting the continuity of programs for the education of teachers.
- p. A margin of safety consisting of enough elementary teachers in excess of the number actually needed to care for emergencies and unforeseen developments and also to replace incompetents when necessary. ("p" would be zero in the equation so long as the number of unemployed qualified teachers exceeds the number needed for "o" by the number needed for the margin of safety "p.")
- X. The number of elementary teachers with acceptable preparation needed from institutions of higher education to supply the needs for the ensuing year.

This formula shows very clearly the complexity of the problem of estimating the needed supply of teachers for any type of position. The preceding discussion has shown that all of these elements are themselves variables and yet many of them can be estimated for a specific year or period with a relatively high degree of accuracy from the educational records which should be maintained in State departments of education. Most of the elements in the equation are rather orderly variables, that is, they tend to vary in a regular manner so far as a State is concerned and are not subject to marked and sudden fluctuations. For example, the number of teachers who retire, die, get married, go to college, or leave to enter some other occupation remains much the same from one year to another. Other elements such as the number of teachers recruited from examinations, the number leaving for further education, the number granted leaves of absence and the size of classes are subject to control by the school administrators. The increase in the number of boys and girls of school age fluctuates somewhat, but the fluctuations can be known several years before the schools will be affected. Thus it appears that most of the elements in the supply and demand equation can be estimated from simple records which show the changes from year to year over a period of years, and that the predictions will

become more accurate as the period for which the trends are kept increases.

The number of teachers who die or retire each year because of illness are the only variables in the equation which are merely matters of factual record and over which the school authorities have no control.

The majority of the variables are matters of record once the State has established a standard for the item. For example, once the retirement age is set it can be ascertained how many teachers of a group will reach that age each year. Regulations concerning additional preparation or salary schedule provisions which depend upon preparation will influence the number of teachers who will stop teaching and enter college. Regulations concerning employment of married teachers and regarding maternity leave will determine the number of new teachers needed because teachers marry. Variables f , g , h , i , j , k , l , and n are also examples of variables which are largely determined by records once State standards have been set.

Variables e , m , o , and p , however, are somewhat different since they involve setting standards more in terms of educational theories than factually established trends.

The number of "new additional" teachers needed for "new" educational services on the elementary school level (item e) is determined not so much by statistical trends as it is by the attitudes of the State toward the expansion of school services. If the general attitude of educational, political, and economic leaders is favorable to expansion of educational opportunities there is no reason why the rate of expansion and the lines along which the expansion will proceed cannot be determined. There is also no reason why the number of new teachers for each type of service that will be needed each year cannot be set for a period of years and the expansion made in a programmed manner.

The number of teachers eliminated because of the withdrawal or elimination of elementary school services (item m) is of course always negative in the equation and should seldom appear except where certain services are found to be unnecessary or undesirable or where they have been assumed by other agencies. In other cases it represents a loss of faith in the value of the services, or a lowered ability to support the educational program or both. Whether or not item m appears in an equation depends very largely upon the attitudes of leaders toward the services in question. School services which are allowed to be condemned by such classifications as "fads and fills" are often among those included in item m , whereas if their real value were known to parents and school patrons they would be among the last to be withdrawn or curtailed.

The number of unemployed elementary teachers that can be absorbed any year (item *o*) is affected by two considerations. The first is the number of elementary teachers, unemployed and desiring positions, whose preparation is acceptable in all respects. When the number of acceptable unemployed elementary teachers exceeds the "margin of safety" the number in excess of that margin that can be employed must be determined by the second consideration, which is the continuity of the programs of those institutions within the State which have been approved for the preparation of elementary teachers. Such programs cannot be stopped and started at will. They require specially prepared staff members, a continuous supply of selected students, up-to-date libraries, physical plants, and other factors, tangible and intangible, which take time to develop. Such institutions can be maintained during periods if not too extended, in which the number of students is less than the normal load while the oversupply of acceptable teachers is being reduced. Such reduced loads increase slightly the per-student costs, but the loss is undoubtedly much less than would result from temporary closing of the schools.

There is no known satisfactory basis for determining how much below normal capacity an institution can maintain its program intact and also maintain the quality of its work. An estimate based upon the experiences of institutions during periods when enrollments were decreasing instead of increasing indicates that enrollments may fall below the normal, or optimum point by from 20 to 33 $\frac{1}{3}$ percent and still not cause radical changes in the institution's program nor greatly increase the per-student costs. This would be particularly true of institutions with 500 or more students. It is, therefore, suggested that acceptable unemployed teachers could be employed in numbers ranging from 20 to 33 $\frac{1}{3}$ percent of the number of new teachers otherwise needed from the approved institutions preparing teachers for that type of position. The percentage designated by the State education authorities should vary in terms of the oversupply of satisfactorily prepared teachers which has accumulated and for which the State considers itself in any way responsible. If the surplus of unemployed teachers with acceptable preparation exceeds the number of new teachers needed each year from institutions approved for the preparation of teachers, then unemployed teachers, to the extent of about a third of the number needed from those institutions, should be placed. If, on the other hand, the surplus is smaller than the number needed from the approved institutions, then the percentages may be reduced unless the State authorities are desirous of absorbing the surplus more rapidly. The above recommendations should not be confused with recommendations to employ from 20 to 33 $\frac{1}{3}$ percent of the unemployed teachers each

year. The number of unemployed teachers with acceptable recent preparation may be smaller than the number of new teachers needed each year from the approved institutions, and, on the other hand, it may be several times greater, so that even with the larger percentages it would take several years to absorb the unemployed teachers.

An illustration may help to clarify this problem. If a State needs 3,000 elementary teachers each year from the institutions approved for the preparation of elementary teachers and has a surplus of 1,800 elementary teachers whose preparation is recent and adequate and who are unemployed, the surplus could be absorbed in a period of 3 years by reducing the number of elementary teachers prepared and certificated by 20 percent for 3 years. The solution is not as simple as this statement might indicate because of the period of 2 to 4 years required to prepare elementary teachers. More than the 2,400 would be partly through their period of preparation. This would either add to the surplus and lengthen the adjustment period beyond 3 years or the State certification authorities would be forced to select the best from among the graduates up to the number needed, viz, 2,400, and refuse certification to the surplus. The second is the solution which all States will probably come to sooner or later if this problem is to be solved.

If, instead of having a surplus of 1,800 satisfactorily prepared unemployed elementary teachers, the State has a surplus of 6,000 the procedure is the same but the time will have to be lengthened. If the number of new recruits from the institutions is cut by 600 per year (20 percent) the surplus would not be absorbed for 10 years; whereas if it is cut by 1,000 (33 $\frac{1}{3}$ percent) the period would be 6 years. In either case the period would extend over so many years that some of the unemployed teachers would have to obtain additional preparation before they were placed in order that their preparation might be up to date.

Another problem in administration during the period in which the oversupply of teachers is absorbed is that of regulating the employment of the teachers. The question may be asked, "How can school boards be made to employ 2,000 graduates of institutions of higher education and 1,000 unemployed teachers?" The answer is that it is immaterial whether they do or do not so long as not more than the reduced number of graduates are given certificates. School boards will have to employ unemployed teachers to the extent of the difference between the number of new teachers normally needed and the number newly certificated, and if in addition to that number they should employ some unemployed teachers in preference to some of the less capable of the recent graduates the total surplus will have been reduced by the same number and some of the recent graduates

will have one or more years of unemployment or partial unemployment until the entire surplus has been absorbed.

Variable " p " the recommended margin of safety of elementary teachers—must be determined rather arbitrarily at first but can be refined and reduced to number as the records of subsequent years show the number needed. This number should naturally be kept as small as possible. For the present, of course, with a surplus which is much too large, this item in the equation would be zero for most groups of teachers.

This margin under ideal conditions need not and in fact should not be large because it means a temporary loss to those who comprise it. This loss should be partially prevented by using these excess teachers as substitute teachers and for any special educational services for which the school systems would employ other workers. This period of internship would also be valuable as an additional check on the desirability of teachers for permanent appointment in the schools, and as an effective period of orientation within the school system. As a satisfactory balance is being established between the supply and demand for teachers it is probable that this "margin of safety" need not be more than 2 to 3 percent of the new teachers needed for any year. Eventually when accumulated records make possible more accurate estimates it should approach zero. Unexpected emergencies should call for small numbers of additional workers and these emergency tasks should be cared for by regularly employed workers whose duties can be changed or enlarged until additional workers can be prepared. If a careful record is kept of the number of teachers employed each year, under what might be called "emergency" conditions (variable " p ") the number needed for this purpose can be known by the time that the present surplus of teachers is exhausted and before it will be necessary to assign any positive value to item " p " in the equation.

One other suggestion should be made concerning the administration of this margin of safety, viz, that its members should be employed on a full-time basis in some capacity in the schools. They could serve as substitute teachers, as teachers of small groups or individuals needing remedial work, as assistants in educational experiments, and in other ways which would leave them relatively free for use in emergency conditions. The recency and adequacy of their preparation combined with their familiarity with the schools should make them more desirable recruits than those just prepared.

Relation of estimates to trends.—The first reaction to the proposed method for estimating the number of new teachers needed for any type of position is that it is far too complicated and that the human elements in the equation make it almost impossible to control. These

of course are restatements of the two principal problems, namely: "Can more accurate estimates be made of the number of teachers needed and if they can be made, can the supply of teachers be regulated in terms of those needs?" The proposed method of estimating the number of teachers for any specific type of position is the answer to the first question. The objection to its complexity is unwarranted because if all the factors mentioned affect the number of teachers needed then all of those factors must be used in making the estimates. (Any others which apply to particular situations or to some groups of teachers and not to others will also have to be included.) In this same connection it may be remarked again that the complexity of the method of estimating is largely an initial problem. Once the educational records are organized to supply the needed data and charts are prepared to indicate the direction and rate of the changes the values to be assigned to each item in the equation can be quite accurately predicted for the next year or the next biennium as needed. The "trend curves" could be corrected each year when educational statistics are assembled so that any significant deviations from the predicted needs could be discovered as soon as they developed. Once these trends have been established and records revised so as to keep them constantly up to date, estimating the needs for new teachers becomes very largely a process of easy clerical computations.

The second question of whether or not the supply of teachers can be regulated even if accurate estimates of the number of new teachers needed are available will be discussed in the next section.

SECTION 5. SUGGESTIONS FOR CONTROLLING TEACHER SUPPLY AND DEMAND

Numerous suggestions for adjusting supply and demand among teachers have been given or implied in the preceding discussions of this chapter. It is the purpose of this section to arrange those suggestions in the form of a program or a series of steps which will assist any State in its attack upon the problem of adjusting the supply of and demand for teachers.

Four basic assumptions.—Before this can be outlined with any hope that it will be considered practicable, four basic assumptions will be made and must be accepted by the State which attempts any such program.

The first basic assumption is that the citizens of a State must believe in the fundamental value of the public schools and provide a reasonably continuous and adequate support for the educational program. This will undoubtedly necessitate a larger participation by the State in the support of schools and probably an increased

participation of the Federal Government in equalizing educational opportunities. This assumption does not mean that there should not be salary readjustments during periods of financial change but it does imply that public-school services will be considered among those essential forms of public service which must be maintained as certainly during periods of financial depression as during periods of prosperity.

The second basic assumption is that each individual State is responsible for insuring an adequate supply of teachers meeting the certification standards which it has adopted for the several types of teaching positions. This responsibility may be met by: (a) Maintaining institutions or divisions of institutions having as their specific purpose the education of teachers; (b) certification of graduates of approved curricula for the education of teachers in non-State-supported institutions; or (c) by various combinations of these two methods.

Each State should have the right to control the number of teachers certificated at any time or during any period for each type of teaching position within that State.

The third assumption is that the State desires to have teacher supply and demand adjusted so as to prevent the recurrence of disturbing oversupplies or shortages of adequately prepared teachers.

More people will question this assumption than either of the preceding ones. Many people believe that the law of supply and demand, if allowed to operate unhampered, will correct shortages and reduce surpluses just as it has in the past. They believe that individual teachers may be inconvenienced but that the schools need not suffer. On the contrary it seems clear that the service of the public schools is harmfully affected by both teacher shortages and teacher surpluses.

The fact that a very serious shortage of teachers which existed during and at the close of the World War could change to an equally serious oversupply in less than a decade—less than two college generations—has convinced many capable persons, prospective teachers, that teaching has little promise as a desirable career. This has diverted some of the more able prospective teachers to other professional fields.

A shortage of teachers tends to lower the standards of ability and preparation of teaching recruits. At such times persons with inferior preparation are employed in order to prevent the schools from remaining closed for lack of teachers. This was repeatedly shown during the shortage of teachers between 1917 and 1920. Not only do the schools suffer at the time from the poor teaching of inadequately prepared teachers, but those same teachers, once in teaching,

often retain their positions long after the conditions which allowed them to enter have been removed. The presence of these inferior teachers, furthermore, sets low standards of scholarship and especially of personality which are often ascribed to the entire group of teachers.

An oversupply of teachers has also been shown to lower standards of public-school service by lowering the professional morale of both employed and unemployed teachers. A large surplus of certificated teachers also tends to increase greatly the competition for positions. This competition gives rise to the use of various pressures in the selection of teachers which make local residence or willingness to accept lower salaries and other nonprofessional matters the bases for the appointment of teachers instead of professional preparation. Competition of this kind frequently results in the employment of teachers with the least professional preparation because they have made the smallest investment in time, effort, and money and also have less basis for development of a code of professional ethics. The net result is that the schools often do not receive the best teachers available. Periods in which oversupplies of teachers develop are often periods in which standards for professional preparation of teachers are raised. These raised standards cannot be credited to the surplus as has sometimes been done.

A surplus could be used to accelerate the raising of standards if all teacher-employing agencies took advantage of the opportunity to employ the best teachers available. Since, however, this has not always been done, the possible gains which might result from the surplus have been wholly lost or only partially realized.

Another result of a continued surplus of adequately prepared teachers is that many of the more capable young men and women, who might choose teaching as a career, make other choices, and education loses some valuable potential leadership.

In connection with the third assumption some authorities hold that it is undesirable for the State or any group of workers within the State to control the supply and demand for workers in any field unless similar planned control is resorted to by practically all groups and guided by some central planning body or organization. This objection seems to have less force when applied to attempts to control the supply and demand of teachers than it would have for many other groups because of the public-service nature of teaching. The public schools are maintained because of the services rendered to the children—the citizens of tomorrow—and not for the sake of the teachers.

A fourth assumption is that teachers, in addition to being well-educated men and women, should have special preparation for the

various types of teaching positions. (This assumption was discussed at length in ch. III.)

In the light of these four assumptions any State which is interested in adjusting supply and demand among its teachers must consider four phases of the problem. The first is the inventory of professional equipment, the second is the development of a program of teacher education, the third is the estimating and controlling of demand, and the fourth is the estimating and controlling of supply.

AN INVENTORY OF THE PROFESSIONAL PREPARATION OF ALL EDUCATIONAL WORKERS

Unless a State has an accurate, detailed, complete, and up-to-date inventory of the professional preparation of its teaching personnel—employed and unemployed—in terms of the standards in force in the State at the time, no effective plans can be made for adjusting either the supply of or demand for teachers. This inventory should indicate the number of teachers and other educational workers in the State and in the various units of the State whose educational and professional preparation is entirely satisfactory according to present standards and also the number whose preparation is below or above standard and the extent to which it is below or above. Those among the unemployed whose preparation is below the accepted amount or quality can be eliminated from further consideration, because if they bring their preparation up to the approved standard they will be accounted for as students in some institution of higher education.

The inventory should be made in such a way that the records may be maintained—in other words it should be a continuing record which will indicate each year the kind and extent of the changes made. A few States have such an inventory and others have the needed data for the teachers in service, but the majority would need to increase their present records and include all the unemployed-certificated teachers for which they may be considered in any way responsible before the inventory could be used as the basis for any planned attempts to regulate supply and demand.

THE DEVELOPMENT OF A PROGRAM OF TEACHER EDUCATION

This phase of the problem has to do largely with the establishment of standards for the education of teachers who are satisfactory to the State. Three distinct steps are necessary in this phase:

1. The State educational authorities in consultation with representative-educational leaders of the State should formulate for the different types of teaching positions the minimum standards

of preparation which will be accepted at the present time. These should be made as high as is practical under present conditions.

2. If the present standards are lower for any group than are generally considered desirable, dates should be set by which time teachers in service and all new teachers will be expected to meet the higher standards. These dates should be so set that the teachers in service will have time to secure the necessary additional preparation and that the institutions which prepare teachers may provide the additional preparation without being forced to expand their programs and organizations beyond the point needed after the new standards have been reached. In this way the additional demand may be spread evenly over a period of years and will not encourage an undesirable temporary "speeding-up" of the program of teacher-education, with its later additions to the oversupply and its losses and disappointments to individuals when the new standards have been achieved and no vacancies exist.
3. In addition to the first two steps, which may be considered largely "upgrading" in nature, a State should outline an enlarged program of educational services which it would inaugurate as conditions make it possible. Such a program might include: New kinds of visiting and helping teachers; a greater variety of teachers of special subjects, especially those which contribute toward an enjoyable or profitable use of leisure time; an increased staff of specialists in the diagnostic and remedial fields of mental, educational, and physical adjustments; larger numbers of specially trained teachers and directors of recreations of all kinds; new educational services for all groups of adults which would provide for education, recreation, and occupational rehabilitation; extensions of the amount and kinds of services for younger children—the present preschool group; and a large increase in the educational use of the radio and visual instruction. The more such services are considered and planned for, the more likely it is that a State will find ways and means of getting them started and thereby give them an opportunity to prove their worth.

ESTIMATING AND CONTROLLING THE DEMAND FOR TEACHERS

The third phase of the problem of adjusting supply and demand has already been discussed in this chapter insofar as the items to be considered and some of the difficulties in estimating the demand are concerned. At this point it is desirable to call attention to the problems of controlling demand. It is obvious that no satisfactory

adjustment between supply and demand can be made unless the demand can be estimated with reasonable accuracy and far enough ahead so that the required number of teachers may be prepared. It is equally obvious but usually overlooked that the demand for teachers, especially those for new types of positions, cannot be accurately estimated unless the order in which the new services will be introduced is known and also the rate at which the new teachers will be certified. In most cases teachers for new types of positions require 2 or more years of special preparation. The number needed each year should therefore be known several years in advance as well as the probable total number of teachers for each type of position so that the number of recruits may be reduced as the saturation point is approached.

ESTIMATING AND CONTROLLING THE SUPPLY OF TEACHERS

The fourth phase of adjusting supply and demand among teachers is estimating and controlling the supply. This phase is very clearly the most difficult to administer because it involves regulating and restricting the actions of individuals and institutions and yet obviously there can be no adjustment of supply and demand unless the supply can be regulated.

Controlling the supply of teachers is further complicated at this time by the oversupply of teachers holding valid certificates. For reasons already presented those teachers among the unemployed whose preparation is entirely satisfactory according to present standards should be employed as rapidly as possible by each State in which surpluses exist. This should be done, however, without jeopardizing the effectiveness and continuity of the programs of institutions in which teachers are prepared. A method by which this might be done was proposed in the preceding section. Controlling the supply of teachers in any State involves four steps.

1. In the light of the standards set by the State for the preparation of teachers for the several types of positions the State educational authorities, in cooperation with representatives of the public schools and of institutions of higher education in which teachers are prepared, should develop acceptable standards of curricula, of faculty preparation and facilities for the preparation of teachers for each type of teaching position. These standards should then be applied by the appropriate State authorities to all institutions which are "approved" as qualified to prepare teachers for each type of position for which special certificates are issued.
2. This list should be checked and revised each year if necessary either by inspection or from a detailed system of institutional

- reports which will record the maintenance of approved conditions in the several institutions and which will also serve as the source of enrollment data and any other data needed by the State departments of education in connection with estimates of supply.
3. When the number of teachers needed from institutions of higher education for each type of teaching position has been determined (in the way previously indicated) the number should be allocated to the institutions approved for the preparation of teachers for that type of position. These allocations should be made effective by restricting the number of graduates who will receive certification from each institution on the approved list. Such a quota system would increase the care with which prospective teachers were selected and would definitely increase the quality of recruits to the teaching profession since certificates could be issued to the most capable individuals in each group. Furthermore, as soon as satisfactory means of evaluating the effectiveness of the graduates of the approved institutions are available the quotas allocated to institutions should be changed in terms of the relative merits of the graduates of the several institutions. These quotas could also be increased or decreased in terms of changes in the total situation.
 4. The State should adopt a system of restricted certification which would enable teachers to teach only in those positions for which they had had the approved preparation. This will not work the hardship upon individuals which some now think would result, because as soon as the records for a State have been maintained a few years, more accurate estimates could be made of the number of teachers needed in each type of position for each year. As long as it is possible for a teacher who has prepared to teach history and mathematics in a high school to accept a position in a rural or elementary school it will be impossible effectively to control the supply of teachers.

The success of this program for controlling the supply of teachers depends upon the cooperation of the State department of certification and all institutions approved for the education of teachers. It should not be applied to State-supported institutions while private colleges and universities are allowed to increase their enrollments of prospective teachers without restraint. The initiation of the program would require a realization on the part of those responsible for the preparation and employment of teachers that an adjustment of supply and demand is desirable—not so much because of its advantages to teachers as for its effect upon the improvement of the quality of the services rendered by the public schools.

Cooperation or licensing examinations.—The opinion has been expressed by some competent students of the problems, that the amount of cooperation required to control the supply of teachers cannot be secured without a fundamental change in our State educational systems—namely a system of State competitive licensing examinations such as are used in many of the larger cities and similar to those of France and other European countries.

Such a plan may be the final solution but is not recommended until cooperative measures have been tried. Reference to volume V, part VIII, will show very clearly that the general status of the teacher in this country is lower than in most European countries and that the period of preparation is shorter and the tenure less secure. The licensing examination does not control the number who prepare for teaching. It determines merely the number included in the eligible list. Whenever or wherever teaching becomes more than usually attractive, large numbers of persons will prepare for teaching and under the licensing examinations system would not be given certificates to teach but would be unemployed teachers as certainly as they are now where there has been no attempt to control the supply. The argument is offered that the best would be chosen and those not licensed would be less desirable. Even if it were admitted that the examinations would select the best (and there is some doubt at present) the difference between those selected and the best of those eliminated from the competitive examinations would be an insignificant difference if there is a large excess of candidates. At best the system means a large amount of wasted time and effort upon the part of the capable individuals who are unsuccessful in the examinations and it would change the emphasis in all institutions educating teachers from preparation for teaching to preparation for the licensing examinations.

While the plan of cooperative control which has been proposed has not been operated in its entirety by any State, certain steps have been taken in some of the States which lead to the belief that many if not all of the States can effect an adjustment between supply and demand among teachers if they so desire.

SECTION 6. SUMMARY

In this chapter the conditions which caused the present oversupply of teachers were discussed; the factors which must be considered in studying the demand for and the supply of teachers were listed; the findings of the National Survey of the Education of Teachers on the tendency of teachers to move from one position to another in the same State, and the demand and supply conditions in the United

States in 1980-81 were summarized; reasons for past overestimates of the number of teachers needed were indicated; the desirability of preventing either a shortage or a large surplus of teachers was explained; a formula for determining the number of new teachers needed from institutions of higher education was presented; a plan for reducing the number of adequately prepared teachers who are now unemployed was suggested; and a plan for adjusting the demand for and the supply of teachers for a State was proposed.

CHAPTER V

THE EDUCATION OF TEACHERS IN THE UNITED STATES—PRINCIPLES AND PROBLEMS

INTRODUCTION

This volume is expected to serve as an interpretative summary of the work of the Survey. For reasons advanced in the first chapter no attempt has been made to present a point-by-point or study-by-study recapitulation of principal findings and recommendations. Three large problems in the education of teachers in the United States have been presented and discussed. The discussions of these problems have drawn upon most of the Survey studies but not upon all nor upon all phases of those which were utilized. A complete outline of the studies undertaken by the Survey will be found in part I of this volume (pp. 22-6), and will suggest to readers interested in special studies where the detailed findings of the Survey may be found.

Instead of attempting in these concluding pages a restatement or a reduced statement of the recommendations of this and the preceding volumes an attempt will be made to formulate in the light of the Survey experiences some of the principles which should control the education of teachers in this country and to suggest some of the more pressing and important problems or things to be done. Since these statements could not have been made until all the Survey studies had been completed it was not possible to submit them in their present form either to the Survey staff or to the board of consultants before they were sent to the printer. For that reason credit is acknowledged to the several studies and to numerous individuals for many of the statements but whenever they are changed or at variance with the findings of separate studies the associate director must be held responsible even though he has attempted to present the consensus of opinion of those associated with the Survey whenever such opinions are known. Because these points have all been discussed in greater detail in other parts of the Survey no supporting data or arguments will be presented with these statements.

PRINCIPLES OF TEACHER EDUCATION

1. It is the responsibility of the State to establish standards for the preparation of its public-school teachers, to insure an adequate supply of teachers meeting those standards, and to protect its standards and the services rendered by the teachers by maintaining a balance between the supply of teachers and the demand for teachers (vol. VI, ch. IV p. 234, also p. 236). This control should be exercised primarily by means of certification and the enforcement of adequate regulations of State departments of education (vol. III pt. 1, ch. II, vol. V pt. 1).
2. The importance of the work of the teacher, particularly in a democracy, justifies securing the strongest recruits possible for the teachers' curricula. This end will be assisted by:
 - (a) Admission requirements aimed to select the most capable of the applicants as shown by all known prognostic measures including health and personality (ch. III p. 144).
 - (b) Programs of "selective recruiting" to interest exceptionally capable high-school graduates in teaching.
 - (c) Systems of student personnel and guidance service which will start at admission to a teacher's curriculum and continue through a period of adjustment following graduation.
 - (d) A rigid system of elimination of students who, during their preparation, show themselves to be unsuited or unfit for teaching.
3. The preparation of teachers and other educational workers should be determined by the demands which will be made upon them in the different types of positions and not by arbitrarily or traditionally set requirements for majors or minors. This implies that:
 - (a) Competence in the total work of the teacher should be the criterion for determining curriculum content and arrangement.
 - (b) Graduates should be aware of the desirable elements in present educational practice and also sensitive to needed changes in educational procedures.
 - (c) Graduation from curricula for teachers should depend upon mastery of the content and skills demanded by the work to be performed and not by time spent nor courses passed.
4. In order to assume their appropriate positions of leadership in the communities in which they work, teachers should have suf-

ficient general education to compare favorably with that of members of the "learned professions" and with that of the better educated citizens of representative communities. This education should include:

- (a) Survey contacts, preferably on the college level, with the major established fields of knowledge—English, social sciences, natural sciences, mathematics, music, fine arts, and philosophy.
 - (b) A scholarly mastery of the subject or subjects to be taught and of the subjects most closely related to them.
 - (c) A familiarity with the social, political, industrial, and aesthetic developments in this and other countries.
 - (d) The development of one or more fields of intellectual avocation.
 - (e) The development of a growing and integrated philosophy of living.
5. Teachers should have the distinctly professional knowledge and skills required in the type of position for which they are preparing. These distinctly professional elements include:
- (a) Professional orientation with respect to education and teaching (ch. III, p. 94).
 - (b) Mastery of essential educational tools—psychology, measurements, and statistics (ch. III, p. 95).
 - (c) Knowledge of the individuals to be taught—in most cases, children (ch. III, p. 97).
 - (d) Essential teaching methods and techniques for the subjects taught and the groups taught. These may be presented in four or more different ways (ch. III, p. 99).
 - (e) Knowledge of class organization and class instruction (ch. III, p. 120).
 - (f) Observation of and participation and practice in teaching (ch. III, p. 120).
 - (g) Professional integration and the development of a working philosophy of education (ch. III, p. 124).
6. In order to protect the learners from the effects of inexperienced teaching all initial practice teaching should be closely supervised. The supervised practice period should be continued until the student teacher attains a "safety minimum" of teaching skill (ch. III, pp. 122-31).
- (a) The period required to obtain the necessary initial skill should vary for different individuals.
 - (b) Practice-teaching facilities should be representative of the better schools in which the graduates will be employed.

- (c) Curricula for teachers should aim, in the time available, to make prospective teachers as competent as possible at the beginning of their period of practice teaching.
 - (d) No teacher should be certificated who has not satisfactorily passed a period of supervised practice teaching.
7. The concept of a "safety minimum" of teaching skill at graduation implies:
- (a) A period of probation after graduation, during which the prospective teacher demonstrates his ability to add to his teaching skills.
 - (b) A program of in-service education which will stimulate teachers to continued professional development.
8. Aside from having the necessary knowledge and skills a teacher should possess those traits of personality which are usually found among the better teachers and which are associated with leaders in any representative community. Some of the elements in a program for the education of teachers which contribute to personality development are:
- (a) A comprehensive program of student guidance and welfare.
 - (b) A rich program of extraclass activities especially those which are also found in the elementary or secondary schools.
 - (c) A comprehensive program of health services.
 - (d) The provision of residence and dining facilities which contribute to desirable habits and manners.
 - (e) A generous program for the social and religious activities of students.
 - (f) Opportunities to discover and develop latent creative talents.
9. Education should be recognized as one of the major forces responsible for social, political, and economic stability, and betterment. A general understanding of this role of education should be a part of the sociological information of all citizens. At this time teachers and teachers of teachers should be open-minded and well informed on the more important controversial issues in these three fields (ch. III, p. 83).
10. Preservice curricula for teachers should be largely prescribed—the prescription differing in terms of the positions for which the prospective teachers are preparing. Only in this way can the objectives of the third, fourth, fifth, sixth, eighth, and ninth principles be realized (ch. III, sec. 3, p. 129).

In addition to these objectives the prescriptions should provide for those sequences in courses which will offer a continuing challenge to students of increasing maturity.

11. Courses in curricula for teachers, whenever the number of students makes it possible, should be "differentiated" for the larger school divisions; that is, teachers preparing for the elementary schools and those preparing for the high schools should have separate courses in the various subjects. The differences should be in content and its professional treatment and not in difficulty or in scholastic value (ch. III, p. 129).
12. Institutions offering curricula for teachers should be approved for and restricted to the preparation of teachers for only those types of positions for which the institutions are satisfactorily equipped in staff, library, and other facilities.

Approved institutions should be designated for specialization in the education of those types of teachers for which there is a very limited demand or which require a highly specialized and expensive type of laboratory or other equipment.

13. The American ideal of equality of educational opportunity is directly related to the preparation of teachers and all programs—State or National—to equalize educational opportunities should include as one of the most important factors the education of the teachers.
14. Institutions offering work on the graduate level for teachers should adapt the courses and the requirements for graduate degrees to the needs of teachers in the various types of positions (ch. III, p. 137).

When the first year of graduate work is made a preservice requirement it should be considered as a part of a 5-year curriculum or as a third year of a 3-year post-junior college curriculum.

15. The faculty of any institution the graduates of which are recognized for certification as teachers should be pervaded by a high degree of contagious enthusiasm for teaching and a sincere interest in the students as prospective teachers. The prevailing faculty attitude toward teaching and the work of the teacher should be one of the important factors considered in the approval or disapproval of an institution by a State department of education.
16. The teacher plays so important a part in the work of the public schools, and so many factors which require years to develop are involved in the increasing efficiency of institutions for the preparation of teachers, that the education of teachers should be classed as one of those essential forms of public service which should be maintained regardless of economic changes. Faculties, student bodies, libraries, and physical plants all require time to be built and coordinated. They cannot be disbanded and assembled again on a "stop-and-go" basis.

IMPORTANT PROBLEMS OR THINGS TO BE DONE IN THE EDUCATION OF TEACHERS IN THE UNITED STATES

In one sense this section could be summarized in the one statement that the important problems in the education of teachers are to put into effect the principles just enumerated. Such a statement is too general to be of much assistance to those interested in preparing or improving a State program of teacher education. Therefore, a selection has been made for the purpose of directing attention to some of the problems considered most important to the largest number of States, even though any such selection will be approved in its entirety by but few persons interested in the education of teachers.

All of the problems listed here have been suggested or discussed in greater detail in this or other volumes of the Survey; they should be neither acted upon nor rejected without reading the more complete statements. The problems suggested are:

1. To define good teaching in various types of positions and to develop more accurate means of measuring it. Many of the present controversial issues in the education of teachers cannot be resolved until there is (a) a more general agreement upon what a teacher should be and do and (b) an easily administered measure of teaching efficiency. Until these two elements are supplied, institutions preparing teachers should evidence a desire to teach the best practices (as then generally accepted) and a willingness to experiment and to measure the experiments as accurately as existing instruments will permit (vol. V, pt. II, vol. VI, p. 147).
2. To make educational leaders aware of the State's responsibility for developing a long-term plan for the education of its teachers and for promoting systematic publicity campaigns to acquaint patrons and teachers with its provisions. Such a plan should set progressively advancing standards, both quantitative and professional, for the education of teachers, and should be so presented that the reason for each step is clearly understood in order that it may proceed with the approval of all concerned. (Two years of work beyond the completion of a standard high school should be set immediately as the minimum amount of pre-service education for any teacher) (chs. II and III).
3. To obtain greater uniformity in permanent records about the education and the employment of teachers. Representatives of the United States Office of Education, the National Education Association, institutions educating teachers, State superintendents and commissioners of education, and city and county superintendents should cooperate in developing a set of uniform educa-

tional records similar to the uniform records and reports which have been prepared by the National Committee on Financial Reports for Institutions of Higher Education. The data blanks should be easy to fill out and arranged for convenient tabulation, especially with mechanical tabulating machines. These records and reports should contain all data needed by a State in making its program for teacher-education and for adjusting the supply and demand (ch. IV, p. 195).

All persons or institutions making the records should be encouraged to assemble basic data at approximately the same time each year in order to increase the comparability of returns among the States.

The records should make readily available up-to-date information upon the following phases of teacher-education:

- (a) Personnel data on all employed teachers, including age, birthplace, educational record, educational experience—teaching, supervisory, or administrative—experience in other lines of work, special abilities, and interests.
- (b) Certification data showing in detail the number of certificates of each kind in force at any time, the number of each kind in use in the State, the number in use in other States, the number not in use but whose holders desire employment.
- (c) Employment data from each administrative school unit giving each year for each teacher, his name, certificate held, validity of certificate, date and period of employment, type of work being done, salary received, permanent residence, residence during school year, institution or institutions from which teacher graduated and on basis of which certificate was granted, date of graduation, and occupation the preceding year.
- (d) Supply data including the number of certificates issued or to be issued on the basis of examinations or recognition of certificates from other States, and the number of students in institutions of higher education who are avowed or potential candidates for certification as teachers by institutions, types of positions for which they are preparing, major and minor subjects, years in college, and length of curricula being taken.
- (e) Placement data for each institution the graduates of which are recognized for any form of certification which will show for each year exactly what happened to all of last year's graduates who were prepared to teach and who wanted to teach. Such data may be used to determine the effect of different kinds of preparation, residence, quality

of scholarship, sex, teaching experience, and other factors which may influence teacher placement.

4. To remove at once the professionally demoralizing lack of adjustment in many States between supply and demand among teachers. Where an oversupply of acceptably prepared teachers exists plans should be made to reduce it at once (ch. IV, p. 230). Standard-lowering shortages or surpluses of teachers should be prevented by each State. Suggestions for such a plan are presented in chapter IV, section 3.
 5. To persuade each State to establish dates by which all teachers in service whose preparation is below the accepted standard for the State would be expected to meet the current standards. (Exceptions should be made for teachers who will reach the retirement age within 5 years of the date fixed.) The nearness of these dates should be determined by the educational and economic conditions of each State (ch. II, general discussion).
 6. To regulate the supply of prospective teachers by raising standards through selective admission of students to curricula for teachers. Much can be done in this matter by obtaining the cooperation of all institutions approved for the education of teachers. Not only should the standards for admission be raised but active campaigns to recruit a larger proportion of the more capable high-school graduates should be made (vol. II, pt. 2; vol. III, pt. 1, ch. III).
 7. To provide large numbers of teachers better and more specifically prepared for rural schools. A problem demanding immediate attention in a majority of the States is that of raising the standards for the preparation of teachers in the rural and village schools until they equal those held for the urban centers. This should be equality in amount and quality but does not mean identity of content because the rural teachers need special preparation for their work. No teachers should be employed in the rural schools who do not have a minimum amount of that special preparation. Rural life and the problems of the rural areas are sociologically and economically of such great importance that all teachers, whether or not they expect to teach in the rural schools, should be familiar with them, just as rural school teachers should be familiar with similar problems for the urban and industrial areas.
- Equal standards for teachers of rural schools in most States will involve a larger participation by the State in a program for the equalization of educational opportunities (vol. II, pt. 1; vol. V, pt. 7; and vol. VI, ch. II).

8. To provide for more and better-prepared teachers for the Negro schools in those States in which separate schools are maintained for Negroes. This should be given immediate attention if this group is to have equality of educational opportunity. Before the necessary improvements in the education of teachers can be made a number of other changes will have to be effected.
 - (a) Numerous changes will have to be made in the control and financial support of schools for Negroes. For a time, at least, funds will have to be made available for purposes of equalization of educational conditions.
 - (b) The large group of teachers, especially in the elementary schools, with less than 2 years of preparation beyond high school should be eliminated or upgraded. The inefficiency of these teachers affects the work of the high school and the quality of the recruits for teaching (vol. IV, and vol. VI, ch. II).
9. To develop greater interest in the distinctly professional elements in the education of teachers. This should result in numerous experiments with different ways of educating teachers for each type of position. Such experiments will be greatly facilitated when more satisfactory measures are available. Under present conditions, however, they will arouse interest in the professional side of the problem of teacher education. Experiments may include the entire curriculum as at New College, Teachers College, Columbia University, or may involve such items as the number and arrangement of courses in education, the amount and kind of practice teaching, honors courses, survey courses, or comprehensive examinations (vol. III, pts. 2 and 3; vol. VI, ch. III).
10. To make sure that all prospective teachers possess at least the "safety minimum" amount of teaching skill before being certificated. Each institution which expects to have its graduates accepted as teachers should be required to provide appropriate practice-teaching facilities enough to bring prospective teachers to the minimum degree of proficiency in each field of training for which the institution is approved (vol. III, pt. IV and vol. VI, ch. III, p. 120).
11. To adjust curricula for teachers to the work of the junior colleges especially in those States in which the minimum standard of preparation for elementary teachers does not exceed the junior college level. If, as recommended, junior colleges do not prepare teachers, it will be necessary for teachers colleges, colleges, and universities to arrange curricula for teachers which will begin with the senior college. Such curricula should be

not less than 2 years in length and for some types of work and for most subjects in the high schools can be, with profit to the teacher, 3 or more years in length.

12. To promote the realization that the schools will be required to take a heavier responsibility for the enjoyable and constructive use of increased amounts of leisure. Each State should include among its standards for teachers the requirement that they be able to make some contribution to the extraclass-activity programs of the schools and to the communities in which they work. This will necessitate the development of a richer extraclass-activity program in the institutions approved for the education of teachers (vol. III, pts. II and III; and vol. V., pt. III).
13. To persuade States which have not already done so to adopt systems of restricted certification which will indicate very specifically the kinds of positions for which the teacher is prepared and which will restrict the teacher's employment to those positions (vol. III, pt. I; vol. V, pts. I and VII; vol. VI, ch. IV).
14. To develop and maintain in each State lists of institutions "approved" for the preparation of teachers for each type of position for which the State issues certificates. Standards for approving institutions should be developed cooperatively by representatives of the public schools and of institutions preparing teachers. The approval must be based upon the standards then accepted by the State and should be revised whenever standards are changed. As part of this problem will come the difficult tasks of refusing approval to some institutions, removing others from the list, and restricting many to the preparation of teachers for the type or types of positions for which the institutions are adequately equipped to prepare teachers. The professional interpretation of this recommendation and its courageous enforcement will reduce the number of institutions preparing teachers in many States (ch. IV).
15. To adopt standards and regulations which will make sure that the courses in all curricula for teachers are taught by staff members who are adequately prepared—scholastically and professionally—and who are genuinely interested in education and in the education of teachers (vol. II, pt. III; vol. III, pts. II, III and VII; and vol. VI, ch. III).
16. To raise standards for the preparation of all teachers and to control the supply of new teachers by obtaining from all institutions on the approved list—public and private—cooperation in developing the program and in carrying out its provisions. Competitive bidding for students in order to increase enrollments will defeat any plan for maintaining a balance between the demand and the supply.

17. To improve the community status—prestige—of the teacher. This can be done: By restoring and increasing salaries, especially for the exceptionally capable and well prepared; by increasing the security and permanence of teachers' positions; by removing the influence of those pressure groups which prevent teachers from teaching about controversial issues; and by demanding an amount and kind of preparation which will enable teachers to assume positions of real leadership in the communities in which they work (vol. II, pt. III; vol. III, pts. II and III and VII; and vol. V, pt. VIII).
18. To develop upon a Nation-wide basis such an understanding of the significance of education that ways and means will be found and approved for restoring recent educational losses and for adding new educational services. The size of classes should be reduced, teachers and others whose services were discontinued for no other reason than to reduce budgets should be reemployed, increased provision should be made for recreation and the wise use of leisure, and educational programs should be developed for various adult groups hitherto considered outside the responsibilities of the school systems (ch. IV).
19. To procure in a majority of the States the legislation or the constitutional amendments essential to the reorganization of the State departments of education. Because of the vital role that the State department must play in the development of any State program of teacher-education it is imperative that the State department of education be removed from politics and from "party control" and be free to develop its professional personnel in terms of the educational services to be rendered in the State. No significant progress can be made toward the solution of many of the problems in this list until professional leadership can be consistently obtained from the State departments of education.
20. Each State must maintain a continuing survey of its teaching personnel in order to meet its teacher-training obligations wisely. In addition to these surveys some agency, national in its scope, such as the Office of Education or the National Education Association, should conduct periodic studies of phases of teacher-education so that the more important aspects of this large problem may be presented on a Nation-wide basis at least as often as every 5 years. Data for such studies could be easily obtained from the uniform records once they are developed and adopted.

Obviously these 16 principles and 20 problems are not all that exist in the field of teacher-education nor are they all of the important ones. Interested persons will undoubtedly contend that some of the items not included in this summary are more important than some which are included. A number of the principles and problems are subjects of rather sharp controversy and there is, unfortunately, no means at present to prove or disprove the contention that one is more important than another.

It is hoped that the segregation of these principles and problems, selected with the perspective which the Survey has provided, will challenge the constructive thinking of America's leaders engaged in the education and employment of teachers for the public schools.

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